

January 19, 2012

Ms. Barbara Jakub
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RECEIVED

11:00 am, Jan 30, 2012

Alameda County
Environmental Health

Subject: Quarterly Summary Report, Fourth Quarter 2011

**Site: 76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California
Fuel Leak Case No. RO0000219**

Dear Ms. Jakub;

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:

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Sincerely,

PACIFIC CONVENIENCE & FUEL



LIZ BERMUDEZ
Senior Paralegal
Division, Unit, or Group

Attachment

Quarterly Summary Report, Fourth Quarter 2011

*76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California*

*Alameda County Health Care Services
Agency Fuel Leak Case No. R00000219*

*San Francisco Bay, Regional Water Quality
Control Board Case No. 01-1601*

GeoTracker Global ID No.T0600101476

Antea Group Project No. I42705191

January 19, 2012

Prepared for:

Ms. Barbara Jakub
Hazardous Materials Specialist
Alameda County Health Care
Services Agency
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1.0 INTRODUCTION

Antea™ Group is pleased to submit this *Quarterly Summary Report, Fourth Quarter 2011*, for the referenced site in Oakland, CA (**Figure 1**). The subject site is an operating 76 station located on the southwestern corner of Hegenberger Road and Edgewater Drive in Oakland, California. Station facilities include three underground storage tanks (USTs), two dispenser islands, a station building, and a carwash. A total of fourteen groundwater monitoring wells are located at or near the site (**Figures 1 and 2**). Please refer to **Appendix A** for additional site information and for the history of environmental investigations and remedial actions.

This report summarizes the data obtained from the recent groundwater monitoring and sampling event conducted on December 5, 2011. Included herein are site figures and groundwater contaminant data tables and a discussion of trends. This report has received a technical review by Mr. Dennis Dettloff, California Professional Geologist No. 7480.

1.1 Work Performed [Fourth Quarter 2011]

1. Antea Group submitted the *Quarterly Summary Report, Third Quarter 2011*, dated October 27, 2011 to the Alameda County Health Care Services Agency (ACHCSA).
2. Antea Group submitted the *Work Plan – Additional Site Investigation*, dated November 14, 2011 to the ACHCSA.
3. Blaine Tech Services, Inc. (Blaine Tech) conducted the fourth quarter 2011 groundwater monitoring and sampling event on December 5, 2011.

1.2 Work Proposed [First Quarter 2012]

1. Antea Group will submit the *Quarterly Summary Report, Fourth Quarter 2011* (contained herein) to the ACHCSA.
2. Blaine tech will conduct the first quarter 2012 monitoring and sampling event.
3. Antea Group will conduct site investigation activities as proposed in the *Work Plan – Additional Site Investigation*, dated November 14, 2011.

2.0 CURRENT PROJECT STATUS

Current phase of project:	Quarterly Groundwater Monitoring
Local Oversight Program (LOP) – Lead agency for cleanup oversight:	Alameda County Health Care Services Agency Case No. RO0000219
Secondary agency(s):	San Francisco Bay Regional Water Quality Control Board
Monitoring well gauging schedule:	Quarterly: MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17

Monitoring well sampling schedule:	Quarterly: MW-6, MW-10, MW-11, MW-12, MW-12A, and MW-13 through 17 Semi-Annual (second and fourth quarters): MW-3 and MW-7 through MW-9
Total number of monitoring/remediation wells (Table 1):	Fourteen (MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17).
Range of well depths (total depth below ground surface, bgs) (Table 1):	Wells are set from 13 feet to 34 feet bgs.
Wells with historical measurable LNAPL (light non-aqueous phase liquid):	Former monitoring wells MW-1 and MW-2 and current monitoring well MW-6
Historical depth to water range, in feet below top of casing (BTOC):	Min: 0.07 (MW-9, Q1 2005) Max: 8.42 (MW-6, Q4 2010)
Historical groundwater elevation range (ft) for monitoring wells MW-1 through MW-17	Min: 2.77 (MW-3, Q3 1994) Max: 9.17 (MW-9, Q4 2010)
Local receptors:	See Appendix A
Current remediation technique	None

2.1 Regulatory Correspondence

No regulatory correspondence were sent to or received from the ACHCSA during the fourth quarter 2011.

2.2 Remedial Activities

No remedial activities took place during the fourth quarter 2011.

2.3 Groundwater Monitoring

For the fourth quarter 2011 groundwater monitoring and sampling event, fourteen wells were gauged, purged, and sampled by Blaine Tech per standard sampling protocol (**Appendix B**). Copies of Blaine Tech's field data sheets are presented as **Appendix C**. The recent gauging and sampling data are summarized below and in **Table 2**. Historical gauging and sampling data are summarized in **Tables 3, 3a, 3b, and 3c**.

Well gauging and sampling date:	December 5, 2011
Wells gauged:	MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17
Wells sampled:	MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17
Purge method:	3 well casing volumes via electric, submersible pump
Sample collection method:	Disposable bailers
Groundwater parameters measured (Attachment C):	Temperature, pH, Conductivity, Oxidation-reduction potential (ORP), Dissolved Oxygen (DO)
Wells with measurable LNAPL:	None
Current depth to water range (ft BTOC):	Min: 2.05 (MW-11) Max: 5.00 (MW-13)
Current groundwater elevation range (ft):	Min: 6.08 (MW-13) Max: 8.64 (MW-8)

Change in water depths from previous event (average change for all gauged wells):	0.20 foot increase
Groundwater flow direction and gradient in foot per foot (ft/ft):	Southeast at 0.02 ft/ft

2.3.1 Groundwater Flow Gradient and Directional Trends

The fourth quarter 2011 groundwater monitoring and sampling event was performed by Blaine Tech on December 5, 2011. The average groundwater elevation decreased 0.20 feet from the September 2011 event. Depth to groundwater in the site monitoring wells ranged from 2.05 feet (MW-11) to 5.00 feet (MW-13) BTOC during the current event. The groundwater flow direction and gradient were interpreted to be to the southeast at 0.02 ft/ft during the current event which is consistent with the historical groundwater flow direction and gradient (**Table 4**).

2.3.2 Groundwater Quality Data

Groundwater samples collected during the fourth quarter 2011 were submitted with chain-of-custody (COC) documentation to Pace Analytical Services, Inc. (Pace), a state of California Environmental Laboratory Accreditation Program (ELAP) certified laboratory (Certification No. 01153CA). The complete analytical report and Antea Group’s laboratory data validation checklist is presented as **Appendix D**. Groundwater samples were analyzed for one or more of the following:

- Total petroleum hydrocarbons as gasoline (TPHg) by CA LUFT Method;
- Diesel Range Organics (DRO) [silica gel treated] by Environmental Protection Agency (EPA) Method 8015B;
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), and ethanol by EPA Method 8260;

Groundwater analytical results are presented in **Table 2** (current) and **Tables 3, 3a, 3b, and 3c** (historical). The following ranges of contaminant concentrations were reported in the specified site wells’ groundwater samples collected on December 5, 2011. Only the reported contaminants are listed in the table below.

Constituents	Number of Reported Samples Above LRL of the Samples Collected	Minimum Reported Concentration, in µg/L (Sample ID)	Maximum Reported Concentration, in µg/L (Sample ID)
TPHg	8 of 14	166** (MW-13)	64,600 (MW-6)
DRO	7* of 14	50.5 (MW-15)	20,200 (MW-6)
Benzene	5 of 14	6.6 (MW-15)	4,720 (MW-17)
Toluene	4 of 14	9.1 (MW-14)	511 (MW-17)
Ethylbenzene	5 of 14	0.93 (MW-15)	1,420 (MW-14)
Total Xylenes	4 of 14	122 (MW-12)	4,050 (MW-6)

MTBE	9 of 14	0.97 (MW-14)	1,320 (MW-16)
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Explanations:

µg/L = Micrograms per liter

LRL = Laboratory reporting limit

*= The DRO results for these samples did not match the pattern of the laboratory standard for diesel.

**=The GRO result for this sample did not match the pattern of the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample.

2.2.3 Groundwater Contaminant Trends

During the fourth quarter 2011, analytical results from the sample collected from monitoring well MW-3 indicated that DRO and MTBE decreased while TPHg increased in concentration. Analytical results from the groundwater sample collected from monitoring well MW-6 indicated that DRO, TPHg, BTEX, and MTBE increased in concentration. Analytical results from the groundwater sample collected from monitoring well MW-9 indicated that MTBE increased in concentration. Benzene and total xylenes concentrations in monitoring well MW-10 decreased. Analytical results from the groundwater sample collected from monitoring well MW-11 indicated an increase in MTBE. Analytical results from the groundwater sample collected from monitoring well MW-12 indicated a decrease in DRO, TPHg, benzene, ethylbenzene, and total xylenes concentrations and an increase in toluene and MTBE concentrations. Analytical results from the groundwater sample collected from monitoring well MW-13 indicated a decrease in TPHg and an increase in MTBE concentrations. Analytical results from the groundwater sample collected from monitoring well MW-14 indicated a decrease in TPHg, BTEX, and MTBE concentrations and an increase in DRO concentration. Analytical results from the groundwater sample collected from monitoring well MW-15 indicated a decrease in TPHg and ethylbenzene concentrations and an increase in DRO, benzene, and MTBE concentrations. Analytical results from the groundwater sample collected from monitoring well MW-16 indicated an increase in DRO, TPHg, and MTBE concentrations. Analytical results from the groundwater sample collected from monitoring well MW-17 indicated a decrease in DRO, TPHg, and BTEX concentrations. Isoconcentration maps for TPHg, benzene, MTBE, and DRO are presented on **Figures 4** through **7** and historical groundwater flow directions are shown on **Figure 8**.

2.3.4 Waste Disposal Summary

Approximately 165 gallons of waste water were generated during well purging/sampling and equipment cleaning during the third quarter event. The waste water was transported 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. A copy of the waste manifest is presented as **Appendix E**.

2.3.5 Quality Assurance / Quality Control

Antea Group’s QA/QC measures included use of a field duplicate and a detailed QA/QC data validation check on the Pace Laboratory analytical results for the December 2011 sampling event. Antea Group’s laboratory data validation checklist and the Pace laboratory report are presented as **Appendix D**.



Laboratory QA/QC Performed:	Yes (validated by Antea Group)
Laboratory Data Qualifiers:	Yes – four qualifiers*
Are the data valid for their intended purpose?	Yes, the data are valid

*1n – The DRO result for the sample did not match the pattern of the laboratory standard for diesel.

*2n – The TPHg result for this sample did not match the pattern of the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample.

*HS – Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6mm diameter).

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

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 recommends that monitoring wells MW-6, MW-10, MW-11, MW-12, and MW-13 be added to the list of monitoring wells that currently include MW-3, MW-7, MW-8, and MW-9 to be purged and sampled on a semi-annual basis. Antea Group recommends that monitoring wells MW-14 through MW-17 be sampled for another quarter to better understand concentration trends in the newly installed wells.

Based on the data from the recent site investigation and groundwater monitoring at this site, the petroleum hydrocarbon and fuel oxygenate impact to the groundwater reported in monitoring well MW-12A was due to drilling activities during the installation of this monitoring well. During the most recent groundwater monitoring event the groundwater in this monitoring well was not impacted. The data indicates that the groundwater monitored by this well at 30 feet to 34 feet bgs is not impacted at actionable concentrations and; therefore, Antea Group recommends that this monitoring well be destroyed.

4.0 REMARKS

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

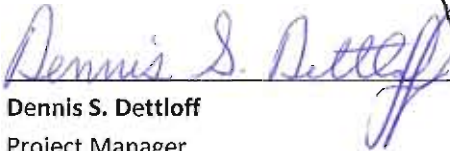
Prepared by:



Edward T. Weyrens, G.I.T.
Staff Geologist

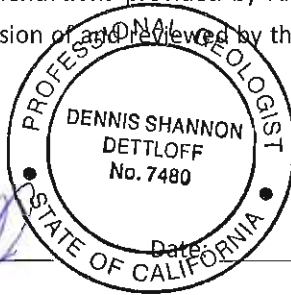
Information, conclusions, and recommendations provided by Antea Group in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Licensed Approver:



Dennis S. Dettloff
Project Manager

California Registered Professional Geologist No. 7480

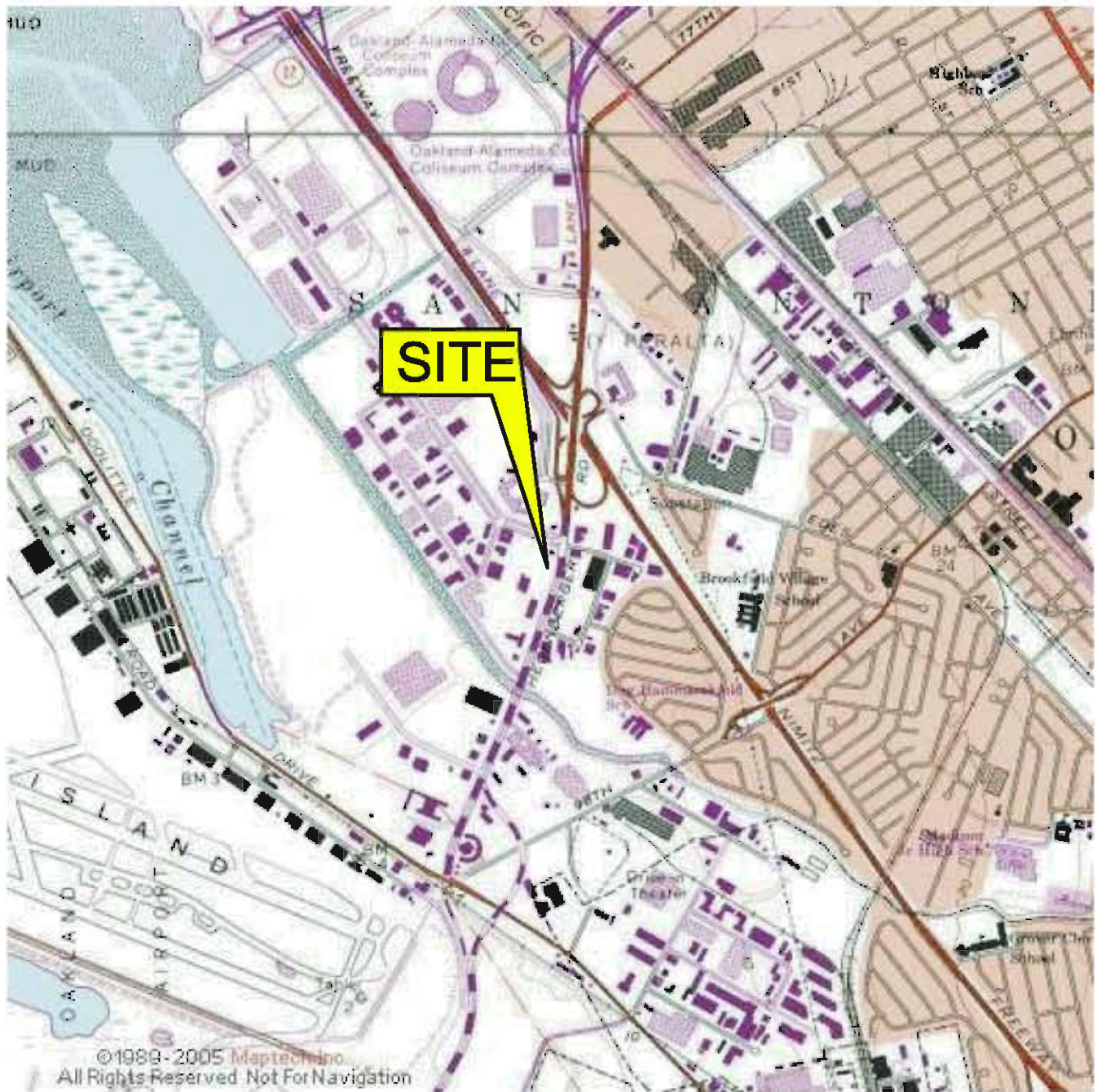


1/19/12

cc: GeoTracker (upload)

Figures

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- Figure 2 Site Plan
- Figure 3 Groundwater Elevation Contour Map – December 5, 2011
- Figure 4 Dissolved Phase TPHg Isoconcentration Map – December 5, 2011
- Figure 5 Dissolved Phase Benzene Isoconcentration Map – December 5, 2011
- Figure 6 Dissolved Phase MTBE Isoconcentration Map – December 5, 2011
- Figure 7 Dissolved Phase DRO Isoconcentration Map – December 5, 2011
- Figure 8 Historical Groundwater Flow Directions



**FIGURE 1
SITE LOCATION MAP**

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

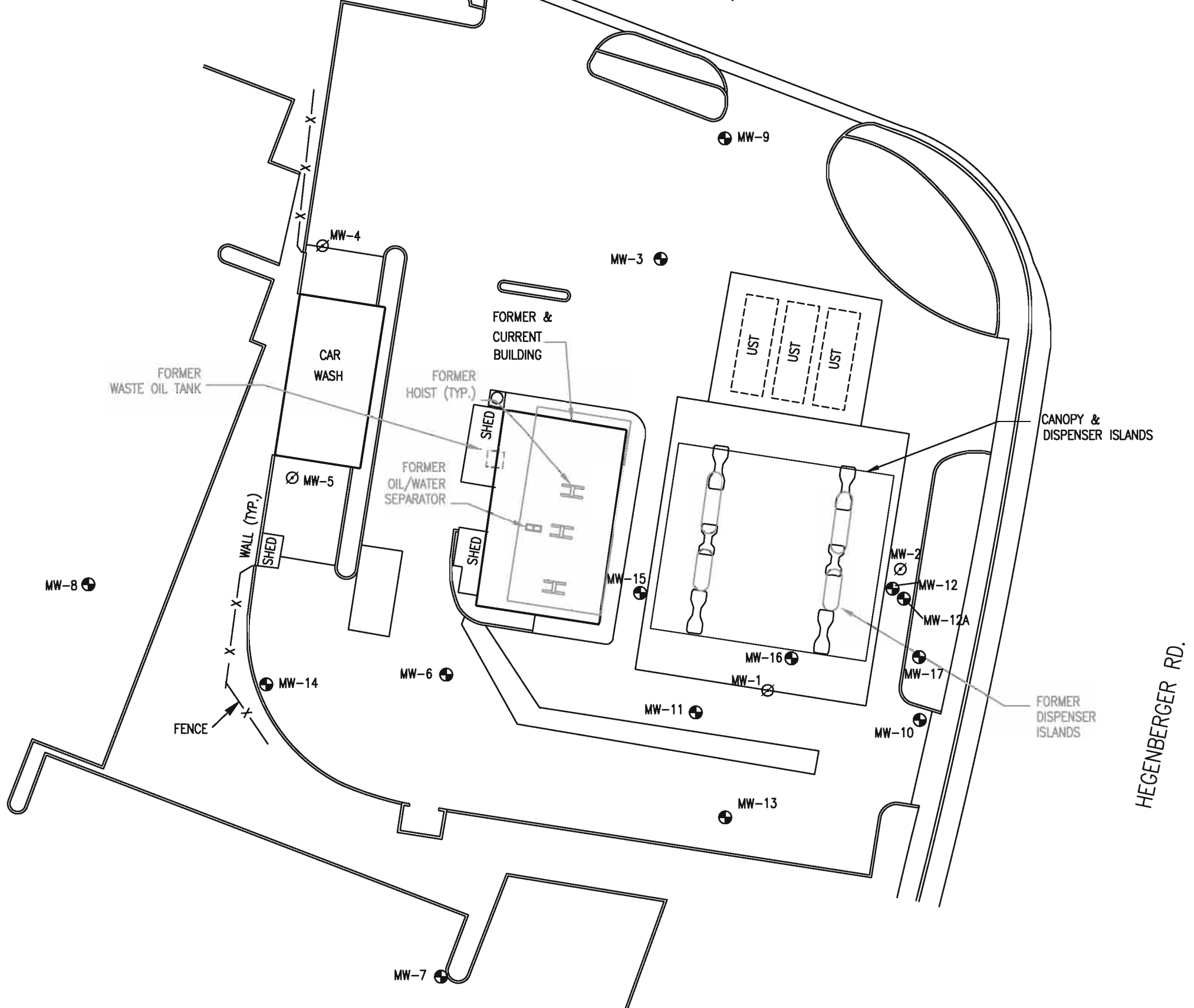
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DATE 1/31/11	REVIEWED BY DD	FILE NAME 5043-SiteLocator



EDGEWATER DR.

LEGEND

- ⊕ MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL



HEGENBERGER RD.

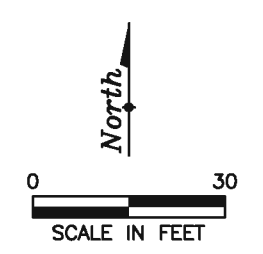

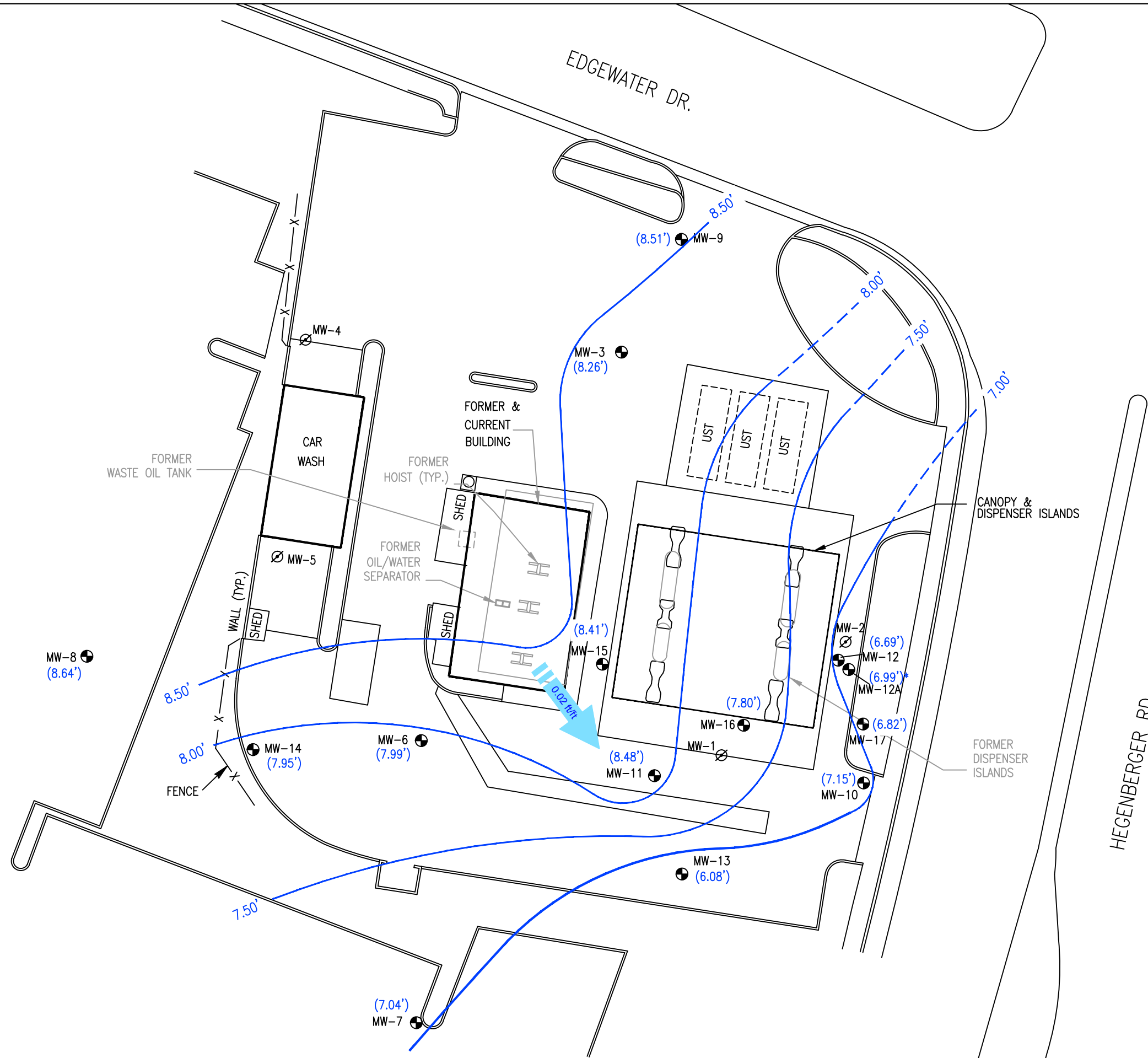


FIGURE 2
SITE PLAN

76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO. 142705191	PREPARED BY DD	DRAWN BY JH	
DATE 5/26/11	REVIEWED BY DD	FILE NAME 5191-SiteS	



LEGEND

- MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (8.26) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL (ft/msl)
- 8.50' — GROUNDWATER CONTOUR LINE (ft/msl) — DASHED WHERE INFERRED (CONTOUR INTERVAL: 0.50 ft)
- ← 0.02 ft/ft → GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT

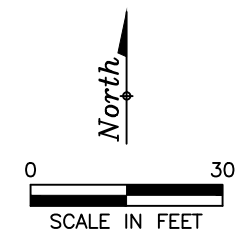
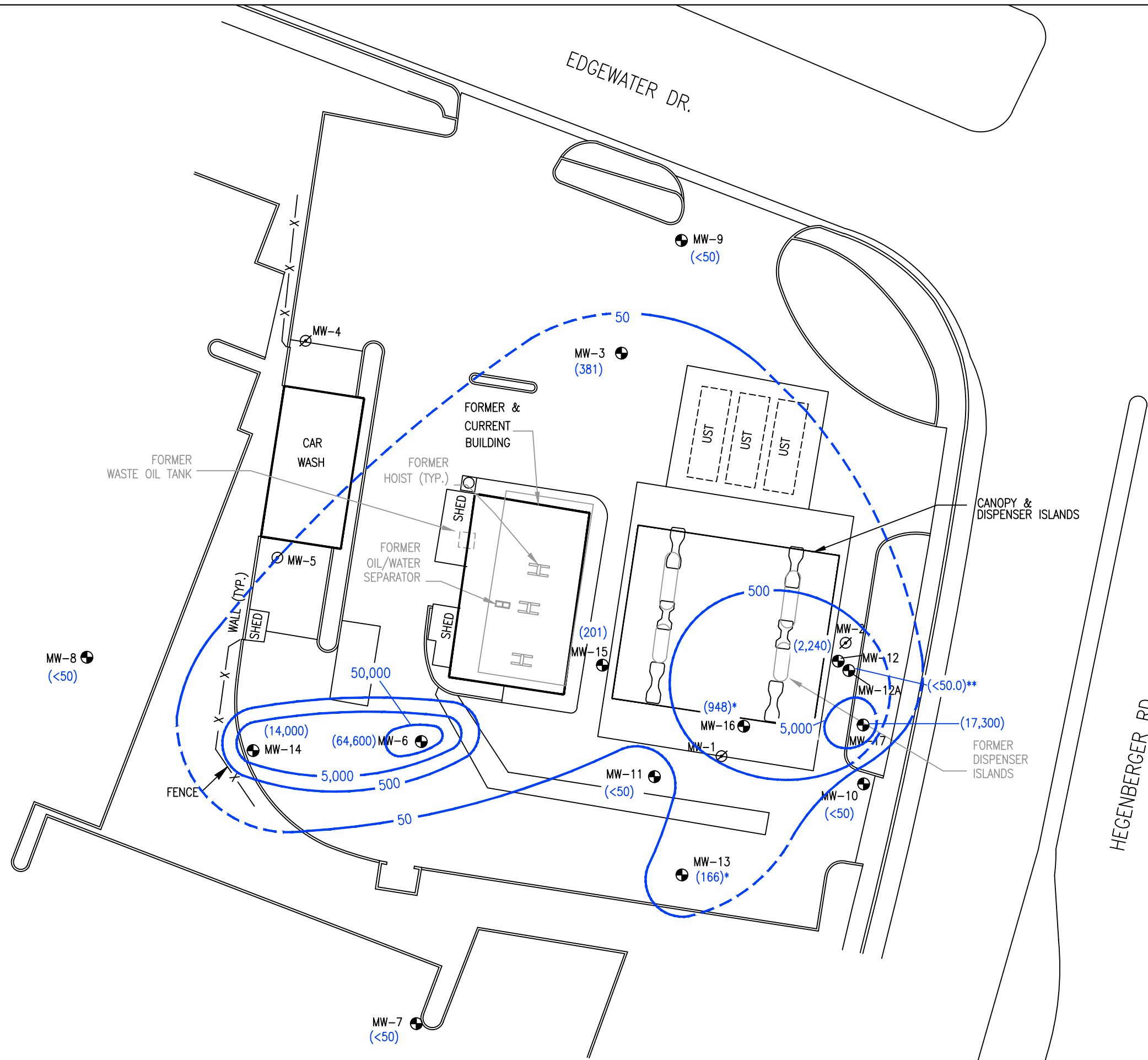


FIGURE 3
GROUNDWATER ELEVATION CONTOUR MAP
 DECEMBER 5, 2011
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. I42705191	PREPARED BY EW	DRAWN BY JH
DATE 01/19/12	REVIEWED BY DD	FILE NAME 5191-SiteS



LEGEND

- MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (14,000) DISSOLVED PHASE TPHg ISOCONCENTRATION (µg/L)
- 5,000 — DISSOLVED PHASE TPHg ISOCONTOUR (µg/L)
-DASHED WHERE INFERRED

NOTES:

- TPHg = TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- µg/L = MICROGRAMS PER LITER
- <50 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
- * = TPHg DID NOT MATCH PATTERN OF LABORATORY STANDARD FOR GASOLINE. THIS IS LIKELY DUE TO THE PRESENCE OF MTBE.
- ** = NOT USED IN CONTOURING

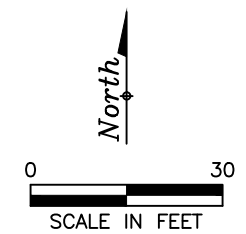
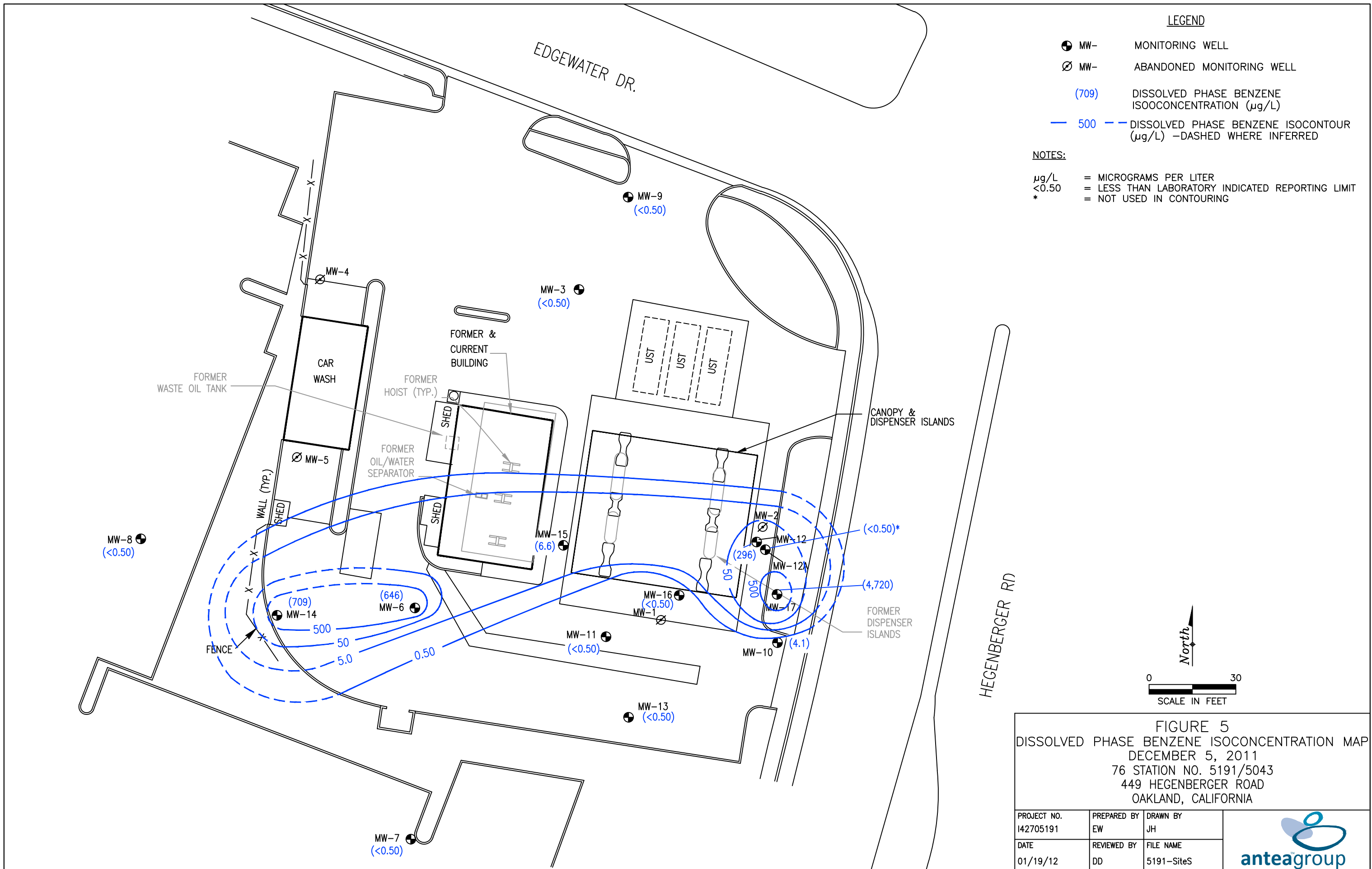


FIGURE 4
DISSOLVED PHASE TPHg ISOCONCENTRATION MAP
DECEMBER 5, 2011
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO. I42705191	PREPARED BY EW	DRAWN BY JH	
DATE 01/19/12	REVIEWED BY DD	FILE NAME 5191-SiteS	



LEGEND

- MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (709) DISSOLVED PHASE BENZENE ISOCONCENTRATION (µg/L)
- 500 — DISSOLVED PHASE BENZENE ISOCONTOUR (µg/L) -DASHED WHERE INFERRED

NOTES:

- µg/L = MICROGRAMS PER LITER
- <0.50 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
- * = NOT USED IN CONTOURING

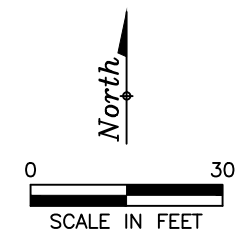
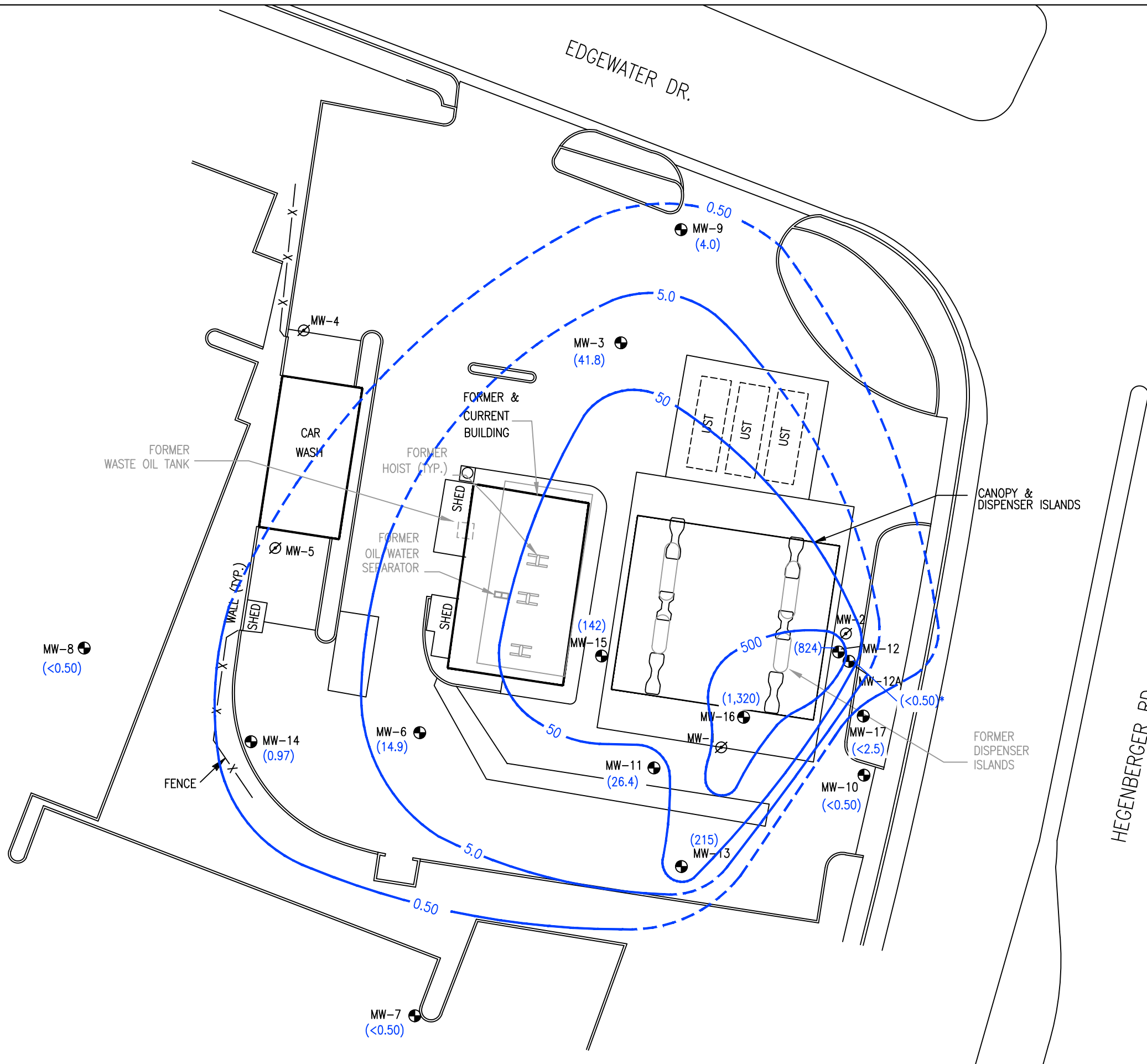


FIGURE 5
 DISSOLVED PHASE BENZENE ISOCONCENTRATION MAP
 DECEMBER 5, 2011
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. I42705191	PREPARED BY EW	DRAWN BY JH
DATE 01/19/12	REVIEWED BY DD	FILE NAME 5191-SiteS





LEGEND

- MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (142) DISSOLVED PHASE MTBE ISOCONCENTRATION (µg/L)
- 50 — DISSOLVED PHASE MTBE ISOCONTOUR (µg/L)
-DASHED WHERE INFERRED

NOTES:

MTBE = METHYL TERTIARY BUTYL ETHER
 µg/L = MICROGRAMS PER LITER
 <0.50= LESS THAN LABORATORY INDICATED REPORTING LIMIT
 * = NOT USED IN CONTOURING

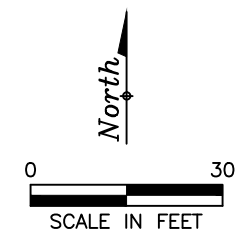
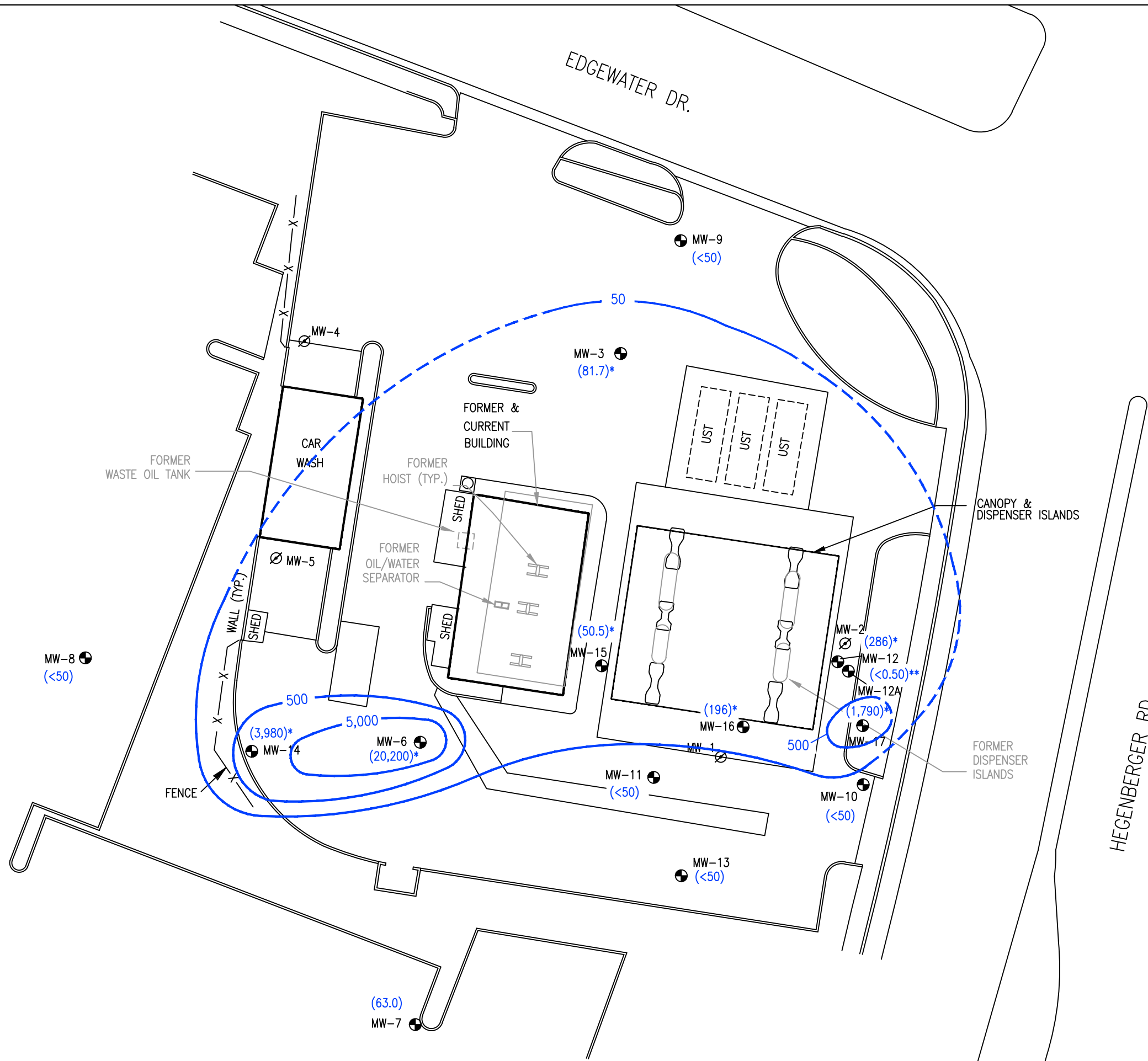


FIGURE 6
 DISSOLVED PHASE MTBE ISOCONCENTRATION MAP
 DECEMBER 5, 2011
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. I42705191	PREPARED BY EW	DRAWN BY JH
DATE 1/19/12	REVIEWED BY DD	FILE NAME 5191-SiteS





LEGEND

- MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (286)* DISSOLVED PHASE DRO ISOCONCENTRATION (µg/L)
- 500 — DISSOLVED PHASE DRO ISOCONTOUR (µg/L)
-DASHED WHERE INFERRED

NOTES:

- DRO = DIESEL RANGE ORGANICS
- µg/L = MICROGRAMS PER LITER
- <50 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
- * = DRO DID NOT MATCH THE PATTERN OF THE LABORATORY STANDARD FOR DIESEL.
- ** = NOT USED IN CONTOURING

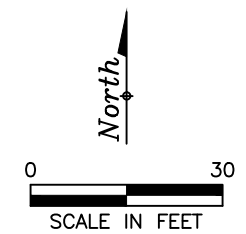
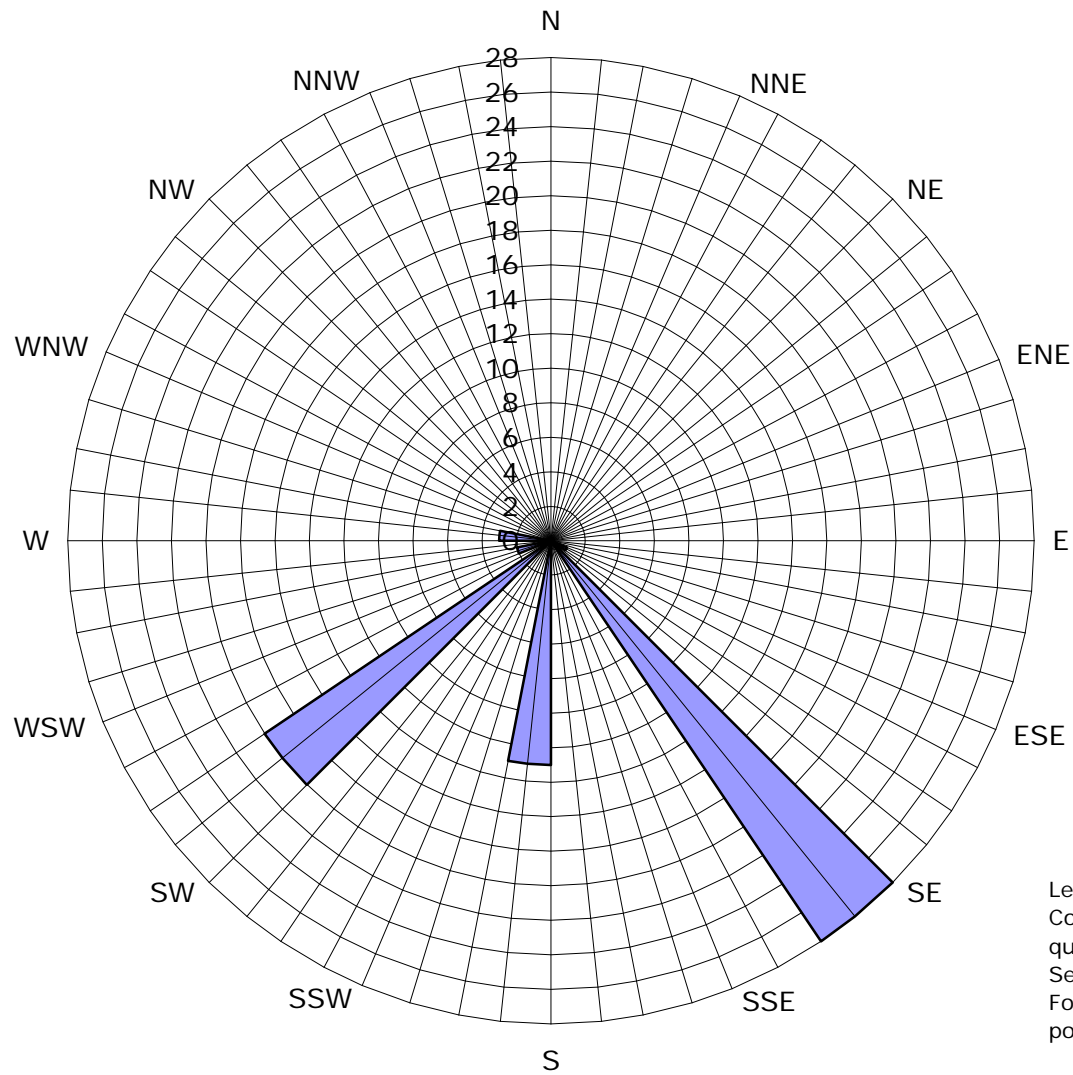


FIGURE 7
DISSOLVED PHASE DRO ISOCONCENTRATION MAP
DECEMBER 5, 2011
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO. I42705191	PREPARED BY EW	DRAWN BY JH	
DATE 1/19/12	REVIEWED BY DD	FILE NAME 5191-SiteS	

Figure 8
Historical Groundwater Flow Directions
76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California



Legend
Concentric circles represent
quarterly monitoring events
Second Quarter 1992 through
Fourth Quarter 2011 67 data
points shown

■ Groundwater Flow Direction

Tables

Table 1	Well Construction Details
Table 2	Current Groundwater Gauging and Analytical Data
Table 3	Historical Groundwater Gauging and Analytical Data
Table 3a	Additional Historical Groundwater Analytical Data
Table 3b	Additional Historical Groundwater Analytical Data
Table 3c	Additional Historical Groundwater Analytical Data
Table 4	Historical Groundwater Gradient and Flow Direction Data

Table 1
Well Construction Details
 76 Station No. 5191/5043
 449 Hegenberger Road
 Oakland, CA

Well I.D.	Drill Date	Well		Screen		Screen Length (feet)	Comments
		Depth (feet bgs)	Diameter (inches)	Top (feet bgs)	Bottom (feet bgs)		
Monitoring Wells							
MW-1	02/05/91	13.5	2	2.0	13.0	11.0	Abandoned
MW-2	02/05/91	15.0	2	3.0	15.0	12.0	Abandoned
MW-3	02/05/91	14.0	2	2.0	14.0	12.0	
MW-4	08/21/92	13.5	2	2.5	13.5	11.0	Abandoned
MW-5	08/21/92	13.5	2	2.5	13.5	11.0	Abandoned
MW-6	08/21/92	13.5	2	2.5	13.5	11.0	
MW-7	04/21/97	13.0	2	3.0	13.0	10.0	
MW-8	04/21/97	15.0	2	3.0	15.0	12.0	
MW-9	01/25/95	13.0	2	3.0	13.0	10.0	
MW-10	01/25/95	13.0	2	3.0	13.0	10.0	
MW-11	06/22/10	20.0	4	5.0	20.0	15.0	
MW-12	06/22/10	20.0	4	5.0	20.0	15.0	
MW-12A	06/23/10	34.0	2	30.0	34.0	4.0	
MW-13	06/22/10	15.0	2	5.0	15.0	10.0	
MW-14	05/17/11	13.0	2	3.0	13.0	10.0	
MW-15	05/17/11	13.0	2	3.0	13.0	10.0	
MW-16	05/17/11	13.0	2	3.0	13.0	10.0	
MW-17	05/18/11	13.0	2	3.0	13.0	10.0	
Explanation							
Wells are of poly-vinyl-chloride (PVC) construction							
bgs = Below ground surface							

TABLE 2
CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Station No. 5191/5043
449 HEGENBERGER RD
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8260B) (ug/L)	Ethanol (ug/L)
MW-3	12/5/2011	10.81	2.55	NP	8.26	81.7 1n	381	<0.50	<0.50	<0.50	<1.5	41.8	<250
MW-6	12/5/2011	11.55	3.56	NP	7.99	20,200 1n	64,600	646	95.4	924	4,050	14.9	<250
MW-7	12/5/2011	11.64	4.60	NP	7.04	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<250
MW-8	12/5/2011	11.32	2.68	NP	8.64	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<250
MW-9	12/5/2011	10.94	2.43	NP	8.51	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	4.0	<250
MW-10	12/5/2011	10.97	3.82	NP	7.15	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<250
MW-11	12/5/2011	10.53	2.05	NP	8.48	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	26.4	<250
MW-12	12/5/2011	11.01	4.32	NP	6.69	286 1n	2,240	296	38.3	38.0	122	1,040	<250
MW-12A	12/5/2011	11.29	4.30	NP	6.99	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<250
MW-13	12/5/2011	11.08	5.00	NP	6.08	<50.0	166 2n	<0.50	<0.50	<0.50	<1.5	215	<250
MW-14	12/5/2011	12.00	4.05	NP	7.95	3,980 1n	14,000	709	9.1	1,420	2,530	0.97	<250
MW-15	12/5/2011	11.11	2.70	NP	8.41	50.5 1n	201	6.6	<0.50	0.93	<1.5	142	<250
MW-16	12/5/2011	10.98	3.18	NP	7.80	196 1n	948 2n	<0.50	<0.50	<0.50	<1.5	1,320	<250
MW-17	12/5/2011	11.52	4.70	NP	6.82	1,790 1n	17,300	4,720	511	238	747	<2.5	<1250

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)
-- - No information available

Analytical Notes:

< - Below laboratory's indicated reporting limit
Bold- Above laboratory's indicated reporting limit
ug/L - micrograms/liter
DRO- diesel range organics
TPHg- Total petroleum hydrocarbons as gasoline
MTBE- Methyl tertiary-butyl ether
TBA- Tertiary-butyl alcohol
DIPE- Di-isopropyl ether
ETBE- Ethyl tertiary-butyl ether
TAME- Tertiary-amyl methyl ether
1n- The DRO results for this sample did not match the pattern of the laboratory standard for diesel
2n- The TPHg results for this sample did not match the pattern of the laboratory standard for gasoline.
This is likely due to the presence of MTBE in the sample

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Station No. 5191/S043
449 HEGENBERGER RD
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (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-3	7/15/1998	8.04	3.38	NP	4.66	510	460	ND	ND	ND	ND	230	--	--	--	--	--	--	--	--
	10/16/1998	8.04	2.30	NP	5.74	67	330	4.7	ND	ND	ND	60	--	--	--	--	--	--	--	--
	1/25/1999	8.04	2.42	NP	5.62	120	420	1.5	ND	ND	ND	180	--	--	--	--	--	--	--	--
	4/15/1999	8.04	2.16	NP	5.88	170	290	0.54	ND	ND	ND	160	--	--	--	--	--	--	--	--
	7/14/1999	8.04	2.35	NP	5.69	420	290	3.2	ND	ND	ND	160	--	--	--	--	--	--	--	--
	10/21/1999	8.04	2.49	NP	5.55	350	360	0.77	ND	ND	ND	82	--	--	--	--	--	--	--	--
	1/20/2000	8.04	2.38	NP	5.66	2060	ND	0.81	ND	ND	ND	54	--	--	--	--	--	--	--	--
	4/13/2000	8.04	2.76	NP	5.28	200	250	0.69	ND	ND	ND	91	150	ND	ND	ND	ND	ND	ND	ND
	7/14/2000	8.04	3.26	NP	4.78	423	345	ND	ND	ND	ND	94.7	--	--	--	--	--	--	--	--
	10/26/2000	8.04	3.12	NP	4.92	330	480	6.0	ND	ND	ND	120	--	--	--	--	--	--	--	--
	1/3/2001	8.04	3.65	NP	4.39	287	364	1.59	ND	ND	ND	118	--	--	--	--	--	--	--	--
	4/4/2001	8.04	3.98	NP	4.06	360	417	1.24	ND	ND	0.802	237	--	--	--	--	--	--	--	--
	7/17/2001	8.04	3.12	NP	4.92	270	480	ND	ND	ND	ND	150	--	--	--	--	--	--	--	--
	10/1/2001	8.04	3.25	NP	4.79	270	310	1.0	<0.50	<0.50	<0.50	53	--	--	--	--	--	--	--	--
	1/31/2002	8.04	2.27	NP	5.77	250	250	3.5	<1.0	<1.0	<1.0	110	--	--	--	--	--	--	--	--
	4/18/2002	8.04	3.55	NP	4.49	320	300	<2.0	<2.0	<2.0	<2.0	--	59	--	--	--	--	--	--	--
	7/28/2002	8.04	2.55	NP	5.49	310	500	<0.50	<0.50	<0.50	<1.0	--	130	--	--	--	--	--	--	--
	10/9/2002	8.04	2.47	NP	5.57	700	690	<5	<5	<5	<10	--	120	--	--	--	--	--	--	--
	1/2/2003	8.04	1.70	NP	6.34	210	310	<0.50	<0.50	<0.50	<1.0	--	110	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	4/1/2003	8.04	3.48	NP	4.56	200	250	<1.0	<1.0	<1.0	<2.0	--	210	--	--	--	--	--	--	--
	7/1/2003	8.04	2.65	NP	5.39	380	450	<2.5	<2.5	<2.5	<5.0	--	70	--	--	--	--	<2500	--	--
	10/2/2003	8.04	3.12	NP	4.92	300	<250	<2.5	<2.5	<2.5	<5.0	--	210	--	--	--	--	<2500	--	--
	1/9/2004	8.04	2.39	NP	5.65	200	300	<0.50	0.53	0.53	1.5	--	66	--	--	--	--	<500	--	--
	4/26/2004	8.04	3.11	NP	4.93	160	440	2.5	5.5	2.9	9.4	--	81	--	--	--	--	<50	--	--
	7/22/2004	8.04	2.51	NP	5.53	330	420	<0.5	<0.5	<0.5	<1	--	72	--	--	--	--	<1000	--	--
	10/29/2004	8.04	2.00	NP	6.04	200	460	5.6	15	10	46	--	48	--	--	--	--	<50	--	--
	1/10/2005	8.04	1.52	NP	6.52	250	280	<0.50	0.62	<0.50	2.4	--	64	--	--	--	--	<50	--	--
	6/15/2005	8.04	2.00	NP	6.04	360	460	<0.50	0.70	0.56	1.9	--	110	--	--	--	--	<50	--	--
	9/27/2005	8.04	1.90	NP	6.14	<200	210	<0.50	0.60	<0.50	<1.0	--	100	<0.50	<0.50	<0.50	79	<250	--	--
	12/13/2005	8.04	2.35	NP	5.69	230	230	<0.50	<0.50	<0.50	<1.0	--	92	--	--	--	--	<250	--	--
	3/23/2006	8.04	1.84	NP	6.20	260	290	<0.50	<0.50	<0.50	<1.0	--	88	--	--	--	--	<250	--	--
	6/23/2006	8.04	2.26	NP	5.78	330	500	<0.50	<0.50	<0.50	<1.0	--	75	--	--	--	--	<250	--	--
	9/26/2006	8.04	2.08	NP	5.96	260	270	<0.50	<0.50	<0.50	<0.50	--	73	--	--	--	--	<250	--	--
	12/22/2006	8.04	1.88	NP	6.16	250	260	<0.50	<0.50	<0.50	1.2	--	71	--	--	--	--	<250	--	--
	3/30/2007	8.04	2.47	NP	5.57	210	390	<0.50	<0.50	<0.50	<0.50	--	120	--	--	--	--	<250	--	--
	6/28/2007	8.04	2.54	NP	5.50	290	370	<0.50	<0.50	<0.50	<0.50	--	55	--	--	--	--	<250	--	--
	9/25/2007	8.04	2.56	NP	5.48	210	350	<0.50	<0.50	<0.50	<0.50	--	61	--	--	--	--	<250	--	--
	12/28/2007	8.04	2.29	NP	5.75	150	260	<0.50	<0.50	<0.50	<1.0	--	66	--	--	--	--	<250	--	--
	3/22/2008	8.04	3.26	NP	4.78	230	390	<0.50	<0.50	<0.50	<1.0	--	39	--	--	--	--	<250	--	--
	6/23/2008	8.04	2.60	NP	5.44	130	200	<0.50	<0.50	<0.50	<1.0	--	46	--	--	--	--	<250	--	--
9/19/2008	8.04	3.45	NP	4.59	93	180	<0.50	<0.50	<0.50	<1.0	--	120	--	--	--	--	<250	--	--	
12/31/2008	8.04	2.55	NP	5.49	110	190	<0.50	<0.50	<0.50	<1.0	--	38	--	--	--	--	<250	--	--	
3/27/2009	8.04	2.37	NP	5.67	130	150	<0.50	<0.50	<0.50	<1.0	--	50	--	--	--	--	<250	--	--	
5/28/2009	8.04	3.32	NP	4.72	120	190	<0.50	<0.50	<0.50	<1.0	--	60	--	--	--	--	<250	--	--	
9/17/2009	8.04	2.63	NP	5.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
12/17/2009	8.04	2.13	NP	5.91	338	300	<0.50	<0.50	0.78	<1.5	--	43.1	--	--	--	--	<250	--	--	
3/29/2010	8.04	2.22	NP	5.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/30/2010	10.81	2.91	NP	7.90	89.7	261	<0.50	<0.50	<0.50	<1.5	--	89.0	--	--	--	--	<250	--	--	
7/6/2010	10.81	2.66	NP	8.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9/20/2010	10.81	3.12	NP	7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/8/2010	10.81	2.37	NP	8.44	137	306	<0.50	<0.50	<0.50	<1.5	--	58.8	--	--	--	--	<250	--	--	
3/14/2011	10.81	2.26	NP	8.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/2/2011	10.81	2.43	NP	8.38	155	283	0.58	1.3	<0.50	2.2	--	42.1	--	--	--	55.7	<250	--	--	
9/7/2011	10.81	2.36	NP	8.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/5/2011	10.81	2.55	NP	8.26	81.7	381	<0.50	<0.50	<0.50	<1.5	--	41.8	--	--	--	--	<250	--	--	

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Station No. 5191/5043
449 HEGENBERGER RD
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (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	6/24/1997	8.87	4.50	0.25	4.56	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/9/1997	8.87	4.80	0.60	4.52	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/15/1997	8.87	4.63	0.42	4.56	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/21/1997	8.87	4.75	0.25	4.31	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/6/1997	8.87	4.50	0.10	4.45	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/20/1997	8.87	4.55	0.10	4.40	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/2/1997	8.87	4.75	0.05	4.16	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/9/1997	8.87	4.84	0.04	4.06	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/14/1998	8.87	3.90	0.94	5.68	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/12/1998	8.87	3.35	0.64	6.00	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/3/1998	8.87	4.51	0.02	4.38	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/1/1998	8.87	3.67	1.60	6.40	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/26/1998	8.87	4.11	0.50	5.14	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/15/1998	8.87	5.03	0.30	4.07	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/15/1998	8.87	4.56	0.05	4.35	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/21/1998	8.87	4.77	0.02	4.12	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/30/1998	8.87	5.08	0.03	3.81	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/16/1998	8.87	4.31	2.40	6.36	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/6/1998	8.87	3.98	0.17	5.02	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/25/1998	8.87	3.92	0.10	5.03	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/28/1998	8.87	3.90	0.20	5.12	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/25/1999	8.87	4.18	0.60	5.14	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/22/1999	8.87	4.07	0.22	4.97	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/22/1999	8.87	4.32	0.15	4.66	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/15/1999	8.87	4.23	0.95	5.35	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/28/1999	8.87	4.38	0.39	4.78	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/29/1999	8.87	4.12	0.02	4.77	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/14/1999	8.87	4.20	0.03	4.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/23/1999	8.87	4.51	0.24	4.54	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/30/1999	8.87	4.17	0.17	4.83	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/21/1999	8.87	4.27	0.12	4.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/29/1999	8.87	4.18	NP	4.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/20/1999	8.87	4.26	0.01	4.62	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/20/2000	8.87	4.31	NP	4.56	67600	130000	2900	8600	2000	16000	ND	--	--	--	--	--	--	--	--
	2/26/2000	8.87	3.98	NP	4.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/31/2000	8.87	4.14	NP	4.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/13/2000	8.87	4.04	NP	4.83	8700	140000	5000	14000	3600	27000	7700	--	--	--	--	--	--	--	--
	5/26/2000	8.87	4.41	NP	4.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/17/2000	8.87	4.35	NP	4.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/14/2000	8.87	4.47	NP	4.40	133000	259000	7670	13700	6860	40700	ND	ND	--	--	--	--	--	--	--
	8/24/2000	8.87	3.71	NP	5.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2000	8.87	4.33	NP	4.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
10/26/2000	8.87	4.32	NP	4.55	61000	110000	7000	6200	3700	12000	670	43	--	--	--	--	--	--	--	
1/3/2001	8.87	4.52	NP	4.35	929	84700	3950	4130	3650	11800	ND	ND	--	--	--	--	--	--	--	
4/4/2001	8.87	4.29	NP	4.58	18000	69800	2060	2840	3650	10900	ND	47.8	ND	ND	ND	ND	ND	ND	ND	
7/17/2001	8.87	4.37	NP	4.50	20000	100000	3200	3300	3400	12000	ND	--	--	--	--	--	--	--	--	
10/1/2001	8.87	4.45	NP	4.42	24000	110000	3200	2400	4500	13000	<1000	--	--	--	--	--	--	--	--	
1/31/2002	8.87	4.03	NP	4.84	11000	230000	2400	1800	5400	16000	<2500	--	--	--	--	--	--	--	--	
4/18/2002	8.87	3.45	NP	5.42	3500	94000	6800	13000	3000	19000	<500	--	--	--	--	--	--	--	--	
7/28/2002	8.87	2.24	NP	6.63	27000	110000	530	170	3200	7300	--	<100	--	--	--	--	--	--	--	
10/9/2002	8.87	3.53	NP	5.34	170000	970000	10000	39000	13000	94000	--	<2000	--	--	--	--	--	--	--	
1/2/2003	8.87	2.34	NP	6.53	66000	270000	6100	15000	5400	37000	--	<200	--	--	--	--	--	--	--	
4/1/2003	8.87	3.17	NP	5.70	35000	300000	8000	39000	37000	260000	--	<2000	--	--	--	--	--	--	--	
7/1/2003	8.87	3.55	NP	5.32	11000	38000	2100	990	2700	6500	--	<100	--	--	--	--	<25000	--	--	
10/2/2003	8.87	3.82	NP	5.05	<50	100000	5600	6900	4700	18000	--	<800	--	--	--	--	<200000	--	--	

**TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Station No. S191/5043
449 HEGENERBERGER RD
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (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	1/9/2004	8.87	2.80	NP	6.07	20000	170000	2800	3300	4700	16000	--	<200	--	--	--	--	<50000	--	--
	4/26/2004	8.87	3.40	NP	5.47	13000	97000	5900	9000	5100	23000	--	<50	--	--	--	--	<5000	--	--
	7/22/2004	8.87	3.54	NP	5.33	33000	110000	4100	5100	4000	16000	--	<200	--	--	--	--	<300000	--	--
	10/29/2004	8.87	3.03	NP	5.84	78000	100000	5200	6100	4200	15000	--	<50	--	--	--	--	<5000	--	--
	1/10/2005	8.87	2.35	NP	6.52	12000	71000	1600	3700	2100	9900	--	<50	--	--	--	--	<5000	--	--
	6/15/2005	8.87	2.47	NP	6.40	16000	130000	800	1800	2200	9300	--	<50	--	--	--	--	<5000	--	--
	9/27/2005	8.87	2.55	NP	6.32	2500	13000	82	120	430	990	--	0.56	1.8	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.87	3.28	NP	5.59	18000	68000	1500	1100	2200	7700	--	<50	--	--	--	--	<25000	--	--
	3/23/2006	8.87	2.87	NP	6.00	73000	41000	290	140	1500	2700	--	<50	--	--	--	--	<25000	--	--
	6/23/2006	8.87	3.15	NP	5.72	35000	50000	2200	1400	1900	5700	--	<12	--	--	--	--	<6200	--	--
	9/26/2006	8.87	3.08	NP	5.79	22000	130000	2200	1000	2900	8800	--	<50	--	--	--	--	<25000	--	--
	12/22/2006	8.87	2.90	NP	5.97	62000	90000	940	610	1900	4700	--	<50	--	--	--	--	<25000	--	--
	3/30/2007	8.87	3.26	NP	5.61	62000	210000	1100	560	3400	12000	--	<10	--	--	--	--	<5000	--	--
	6/28/2007	8.87	3.46	NP	5.41	71000	67000	2200	1300	2700	10000	--	<25	--	--	--	--	<12000	--	--
	9/25/2007	8.87	3.52	NP	5.35	58000	56000	2900	720	2400	9000	--	<25	--	--	--	--	<12000	--	--
	12/28/2007	8.87	3.27	NP	5.60	18000	78000	28000	2700	4000	8100	--	16000	--	--	--	--	<12000	--	--
	3/22/2008	8.87	2.48	NP	6.39	68000	66000	380	150	1500	2400	--	<25	--	--	--	--	<12000	--	--
	6/23/2008	8.87	3.54	NP	5.33	68000	59000	1600	130	1800	4100	--	25	--	--	--	--	<12000	--	--
	9/19/2008	8.87	4.06	NP	4.81	180000	65000	2000	230	2000	4500	--	<12	--	--	--	--	<6200	--	--
	12/31/2008	8.87	3.45	NP	5.42	68000	91000	2000	320	5300	13000	--	<50	--	--	--	--	<25000	--	--
	3/27/2009	8.87	3.09	NP	5.78	170000	150000	1300	240	2800	7200	--	<50	--	--	--	--	<25000	--	--
	5/28/2009	8.87	3.49	NP	5.38	78000	53000	1700	200	2300	5400	--	<50	--	--	--	--	<25000	--	--
	9/17/2009	8.87	3.64	NP	5.23	250000	77000	2100	1400	2600	8500	--	<12	--	--	--	--	<6200	--	--
	12/17/2009	8.87	3.14	NP	5.73	30300	59100	1730	199	2260	5460	--	20.3	--	--	--	--	<250	--	--
	3/29/2010	8.87	3.16	NP	5.71	106000	48400	1980	208	3070	8070	--	12.1	--	--	--	--	<250	--	--
6/30/2010	11.55	3.50	NP	8.05	170000	78700	2130	281	2860	8400	--	5.8	--	--	--	--	<250	--	--	
7/6/2010	11.55	3.49	NP	8.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9/20/2010	11.55	3.75	NP	7.80	18800	64500	2300	170	2770	6260	--	19.3	--	--	--	--	<250	--	--	
12/8/2010	11.55	8.42	NP	3.13	28700	78400	1300	1680	3490	20600	--	11.3	--	--	--	--	<250	--	--	
3/14/2011	11.55	3.40	NP	8.15	93000	44600	912	338	728	3670	--	16.3	--	--	--	134	<250	--	--	
6/2/2011	11.55	2.76	NP	8.79	33700	56200	780	262	3370	3890	--	6.7	--	--	--	81.0	<250	--	--	
9/7/2011	11.55	2.83	NP	8.72	6780	16600	15.6	10.6	89.6	339	--	<0.50	--	--	--	--	<250	--	--	
12/5/2011	11.55	3.56	NP	7.99	20200	64600	646	95.4	924	4050	--	14.9	--	--	--	--	<250	--	--	
MW-7	5/27/1997	8.83	4.50	NP	4.33	--	68	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	6/1/1997	8.83	4.54	NP	4.29	69	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/15/1997	8.83	4.70	NP	4.13	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	10/9/1997	8.83	4.30	NP	4.53	190	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	1/14/1998	8.83	2.88	NP	5.95	65	ND	ND	ND	ND	ND	36	--	--	--	--	--	--	--	
	4/1/1998	8.83	3.13	NP	5.70	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	7/15/1998	8.83	4.45	NP	4.38	74	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	10/16/1998	8.83	3.45	NP	5.38	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	1/25/1999	8.83	3.22	NP	5.61	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	4/15/1999	8.83	3.11	NP	5.72	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	7/14/1999	8.83	3.34	NP	5.49	69	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	10/21/1999	8.83	3.43	NP	5.40	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	1/20/2000	8.83	3.29	NP	5.54	ND	ND	ND	ND	ND	ND	4.2	--	--	--	--	--	--	--	
	4/13/2000	8.83	3.39	NP	5.44	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	7/14/2000	8.83	4.42	NP	4.41	68.0	ND	ND	ND	ND	ND	7.83	--	--	--	--	--	--	--	
	7/17/2001	8.83	5.06	NP	3.77	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	
	10/1/2001	8.83	4.98	NP	3.85	<51	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	--	--	--	--	
	1/31/2002	8.83	3.88	NP	4.95	90	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	
	4/18/2002	8.83	4.03	NP	4.80	78	<50	<0.50	<0.50	<0.50	<0.50	5.7	--	--	--	--	--	--	--	
	7/28/2002	8.83	3.59	NP	5.24	<50	<50	<0.50	<0.50	<0.50	<1.0	--	3.9	--	--	--	--	--	--	
	10/9/2002	8.83	4.53	NP	4.30	<96	<50	<0.50	<0.50	<0.50	<1.0	--	3.9	--	--	--	--	--	--	
1/3/2003	8.83	3.36	NP	5.47	78	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--		
4/1/2003	8.83	3.94	NP	4.89	67	71	<0.50	<0.50	0.71	<1.0	--	3.4	--	--	--	--	--	--		

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Station No. 5191/5043
449 HEGENBERGER RD
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (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-7	7/1/2003	8.83	4.60	NP	4.23	68	64	<0.50	<0.50	0.77	2.0	--	35	--	--	--	--	<500	--	--	
	10/2/2003	8.83	5.46	NP	3.37	82	<50	<0.50	<0.50	<0.50	<1.0	--	4.9	--	--	--	--	<500	--	--	
	1/9/2004	8.83	3.55	NP	5.28	75	54	<0.50	<0.50	<0.50	<1.0	--	2.4	--	--	--	--	<500	--	--	
	4/26/2004	8.83	4.49	NP	4.34	<50	<50	<0.50	<0.50	<0.50	1.5	--	2.3	--	--	--	--	<50	--	--	
	7/22/2004	8.83	4.93	NP	3.90	<200	82	0.90	2.0	3.5	9.9	--	1.4	--	--	--	--	<1000	--	--	
	10/29/2004	8.83	3.71	NP	5.12	54	210	0.67	1.6	1.7	5.8	--	<0.50	--	--	--	--	<50	--	--	
	1/10/2005	8.83	2.77	NP	6.06	<50	74	0.51	2.2	1.7	7.0	--	<0.50	--	--	--	--	<50	--	--	
	6/15/2005	8.83	3.40	NP	5.43	<50	<50	<0.50	<0.50	<0.50	<1.0	--	0.88	--	--	--	--	<50	--	--	
	9/27/2005	8.83	3.44	NP	5.39	<200	<50	0.59	1.2	<0.50	<1.0	--	0.96	<0.50	<0.50	<0.50	<10	<250	--	--	
	12/13/2005	8.83	3.98	NP	4.85	<200	<50	<0.50	<0.50	<0.50	<1.0	--	0.65	--	--	--	--	<250	--	--	
	3/23/2006	8.83	3.37	NP	5.46	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	6/23/2006	8.83	5.25	NP	3.58	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	9/26/2006	8.83	4.13	NP	4.70	<50	<50	<0.50	<0.50	<0.50	<0.50	--	0.77	--	--	--	--	<250	--	--	
	12/22/2006	8.83	3.63	NP	5.20	630	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--	
	3/30/2007	8.83	4.31	NP	4.52	94	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--	
	6/28/2007	8.83	4.62	NP	4.21	<50	<50	<0.50	<0.50	<0.50	<0.50	--	0.54	--	--	--	--	<250	--	--	
	9/25/2007	8.83	4.65	NP	4.18	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--	
	12/28/2007	8.83	3.99	NP	4.84	75	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	3/22/2008	8.83	4.08	NP	4.75	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	6/23/2008	8.83	4.10	NP	4.73	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	9/19/2008	8.83	4.86	NP	3.97	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	12/31/2008	8.83	4.17	NP	4.66	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	3/27/2009	8.83	4.00	NP	4.83	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	5/28/2009	8.83	4.71	NP	4.12	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	9/17/2009	8.83	4.87	NP	3.96	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/29/2010	8.83	WI	WI	WI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	11.64	4.45	NP	7.19	66.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	
7/6/2010	11.64	4.63	NP	7.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9/20/2010	11.64	4.85	NP	6.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/8/2010	11.64	3.99	NP	7.65	57.7	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--		
3/14/2011	11.64	3.81	NP	7.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/2/2011	11.64	3.90	NP	7.74	63.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--		
9/7/2011	11.64	3.72	NP	7.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/5/2011	11.64	4.60	NP	7.04	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--		
MW-8	5/27/1997	8.52	3.42	NP	5.10	--	310	0.88	0.67	15	70	ND	--	--	--	--	--	--	--	--	
	6/1/1997	8.52	3.46	NP	5.06	320	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/15/1997	8.52	3.49	NP	5.03	ND	ND	ND	ND	2.7	3.8	ND	--	--	--	--	--	--	--	--	
	10/9/1997	8.52	3.73	NP	4.79	390	590	1.4	ND	32	4.1	ND	--	--	--	--	--	--	--	--	
	1/14/1998	8.52	1.92	NP	6.60	230	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	4/1/1998	8.52	2.38	NP	6.14	510	ND	ND	ND	ND	ND	4.7	--	--	--	--	--	--	--	--	
	7/15/1998	8.52	3.53	NP	4.99	140	ND	ND	ND	0.56	1.1	ND	--	--	--	--	--	--	--	--	
	10/16/1998	8.52	3.04	NP	5.48	170	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	1/25/1999	8.52	2.92	NP	5.60	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	4/15/1999	8.52	2.40	NP	6.12	91	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	7/14/1999	8.52	3.03	NP	5.49	120	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	10/21/1999	8.52	3.11	NP	5.41	110	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	1/20/2000	8.52	3.06	NP	5.46	583	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	4/13/2000	8.52	2.84	NP	5.68	80	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	7/14/2000	8.52	3.39	NP	5.13	113	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	7/17/2001	8.52	3.46	NP	5.06	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	10/1/2001	8.52	3.51	NP	5.01	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	--	--	--	--	--	
	1/31/2002	8.52	2.75	NP	5.77	260	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--	
	4/18/2002	8.52	2.98	NP	5.54	160	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--	
	7/28/2002	8.52	2.41	NP	6.11	140	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	
	10/9/2002	8.52	2.09	NP	6.43	120	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	
	1/2/2003	8.52	1.98	NP	6.54	210	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	
4/1/2003	8.52	2.66	NP	5.86	220	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--		

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Station No. 5191/5043
449 HEGENBERGER RD
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (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-10	4/1/1998	8.62	3.45	NP	5.17	62	230	66	1.7	12	17	6.4	--	--	--	--	--	--	--	--
	7/15/1998	8.62	4.21	NP	4.41	78	290	98	45	21	38	21	--	--	--	--	--	--	--	--
	10/16/1998	8.62	4.11	NP	4.51	ND	160	44	0.96	2.5	10	17	--	--	--	--	--	--	--	--
	1/25/1999	8.62	3.26	NP	5.36	ND	140	27	ND	2.8	6.8	23	--	--	--	--	--	--	--	--
	4/15/1999	8.62	3.63	NP	4.99	ND	120	18	ND	1.8	5.1	14	--	--	--	--	--	--	--	--
	7/14/1999	8.62	3.89	NP	4.73	180	280	55	3.2	11	31	6.1	--	--	--	--	--	--	--	--
	10/21/1999	8.62	4.09	NP	4.53	96	140	22	0.59	1.7	7.7	5.3	--	--	--	--	--	--	--	--
	1/20/2000	8.62	3.92	NP	4.70	252	ND	0.73	0.86	ND	ND	5.2	--	--	--	--	--	--	--	--
	4/13/2000	8.62	3.85	NP	4.77	69	67	54	ND	2.6	ND	3.8	--	--	--	--	--	--	--	--
	7/14/2000	8.62	4.18	NP	4.44	149	ND	0.547	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/26/2000	8.62	3.96	NP	4.66	83	ND	3.3	ND	0.83	1.5	ND	--	--	--	--	--	--	--	--
	1/3/2001	8.62	4.14	NP	4.48	126	52.7	5.15	ND	0.823	1.57	ND	--	--	--	--	--	--	--	--
	4/4/2001	8.62	3.88	NP	4.74	75	129	28.1	1.67	4.97	10.1	ND	--	--	--	--	--	--	--	--
	7/17/2001	8.62	4.08	NP	4.54	ND	ND	4.1	ND	1.0	1.8	ND	--	--	--	--	--	--	--	--
	10/1/2001	8.62	4.22	NP	4.40	100	140	30	0.51	4.0	12	<5.0	--	--	--	--	--	--	--	--
	1/31/2002	8.62	3.68	NP	4.94	170	110	16	<0.50	2.3	5.6	<2.5	--	--	--	--	--	--	--	--
	4/18/2002	8.62	4.01	NP	4.61	130	<50	11	<0.50	1.4	4.5	<2.5	--	--	--	--	--	--	--	--
	7/28/2002	8.62	4.11	NP	4.51	58	67	15	<0.50	0.94	7.3	--	<2.0	--	--	--	--	--	--	--
	10/9/2002	8.62	3.97	NP	4.65	<94	<50	0.67	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	1/2/2003	8.62	3.03	NP	5.59	64	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	4/1/2003	8.62	3.83	NP	4.79	76	<50	11	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	7/1/2003	8.62	4.13	NP	4.49	87	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	10/2/2003	8.62	4.05	NP	4.57	160	77	9.9	0.78	2.3	4.9	--	<2.0	--	--	--	--	<500	--	--
	1/9/2004	8.62	3.40	NP	5.22	74	53	1.2	<0.50	0.70	1.6	--	<2.0	--	--	--	--	<500	--	--
	4/26/2004	8.62	3.89	NP	4.73	<50	<50	2.8	1.3	1.0	2.9	--	<0.50	--	--	--	--	<50	--	--
	7/22/2004	8.62	3.73	NP	4.89	<200	<50	<0.5	<0.5	<0.5	<1	--	<0.5	--	--	--	--	<1000	--	--
	10/29/2004	8.62	3.41	NP	5.21	<50	100	2.0	1.2	1.1	3.6	--	<0.50	--	--	--	--	<50	--	--
	1/10/2005	8.62	2.68	NP	5.94	94	84	7.8	2.7	2.2	8.9	--	<0.50	--	--	--	--	<50	--	--
	6/15/2005	8.62	4.63	NP	3.99	62	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	9/27/2005	8.62	3.96	NP	4.66	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	<0.50	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.62	3.75	NP	4.87	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/23/2006	8.62	3.13	NP	5.49	<200	50	13	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2006	8.62	3.90	NP	4.72	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/26/2006	8.62	3.66	NP	4.96	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/22/2006	8.62	3.56	NP	5.06	81	<50	<0.50	<0.50	<0.50	1.8	--	<0.50	--	--	--	--	<250	--	--
	3/30/2007	8.62	3.93	NP	4.69	82	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	6/28/2007	8.62	4.03	NP	4.59	57	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	9/25/2007	8.62	3.91	NP	4.71	82	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/28/2007	8.62	3.64	NP	4.98	62	<50	2.1	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/22/2008	8.62	4.00	NP	4.62	<50	64	13	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
6/23/2008	8.62	3.90	NP	4.72	<50	94	30	0.53	3.4	3.5	--	<0.50	--	--	--	--	<250	--	--	
9/19/2008	8.62	3.85	NP	4.77	<50	130	15	1.7	5.7	11	--	<0.50	--	--	--	--	<250	--	--	
12/31/2008	8.62	3.69	NP	4.93	<50	82	11	<0.50	0.81	1.7	--	<0.50	--	--	--	--	<250	--	--	
3/27/2009	8.62	3.75	NP	4.87	730	210	28	1.4	1.2	3.9	--	<0.50	--	--	--	--	<250	--	--	
5/28/2009	8.62	3.66	NP	4.96	<50	<50	0.91	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
9/17/2009	8.62	3.85	NP	4.77	65	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
12/17/2009	8.62	3.00	NP	5.62	57.7	<50.0	1.2	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	
3/29/2010	8.62	3.81	NP	4.81	82.2	<50.0	0.77	<0.50	<0.50	3.4	--	<0.50	--	--	--	--	<250	--	--	
6/30/2010	10.97	3.90	NP	7.07	53.4	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	
7/6/2010	10.97	3.73	NP	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9/20/2010	10.97	3.85	NP	7.12	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	
12/8/2010	10.97	3.63	NP	7.34	<50.0	<50.0	1.8	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	
3/14/2011	10.97	3.46	NP	7.51	63.3	<50.0	1.1	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--	
6/2/2011	10.97	3.92	NP	7.05	<50.0	58.7	4.8	4.2	0.96	5.1	--	<0.50	--	--	--	<5.0	<250	--	--	
9/7/2011	10.97	4.06	NP	6.91	<50.0	<50.0	4.1	<0.50	0.66	2.4	--	<0.50	--	--	--	--	<250	--	--	

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Station No. 5191/5043
449 HEGENBERGER RD
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (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-10	12/5/2011	10.97	3.82	NP	7.15	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	
MW-11	7/6/2010	10.53	2.44	NP	8.09	226	99.2	<0.50	<0.50	<0.50	<1.5	--	165	<0.50	<0.50	<0.50	174	<250	<1.0	<1.0	
	9/20/2010	10.53	2.80	NP	7.73	<50.0	76.4	<0.50	<0.50	<0.50	<1.5	--	82.7	--	--	--	--	<250	--	--	
	12/8/2010	10.53	1.90	NP	8.63	52.7	<50.0	<0.50	<0.50	<0.50	<1.5	--	59.1	--	--	--	--	<250	--	--	
	3/14/2011	10.53	1.89	NP	8.64	67.8	<50.0	<0.50	<0.50	<0.50	<1.5	--	44.0	--	--	--	<5.0	<250	--	--	
	6/2/2011	10.53	1.75	NP	8.78	69.0	<50.0	<0.50	<0.50	0.61	<0.50	<1.5	--	24.9	--	--	--	7.1	<250	--	--
	9/7/2011	10.53	1.56	NP	8.97	<50.0	<50.0	<0.50	<0.50	<0.50	<0.50	<1.5	--	3.8	--	--	--	--	<250	--	--
MW-12	12/5/2011	10.53	2.05	NP	8.48	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	26.4	--	--	--	--	<250	--	--	
	7/6/2010	11.01	4.00	NP	7.01	990	20300	1030	955	311	2450	--	1650	<0.50	<0.50	1.0	1430	<250	<1.0	<1.0	
	9/20/2010	11.01	4.18	NP	6.83	5220	73700	6020	6390	2970	18300	--	894	--	--	--	--	<250	--	--	
	12/8/2010	11.01	3.92	NP	7.09	428	3350	249	117	89.8	558	--	1470	--	--	--	--	<2500	--	--	
	3/14/2011	11.01	3.70	NP	7.31	283	2420	287	80.9	49.1	243	--	1020	--	--	--	69.6	<250	--	--	
	6/2/2011	11.01	4.40	NP	6.61	1330	12200	688	70.5	225	619	--	824	--	--	--	110	<250	--	--	
MW-12A	9/7/2011	11.01	4.37	NP	6.64	1270	7900	920	25.4	187	267	--	896	--	--	--	--	<2500	--	--	
	12/5/2011	11.01	4.32	NP	6.69	286	2240	296	38.3	38.0	122	--	1040	--	--	--	--	<250	--	--	
	7/6/2010	11.29	4.22	NP	7.07	89.3	664	18.3M0	0.78	2.3	50.2M0	--	14.3M0	<0.50	<0.50	<0.50	11.9M0	<250	<1.0	<1.0	
	9/20/2010	11.29	4.39	NP	6.90	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	8.5	--	--	--	--	<250	--	--	
	12/8/2010	11.29	4.00	NP	7.29	76.4	<50.0	<0.50	<0.50	<0.50	<1.5	--	9.4	--	--	--	--	<250	--	--	
	3/14/2011	11.29	3.81	NP	7.48	61.5	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--	
MW-13	6/2/2011	11.29	4.20	NP	7.09	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--	
	9/7/2011	11.29	4.42	NP	6.87	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.74	--	--	--	--	<250	--	--	
	12/5/2011	11.29	4.30	NP	6.99	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	
	7/6/2010	11.08	4.26	NP	6.82	469	122	<0.50	<0.50	<0.50	<1.5	--	217	<0.50	<0.50	<0.50	199	<250	<1.0	<1.0	
	9/20/2010	11.08	4.81	NP	6.27	<50.0	250	<0.50	<0.50	<0.50	<1.5	--	272	--	--	--	--	<250	--	--	
	12/8/2010	11.08	5.02	NP	6.06	97.0	177	<0.50	<0.50	<0.50	<1.5	--	390	--	--	--	--	<250	--	--	
MW-14	3/14/2011	11.08	4.32	NP	6.76	162	127	<0.50	<0.50	<0.50	<1.5	--	241	--	--	--	125	<250	--	--	
	6/2/2011	11.08	3.98	NP	7.10	89.9	260	<0.50	<0.50	<0.50	<1.5	--	228	--	--	--	44.7	<250	--	--	
	9/7/2011	11.08	5.74	NP	5.34	<50.0	167	<0.50	<0.50	<0.50	<1.5	--	207	--	--	--	--	<250	--	--	
	12/5/2011	11.08	5.00	NP	6.08	<50.0	166	<0.50	<0.50	<0.50	<1.5	--	215	--	--	--	--	<250	--	--	
	6/2/2011	12.00	3.58	NP	8.42	4180	51600	2750	67.9	1790	13400	--	1.9	--	--	--	27.2	<250	--	--	
	9/7/2011	12.00	3.02	NP	8.98	2970	42600	1050	28.1	2990	7300	--	<25.0	--	--	--	--	<12500	--	--	
MW-15	12/5/2011	12.00	4.05	NP	7.95	3980	14000	709	9.1	1420	2530	--	0.97	--	--	--	--	<250	--	--	
	6/2/2011	11.11	2.50	NP	8.61	124	357	<0.50	<0.50	<0.50	<1.5	--	15.2	--	--	--	6.4	<250	--	--	
	9/7/2011	11.11	2.54	NP	8.57	<50.0	412	6.2	<0.50	<0.50	<1.5	--	128	--	<1.5	--	--	<250	--	--	
MW-16	12/5/2011	11.11	2.70	NP	8.41	50.5	201	6.6	<0.50	0.93	<1.5	--	142	--	--	--	--	<250	--	--	
	6/2/2011	10.98	3.00	NP	7.98	509	1420	79.4	<0.50	4.2	<1.5	--	1200	--	--	--	257	<250	--	--	
	9/7/2011	10.98	2.65	NP	8.33	90.0	934	<0.50	<0.50	<0.50	<1.5	--	1240	--	--	--	--	<250	--	--	
MW-17	12/5/2011	10.98	3.18	NP	7.80	196	948	<0.50	<0.50	<0.50	<1.5	--	1320	--	--	--	--	<250	--	--	
	6/2/2011	11.52	5.78	NP	5.74	687	9130	2530	960	35.1	907	--	0.74	--	--	--	366	<250	--	--	
	9/7/2011	11.52	4.56	NP	6.96	1900	47200	9620	5510	1210	4510	--	<25.0	--	--	--	--	<12500	--	--	
	12/5/2011	11.52	4.70	NP	6.82	1790	17300	4720	511	238	747	--	<2.5	--	--	--	--	<1250	--	--	

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
WD - Well Destroyed
WI - Well Inaccessible
WO - Well Obstruction
N5VD - Not surveyed
-- - No Information available

Analytical Notes:
-- - No information available
< - Below laboratory's indicated reporting limit
LPH - Liquid Phase Hydrocarbons
M0 - 209.
ND - Not detected, and detection limit is not known
N5 - Well not sampled.
ug/L - micrograms/liter
WD - Well Destroyed
WI - Well Inaccessible
WO - Well Obstruction
DRO- diesel range organics
TPHg- Total petroleum hydrocarbons as gasoline
MTBE- Methyl tertiary-butyl ether
TBA- Tertiary-butyl alcohol

DIPE- Di-isopropyl ether
ETBE- Ethyl tertiary-butyl ether
TAME- Tertiary-aryl methyl ether

TABLE 3a
 ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
 76 Station No. 5191/5043
 449 HEGENBERGER RD
 OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Acetone (ug/L)	Alkalinity, Bicarbonate (mg/L)	Alkalinity, Hydroxide (CaCO) (mg/L)	Alkalinity, Total A2320B (mg/L)	Alkalinity, Total as CaCO3 (mg/L)	Antimony 5W6010 D (ug/L)	Arsenic SW6010 D (ug/L)	Barium SW6010 D (ug/L)	Beryllium 5W6010 D (ug/L)	Biochemical Oxygen Demand (ug/L)	Bromate (mg/L)	Bromide (mg/L)	Cadmium 5W6010 D (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Chromium (ug/L)	Chromium, Hexavalent (ug/L)	Cobalt SW6010 D (ug/L)	Coliform, Total (MPN/100ML)	E. Coli (MPN/100ML)
MW-6	3/14/2011	18.4	--	--	--	--	<60.0	22.7	216	<5.0	32200	--	--	<5.0	173000	204000	--	--	<50.0	--	--
	6/2/2011	<S.0	828	<1	828	<1	<60.0	22.0	191	<5.0	45100	<0.005	2.1	<5.0	121000	149000	4.3	<2	<50.0	42000	<100
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	3/14/2011	<S.0	--	--	--	--	<60.0	<20.0	<100	<5.0	7160	--	--	<5.0	11500	34700	--	--	<50.0	--	--
	6/2/2011	<S.0	226	<1	226	<1	<60.0	<20.0	<100	<5.0	4170	<0.005	2	<5.0	15100	32400	2.4	<0.2	<50.0	2	<1
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	3/14/2011	<S.0	--	--	--	--	<60.0	<20.0	<100	<5.0	<2000	--	--	<5.0	80100	8240000	--	--	<50.0	--	--
	6/2/2011	<S.0	905	<1	905	<1	<60.0	<20.0	<100	<5.0	7240	<0.05	33	<5.0	191000	7260000	3.3	<2	<50.0	210	<1
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analytical Notes:
 -- - No information available
 < - Below laboratory's indicated reporting limit
 LPH - Liquid Phase Hydrocarbons
 mg/L - milligrams per liter
 MPN/100ML - most probable number per 100 ml
 NS - Well not sampled.
 ug/L - micrograms/liter
 WD - Well Destroyed
 WI - Well Inaccessible
 WO - Well Obstruction

TABLE 3b
 ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
 76 Station No. 5191/5043
 449 HEGENBERGER RD
 OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Manganese SW6010 D (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum SW6010 D (ug/L)	Nickel SW6010 D (ug/L)	Nitrate as N (ug/L)	Nitrite as N E353/E351 (ug/L)	Nitrite as N SM4500 (ug/L)	Nitrogen, Ammonia (mg/L)	Nitrogen, NO2 plus NO3 (ug/L)	Nitrogen, Total Kjeldahl (mg/L)	Oil and Grease (ug/L)	Salinity (mg/L)	Selenium SW6010 D (ug/L)
MW-10	9/17/2009	--	--	9800	--	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--	
	12/17/2009	--	--	3410	--	--	--	--	--	--	--	1970	60.3	--	--	2030	--	--	--	--	
	3/29/2010	--	365	2410	--	--	--	--	--	--	--	1960	--	18.7	--	1970	--	--	--	--	
	6/30/2010	--	216	1860	--	--	--	--	--	--	--	2120	--	68.1	--	2190	--	--	--	--	
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/20/2010	--	280	3080	--	--	--	--	--	--	--	--	2690	--	68.2	--	2750	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	2620	--	--	--	--	--	--	--	--	--	--	--	2350	--	--	--	--	
	6/2/2011	--	--	9870	--	--	--	--	--	--	--	--	1290	--	49.3	--	1340	--	--	--	--
9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-11	7/6/2010	--	<100	3510	--	--	--	--	--	--	--	<50.0	--	31.0	--	66.9	--	--	--	--	
	9/20/2010	--	<100	1690	--	--	--	--	--	--	--	167	--	<10.0	--	172	--	--	--	--	
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	756	--	--	--	--	--	--	--	--	--	--	--	<50.0	--	--	--	--	
	6/2/2011	--	--	1040	--	--	--	--	--	--	--	110	--	<10.0	--	115	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-12	7/6/2010	--	<100	30200	--	--	--	--	--	--	--	<50.0	--	60.5	--	<50.0	--	--	--	--	
	9/20/2010	--	552	3890	--	--	--	--	--	--	--	72.3	--	<10.0	--	75.2	--	--	--	--	
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	793	593	200	<10.0	12400	<0.20	114	<20.0	151	<50.0	--	60.6	--	54.4	--	--	<10.0	
	6/2/2011	1100	--	9340	8740	600	<10.0	12800	<0.20	287	<20.0	119	<50.0	--	<10.0	0.14	58.0	0.91	--	15600	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-12A	7/6/2010	--	716	57300	--	--	--	--	--	--	--	3680	--	164	--	3840	--	--	--	--	
	9/20/2010	--	<100	523	--	--	--	--	--	--	--	4680	--	10.2	--	4690	--	--	--	--	
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	523	--	--	--	--	--	--	--	--	--	--	--	4790	--	--	--	--	
	6/2/2011	--	--	754	--	--	--	--	--	--	--	4710	--	<10.0	--	4720	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	7/6/2010	--	116	92600	--	--	--	--	--	--	--	<50.0	--	64.9	--	70.4	--	--	--	--	
	9/20/2010	--	279	59500	--	--	--	--	--	--	--	<50.0	--	<10.0	--	<50.0	--	--	--	--	
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	44600	--	--	--	--	--	--	--	--	--	--	--	<50.0	--	--	--	--	
	6/2/2011	--	--	36700	--	--	--	--	--	--	--	71.5	--	14.5	--	86.0	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-14	6/2/2011	--	--	47500	--	--	--	--	--	--	--	<50.0	--	10.4	--	50.1	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-15	6/2/2011	--	--	11700	--	--	--	--	--	--	--	890	--	38.0	--	928	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-16	6/2/2011	--	--	34200	--	--	--	--	--	--	--	<50.0	--	<10.0	--	<50.0	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-17	6/2/2011	--	--	109000	--	--	--	--	--	--	--	<50.0	--	29.7	--	<50.0	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	

Analytical Notes:
 -- No information available
 < - Below laboratory's indicated reporting limit
 LPH - Liquid Phase Hydrocarbons
 mg/L - milligrams per liter
 ND - Not detected, and detection limit is not known
 ug/L - micrograms/liter
 WD - Well Destroyed
 WI - Well Inaccessible
 WO - Well Obstruction

TABLE 4
Historical Groundwater Gradient and Flow Direction Data
76 Station No. 5191/5043
449 Hegenberger Road
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
	04/22/92		0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	08/31/92	0.05	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	11/30/92	0.04	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	02/07/94		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	11/14/94	0.03	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	02/21/95	0.08	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	05/18/95	0.07	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	07/26/96	0.02	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	10/28/96	0.02	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	01/29/97	0.01	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	04/15/97	0.01	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	07/15/97	0.10	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	10/09/97	0.10	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	01/14/98	0.02	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	04/01/98	0.05	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	07/15/98	0.04	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	09/30/98	0.05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	01/25/99	0.05	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	04/15/99	0.04	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	10/21/99	0.03	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	07/14/99	0.04	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	04/13/00	0.050	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	07/14/00	0.033	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	10/26/00	0.060	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	01/03/01	0.070	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	07/17/01	0.040	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	10/01/01	0.030	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	01/31/02	0.010	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	07/28/02	0.020	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	10/09/02	0.016	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	01/02/03	0.010	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	04/01/03	0.008	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	07/29/09	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	10/02/03	0.010	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	01/09/04	0.010	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	04/26/04	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	07/22/04	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	10/29/04	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	01/10/05	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	06/15/05	0.020	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	09/27/05	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	12/13/05	0.005	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	03/23/06	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	06/23/06	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	09/26/06	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	12/22/06	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	03/30/07	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	09/25/07	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	12/28/07	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	06/28/07	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	03/22/08	0.020	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	06/23/08	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	09/19/08	0.006	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	12/31/08	0.005	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	03/27/09	0.006	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	05/28/09	0.008	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	09/17/09	0.010	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0
	12/17/09	0.008	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	03/29/10	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	06/30/10	0.009	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	09/20/10	0.007	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	12/08/10	0.018	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	03/14/11	0.020	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	06/02/11	0.020	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	09/07/11	0.020	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	12/05/11	0.020	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
		0.025 Average	0	0	0	0	0	0	1	28	0	13	0	20	2	3	0	0

Explanation

NA = Not available
Number of Events = 67

Quarterly Summary Report, Fourth Quarter 2011
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix A

Previous Investigation and Site History Summary

PREVIOUS INVESTIGATION AND SITE HISTORY SUMMARY

October 1991 - Four soil samples were collected from the product pipe trenches at depths of approximately 3 feet below ground surface (bgs) during a dispenser island modification. The product pipe trenches were subsequently excavated to the groundwater depth at 4 to 4.5 feet bgs.

February 1992 - Three monitoring wells, MW-1 through MW-3, were installed at the site to depths ranging from 13.5 to 15 feet bgs.

August 1992 - Three additional monitoring wells, MW-4 through MW-6, were installed at the site to a depth of 13.5 feet bgs.

September 1994 - One 280-gallon waste-oil UST was removed from the site. The UST was made of steel, and no apparent holes or cracks were observed in the UST. One soil sample was collected from beneath the former UST at a depth of approximately 9 feet bgs. No petroleum hydrocarbons were reported.

January 1995 - Two additional monitoring wells, MW-9 and MW-10, were installed to depths of 13 and 15 feet bgs. In addition, monitoring wells MW-4 and MW-5 were destroyed by over-drilling the wells and backfilling with neat cement.

March 1995 - Two 10,000-gallon gasoline USTs and one 10,000-gallon diesel UST were removed from the site. Groundwater was encountered in the tank cavity at a depth of approximately 8.5 feet bgs. Soil samples contained total petroleum hydrocarbons as diesel (TPHd) and benzene, and TPH as gasoline (TPHg). Approximately 125,000 gallons of groundwater were pumped from the site for remediation and properly disposed off-site. Four fuel dispenser islands and associated product piping were also removed. Based on the results of the confirmation samples, the product dispenser islands were over excavated to approximately 6 feet bgs.

March-April 1995 - During demolition activities of the former station building, soil samples were collected from two excavations, which were subsequently over excavated. Confirmation samples contained petroleum hydrocarbons. An additional area on the south side of the former station building was excavated based on photo-ionization detector (PID) readings. Two monitoring wells, MW-1 and MW-2, were destroyed in order to allow for over excavation activities to extend to an area adjacent to the dispenser islands in the southeastern quadrant of the site. The excavated areas were subsequently backfilled with clean-engineered fill.

April 1997 - Two additional monitoring wells, MW-7 and MW-8, were installed off-site to the south and east on the neighboring property to a depth of 13 feet bgs. In addition, monitoring well MW-3, which was damaged during site renovation activities, was fully drilled out and reconstructed in the same borehole.

October 2003 - Site environmental consulting responsibilities were transferred to TRC.

April 8-9, 2005 - TRC conducted a 24-hour dual phase extraction (DPE) test at the site using monitoring well MW-6. The 24-hour DPE test was only moderately successful at removing vapor-phase petroleum hydrocarbons from the subsurface; therefore, TRC recommended DPE no longer be considered a viable remedial alternative for the site.

October 2007 - Site environmental consulting responsibilities were transferred to Delta Consultants.

December 2009 - Delta advanced two borings, B-4 and B-5, to depths of 20 feet bgs and 32 feet bgs, respectively. Analytical results from the soil and groundwater samples collected from these two borings indicated that the soil and the groundwater were impacted by petroleum hydrocarbons at these locations.

June 2010 – Delta installed two 4-inch diameter monitoring/extraction wells, MW-11 and MW-12, and two 2-inch diameter monitoring wells, MW-12A and MW-13, at the site. Analytical results from the soil and groundwater samples collected from the MW-12 and MW-12A boring locations indicated that the soil and the groundwater were impacted by petroleum hydrocarbons at these locations.

May 2011 – Antea Group (formally Delta Consultants) installed four 2-inch diameter monitoring wells, MW-14 through MW-17, and advanced one soil boring, B-6, at the site. All four monitoring wells were installed with ten feet of screen from 3 feet bgs to 13 feet bgs. Analytical results of soil samples collected during the monitoring well installation reported TPHg concentrations ranging from 1.0 milligrams per kilogram (mg/kg) (MW-14d13) to 2,490 mg/kg (B-6d9), benzene concentrations ranging from 0.67 mg/kg (B-6d21) to 26.4 mg/kg (B-6d9), toluene concentrations ranging from 0.2 mg/kg (MW-14d10) to 73.9 mg/kg (B-6d9), ethylbenzene concentrations ranging from 0.037 mg/kg (MW-14d13) to 58.1 mg/kg (B-6d9), total xylenes concentrations ranging from 0.066 mg/kg (MW-14d13) to 230 mg/kg (B-6d9), methyl tertiary-butyl ether (MTBE) concentrations ranging from 0.015 mg/kg (MW-15d13) to 0.19 mg/kg (MW-15d8), tertiary-butyl alcohol (TBA) concentrations ranging from 0.014 mg/kg (MW-16d8 and B-6d21) to 0.16 mg/kg (MW-15d8), and lead concentrations ranging from 5.5 mg/kg (MW-16d13) to 16.3 mg/kg (MW-17d9). Diesel range organics (DRO) and DRO with silica gel concentrations were reported; however, all of the results did not match the laboratory standard for diesel. Concentrations of DRO ranged from 2.9 mg/kg (MW-17d13) to 258 mg/kg (B-6d14) and DRO with silica gel concentrations ranged from 2.5 mg/kg (MW-17d13) to 250 mg/kg (B-6d14).

SENSITIVE RECEPTORS

April 24, 2006, TRC completed a sensitive receptor survey for the site. According to the Department of Water Resources (DWR) records, three water supply wells are located within one-half mile of the site. The closest well is an irrigation well, reported to be, approximately 1,080 feet southeast of the site. In addition, two surface water bodies were observed within a one-half mile radius of the site. San Leandro Creek is located approximately 1,400

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feet southwest of the site and flows into the San Leandro Bay. Elmhurst Creek is located approximately 2,220 feet north of the site and also flows into the San Leandro Bay.

Current Consultant: **Antea Group**

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Antea Group Project No. I42705191



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.

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Oakland, CA
Antea Group Project No. I42705191



Appendix C

Blaine Tech Services Groundwater Sampling Field Data Sheets

Well-Head Inspection & Well Gauging Form

Antea Group Project No: 2705191

Site Address: 449 Hegenberger Rd, Oakland

Field Technician: Patrick Harris / Blaine Tech Services
(Print Full Name & Company*)

Date: 12/5/11

Weather: _____

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
4	MW-3	G	G	G	G	G	Y	2	0840	2.55	13.96			1/2 tabs stripped
12	MW-6	G	G	G	G	G	Y	2	0822	3.56	12.64			
2	MW-7	G	G	G	G	G	N	2	0828	41.00	13.00			
1	MW-8	G	G	G	G	G	N	2	0821	2.68	14.76			
3	MW-9	P	G	G	G	G	Y	2	0834	2.43	12.61			1/3 tabs stripped 1/3 bolts missing
7	MW-10	G	G	G	G	G	N	2	0905	3.82	12.67			
5	MW-11	G	G	G	G	G	N	4	0852	2.05	19.57			
11	MW-12	G	G	G	G	G	N	4	0825	4.32	19.50			
6	MW-12A	G	G	G	G	G	Y	2	0858	4.30	32.76			
8	MW-13	G	G	G	G	G	N	2	0910	5.00	14.61			
13	MW-14	G	G	G	G	G	N	2	0926	41.05	12.83			
9	MW-15	G	G	G	G	G	N	2	0916	2.76	12.74			
10	MW-16	G	G	G	G	G	N	2	0920	3.18	12.72			
14	MW-17	G	G	G	G	G	N	2	0942	4.70	12.70			

Notes: _____

** All well caps opened at least 15 minutes or longer before gauging wells:

CIRCLE ONE: YES or **NO**



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*Form provided by Antea Group

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

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Groundwater Sampling Form

Site Address:	449 Hegenberger Rd, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-3	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	2.58	Well Diameter (in):	4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	13.96	Water Column Height (ft):	11.41

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u>	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump	Sample Collection Method: <u>Disposable Bailer</u> W/BED Extraction Port Dedicated Tubing Disposable Tubing
Other: _____	Other: _____	Other: _____
Water Column Height (ft): <u>11.41</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>1.9</u>
Casing Volume (gal): <u>1.9</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>5.8</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 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				-81		0.12		
			1103	19.9	6.9	2473	—	—	—	2	
			1105	19.7	6.8	2913	—	—	—	4	
			1107	20.5	6.8	2562	—	—	—	6	9.65
			Post-Purge				-14.4		0.98		
Did Well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>				Total Purge volume (gal): <u>6</u>							

Other Comments: 80% @ 4.83
DTW = 6.95 (2HR)

Sample Info:

Sample ID: MW-3-20111231	Sample Date and Time: 12/5/11 1630
Selected Analysis: See COC	

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

Signature: PH Date: 12/5/11



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:	445 Hegenberger Rd, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-7	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	4.60	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	13.00	Water Column Height (ft):	8.40

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer W/BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 8.40	X Conversion Factor (gal/ft): 0.17	= Casing Volume (gal): 1.4
Casing Volume (gal): 1.4	X Specified Volumes: 3	= Calculated Purge (gal): 4.3
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: _____ Start Time: 10:27 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				-54		0.27		
1030	68.2	7.1	1186	—	—	—	1.5	
1033	20.5	6.9	1621	—	—	—	3.0	
1035	Dewatered @		3.5 gallons	—	—	—	4.5	
1530	18.8	6.8	2090	—	—	—	—	
Post-Purge				-30		0.46		

Did Well dewater? Yes No Total Purge volume (gal): 3.5


Other Comments: 80% @ 6.28
DTW = 5.70

Sample Info:

Sample ID: MW-7-20111231	Sample Date and Time: 12/5/11 1530
Selected Analysis: See COC	

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

Signature: Patrick Harms Date: 12/5/11



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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>449 Hegenerberger Rd, Oakland</u>	
Project No: <u>2705191</u>	Field Technician: <u>Patrick Harms</u>
Field Point: <u>MW-8</u>	Date: <u>12/5/11</u>
Depth to Water (DTW) (ft bgs): <u>2.68</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>14.76</u>	Water Column Height (ft): <u>12.08</u>

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer</u> <u>W/BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>12.08</u> X Conversion Factor (gal/ft): <u>0.17</u> = Casing Volume (gal): <u>2.0</u> Casing Volume (gal): <u>2.0</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>6.2</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: _____ Start Time: 10:10 Stop Time: 10:56

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				<u>-30</u>		<u>1.54</u>		
<u>1012</u>	<u>66.1</u>	<u>6.4</u>	<u>12.39</u> ^{ms/cm}	<u>—</u>	<u>—</u>	<u>—</u>	<u>2</u>	
<u>1014</u>	<u>66.4</u>	<u>6.4</u>	<u>12.16</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>4</u>	
<u>1016</u>	<u>65.7</u>	<u>6.4</u>	<u>12.17</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>6.2</u>	<u>12.17</u>
Post-Purge				<u>-48</u>		<u>0.47</u>		

Did Well dewater? Yes No Total Purge volume (gal): 6.5

Other Comments: 80% @ 5.09
DTW = 5.46 (> 2 hours)

Sample Info:

Sample ID: <u>MW-8-20111231</u>	Sample Date and Time: <u>12/5/11 1515</u>
Selected Analysis: <u>See COC</u>	

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

Signature: [Signature] Date: 12/5/11



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:	447 Hegenberger Rd, Oakland		
Project No:	2705191	Field Technician:	Patrick Harner
Field Point:	MW-9	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	2.43	Well Diameter (in):	2 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.61	Water Column Height (ft):	10.18

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer W/BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 10.18 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.7 Casing Volume (gal): 1.7 X Specified Volumes: 3 = Calculated Purge (gal): 5.2		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: _____ Start Time: 12:47 Stop Time: 1:00

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				-36		0.16		
1049	19.4	7.2	1716	—	—	—	2	
1050	19.7	6.8	1292	—	—	—	3.5	
1052	19.8	6.8	1303	—	—	—	5.5	7.60
1558								
Post-Purge				11.0		0.92		

Did Well dewater? Yes No Total Purge volume (gal): 5.5

Other Comments: 80% @ 4.46
DTW = 6.25 (2HR)

Sample Info:

Sample ID: MW-9-20111231	Sample Date and Time: 12/5/11 1600
Selected Analysis: See COC	

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

Signature: [Signature] Date: 12/5/11



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>447 Hegenberger Rd, Oakland</u>	
Project No: <u>2705191</u>	Field Technician: <u>Patrick Harms</u>
Field Point: <u>MW-10</u>	Date: <u>12/5/11</u>
Depth to Water (DTW) (ft bgs): <u>3.82</u>	Well Diameter (in): <u>4</u> 6 8
Depth to LNAPL (ft bgs): <u>—</u>	Thickness of LNAPL (ft): <u>—</u>
Total Depth of Well (ft bgs): <u>12.67</u>	Water Column Height (ft): <u>8.85</u>

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer</u> W/BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>8.85</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>1.5</u>
Casing Volume (gal): <u>1.5</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>4.5</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	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)
Pre-Purge						<u>79</u>		<u>0.63</u>		
	<u>1221</u>		<u>19.4</u>	<u>7.8</u>	<u>2329</u>	—	—	—	<u>1.5</u>	
	<u>1224</u>		<u>20.0</u>	<u>7.4</u>	<u>2056</u>	—	—	—	<u>3.0</u>	
	<u>1228</u>		<u>20.2</u>	<u>7.4</u>	<u>2024</u>	—	—	—	<u>4.5</u>	
Post-Purge						<u>28</u>		<u>0.23</u>		
Did Well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>		Total Purge volume (gal): <u>4.5</u>								

Other Comments: 80% @ 5.59
DTW = 4.00

Sample Info:	
Sample ID: <u>MW-1020111231</u>	Sample Date and Time: <u>12/5/11 1230</u>
Selected Analysis: <u>See COC</u>	

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

Signature: [Signature] Date: 12/5/11



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>447 Hegenberger Rd, Oakland</u>	
Project No: <u>2705191</u>	Field Technician: <u>Patrick Harms</u>
Field Point: <u>MW-11</u>	Date: <u>12/5/11</u>
Depth to Water (DTW) (ft bgs): <u>2.06</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>19.57</u>	Water Column Height (ft): <u>17.51</u>

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer</u> <u>W/BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>17.51</u> X Conversion Factor (gal/ft): <u>0.66</u> = Casing Volume (gal): <u>11.5</u> Casing Volume (gal): <u>11.5</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>34.6</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: _____ Start Time: 11:17 Stop Time: 11:26

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				<u>-103</u>		<u>0.44</u>		
<u>1120</u>	<u>20.1</u>	<u>7.5</u>	<u>1063</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>12</u>	
<u>1123</u>	<u>20.5</u>	<u>7.5</u>	<u>1085</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>24</u>	
<u>1126</u>	<u>19.7</u>	<u>7.4</u>	<u>1072</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>35</u>	
Post-Purge				<u>-60</u>		<u>0.36</u>		
Did Well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Total Purge volume (gal): <u>35</u>						

Other Comments: 80% @ 4.37 M5/M5D
DTW = 2.20

Sample Info:

Sample ID: <u>MW-11-20111231</u>	Sample Date and Time: <u>12/5/11 1130</u>
Selected Analysis: <u>See COC</u>	

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

Signature: [Signature] Date: 12/5/11



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:	449 Hegenteger Rd - Oakland		
Project No:	2705191	Field Technician:	Corey Kilpatrick
Field Point:	MW-12	Date:	12/15/11
Depth to Water (DTW) (ft bgs):	4.32	Well Diameter (in):	2 ④ 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	19.50	Water Column Height (ft):	15.18

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailor Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailor w/ BLD Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 15.18	X Conversion Factor (gal/ft): 0.66	= Casing Volume (gal): 10.0
Casing Volume (gal): 10.0	X Specified Volumes: 3	= Calculated Purge (gal): 30.0
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:		Start Time: 1518		Stop Time: 1524					
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									
1518	19.2	6.61	20.92ms	-90	—	0.32	10.0		
1521	19.2	6.62	20.70ms	—	—	—	20.0		
1524	19.2	6.59	22.40ms	—	—	—	30.0		
Post-Purge									
				-137		0.89			
Did Well dewater?	Yes	<input checked="" type="radio"/> No	Total Purge volume (gal): 30.0						

Other Comments: 80% @ 7.36
DTW = 7.20

Sample Info:	
Sample ID: MW-12-2011231	Sample Date and Time: 12/15/11 1550
Selected Analysis: See C00	

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

Signature: Date: 12/15/11



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:	449 Hegenberger Rd, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-12A	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	4.30	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	32.76	Water Column Height (ft):	28.46

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u>	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump	Sample Collection Method: <u>Disposable Bailer</u> W/BED Extraction Port Dedicated Tubing Disposable Tubing
Other: _____	Other: _____	Other: _____
Water Column Height (ft): <u>28.46</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>4.8</u>
Casing Volume (gal): <u>4.8</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>14.5</u>

Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius² * 0.163

Purge: Start Time: 1152 Stop Time: 1157

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				26		4.14		
1154	17.9	7.5	2906	—	—	—	5	
1156	18.3	7.2	2851	—	—	—	10	
1158	17.9	7.2	2882	—	—	—	15	
Post-Purge				116		4.12		

Did Well dewater? Yes No Total Purge volume (gal): 15

Other Comments:
80% @ 9.99
DTW = 4.34

Sample Info:

Sample ID: <u>MW-12A20111231</u>	Sample Date and Time: <u>12/5/11 1200</u>
Selected Analysis: <u>See EOC</u>	

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

Signature: [Signature] Date: 12/5/11



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 For

Site Address:	447 Hegenberger Rd, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-13	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	5.00	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	14.61	Water Column Height (ft):	9.61

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailor</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailor</u> W/BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>9.61</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>1.6</u>
Casing Volume (gal): <u>1.6</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>4.9</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: _____ Start Time: 12:44 Stop Time: 12:49

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				<u>45</u>		<u>0.09</u>		
<u>1246</u>	<u>17.9</u>	<u>7.6</u>	<u>3947</u>	—	—	—	<u>2</u>	
<u>1248</u>	<u>17.9</u>	<u>7.5</u>	<u>3826</u>	—	—	—	<u>3.5</u>	
<u>1249</u>	<u>18.3</u>	<u>7.5</u>	<u>3924</u>	—	—	—	<u>5</u>	
Post-Purge				<u>-1</u>		<u>0.16</u>		

Did Well dewater? Yes No Total Purge volume (gal): 5

Other Comments: 80% @ 6.92
DTW = 6.72

Sample Info:

Sample ID:	<u>MW-1320111231</u>	Sample Date and Time:	<u>12/5/11 1255</u>
Selected Analysis:	<u>See COS</u>		

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

Signature: [Signature] Date: 12/5/11



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:	449 Hegenberger Rd, Oakland		
Project No:	2709191	Field Technician:	Patrick Harner
Field Point:	MW-14	Date:	12/5/11
Depth to Water (DTW) (ft bgs):	4.05	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.83	Water Column Height (ft):	8.78

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailor Electric Submersible Peristaltic Pump Bladder Pump Other: <u>DDP pump</u>	Sample Collection Method: Disposable Bailor w/ O.E.P. Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>8.78</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>1.5</u>
Casing Volume (gal): <u>1.5</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>4.4</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	Start Time: <u>1432</u>	Stop Time: <u>1437</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)
Pre-Purge				-53		0.17		
1434	17.1	7.4	17.23 13.63	—	—	—	1.5	
1435	18.1	7.0	13.63	—	—	—	3.0	
1437	18.1	7.1	18.12	—	—	—	4.5	10.57
Post-Purge				74		0.16		
Did Well dewater?	Yes	<input checked="" type="checkbox"/> No	Total Purge volume (gal): <u>4.5</u>					

Other Comments: 80% @ 5.80
 PWC 6.86 (> 2 hours)

Sample Info:	
Sample ID: MW-14-2011231	Sample Date and Time: 12/5/11 1640
Selected Analysis: See COU	

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

Signature: [Signature] Date: 12/5/11



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>449 Hegenberger Rd, Oakland</u>	
Project No: <u>2705191</u>	Field Technician: <u>Patrick Harms</u>
Field Point: <u>MW-5</u>	Date: <u>12/5/11</u>
Depth to Water (DTW) (ft bgs): <u>2.76</u>	Well Diameter (in): <u>3 4 6 8</u>
Depth to LNAPL (ft bgs): <u>-</u>	Thickness of LNAPL (ft): <u>-</u>
Total Depth of Well (ft bgs): <u>12.74</u>	Water Column Height (ft): <u>9.98</u>

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer</u> W/BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>9.98</u> X Conversion Factor (gal/ft): <u>0.17</u> = Casing Volume (gal): <u>1.7</u> Casing Volume (gal): <u>1.7</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>5.0</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 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>12:00</u>	<u>12:05</u>	Pre-Purge				<u>12</u>		<u>0.23</u>		
			<u>1311</u>	<u>18.5</u>	<u>7.3</u>	<u>2732</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2</u>	
			<u>1312</u>	<u>18.7</u>	<u>6.8</u>	<u>1932</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>3.5</u>	
			<u>1314</u>	<u>19.0</u>	<u>6.8</u>	<u>1976</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>5</u>	<u>7.80</u>
			Post-Purge				<u>-414</u>		<u>0.44</u>		
Did Well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>			Total Purge volume (gal): <u>5</u>								

Other Comments: 80% @ 4.75
DTW = 6.75 (2MP)

Sample Info:	
Sample ID: <u>MW-5-2011231</u>	Sample Date and Time: <u>12/5/11 1615</u>
Selected Analysis: <u>See COC</u>	

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

Signature: [Signature] Date: 12/5/11



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>447 Hegenberger Rd, Oakland</u>	
Project No: <u>2705191</u>	Field Technician: <u>Patrick Harms</u>
Field Point: <u>MW-16</u>	Date: <u>12/5/11</u>
Depth to Water (DTW) (ft bgs): <u>3.18</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>12.72</u>	Water Column Height (ft): <u>9.54</u>

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: <u>NO pump</u>	Sample Collection Method: <u>Disposable Bailer</u> W/BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>9.54</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>1.6</u>
Casing Volume (gal): <u>1.6</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>4.8</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 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>13:40</u>		Pre-Purge				<u>38</u>		<u>0.19</u>		
			<u>1352</u>	<u>20.9</u>	<u>7.7</u>	<u>3088</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>2</u>	
			<u>1353</u>	<u>21.0</u>	<u>7.1</u>	<u>3197</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>3.5</u>	
			<u>1355</u>	<u>20.6</u>	<u>7.1</u>	<u>3205</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>5</u>	<u>6.94</u>
			Post-Purge				<u>14</u>		<u>0.76</u>		
Did Well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Total Purge volume (gal): <u>5</u>									

Other Comments: 80% @ 5.08
DTW = 4.94

Sample Info:	
Sample ID: <u>MW-16-20111231</u>	Sample Date and Time: <u>12/5/11 1550</u>
Selected Analysis: <u>See COC</u>	

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

Signature: [Signature] Date: 12/5/11



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>449 Hegenberger Rd, Oakland</u>	
Project No: <u>2705191</u>	Field Technician: <u>Patrick Harris</u>
Field Point: <u>MW-17</u>	Date: <u>12/5/11</u>
Depth to Water (DTW) (ft bgs): <u>4.70</u>	Well Diameter (in): <u>Ø 4 6 8</u>
Depth to LNAPL (ft bgs): <u>—</u>	Thickness of LNAPL (ft): <u>—</u>
Total Depth of Well (ft bgs): <u>12.70</u>	Water Column Height (ft): <u>8.00</u>

Purging Info and Calculations:

Purge Method: <u>Low-Flow casing volumes</u> Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: <u>PTD pump</u>	Sample Collection Method: Disposable Bailer <u>with</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>8.00</u> X Conversion Factor (gal/ft): <u>0.17</u> = Casing Volume (gal): <u>1.3</u> Casing Volume (gal): <u>1.3</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>4.0</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: _____ Start Time: 14:12 Stop Time: 17:00

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				<u>-80</u>		<u>0.56</u>		
<u>1454</u>	<u>18.5</u>	<u>6.8</u>	<u>24.78</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>1.5</u>	
<u>1455</u>	<u>19.1</u>	<u>6.7</u>	<u>28.82</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>3</u>	
<u>1456</u>	<u>19.5</u>	<u>6.7</u>	<u>29.12</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>4</u>	<u>10.50</u>
<u>1700</u>							<u>—</u>	
Post-Purge				<u>-73</u>		<u>0.61</u>		

Did Well dewater? Yes No Total Purge volume (gal): 4

Other Comments: 80% @ 6:30
DTW's 9.70 (> 2 hours) FDE 1705

Sample Info:

Sample ID: <u>MW-17-20111231</u>	Sample Date and Time: <u>12/5/11 1700</u>
Selected Analysis: <u>See COC</u>	

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

Signature: [Signature] Date: 12/5/11



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

Quarterly Summary Report, Fourth Quarter 2011
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix D

Certified Laboratory Analytical Report and Data Validation Form

Is the Data Set Valid?

(circle)

Yes / No

Preservation Temperature

(if Known): 1.6 °C

Antea™ Group Laboratory Data Validation Sheet

Project/Client: 76 Station No. 5191

Project #: IY2705191

Date of Validation: 12-27-11 Date of Analysis: 12-8-11 to 12-19-11

Sample Date: 12-5-11 Completed By: ETW

Signature: [Signature]

Circle
or
Highlight

Yes / No

(below)

Analytical Lab Used and Report # (if any): Page #: 2510235

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/m³, 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

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

Qualifiers: In: DRO result did not match the pattern of the lab standard
 MW-12, MW-14, MW-15, MW-16, MW-17, MW-3, MW-6, FD1

Zn: GRD result did not match the pattern of the lab standard
 MW-13, MW-16

HS: Results are from sample aliquot taken from VOA vial with headspace
 MW-17

SS: Surrogate recovery outside control limits due to Matrix interference. FD1

December 21, 2011

Dennis Dettloff
Antea USA
11050 White Rock Rd. #110
Rancho Cordova, CA 95670

RE: Project: 2705191
Pace Project No.: 2510235

Dear Dennis Dettloff:

Enclosed are the analytical results for sample(s) received by the laboratory on December 07, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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
Jonathon Fillingame, Antea USA
Lia Holden, Antea USA
Dan Keltner, Antea USA
Josh Mahoney, Antea USA
Tony Perini, Antea USA
Nicole Persaud, Antea USA
Don Pinkerton, Antea USA
Doug Umland, Antea USA
Ed Weyrens, Antea USA



REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5080

CERTIFICATIONS

Project: 2705191
Pace Project No.: 2510235

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108
Alaska CS Certification #: UST-025
Arizona Certification #: AZ0770
California Certification #: 01153CA

Florida/NELAP Certification #: E87617
Oregon Certification #: WA200007
Washington Certification #: C555

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2705191
 Pace Project No.: 2510235

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2510235001	MW-10_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	ERB	10	PASI-S
		CA LUFT	ERB	2	PASI-S
2510235002	MW-11_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	ERB	10	PASI-S
		CA LUFT	ERB	2	PASI-S
2510235003	MW-12_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	ERB, LPM	10	PASI-S
		CA LUFT	ERB	2	PASI-S
2510235004	MW-12A_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	ERB	10	PASI-S
		CA LUFT	ERB	2	PASI-S
2510235005	MW-13_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	ERB	10	PASI-S
		CA LUFT	LPM	2	PASI-S
2510235006	MW-14_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	ERB, LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
2510235007	MW-15_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
2510235008	MW-16_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	CC, LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
2510235009	MW-17_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
2510235010	MW-3_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
2510235011	MW-6_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
2510235012	MW-7_20111231	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
2510235013	MW-8_20111231	EPA 8015B	AY1	3	PASI-S

REPORT OF LABORATORY ANALYSIS



SAMPLE ANALYTE COUNT

Project: 2705191
Pace Project No.: 2510235

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2510235014	MW-9_20111231	EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
2510235015	FD1_20111231	CA LUFT	LPM	2	PASI-S
		EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S

REPORT OF LABORATORY ANALYSIS

HITS ONLY

Project: 2705191
Pace Project No.: 2510235

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2510235002	MW-11_20111231					
EPA 5030B/8260	Methyl-tert-butyl ether	26.4 ug/L		0.50	12/13/11 10:19	
2510235003	MW-12_20111231					
EPA 8015B	TPH-DRO (C10-C24) SG	286 ug/L		50.0	12/08/11 20:08	1n
EPA 5030B/8260	Benzene	296 ug/L		0.50	12/13/11 10:36	
EPA 5030B/8260	Ethylbenzene	38.0 ug/L		0.50	12/13/11 10:36	
EPA 5030B/8260	Methyl-tert-butyl ether	1040 ug/L		12.5	12/15/11 16:46	
EPA 5030B/8260	Toluene	38.3 ug/L		0.50	12/13/11 10:36	
EPA 5030B/8260	Xylene (Total)	122 ug/L		1.5	12/13/11 10:36	
CA LUFT	TPH-Gasoline (C05-C12)	2240 ug/L		50.0	12/13/11 10:36	
2510235005	MW-13_20111231					
EPA 5030B/8260	Methyl-tert-butyl ether	215 ug/L		0.50	12/13/11 11:10	
CA LUFT	TPH-Gasoline (C05-C12)	166 ug/L		50.0	12/16/11 18:30	2n
2510235006	MW-14_20111231					
EPA 8015B	TPH-DRO (C10-C24) SG	3980 ug/L		50.0	12/08/11 21:23	1n
EPA 5030B/8260	Benzene	709 ug/L		5.0	12/15/11 17:23	
EPA 5030B/8260	Ethylbenzene	1420 ug/L		5.0	12/15/11 17:23	
EPA 5030B/8260	Methyl-tert-butyl ether	0.97 ug/L		0.50	12/13/11 11:27	
EPA 5030B/8260	Toluene	9.1 ug/L		0.50	12/13/11 11:27	
EPA 5030B/8260	Xylene (Total)	2530 ug/L		15.0	12/15/11 17:23	
CA LUFT	TPH-Gasoline (C05-C12)	14000 ug/L		500	12/19/11 13:20	
2510235007	MW-15_20111231					
EPA 8015B	TPH-DRO (C10-C24) SG	50.5 ug/L		50.0	12/08/11 21:48	1n
EPA 5030B/8260	Benzene	6.6 ug/L		0.50	12/15/11 18:17	
EPA 5030B/8260	Ethylbenzene	0.93 ug/L		0.50	12/15/11 18:17	
EPA 5030B/8260	Methyl-tert-butyl ether	142 ug/L		0.50	12/15/11 18:17	
CA LUFT	TPH-Gasoline (C05-C12)	201 ug/L		50.0	12/19/11 13:02	
2510235008	MW-16_20111231					
EPA 8015B	TPH-DRO (C10-C24) SG	196 ug/L		50.0	12/08/11 23:03	1n
EPA 5030B/8260	Methyl-tert-butyl ether	1320 ug/L		5.0	12/13/11 15:50	
CA LUFT	TPH-Gasoline (C05-C12)	948 ug/L		500	12/13/11 15:50	2n
2510235009	MW-17_20111231					
EPA 8015B	TPH-DRO (C10-C24) SG	1790 ug/L		50.0	12/08/11 23:28	1n
EPA 5030B/8260	Benzene	4720 ug/L		25.0	12/13/11 16:27	HS
EPA 5030B/8260	Ethylbenzene	238 ug/L		2.5	12/13/11 18:34	
EPA 5030B/8260	Toluene	511 ug/L		2.5	12/13/11 18:34	
EPA 5030B/8260	Xylene (Total)	747 ug/L		7.5	12/13/11 18:34	
CA LUFT	TPH-Gasoline (C05-C12)	17300 ug/L		2500	12/13/11 16:27	HS
2510235010	MW-3_20111231					
EPA 8015B	TPH-DRO (C10-C24) SG	81.7 ug/L		50.0	12/08/11 23:53	1n
EPA 5030B/8260	Methyl-tert-butyl ether	41.8 ug/L		0.50	12/13/11 12:58	
CA LUFT	TPH-Gasoline (C05-C12)	381 ug/L		50.0	12/13/11 12:58	

REPORT OF LABORATORY ANALYSIS

HITS ONLY

Project: 2705191
Pace Project No.: 2510235

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2510235011	MW-6_20111231					
EPA 8015B	TPH-DRO (C10-C24) SG	20200	ug/L	50.0	12/09/11 00:18	1n
EPA 5030B/8260	Benzene	646	ug/L	25.0	12/13/11 16:45	
EPA 5030B/8260	Ethylbenzene	924	ug/L	25.0	12/13/11 16:45	
EPA 5030B/8260	Methyl-tert-butyl ether	14.9	ug/L	0.50	12/13/11 18:52	
EPA 5030B/8260	Toluene	95.4	ug/L	0.50	12/13/11 18:52	
EPA 5030B/8260	Xylene (Total)	4050	ug/L	75.0	12/13/11 16:45	
CA LUFT	TPH-Gasoline (C05-C12)	64600	ug/L	2500	12/13/11 16:45	
2510235014	MW-9_20111231					
EPA 5030B/8260	Methyl-tert-butyl ether	4.0	ug/L	0.50	12/13/11 11:09	
2510235015	FD1_20111231					
EPA 8015B	TPH-DRO (C10-C24) SG	651	ug/L	50.0	12/09/11 01:58	1n
EPA 5030B/8260	Benzene	5620	ug/L	25.0	12/13/11 17:21	
EPA 5030B/8260	Ethylbenzene	496	ug/L	25.0	12/13/11 17:21	
EPA 5030B/8260	Methyl-tert-butyl ether	1.1	ug/L	0.50	12/13/11 19:29	
EPA 5030B/8260	Toluene	1170	ug/L	25.0	12/13/11 17:21	
EPA 5030B/8260	Xylene (Total)	1460	ug/L	75.0	12/13/11 17:21	
CA LUFT	TPH-Gasoline (C05-C12)	18900	ug/L	2500	12/13/11 17:21	

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 2705191
Pace Project No.: 2510235

Sample:	Lab ID:	Collected:	Received:	Matrix:				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW-10_20111231	Lab ID: 2510235001	12/05/11 12:30	12/07/11 09:27	Water				
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	ND ug/L		50.0	1	12/08/11 09:55	12/08/11 18:30		
Surrogates								
o-Terphenyl (S) SG	73 %		46-125	1	12/08/11 09:55	12/08/11 18:30	84-15-1	
n-Octacosane (S) SG	86 %		57-128	1	12/08/11 09:55	12/08/11 18:30	630-02-4	
8260 MSV Analytical Method: EPA 5030B/8260								
Benzene	ND ug/L		0.50	1		12/15/11 00:54	71-43-2	
Ethanol	ND ug/L		250	1		12/15/11 00:54	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/15/11 00:54	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		12/15/11 00:54	1634-04-4	
Toluene	ND ug/L		0.50	1		12/15/11 00:54	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/15/11 00:54	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	119 %		79-121	1		12/15/11 00:54	460-00-4	
Dibromofluoromethane (S)	95 %		81-119	1		12/15/11 00:54	1868-53-7	
1,2-Dichloroethane-d4 (S)	92 %		72-127	1		12/15/11 00:54	17060-07-0	
Toluene-d8 (S)	107 %		77-120	1		12/15/11 00:54	2037-26-5	
CA LUFT MSV GRO Analytical Method: CALUFT								
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		12/13/11 10:02		
Surrogates								
4-Bromofluorobenzene (S)	115 %		76-121	1		12/13/11 10:02	460-00-4	
Sample: MW-11_20111231 Lab ID: 2510235002 Collected: 12/05/11 11:30 Received: 12/07/11 09:27 Matrix: Water								
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	ND ug/L		50.0	1	12/08/11 09:55	12/08/11 19:43		
Surrogates								
o-Terphenyl (S) SG	78 %		46-125	1	12/08/11 09:55	12/08/11 19:43	84-15-1	
n-Octacosane (S) SG	92 %		57-128	1	12/08/11 09:55	12/08/11 19:43	630-02-4	
8260 MSV Analytical Method: EPA 5030B/8260								
Benzene	ND ug/L		0.50	1		12/13/11 10:19	71-43-2	
Ethanol	ND ug/L		250	1		12/13/11 10:19	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/13/11 10:19	100-41-4	
Methyl-tert-butyl ether	26.4 ug/L		0.50	1		12/13/11 10:19	1634-04-4	
Toluene	ND ug/L		0.50	1		12/13/11 10:19	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/13/11 10:19	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	118 %		79-121	1		12/13/11 10:19	460-00-4	
Dibromofluoromethane (S)	98 %		81-119	1		12/13/11 10:19	1868-53-7	
1,2-Dichloroethane-d4 (S)	93 %		72-127	1		12/13/11 10:19	17060-07-0	
Toluene-d8 (S)	105 %		77-120	1		12/13/11 10:19	2037-26-5	



ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2510235

Sample: MW-11_20111231	Lab ID: 2510235002	Collected: 12/05/11 11:30	Received: 12/07/11 09:27	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		12/13/11 10:19		
Surrogates								
4-Bromofluorobenzene (S)	118 %		76-121	1		12/13/11 10:19	460-00-4	

Sample: MW-12_20111231	Lab ID: 2510235003	Collected: 12/05/11 15:50	Received: 12/07/11 09:27	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	286 ug/L		50.0	1	12/08/11 09:55	12/08/11 20:08		1n
Surrogates								
o-Terphenyl (S) SG	79 %		46-125	1	12/08/11 09:55	12/08/11 20:08	84-15-1	
n-Octacosane (S) SG	95 %		57-128	1	12/08/11 09:55	12/08/11 20:08	630-02-4	

8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	296 ug/L		0.50	1		12/13/11 10:36	71-43-2	
Ethanol	ND ug/L		250	1		12/13/11 10:36	64-17-5	
Ethylbenzene	38.0 ug/L		0.50	1		12/13/11 10:36	100-41-4	
Methyl-tert-butyl ether	1040 ug/L		12.5	25		12/15/11 16:46	1634-04-4	
Toluene	38.3 ug/L		0.50	1		12/13/11 10:36	108-88-3	
Xylene (Total)	122 ug/L		1.5	1		12/13/11 10:36	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	110 %		79-121	1		12/13/11 10:36	460-00-4	
Dibromofluoromethane (S)	98 %		81-119	1		12/13/11 10:36	1868-53-7	
1,2-Dichloroethane-d4 (S)	92 %		72-127	1		12/13/11 10:36	17060-07-0	
Toluene-d8 (S)	102 %		77-120	1		12/13/11 10:36	2037-26-5	

CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	2240 ug/L		50.0	1		12/13/11 10:36		
Surrogates								
4-Bromofluorobenzene (S)	110 %		76-121	1		12/13/11 10:36	460-00-4	

Sample: MW-12A_20111231	Lab ID: 2510235004	Collected: 12/05/11 12:00	Received: 12/07/11 09:27	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	ND ug/L		50.0	1	12/08/11 09:55	12/08/11 20:33		
Surrogates								
o-Terphenyl (S) SG	65 %		46-125	1	12/08/11 09:55	12/08/11 20:33	84-15-1	
n-Octacosane (S) SG	74 %		57-128	1	12/08/11 09:55	12/08/11 20:33	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/15/11 01:11	71-43-2	
Ethanol	ND ug/L		250	1		12/15/11 01:11	64-17-5	

Date: 12/21/2011 04:15 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2705191
Pace Project No.: 2510235

Sample: MW-12A_20111231	Lab ID: 2510235004	Collected: 12/05/11 12:00	Received: 12/07/11 09:27	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260						
Ethylbenzene	ND ug/L		0.50	1		12/15/11 01:11	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		12/15/11 01:11	1634-04-4	
Toluene	ND ug/L		0.50	1		12/15/11 01:11	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/15/11 01:11	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	118 %		79-121	1		12/15/11 01:11	460-00-4	
Dibromofluoromethane (S)	96 %		81-119	1		12/15/11 01:11	1868-53-7	
1,2-Dichloroethane-d4 (S)	91 %		72-127	1		12/15/11 01:11	17060-07-0	
Toluene-d8 (S)	107 %		77-120	1		12/15/11 01:11	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		12/13/11 10:53		
Surrogates								
4-Bromofluorobenzene (S)	114 %		76-121	1		12/13/11 10:53	460-00-4	
Sample: MW-13_20111231		Lab ID: 2510235005		Collected: 12/05/11 12:55		Received: 12/07/11 09:27		Matrix: Water
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	ND ug/L		50.0	1	12/08/11 09:55	12/08/11 20:58		
Surrogates								
o-Terphenyl (S) SG	66 %		46-125	1	12/08/11 09:55	12/08/11 20:58	84-15-1	
n-Octacosane (S) SG	79 %		57-128	1	12/08/11 09:55	12/08/11 20:58	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/13/11 11:10	71-43-2	
Ethanol	ND ug/L		250	1		12/13/11 11:10	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/13/11 11:10	100-41-4	
Methyl-tert-butyl ether	215 ug/L		0.50	1		12/13/11 11:10	1634-04-4	
Toluene	ND ug/L		0.50	1		12/13/11 11:10	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/13/11 11:10	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	106 %		79-121	1		12/13/11 11:10	460-00-4	
Dibromofluoromethane (S)	100 %		81-119	1		12/13/11 11:10	1868-53-7	
1,2-Dichloroethane-d4 (S)	93 %		72-127	1		12/13/11 11:10	17060-07-0	
Toluene-d8 (S)	114 %		77-120	1		12/13/11 11:10	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	166 ug/L		50.0	1		12/16/11 18:30		2n
Surrogates								
4-Bromofluorobenzene (S)	102 %		76-121	1		12/16/11 18:30	460-00-4	

ANALYTICAL RESULTS

Project: 2705191
Pace Project No.: 2510235

Sample:	Lab ID:	Collected:	Received:	Matrix:				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW-14_20111231	Lab ID: 2510235006	Collected: 12/05/11 16:40	Received: 12/07/11 09:27	Matrix: Water				
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	3980 ug/L		50.0	1	12/08/11 09:55	12/08/11 21:23		1n
Surrogates								
o-Terphenyl (S) SG	77 %		46-125	1	12/08/11 09:55	12/08/11 21:23	84-15-1	
n-Octacosane (S) SG	92 %		57-128	1	12/08/11 09:55	12/08/11 21:23	630-02-4	
8260 MSV Analytical Method: EPA 5030B/8260								
Benzene	709 ug/L		5.0	10		12/15/11 17:23	71-43-2	
Ethanol	ND ug/L		250	1		12/13/11 11:27	64-17-5	
Ethylbenzene	1420 ug/L		5.0	10		12/15/11 17:23	100-41-4	
Methyl-tert-butyl ether	0.97 ug/L		0.50	1		12/13/11 11:27	1634-04-4	
Toluene	9.1 ug/L		0.50	1		12/13/11 11:27	108-88-3	
Xylene (Total)	2530 ug/L		15.0	10		12/15/11 17:23	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	102 %		79-121	1		12/13/11 11:27	460-00-4	
Dibromofluoromethane (S)	101 %		81-119	1		12/13/11 11:27	1868-53-7	
1,2-Dichloroethane-d4 (S)	115 %		72-127	1		12/13/11 11:27	17060-07-0	
Toluene-d8 (S)	102 %		77-120	1		12/13/11 11:27	2037-26-5	
CA LUFT MSV GRO Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	14000 ug/L		500	10		12/19/11 13:20		
Surrogates								
4-Bromofluorobenzene (S)	95 %		76-121	10		12/19/11 13:20	460-00-4	

Sample:	Lab ID:	Collected:	Received:	Matrix:				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW-15_20111231	Lab ID: 2510235007	Collected: 12/05/11 16:15	Received: 12/07/11 09:27	Matrix: Water				
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	50.5 ug/L		50.0	1	12/08/11 09:55	12/08/11 21:48		1n
Surrogates								
o-Terphenyl (S) SG	80 %		46-125	1	12/08/11 09:55	12/08/11 21:48	84-15-1	
n-Octacosane (S) SG	95 %		57-128	1	12/08/11 09:55	12/08/11 21:48	630-02-4	
8260 MSV Analytical Method: EPA 5030B/8260								
Benzene	6.6 ug/L		0.50	1		12/15/11 18:17	71-43-2	
Ethanol	ND ug/L		250	1		12/15/11 18:17	64-17-5	
Ethylbenzene	0.93 ug/L		0.50	1		12/15/11 18:17	100-41-4	
Methyl-tert-butyl ether	142 ug/L		0.50	1		12/15/11 18:17	1634-04-4	
Toluene	ND ug/L		0.50	1		12/15/11 18:17	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/15/11 18:17	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	97 %		79-121	1		12/15/11 18:17	460-00-4	
Dibromofluoromethane (S)	100 %		81-119	1		12/15/11 18:17	1868-53-7	
1,2-Dichloroethane-d4 (S)	101 %		72-127	1		12/15/11 18:17	17060-07-0	
Toluene-d8 (S)	95 %		77-120	1		12/15/11 18:17	2037-26-5	

ANALYTICAL RESULTS

Project: 2705191
Pace Project No.: 2510235

Sample:	Lab ID:	Collected:	Received:	Matrix:				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW-15_20111231	Lab ID: 2510235007	12/05/11 16:15	12/07/11 09:27	Water				
CA LUFT MSV GRO Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	201 ug/L		50.0	1		12/19/11 13:02		
Surrogates								
4-Bromofluorobenzene (S)	101 %		76-121	1		12/19/11 13:02	460-00-4	
Sample: MW-16_20111231	Lab ID: 2510235008	12/05/11 15:50	12/07/11 09:27	Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	196 ug/L		50.0	1	12/08/11 09:55	12/08/11 23:03		1n
Surrogates								
o-Terphenyl (S) SG	83 %		46-125	1	12/08/11 09:55	12/08/11 23:03	84-15-1	
n-Octacosane (S) SG	98 %		57-128	1	12/08/11 09:55	12/08/11 23:03	630-02-4	
8260 MSV Analytical Method: EPA 5030B/8260								
Benzene	ND ug/L		0.50	1		12/16/11 05:27	71-43-2	
Ethanol	ND ug/L		250	1		12/16/11 05:27	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/16/11 05:27	100-41-4	
Methyl-tert-butyl ether	1320 ug/L		5.0	10		12/13/11 15:50	1634-04-4	
Toluene	ND ug/L		0.50	1		12/16/11 05:27	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/16/11 05:27	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	97 %		79-121	1		12/16/11 05:27	460-00-4	
Dibromofluoromethane (S)	101 %		81-119	1		12/16/11 05:27	1868-53-7	
1,2-Dichloroethane-d4 (S)	102 %		72-127	1		12/16/11 05:27	17060-07-0	
Toluene-d8 (S)	96 %		77-120	1		12/16/11 05:27	2037-26-5	
CA LUFT MSV GRO Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	948 ug/L		500	10		12/13/11 15:50		2n
Surrogates								
4-Bromofluorobenzene (S)	96 %		76-121	10		12/13/11 15:50	460-00-4	
Sample: MW-17_20111231	Lab ID: 2510235009	12/05/11 17:00	12/07/11 09:27	Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	1790 ug/L		50.0	1	12/08/11 09:55	12/08/11 23:28		1n
Surrogates								
o-Terphenyl (S) SG	83 %		46-125	1	12/08/11 09:55	12/08/11 23:28	84-15-1	
n-Octacosane (S) SG	98 %		57-128	1	12/08/11 09:55	12/08/11 23:28	630-02-4	
8260 MSV Analytical Method: EPA 5030B/8260								
Benzene	4720 ug/L		25.0	50		12/13/11 16:27	71-43-2	HS
Ethanol	ND ug/L		1250	5		12/13/11 18:34	64-17-5	

Date: 12/21/2011 04:15 PM

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ANALYTICAL RESULTS

Project: 2705191
Pace Project No.: 2510235

Sample:	Lab ID:	Collected:	Received:	Matrix:				
MW-17_20111231	2510235009	12/05/11 17:00	12/07/11 09:27	Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV								
Analytical Method: EPA 5030B/8260								
Ethylbenzene	238 ug/L		2.5	5		12/13/11 18:34	100-41-4	
Methyl-tert-butyl ether	ND ug/L		2.5	5		12/13/11 18:34	1634-04-4	
Toluene	511 ug/L		2.5	5		12/13/11 18:34	108-88-3	
Xylene (Total)	747 ug/L		7.5	5		12/13/11 18:34	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	105 %		79-121	5		12/13/11 18:34	460-00-4	
Dibromofluoromethane (S)	105 %		81-119	5		12/13/11 18:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	111 %		72-127	5		12/13/11 18:34	17060-07-0	
Toluene-d8 (S)	95 %		77-120	5		12/13/11 18:34	2037-26-5	
CA LUFT MSV GRO								
Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	17300 ug/L		2500	50		12/13/11 16:27		HS
Surrogates								
4-Bromofluorobenzene (S)	98 %		76-121	50		12/13/11 16:27	460-00-4	
Sample: MW-3_20111231								
Lab ID: 2510235010 Collected: 12/05/11 16:30 Received: 12/07/11 09:27 Matrix: Water								
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG								
Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	81.7 ug/L		50.0	1	12/08/11 09:55	12/08/11 23:53		1n
Surrogates								
o-Terphenyl (S) SG	75 %		46-125	1	12/08/11 09:55	12/08/11 23:53	84-15-1	
n-Octacosane (S) SG	86 %		57-128	1	12/08/11 09:55	12/08/11 23:53	630-02-4	
8260 MSV								
Analytical Method: EPA 5030B/8260								
Benzene	ND ug/L		0.50	1		12/13/11 12:58	71-43-2	
Ethanol	ND ug/L		250	1		12/13/11 12:58	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/13/11 12:58	100-41-4	
Methyl-tert-butyl ether	41.8 ug/L		0.50	1		12/13/11 12:58	1634-04-4	
Toluene	ND ug/L		0.50	1		12/13/11 12:58	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/13/11 12:58	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	96 %		79-121	1		12/13/11 12:58	460-00-4	
Dibromofluoromethane (S)	105 %		81-119	1		12/13/11 12:58	1868-53-7	
1,2-Dichloroethane-d4 (S)	106 %		72-127	1		12/13/11 12:58	17060-07-0	
Toluene-d8 (S)	103 %		77-120	1		12/13/11 12:58	2037-26-5	
CA LUFT MSV GRO								
Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	381 ug/L		50.0	1		12/13/11 12:58		
Surrogates								
4-Bromofluorobenzene (S)	96 %		76-121	1		12/13/11 12:58	460-00-4	

ANALYTICAL RESULTS

Project: 2705191
Pace Project No.: 2510235

Sample: MW-6_20111231		Lab ID: 2510235011	Collected: 12/05/11 16:20	Received: 12/07/11 09:27	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	20200 ug/L		50.0	1	12/08/11 09:55	12/09/11 00:18		1n
Surrogates								
o-Terphenyl (S) SG	82 %		46-125	1	12/08/11 09:55	12/09/11 00:18	84-15-1	
n-Octacosane (S) SG	97 %		57-128	1	12/08/11 09:55	12/09/11 00:18	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	646 ug/L		25.0	50		12/13/11 16:45	71-43-2	
Ethanol	ND ug/L		250	1		12/13/11 18:52	64-17-5	
Ethylbenzene	924 ug/L		25.0	50		12/13/11 16:45	100-41-4	
Methyl-tert-butyl ether	14.9 ug/L		0.50	1		12/13/11 18:52	1634-04-4	
Toluene	95.4 ug/L		0.50	1		12/13/11 18:52	108-88-3	
Xylene (Total)	4050 ug/L		75.0	50		12/13/11 16:45	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	102 %		79-121	1		12/13/11 18:52	460-00-4	
Dibromofluoromethane (S)	106 %		81-119	1		12/13/11 18:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	105 %		72-127	1		12/13/11 18:52	17060-07-0	
Toluene-d8 (S)	95 %		77-120	1		12/13/11 18:52	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	64600 ug/L		2500	50		12/13/11 16:45		
Surrogates								
4-Bromofluorobenzene (S)	97 %		76-121	50		12/13/11 16:45	460-00-4	

Sample: MW-7_20111231		Lab ID: 2510235012	Collected: 12/05/11 15:30	Received: 12/07/11 09:27	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	ND ug/L		50.0	1	12/08/11 09:55	12/09/11 00:43		
Surrogates								
o-Terphenyl (S) SG	78 %		46-125	1	12/08/11 09:55	12/09/11 00:43	84-15-1	
n-Octacosane (S) SG	92 %		57-128	1	12/08/11 09:55	12/09/11 00:43	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/15/11 18:35	71-43-2	
Ethanol	ND ug/L		250	1		12/15/11 18:35	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/15/11 18:35	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		12/15/11 18:35	1634-04-4	
Toluene	ND ug/L		0.50	1		12/15/11 18:35	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/15/11 18:35	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	98 %		79-121	1		12/15/11 18:35	460-00-4	
Dibromofluoromethane (S)	100 %		81-119	1		12/15/11 18:35	1868-53-7	
1,2-Dichloroethane-d4 (S)	101 %		72-127	1		12/15/11 18:35	17060-07-0	
Toluene-d8 (S)	96 %		77-120	1		12/15/11 18:35	2037-26-5	

ANALYTICAL RESULTS

Project: 2705191
Pace Project No.: 2510235

Sample: MW-7_20111231	Lab ID: 2510235012	Collected: 12/05/11 15:30	Received: 12/07/11 09:27	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual

CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		12/19/11 13:56		
Surrogates								
4-Bromofluorobenzene (S)	102 %		76-121	1		12/19/11 13:56	460-00-4	

Sample: MW-8_20111231	Lab ID: 2510235013	Collected: 12/05/11 15:15	Received: 12/07/11 09:27	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual

8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	ND ug/L		50.0	1	12/08/11 09:55	12/09/11 01:08		
Surrogates								
o-Terphenyl (S) SG	83 %		46-125	1	12/08/11 09:55	12/09/11 01:08	84-15-1	
n-Octacosane (S) SG	98 %		57-128	1	12/08/11 09:55	12/09/11 01:08	630-02-4	

8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/13/11 10:51	71-43-2	
Ethanol	ND ug/L		250	1		12/13/11 10:51	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/13/11 10:51	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		12/13/11 10:51	1634-04-4	
Toluene	ND ug/L		0.50	1		12/13/11 10:51	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/13/11 10:51	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	94 %		79-121	1		12/13/11 10:51	460-00-4	
Dibromofluoromethane (S)	105 %		81-119	1		12/13/11 10:51	1868-53-7	
1,2-Dichloroethane-d4 (S)	110 %		72-127	1		12/13/11 10:51	17060-07-0	
Toluene-d8 (S)	101 %		77-120	1		12/13/11 10:51	2037-26-5	

CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		12/13/11 10:51		
Surrogates								
4-Bromofluorobenzene (S)	94 %		76-121	1		12/13/11 10:51	460-00-4	

Sample: MW-9_20111231	Lab ID: 2510235014	Collected: 12/05/11 16:00	Received: 12/07/11 09:27	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual

8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	ND ug/L		50.0	1	12/08/11 09:55	12/09/11 01:33		
Surrogates								
o-Terphenyl (S) SG	71 %		46-125	1	12/08/11 09:55	12/09/11 01:33	84-15-1	
n-Octacosane (S) SG	84 %		57-128	1	12/08/11 09:55	12/09/11 01:33	630-02-4	

8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/13/11 11:09	71-43-2	
Ethanol	ND ug/L		250	1		12/13/11 11:09	64-17-5	

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ANALYTICAL RESULTS

Project: 2705191
Pace Project No.: 2510235

Sample: MW-9_20111231	Lab ID: 2510235014	Collected: 12/05/11 16:00	Received: 12/07/11 09:27	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8280 MSV								
Analytical Method: EPA 5030B/8260								
Ethylbenzene	ND	ug/L	0.50	1		12/13/11 11:09	100-41-4	
Methyl-tert-butyl ether	4.0	ug/L	0.50	1		12/13/11 11:09	1634-04-4	
Toluene	ND	ug/L	0.50	1		12/13/11 11:09	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		12/13/11 11:09	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	94 %		79-121	1		12/13/11 11:09	460-00-4	
Dibromofluoromethane (S)	106 %		81-119	1		12/13/11 11:09	1868-53-7	
1,2-Dichloroethane-d4 (S)	108 %		72-127	1		12/13/11 11:09	17060-07-0	
Toluene-d8 (S)	99 %		77-120	1		12/13/11 11:09	2037-26-5	
CA LUFT MSV GRO								
Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	ND	ug/L	50.0	1		12/13/11 11:09		
Surrogates								
4-Bromofluorobenzene (S)	94 %		76-121	1		12/13/11 11:09	460-00-4	
<hr/>								
Sample: FD1_20111231	Lab ID: 2510235015	Collected: 12/05/11 17:05	Received: 12/07/11 09:27	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG								
Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	651	ug/L	50.0	1	12/08/11 09:55	12/09/11 01:58		1n
Surrogates								
o-Terphenyl (S) SG	68 %		46-125	1	12/08/11 09:55	12/09/11 01:58	84-15-1	
n-Octacosane (S) SG	83 %		57-128	1	12/08/11 09:55	12/09/11 01:58	630-02-4	
8260 MSV								
Analytical Method: EPA 5030B/8260								
Benzene	5620	ug/L	25.0	50		12/13/11 17:21	71-43-2	
Ethanol	ND	ug/L	250	1		12/13/11 19:29	64-17-5	
Ethylbenzene	496	ug/L	25.0	50		12/13/11 17:21	100-41-4	
Methyl-tert-butyl ether	1.1	ug/L	0.50	1		12/13/11 19:29	1634-04-4	
Toluene	1170	ug/L	25.0	50		12/13/11 17:21	108-88-3	
Xylene (Total)	1460	ug/L	75.0	50		12/13/11 17:21	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	105 %		79-121	1		12/13/11 19:29	460-00-4	
Dibromofluoromethane (S)	106 %		81-119	1		12/13/11 19:29	1868-53-7	
1,2-Dichloroethane-d4 (S)	128 %		72-127	1		12/13/11 19:29	17060-07-0	S5
Toluene-d8 (S)	93 %		77-120	1		12/13/11 19:29	2037-26-5	
CA LUFT MSV GRO								
Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	18900	ug/L	2500	50		12/13/11 17:21		
Surrogates								
4-Bromofluorobenzene (S)	95 %		76-121	50		12/13/11 17:21	460-00-4	

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2510235

QC Batch: MSV/6016 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 2510235002, 2510235003, 2510235005, 2510235006

METHOD BLANK: 97087 Matrix: Water
Associated Lab Samples: 2510235002, 2510235003, 2510235005, 2510235006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	12/13/11 06:06	
Ethanol	ug/L	ND	250	12/13/11 06:06	
Ethylbenzene	ug/L	ND	0.50	12/13/11 06:06	
Methyl-tert-butyl ether	ug/L	ND	0.50	12/13/11 06:06	
Toluene	ug/L	ND	0.50	12/13/11 06:06	
Xylene (Total)	ug/L	ND	1.5	12/13/11 06:06	
1,2-Dichloroethane-d4 (S)	%	99	72-127	12/13/11 06:06	
4-Bromofluorobenzene (S)	%	113	79-121	12/13/11 06:06	
Dibromofluoromethane (S)	%	97	81-119	12/13/11 06:06	
Toluene-d8 (S)	%	104	77-120	12/13/11 06:06	

LABORATORY CONTROL SAMPLE: 97088

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.0	95	66-123	
Ethanol	ug/L	800	794	99	40-160	
Ethylbenzene	ug/L	20	18.2	91	67-122	
Methyl-tert-butyl ether	ug/L	20	19.4	97	65-138	
Toluene	ug/L	20	18.1	90	64-118	
Xylene (Total)	ug/L	60	54.8	91	68-122	
1,2-Dichloroethane-d4 (S)	%			95	72-127	
4-Bromofluorobenzene (S)	%			106	79-121	
Dibromofluoromethane (S)	%			98	81-119	
Toluene-d8 (S)	%			105	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 97330 97331

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		2510312001 Result	Spike Conc.	Spike Conc.	MS Result					
Benzene	ug/L	ND	20	20	25.2	21.6	126	108	63-138	16
Ethanol	ug/L	ND	800	800	1140	1040	142	130	40-160	9
Ethylbenzene	ug/L	ND	20	20	25.4	22.7	123	109	65-135	11
Methyl-tert-butyl ether	ug/L	ND	20	20	26.5	22.9	133	114	59-143	15
Toluene	ug/L	ND	20	20	24.9	22.6	124	113	64-128	10
Xylene (Total)	ug/L	ND	60	60	75.5	68.6	121	110	65-133	10
1,2-Dichloroethane-d4 (S)	%						91	88	72-127	
4-Bromofluorobenzene (S)	%						105	104	79-121	
Dibromofluoromethane (S)	%						96	95	81-119	
Toluene-d8 (S)	%						105	103	77-120	

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2510235

QC Batch: MSV/6019 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 2510235008, 2510235009, 2510235010, 2510235011, 2510235013, 2510235014, 2510235015

METHOD BLANK: 97091 Matrix: Water
Associated Lab Samples: 2510235008, 2510235009, 2510235010, 2510235011, 2510235013, 2510235014, 2510235015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	12/13/11 10:15	
Ethanol	ug/L	ND	250	12/13/11 10:15	
Ethylbenzene	ug/L	ND	0.50	12/13/11 10:15	
Methyl-tert-butyl ether	ug/L	ND	0.50	12/13/11 10:15	
Toluene	ug/L	ND	0.50	12/13/11 10:15	
Xylene (Total)	ug/L	ND	1.5	12/13/11 10:15	
1,2-Dichloroethane-d4 (S)	%	107	72-127	12/13/11 10:15	
4-Bromofluorobenzene (S)	%	96	79-121	12/13/11 10:15	
Dibromofluoromethane (S)	%	104	81-119	12/13/11 10:15	
Toluene-d8 (S)	%	100	77-120	12/13/11 10:15	

LABORATORY CONTROL SAMPLE: 97092

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.8	99	66-123	
Ethanol	ug/L	800	746	93	40-160	
Ethylbenzene	ug/L	20	20.9	104	67-122	
Methyl-tert-butyl ether	ug/L	20	22.9	114	65-138	
Toluene	ug/L	20	18.9	95	64-118	
Xylene (Total)	ug/L	60	60.7	101	68-122	
1,2-Dichloroethane-d4 (S)	%			106	72-127	
4-Bromofluorobenzene (S)	%			95	79-121	
Dibromofluoromethane (S)	%			106	81-119	
Toluene-d8 (S)	%			99	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 97446 97447

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		2510235014 Result	Spike Conc.	Spike Conc.	MS Result					
Benzene	ug/L	ND	20	20	22.8	22.0	114	110	63-138	3
Ethanol	ug/L	ND	800	800	740	706	92	88	40-160	5
Ethylbenzene	ug/L	ND	20	20	24.6	23.2	123	116	65-135	6
Methyl-tert-butyl ether	ug/L	4.0	20	20	24.7	27.7	103	119	59-143	12
Toluene	ug/L	ND	20	20	22.0	21.4	110	107	64-128	3
Xylene (Total)	ug/L	ND	60	60	72.3	67.2	120	112	65-133	7
1,2-Dichloroethane-d4 (S)	%						100	103	72-127	
4-Bromofluorobenzene (S)	%						97	97	79-121	
Dibromofluoromethane (S)	%						105	106	81-119	
Toluene-d8 (S)	%						99	101	77-120	

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2510235

QC Batch: MSV/6038 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 2510235003, 2510235006, 2510235007, 2510235012

METHOD BLANK: 97359 Matrix: Water
Associated Lab Samples: 2510235003, 2510235006, 2510235007, 2510235012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	12/15/11 09:48	
Ethanol	ug/L	ND	250	12/15/11 09:48	
Ethylbenzene	ug/L	ND	0.50	12/15/11 09:48	
Methyl-tert-butyl ether	ug/L	ND	0.50	12/15/11 09:48	
Toluene	ug/L	ND	0.50	12/15/11 09:48	
Xylene (Total)	ug/L	ND	1.5	12/15/11 09:48	
1,2-Dichloroethane-d4 (S)	%	102	72-127	12/15/11 09:48	
4-Bromofluorobenzene (S)	%	96	79-121	12/15/11 09:48	
Dibromofluoromethane (S)	%	100	81-119	12/15/11 09:48	
Toluene-d8 (S)	%	95	77-120	12/15/11 09:48	

LABORATORY CONTROL SAMPLE: 97360

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.8	99	66-123	
Ethanol	ug/L	800	741	93	40-160	
Ethylbenzene	ug/L	20	20.6	103	67-122	
Methyl-tert-butyl ether	ug/L	20	23.0	115	65-138	
Toluene	ug/L	20	18.8	94	64-118	
Xylene (Total)	ug/L	60	60.4	101	68-122	
1,2-Dichloroethane-d4 (S)	%			98	72-127	
4-Bromofluorobenzene (S)	%			99	79-121	
Dibromofluoromethane (S)	%			101	81-119	
Toluene-d8 (S)	%			97	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 97779 97780

Parameter	Units	2510208005		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result	% Rec	% Rec			
Benzene	ug/L	ND	20	20	21.8	22.8	109	114	63-138	4		
Ethanol	ug/L	ND	800	800	769	774	96	97	40-160	.6		
Ethylbenzene	ug/L	ND	20	20	22.5	23.4	112	117	65-135	4		
Methyl-tert-butyl ether	ug/L	ND	20	20	24.4	25.8	122	129	59-143	6		
Toluene	ug/L	ND	20	20	20.6	21.6	103	107	64-128	4		
Xylene (Total)	ug/L	ND	60	60	65.6	68.3	109	113	65-133	4		
1,2-Dichloroethane-d4 (S)	%						99	100	72-127			
4-Bromofluorobenzene (S)	%						99	98	79-121			
Dibromofluoromethane (S)	%						98	103	81-119			
Toluene-d8 (S)	%						95	97	77-120			

Date: 12/21/2011 04:15 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2510235

QC Batch: MSV/6041 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 2510235001, 2510235004

METHOD BLANK: 97394 Matrix: Water

Associated Lab Samples: 2510235001, 2510235004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	12/14/11 22:40	
Ethanol	ug/L	ND	250	12/14/11 22:40	
Ethylbenzene	ug/L	ND	0.50	12/14/11 22:40	
Methyl-tert-butyl ether	ug/L	ND	0.50	12/14/11 22:40	
Toluene	ug/L	ND	0.50	12/14/11 22:40	
Xylene (Total)	ug/L	ND	1.5	12/14/11 22:40	
1,2-Dichloroethane-d4 (S)	%	91	72-127	12/14/11 22:40	
4-Bromofluorobenzene (S)	%	118	79-121	12/14/11 22:40	
Dibromofluoromethane (S)	%	93	81-119	12/14/11 22:40	
Toluene-d8 (S)	%	108	77-120	12/14/11 22:40	

LABORATORY CONTROL SAMPLE: 97395

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	16.9	84	66-123	
Ethanol	ug/L	800	741	93	40-160	
Ethylbenzene	ug/L	20	16.9	85	67-122	
Methyl-tert-butyl ether	ug/L	20	16.7	84	65-138	
Toluene	ug/L	20	17.2	86	64-118	
Xylene (Total)	ug/L	60	50.2	84	68-122	
1,2-Dichloroethane-d4 (S)	%			92	72-127	
4-Bromofluorobenzene (S)	%			115	79-121	
Dibromofluoromethane (S)	%			95	81-119	
Toluene-d8 (S)	%			109	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 97820 97821

Parameter	Units	2510371001		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
Benzene	ug/L	ND	20	20	17.1	19.9	80	95	63-138	15		
Ethanol	ug/L	ND	800	800	814	957	102	120	40-160	16		
Ethylbenzene	ug/L	ND	20	20	17.1	20.2	82	97	65-135	17		
Methyl-tert-butyl ether	ug/L	ND	20	20	16.0	18.8	80	94	59-143	16		
Toluene	ug/L	ND	20	20	17.1	20.1	85	100	64-128	16		
Xylene (Total)	ug/L	ND	60	60	50.0	58.2	80	94	65-133	15		
1,2-Dichloroethane-d4 (S)	%						90	91	72-127			
4-Bromofluorobenzene (S)	%						114	114	79-121			
Dibromofluoromethane (S)	%						94	93	81-119			
Toluene-d8 (S)	%						109	109	77-120			

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2510235

QC Batch: MSV/6049 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 2510235008

METHOD BLANK: 97491 Matrix: Water
Associated Lab Samples: 2510235008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	12/16/11 00:01	
Ethanol	ug/L	ND	250	12/16/11 00:01	
Ethylbenzene	ug/L	ND	0.50	12/16/11 00:01	
Toluene	ug/L	ND	0.50	12/16/11 00:01	
Xylene (Total)	ug/L	ND	1.5	12/16/11 00:01	
1,2-Dichloroethane-d4 (S)	%	102	72-127	12/16/11 00:01	
4-Bromofluorobenzene (S)	%	99	79-121	12/16/11 00:01	
Dibromofluoromethane (S)	%	102	81-119	12/16/11 00:01	
Toluene-d8 (S)	%	96	77-120	12/16/11 00:01	

LABORATORY CONTROL SAMPLE: 97492

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.9	99	66-123	
Ethanol	ug/L	800	681	85	40-160	
Ethylbenzene	ug/L	20	20.6	103	67-122	
Toluene	ug/L	20	18.6	93	64-118	
Xylene (Total)	ug/L	60	60.5	101	68-122	
1,2-Dichloroethane-d4 (S)	%			97	72-127	
4-Bromofluorobenzene (S)	%			98	79-121	
Dibromofluoromethane (S)	%			101	81-119	
Toluene-d8 (S)	%			97	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 97822 97823

Parameter	Units	2510261002		MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.							
Benzene	ug/L	ND	20	20	20	23.1	22.4	116	112	63-138	3	
Ethanol	ug/L	ND	800	800	800	757	691	95	86	40-160	9	
Ethylbenzene	ug/L	ND	20	20	20	23.6	23.4	118	117	65-135	.9	
Toluene	ug/L	ND	20	20	20	21.5	21.3	107	106	64-128	1	
Xylene (Total)	ug/L	ND	60	60	60	69.1	69.0	115	115	65-133	.1	
1,2-Dichloroethane-d4 (S)	%							99	97	72-127		
4-Bromofluorobenzene (S)	%							99	100	79-121		
Dibromofluoromethane (S)	%							103	101	81-119		
Toluene-d8 (S)	%							95	96	77-120		

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2510235

QC Batch: MSV/6017 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 2510235001, 2510235002, 2510235003, 2510235004

METHOD BLANK: 97089 Matrix: Water
Associated Lab Samples: 2510235001, 2510235002, 2510235003, 2510235004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	12/13/11 06:06	
4-Bromofluorobenzene (S)	%	113	76-121	12/13/11 06:06	

LABORATORY CONTROL SAMPLE: 97090

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	518	104	57-139	
4-Bromofluorobenzene (S)	%			109	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 97326 97327

Parameter	Units	2510230004		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		Result	Conc.									
TPH-Gasoline (C05-C12)	ug/L	ND	500	500	588	595	118	119	40-150	1		
4-Bromofluorobenzene (S)	%						110	114	76-121			

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2510235

QC Batch: MSV/6020 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 2510235008, 2510235009, 2510235010, 2510235011, 2510235013, 2510235014, 2510235015

METHOD BLANK: 97093 Matrix: Water
Associated Lab Samples: 2510235008, 2510235009, 2510235010, 2510235011, 2510235013, 2510235014, 2510235015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	12/13/11 10:15	
4-Bromofluorobenzene (S)	%	96	76-121	12/13/11 10:15	

LABORATORY CONTROL SAMPLE: 97094

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	510	102	57-139	
4-Bromofluorobenzene (S)	%			96	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 97453 97454

Parameter	Units	2510235013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	ND	500	500	534	582	104	114	40-150	9	
4-Bromofluorobenzene (S)	%						96	96	76-121		

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2510235

QC Batch: MSV/6054 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 2510235005

METHOD BLANK: 97574 Matrix: Water
Associated Lab Samples: 2510235005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	12/16/11 10:34	
4-Bromofluorobenzene (S)	%	98	76-121	12/16/11 10:34	

LABORATORY CONTROL SAMPLE: 97575

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	450	90	57-139	
4-Bromofluorobenzene (S)	%			99	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 97723 97724

Parameter	Units	2510306018 Result	MS		MSD		MS		MSD		% Rec Limits	RPD	Quai
			Spike Conc.	Conc.	Result	Result	% Rec	% Rec					
TPH-Gasoline (C05-C12)	ug/L	ND	500	500	497	502	98	99	40-150	.9			
4-Bromofluorobenzene (S)	%						99	99	76-121				

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2510235

QC Batch: MSV/6063 Analysis Method: CA LUFT
QC Batch Method: CALUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 2510235006, 2510235007, 2510235012

METHOD BLANK: 97741 Matrix: Water
Associated Lab Samples: 2510235006, 2510235007, 2510235012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	12/19/11 10:01	
4-Bromofluorobenzene (S)	%	103	76-121	12/19/11 10:01	

LABORATORY CONTROL SAMPLE: 97742

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	371	74	57-139	
4-Bromofluorobenzene (S)	%			100	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 97841 97842

Parameter	Units	2510374001		MS		MSD		% Rec		Limits	RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
TPH-Gasoline (C05-C12)	ug/L	ND	500	500	491	484	97	96	40-150	1		
4-Bromofluorobenzene (S)	%						100	100	76-121			

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2510235

QC Batch: OEXT/4834 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510 Modified Analysis Description: 8015B CA DRO Silica Gel
Associated Lab Samples: 2510235001, 2510235002, 2510235003, 2510235004, 2510235005, 2510235006, 2510235007, 2510235008, 2510235009, 2510235010, 2510235011, 2510235012, 2510235013, 2510235014, 2510235015

METHOD BLANK: 96629 Matrix: Water
Associated Lab Samples: 2510235001, 2510235002, 2510235003, 2510235004, 2510235005, 2510235006, 2510235007, 2510235008, 2510235009, 2510235010, 2510235011, 2510235012, 2510235013, 2510235014, 2510235015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	ND	50.0	12/08/11 16:51	
n-Octacosane (S) SG	%	99	57-128	12/08/11 16:51	
o-Terphenyl (S) SG	%	82	46-125	12/08/11 16:51	

LABORATORY CONTROL SAMPLE: 96630

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	2500	1490	60	50-110	
n-Octacosane (S) SG	%			86	57-128	
o-Terphenyl (S) SG	%			76	46-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 96631 96632

Parameter	Units	2510235002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-DRO (C10-C24) SG	ug/L	ND	2500	2500	1640	1880	65	75	39-110	14	
n-Octacosane (S) SG	%						95	89	57-128		
o-Terphenyl (S) SG	%						84	79	46-125		

QUALIFIERS

Project: 2705191
Pace Project No.: 2510235

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-S Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

- 1n The DRO result for this sample did not match the pattern of the laboratory standard for diesel.
- 2n The GRO result for this sample did not match the pattern of the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample.
- HS Results are from sample aliquot taken from VOA vial with headspace (air bubble greater than 6 mm diameter).
- S5 Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191
Pace Project No.: 2510235

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2510235001	MW-10_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235002	MW-11_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235003	MW-12_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235004	MW-12A_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235005	MW-13_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235006	MW-14_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235007	MW-15_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235008	MW-16_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235009	MW-17_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235010	MW-3_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235011	MW-6_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235012	MW-7_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235013	MW-8_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235014	MW-9_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235015	FD1_20111231	EPA 3510 Modified	OEXT/4834	EPA 8015B	GCSV/3152
2510235001	MW-10_20111231	EPA 5030B/8260	MSV/6041		
2510235002	MW-11_20111231	EPA 5030B/8260	MSV/6016		
2510235003	MW-12_20111231	EPA 5030B/8260	MSV/6016		
2510235003	MW-12_20111231	EPA 5030B/8260	MSV/6038		
2510235004	MW-12A_20111231	EPA 5030B/8260	MSV/6041		
2510235005	MW-13_20111231	EPA 5030B/8260	MSV/6016		
2510235006	MW-14_20111231	EPA 5030B/8260	MSV/6016		
2510235006	MW-14_20111231	EPA 5030B/8260	MSV/6038		
2510235007	MW-15_20111231	EPA 5030B/8260	MSV/6038		
2510235008	MW-16_20111231	EPA 5030B/8260	MSV/6019		
2510235008	MW-16_20111231	EPA 5030B/8260	MSV/6049		
2510235009	MW-17_20111231	EPA 5030B/8260	MSV/6019		
2510235010	MW-3_20111231	EPA 5030B/8260	MSV/6019		
2510235011	MW-6_20111231	EPA 5030B/8260	MSV/6019		
2510235012	MW-7_20111231	EPA 5030B/8260	MSV/6038		
2510235013	MW-8_20111231	EPA 5030B/8260	MSV/6019		
2510235014	MW-9_20111231	EPA 5030B/8260	MSV/6019		
2510235015	FD1_20111231	EPA 5030B/8260	MSV/6019		
2510235001	MW-10_20111231	CA LUFT	MSV/6017		
2510235002	MW-11_20111231	CA LUFT	MSV/6017		
2510235003	MW-12_20111231	CA LUFT	MSV/6017		
2510235004	MW-12A_20111231	CA LUFT	MSV/6017		
2510235005	MW-13_20111231	CA LUFT	MSV/6054		
2510235006	MW-14_20111231	CA LUFT	MSV/6063		
2510235007	MW-15_20111231	CA LUFT	MSV/6063		
2510235008	MW-16_20111231	CA LUFT	MSV/6020		

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191
Pace Project No.: 2510235

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2510235009	MW-17_20111231	CA LUFT	MSV/6020		
2510235010	MW-3_20111231	CA LUFT	MSV/6020		
2510235011	MW-6_20111231	CA LUFT	MSV/6020		
2510235012	MW-7_20111231	CA LUFT	MSV/6063		
2510235013	MW-8_20111231	CA LUFT	MSV/6020		
2510235014	MW-9_20111231	CA LUFT	MSV/6020		
2510235015	FD1_20111231	CA LUFT	MSV/6020		

COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

4Q11 GW Event



Required Lab Information:		Required Project Information:		Required Invoice Information:	
Lab Name: Pace-Seattle		Site ID #: 2705191	Task: WG_Q_201112	Send Invoice to: Tara Bosch	
Address: 940 S. Harney Street Seattle WA 98108		AnteaGrp proj#: 449 Heganberger	Address: 11050 White Rock Road, Suite 110		Turn around time (days): 10
Lab PM: Regina Ste. Marie		City: Oakland	State: CA 94621	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411
Phone/Fax: P: 206-957-2433 F: 206-767-5063		AG PM Name: Dennis Dettloff	Send EDD to: copelldata@intelligentehs.com		QC level Required: Standard
Lab PM email: Regina.SteMarie@pacelabs.com		Phone/Fax: P: 1-800-477-7411 F: 916-638-8385	CC Hardcopy report to:		Special: <input type="checkbox"/>
Applicable Lab Quote #:		AG PM Email: dennis.dettloff@anteagroup.com	CC Hardcopy report to:		Mark one: <input type="checkbox"/>
				MA MCP Cert? <input type="checkbox"/>	
				CT RCP Cert? <input type="checkbox"/>	
				Mark One: <input type="checkbox"/>	
				Lab Project ID (lab use):	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / . -)	Valid Matrix Codes MATRIX GROUND WATER WASTE WATER RICE PRODUCT SOIL WIFE WASTEWATER SILICA GEL	MATRIX CODE	SAMPLE TYPE G-CRAB C-COMP	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	FIELD FILTERED (Y/N)	Preservatives										Requested Analyses	Comments/Lab Sample I.D.							
									Unpreserved	H ₂ SO ₄	HNO ₃	HCl	HAc	NaOH	Na ₂ S ₂ O ₈	Methanol	Other	8015TPHDiesel w/ Silica			8280 GC/MS GPD	8300 GC/MS GPD	8300 GC/MS GPD				
1	MW-8_20111231		WG		12/5/11	1515	8	N	X										X	X	X	X				8015 TPHDiesel is with Silica Gel	
2	MW-9_20111231		WG		12/5/11	1600	8	N	X										X	X	X	X					
3	TB1_20111231		W																X	X	X	X					
4	FD1_20111231		WG		12/5/11	1705	8		X										X	X	X	X					
5																											
6																											
7																											
8																											
9																											
10																											
11																											
12																											

Additional Comments/Special Instructions: Global ID: T0600101476	RELINQUISHED BY / AFFILIATION:	DATE	TIME	ACCEPTED BY / AFFILIATION:	DATE	TIME	Sample Receipt Conditions			
	<i>Ran LETS</i>	12/5/11	1815					Y/N	Y/N	Y/N
	<i>FED EX</i>	12/7/11	0927	<i>Copelt/Wearse/PACE</i>	12/7/11	0927	1.6	Y/N	Y/N	Y/N
							0.4	Y/N	Y/N	Y/N
						0.7	Y/N	Y/N	Y/N	
SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE								
UPS COURIER FED EX		PRINT Name of SAMPLER: <i>Patrick Homs</i>								
US MAIL		SIGNATURE of SAMPLER: <i>Ran</i>		DATE Signed	Time	Temp in °C				
				12/5/11	1815	Samples on Ice? <input type="checkbox"/>				
						Sample Intact? <input type="checkbox"/>				
						Trip Blank? <input type="checkbox"/>				



Sample Container Count

25 1 0 2 3 5



CLIENT: Antea

COC PAGE 1 of 2
 COC ID# _____

Trip Blank(s) Provided? Y / (N)

Sample Line Item	VG9H	AG1H	AG1U	BP1U	BP2U	BP3U	BP3N	BP3S	WGKU	WGFU	WG2U	DG9M	DG9B	VG9W	VSG	AG2U	Comments
1	6															2	
2	10															6	
3	6															2	(1) Cap replaced
4	6															2	
5	6															2	(2) caps replaced
6	6															2	(1) Cap replaced
7	6															2	
8	6															2	
9	6															2	
10	6															2	(1) cap replaced
11	6															2	(1) cap replaced
12	6															2	

AG1H	1 liter HCL amber glass	BP2S	500mL H2SO4 plastic	JGFU	4 oz amber glass soil jar
AG1U	1 liter unpreserved amber glass	BP2U	500mL unpreserved plastic	WGKU	8 oz clear glass soil jar
AG2S	500mL H2SO4 amber glass	BP2Z	500mL NaOH, Zn Ac	WGFU	4 oz clear glass soil jar
AG2U	500mL unpreserved amber glass	BP3C	250mL NaOH plastic	WG2U	2 oz clear glass soil jar
AG3S	250mL H2SO4 amber glass	BP3N	250mL HNO3 plastic	JGFM	4 oz amber glass soil jar with MeOH
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 clear vial pre-weighted with DI water
BP1N	1 liter HNO3 plastic	DG9B	40mL Na Bisulfate clear vial	VSG	Headspace septa vial
BP1S	1 liter H2SO4 plastic	DG9H	40mL HCL amber vial	VG9H	40mL HCL clear vial
BP1U	1 liter unpreserved plastic	DG9M	40mL MeOH clear vial	WGFU	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac	DG9T	40mL Na Thio amber vial	VG9T	40mL Na Thio. clear vial
BP2N	500mL HNO3 plastic	DG9U	40mL unpreserved amber vial	ZPLC	Ziploc Bag
BP2O	500mL NaOH plastic	I	Wipe/Swab	U	Summa Can

Sample Container Count

2510235



CLIENT: Antea

COC PAGE 2 of 2

COC ID# _____

Trip Blank(s) Provided? Y / (N)

Sample Line Item	VG9H	AG1H	AG1U	BP1U	BP2U	BP3U	BP3N	BP3S	WGKU	WGFU	WG2U	DG9M	DG9B	VG9W	VSG	AG2U	Comments
1	6															2	(1) cap replaced
2	6															2	
3	6															2	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

AG1H	1 liter HCL amber glass	BP2S	500mL H2SO4 plastic	JGFU	4 oz amber glass soil jar
AG1U	1liter unpreserved amber glass	BP2U	500mL unpreserved plastic	WGKU	8 oz clear glass soil jar
AG2S	500mL H2SO4 amber glass	BP2Z	500mL NaOH, Zn Ac	WGFU	4 oz clear glass soil jar
AG2U	500mL unpreserved amber glass	BP3C	250mL NaOH plastic	WG2U	2 oz clear glass soil jar
AG3S	250mL H2SO4 amber glass	BP3N	250mL HNO3 plastic	JGFM	4 oz amber glass soil jar with MeOH
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 clear vial pre-weighted with DI water
BP1N	1 liter HNO3 plastic	DG9B	40mL Na Bisulfate clear vial	VSG	Headspace septa vial
BP1S	1 liter H2SO4 plastic	DG9H	40mL HCL amber vial	VG9H	40mL HCL clear vial
BP1U	1 liter unpreserved plastic	DG9M	40mL MeOH clear vial	WGFU	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac	DG9T	40mL Na Thio amber vial	VG9T	40mL Na Thio. clear vial
BP2N	500mL HNO3 plastic	DG9U	40mL unpreserved amber vial	ZPLC	Ziploc Bag
BP2O	500mL NaOH plastic		Wipe/Swab	U	Summa Can



Sample Condition Upon Receipt

Client Name: Antea

Project # 2510235

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 8764 1074 4566, 4577, 4588

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

Packing Material: Bubble Wrap Bubble Bags Nono Other _____ Temp. Blank Yes _____ No

Thermometer Used 132013 or 101731952 or 226099 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 1.6c, 0.4c, 0.7c Biological Tissue Is Frozen: Yes No

Date and Initials of person examining contents: 12/8/11 CW

Temp should be above freezing $\leq 6^{\circ}\text{C}$

Comments:

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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	6.
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 type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11. Rec'd the lids cracked on the following
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. ^{copy} Samples: MW-12-2011231 (1), MW-13-2011231 (2), MW-14-2011231 (1),
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13. MW-3-2011231 (1), MW-6-2011231 (1), & MW-8-2011231 (1)
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14. No sample check on COC but is on containers of 120511
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Exceptions: VOA, colform, TOC, O&G		Initial when completed _____ Lot # of added preservative _____
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	15.
Headspace in VOA Vials (>6mm):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	16. The following samples have bubbles in them MW-17-2011231 (5), & F01-2011231 (2)
Trip Blanks Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Creation Date:		

Client Notification/ Resolution: _____ Field Data Required? Y / N

Person Contacted: David Dettloff Date/Time: 12/8/11 09:57 (E-mail)

Comments/ Resolution: E-mailed client regarding the above documented discrepancies.

Project Manager Review: CARB Date: 12/8/11

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)

Quarterly Summary Report, Fourth Quarter 2011
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix E

Waste Manifest

NON-HAZARDOUS WASTE MANIFEST

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

NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. <i>n/a</i>		Manifest Document No. <i>2705191-1211</i>	2. Page 1 of 1
3. Generator's Name and Mailing Address <i>PC&F C/O Liz Bermudez 2803 Camino Ramon Suite 350 San Ramon, CA 94583</i>		4. Generator's Phone <i>(925) 884-0800</i>		Site # <i>2705191</i> <i>449 Hegenberger Rd Oakland, CA 94621</i>	
5. Transporter 1 Company Name <i>Blaire 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>310-885-4453</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>000613572</i>		C. State Transporter's ID _____	
				D. Transporter 2 Phone _____	
				E. State Facility's ID _____	
				F. Facility's Phone <i>1850-3104-1024</i>	
11. WASTE DESCRIPTION			12. Containers		13. Total Quantity
			No.	Type	14. Unit WL/Vol.
a. <i>Non hazardous waste liquid</i>			<i>1</i>	<i>TL</i>	<i>165</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 Weight and volumes are approximate 24 hr emergency phone no (310) 885-4453</i>					
<i>Approved also 520-0049 Direct Bill Blaire Tech</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>(Antea Group) Jovilyn Mendes on behalf of PC&F</i>					Date Month Day Year <i>11/11/11</i>
Signature <i>Jovilyn Mendes</i>					
17. Transporter 1 Acknowledgment of Receipt of Materials					Date
Printed/Typed Name <i>Patrick Harris</i>					Month Day Year <i>12/5/11</i>
Signature _____					
18. Transporter 2 Acknowledgment of Receipt of Materials					Date
Printed/Typed Name _____					Month Day Year
Signature _____					
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>					Date Month Day Year <i>12/20/11</i>
Signature _____					

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY