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January 16, 2013

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

Subject: **Quarterly Summary Report, Fourth Quarter 2012**

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

Dear Mr. Nowell;

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:

Walter Sprague
Pacific Convenience & Fuel
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Sincerely,

PACIFIC CONVENIENCE & FUEL

WALTER SPRAGUE,
Director of Retail Services
Convenience Retailers LLC

Attachment

Quarterly Summary Report, Fourth Quarter 2012

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

Alameda County Health Care Services
Agency Fuel Leak Case No. RO0000219

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

GeoTracker Global ID No.T0600101476

Antea Group Project No. I42705191

January 15, 2013

Prepared for:
Mr. Keith Nowell
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Prepared by:
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1.0 INTRODUCTION

Antea™Group is pleased to submit this *Quarterly Summary Report, Fourth Quarter 2012*, for the referenced site in Oakland, California (**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 13, 2012. Included herein are site figures, 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 2012]

1. Antea Group submitted the *Quarterly Summary Report, Third Quarter 2012*, dated October 31, 2012 to the Alameda County Health Care Services Agency (ACHCSA).
2. Antea Group collected soil samples from one hand auger boring on November 15, 2012 as part of the pilot test for in-situ remediation detailed in the work plan submitted to the ACHCSA on May 15, 2012.
3. Blaine Tech Services, Inc. (Blaine Tech) conducted the fourth quarter 2012 groundwater monitoring and sampling event on December 13, 2012.

1.2 Work Proposed [First Quarter 2013]

1. Antea Group will submit the *Quarterly Summary Report, Fourth Quarter 2012* (contained herein) to the ACHCSA.
2. Blaine Tech will conduct the first quarter 2012 monitoring and sampling event.
3. Antea Group will continue the pilot test for in-situ remediation detailed in the work plan submitted to the ACHCSA on May 15, 2012.

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: 9.70 (MW-9, Q3 2012)
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 2012.

2.2 Remedial Activities

The initial hand auger boring for the in-site remediation pilot test was advanced on November 15, 2012. Soil samples collected from the hand auger boring are currently undergoing pH testing to determine the proper chemical oxidant to be used during the pilot test.

2.3 Groundwater Monitoring

During the fourth quarter 2012 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 13, 2012
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, Dissolved Oxygen (DO), Oxidation Reduction Potential (ORP), and Turbidity
Wells with measurable LNAPL:	None
Current depth to water range (ft BTOC):	Min: 1.56 (MW-11) Max: 4.20 (MW-17)
Current groundwater elevation range (ft):	Min: 7.28 (MW-13)

	Max: 9.14 (MW-9)
Change in water depths from previous event (average change for all gauged wells):	0.23 foot decrease
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 2012 groundwater monitoring and sampling event was performed by Blaine Tech on December 13, 2012. The average groundwater elevation increased 0.23 feet from the September 2012 event. Depth to groundwater in the site monitoring wells ranged from 1.56 feet (MW-11) to 4.20 feet (MW-17) 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 (**Table 4**).

2.3.2 Groundwater Quality Data

Groundwater samples collected during the fourth quarter 2012 were submitted with chain-of-custody (COC) documentation to Kiff Analytical LLC (Kiff), a state of California Environmental Laboratory Accreditation Program (ELAP) certified laboratory (Certification No. 08263CA). 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 diesel (TPHd) [silica gel treated] by Environmental Protection Agency (EPA) Method 8015;
- Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tertiary-butyl alcohol (TBA), and ethanol by EPA Method 8260B;

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 13, 2012. 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	6 of 10	120 (MW-10)	55,000 (MW-17)
TPHd	3 of 10	52 (MW-16)	470 (MW-6)
Benzene	5 of 10	15 (MW-10)	7,300 (MW-17)
Toluene	5 of 10	1.1 (MW-10)	2,700 (MW-17)
Ethylbenzene	5 of 10	1.7 (MW-10)	1,700 (MW-17)
Total Xylenes	5 of 10	5.2 (MW-10)	4,600 (MW-17)

MTBE	6 of 10	28 (MW-3)	980 (MW-16)
TBA	7 of 10	7.4 (MW-15)	300 (MW-17)

Explanations:
µg/L = Micrograms per liter **LRL = Laboratory reporting limit**

2.2.3 Groundwater Contaminant Trends

During the fourth quarter 2012, analytical results from the sample collected from monitoring well MW-3 indicated that TPHd, TPHg, MTBE, and TBA decreased in concentration. Analytical results from the sample collected from monitoring well MW-6 indicated that TPHd, TPHg, BTEX, MTBE, and TBA decreased in concentration. Analytical results from the sample collected from monitoring well MW-10 indicated that TPHd and ethylbenzene decreased in concentration and TPHg, benzene, toluene, and total xylenes increased in concentration. MTBE concentrations in monitoring well MW-11 increased while TPHd concentrations decreased. TPHg, BTEX, and MTBE concentrations decreased in monitoring well MW-12 and TBA concentrations increased. TPHd concentrations in monitoring well MW-12A decreased. Analytical results from the groundwater sample collected from monitoring well MW-13 indicated a decrease in TPHd and MTBE concentrations and an increase in TBA concentrations. Analytical results from the groundwater sample collected from monitoring well MW-14 indicated a decrease in TPHg, BTEX, and MTBE concentrations. Analytical results from the groundwater sample collected from monitoring well MW-15 indicated a decrease in TPHd, MTBE, and TBA concentrations. Analytical results from the groundwater sample collected from monitoring well MW-16 indicated a decrease in TPHd and TBA concentrations and an increase in MTBE concentrations. Analytical results from the groundwater sample collected from monitoring well MW-17 indicated an increase in TPHg and BTEX concentrations. Isoconcentration maps for TPHg, benzene, MTBE, and TPHd are presented on **Figures 4** through **7** and historical groundwater flow directions are shown on **Figure 8**.

2.3.4 Waste Disposal Summary

Approximately 138 gallons of waste water were generated during well purging/sampling and equipment cleaning during the fourth quarter event. The waste water was transported to Blaine Tech's bulk facility in San Jose, California. After the batching process, the wastewater will be transported to Seaport Environmental in Redwood City, California for disposal.

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 Kiff laboratory analytical results for the December 2012 sampling event. Antea Group's laboratory data validation checklist and the Kiff laboratory report are presented as **Appendix D**.

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

*TBA results for samples MW-12 and FD-1 may be biased slightly high and are flagged with a 'J'. A fraction of MTBE (typically less than 1%) converts to TBA during the analysis of water samples. We consider this conversion effect to be mathematically significant in samples that contain MTBE/TBA ratios of over 2:1.
*LCS and matrix spike/matrix spike duplicate results associated with samples MW-10, MW-11, MW-12A, MW-3, MW-6, and MW-8 for the analyte ethanol were above control limits. This may indicate a high bias for the sample that was spiked. Since ethanol was not detected above the method reporting limit in the associated samples, no data are flagged.

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 all monitoring wells MW-3 and MW-6 through MW-17 be purged and sampled on a semi-annual basis during the second and fourth quarters of each year. Additional groundwater sampling maybe required for the ISCO pilot test discussed below; however, these additional sampling events will be conducted as necessary.

Based on the data from recent groundwater monitoring at this site, the petroleum hydrocarbon and fuel oxygenate impact to the groundwater appears to be stabilizing and slightly decreasing. Antea Group is currently implementing the ISCO work plan that was submitted to the ACHCSA in May of 2012. Further recommendations regarding additional remediation and site monitoring will be made after the completion of the ISCO pilot test.

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.
Project Professional

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:

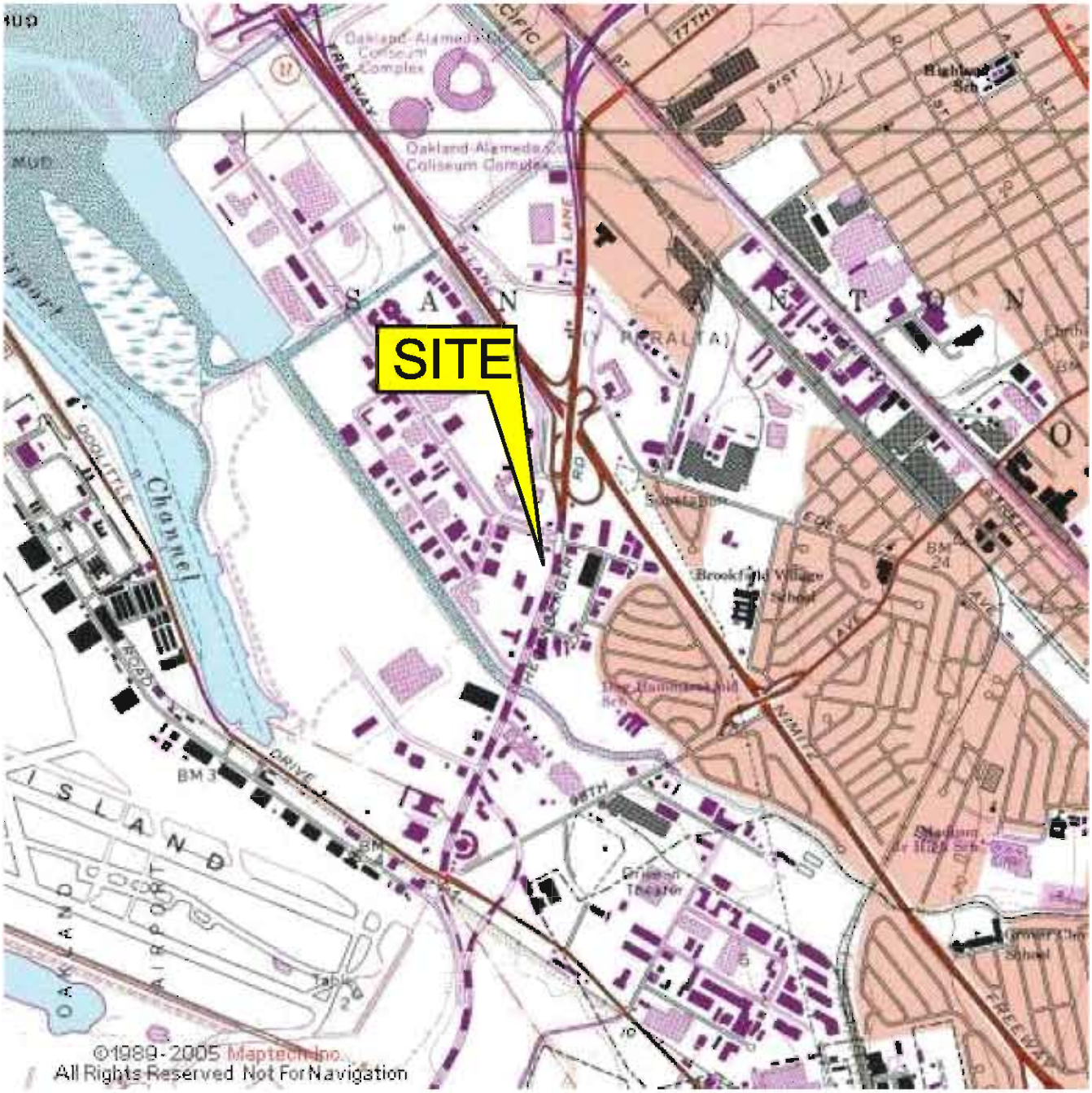
PROFESSIONAL GEOLOGIST
DENNIS SHANNON DETTLOFF
No. 7480
STATE OF CALIFORNIA

Date: 1/15/13

Dennis S. Dettloff
Project Manager
California Registered Professional Geologist No. 7480

cc: GeoTracker (upload)

Figures



North

0 900 1800 FT
SCALE

SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND EAST QUADRANGLE (1973)

FIGURE 1
SITE LOCATION MAP

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

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	DR/JH
DATE	REVIEWED BY	FILE NAME
1/31/11	DD	5043-SiteLocator

antea group

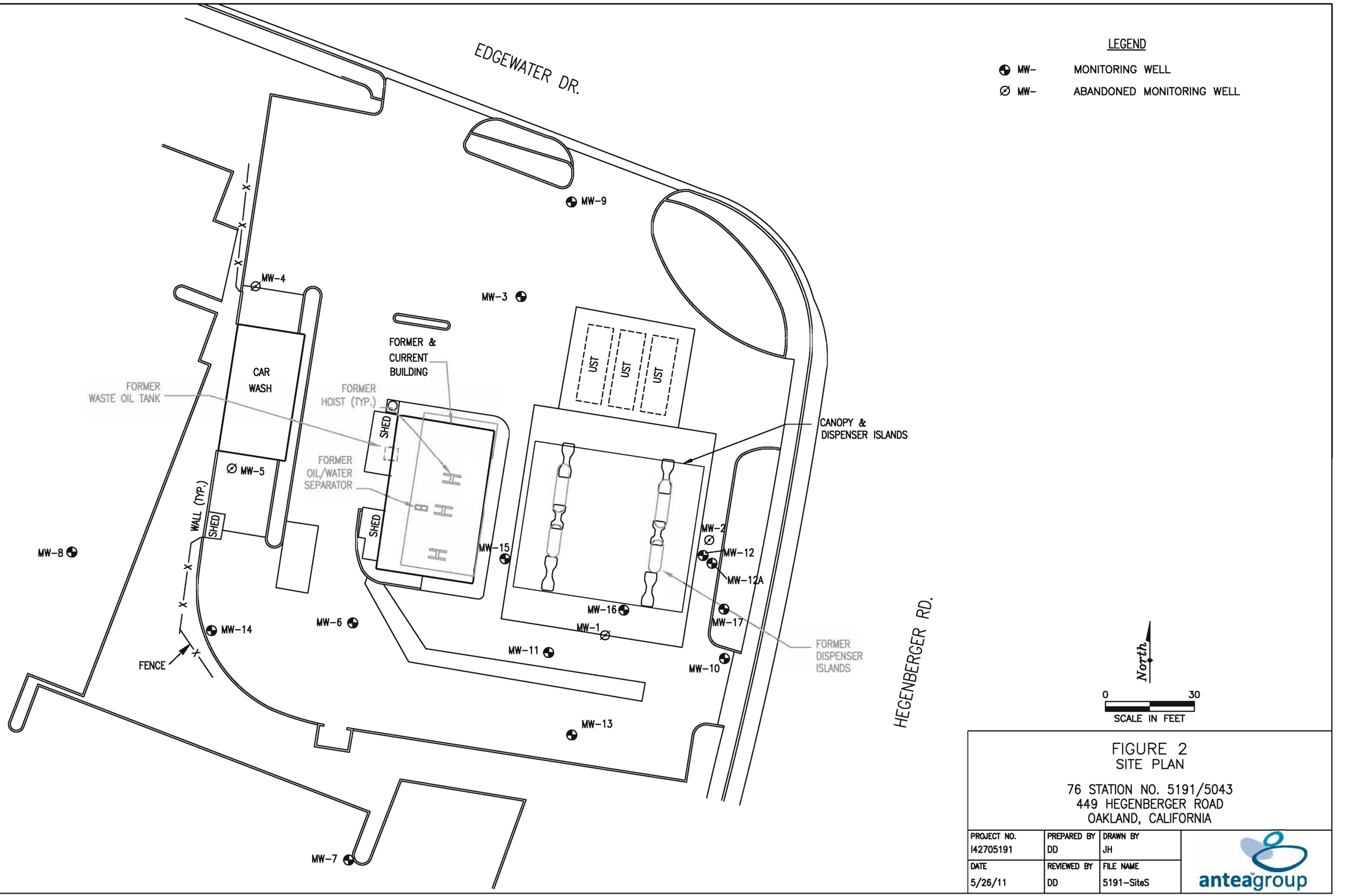


FIGURE 2
SITE PLAN

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

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

antea group

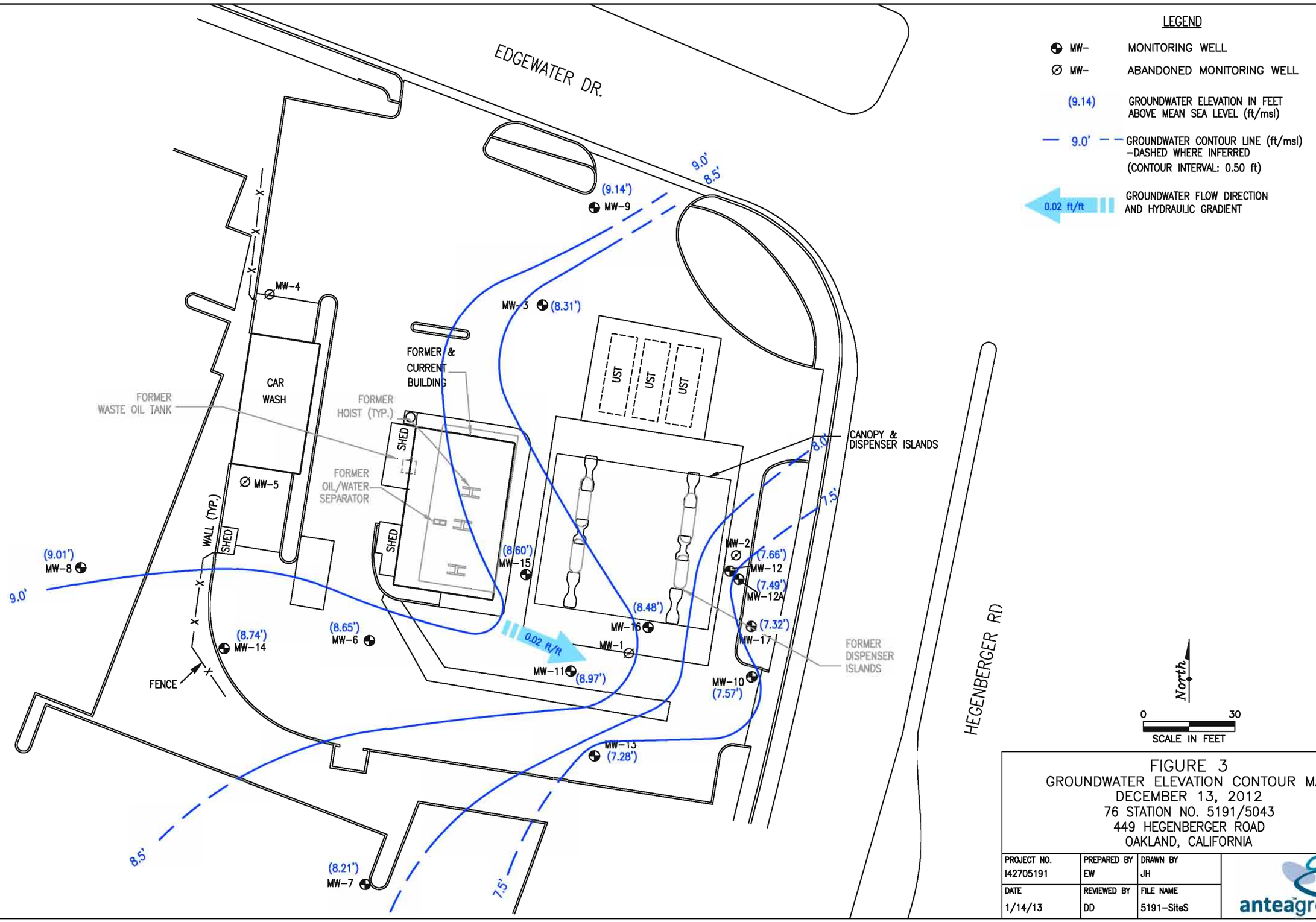
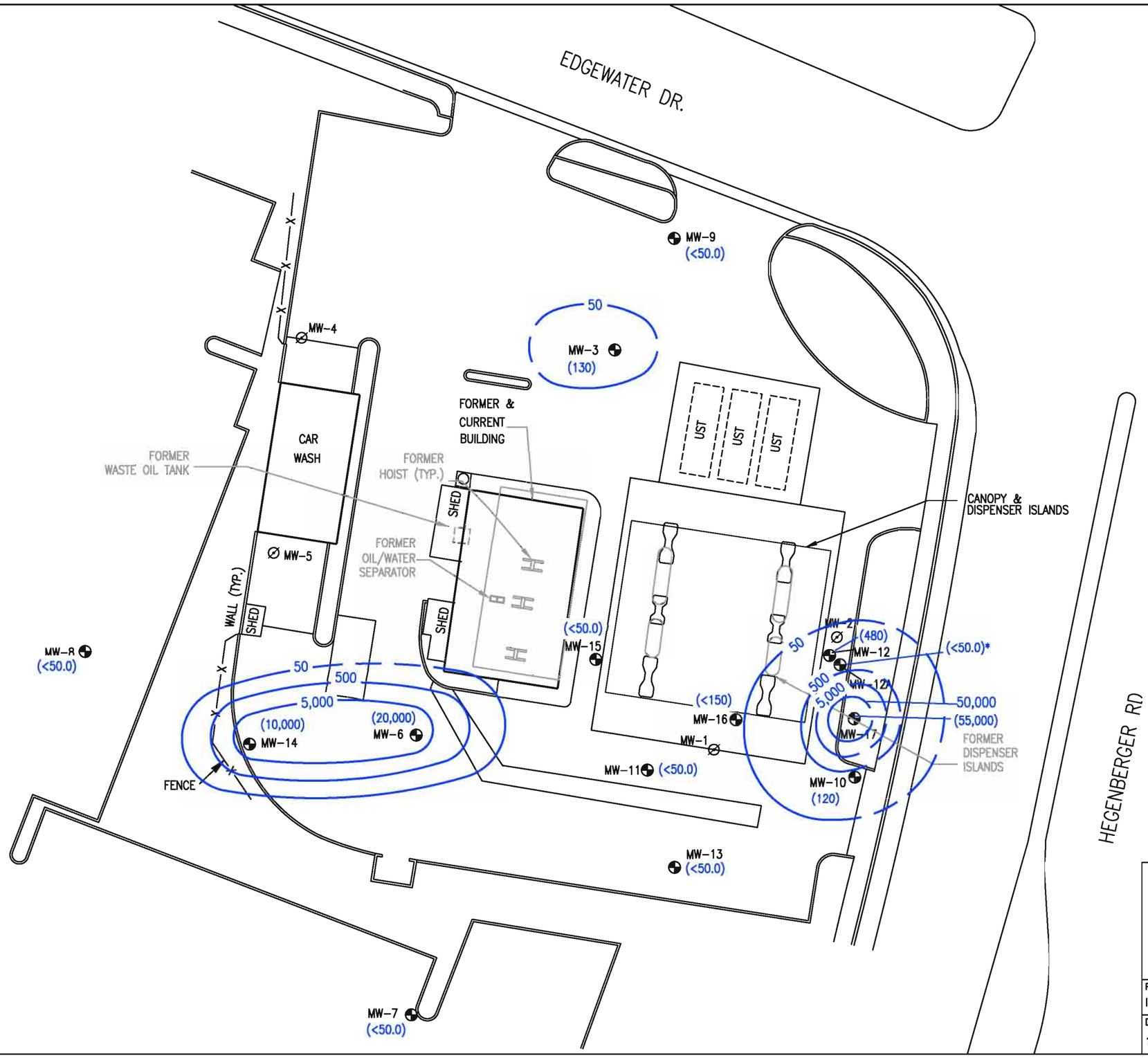


FIGURE 3
GROUNDWATER ELEVATION CONTOUR MAP
DECEMBER 13, 2012
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
1/14/13	DD	5191-SiteS

anteagroup



LEGEND

⊕ MW–	MONITORING WELL
Ø MW–	ABANDONED MONITORING WELL
(55,000)	DISSOLVED PHASE TPHg ISOOCONCENTRATION (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
* = NOT USED IN CONTOURING

North

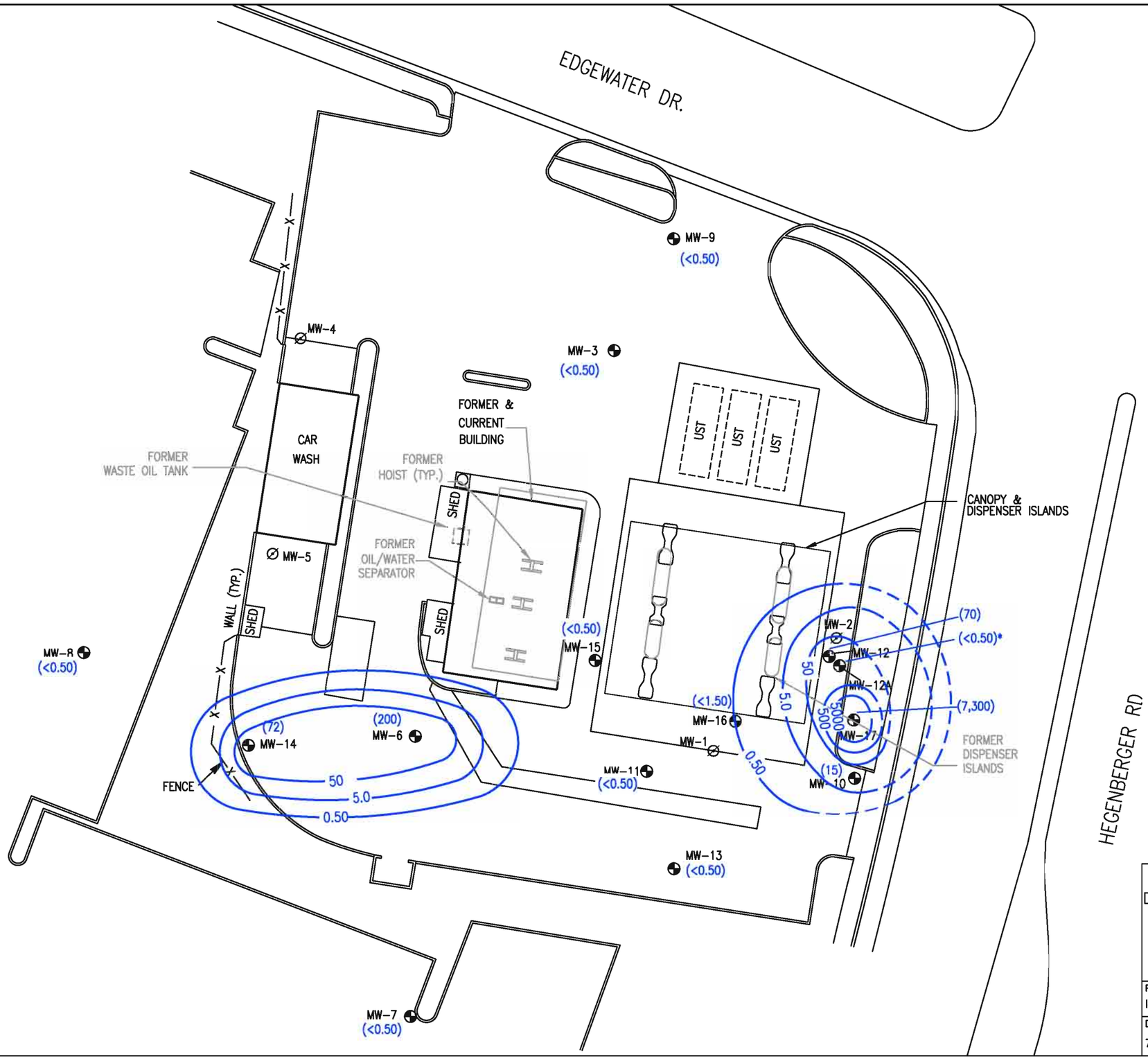
0 30

SCALE IN FEET

FIGURE 4
DISSOLVED PHASE TPHg ISOCONCENTRATION MAP
DECEMBER 13, 2012
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
1/14/13	DD	5191-SiteS

anteagroup



LEGEND

MW-	MONITORING WELL
MW-	ABANDONED MONITORING WELL
(1,200)	DISSOLVED PHASE BENZENE ISOOCONCENTRATION (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 13, 2012
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
7/26/12	DD	5191-SiteS

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EDGEWATER DR.

HEGENBERGER RD

MW-9 (<0.50)

MW-4

MW-5

MW-8 (<0.50)

MW-14 (<1.5)

MW-6 (<4.0)

MW-7 (<0.50)

MW-3 (28)

MW-15 (33)

MW-11 (27)

MW-13 (130)

MW-16 (980)

MW-1

MW-2 (820)

MW-12 (<0.50)*

MW-12A

MW-17 <10

MW-10 (<0.50)

0.50

5.0

50

500

CAR WASH

FORMER WASTE OIL TANK

FORMER & CURRENT BUILDING

FORMER HOIST (TYP.)

SHED

FORMER OIL/WATER SEPARATOR

WALL (TYP.)

FENCE

UST

UST

UST

CANOPY & DISPENSER ISLANDS

FORMER DISPENSER ISLANDS

LEGEND

- MW- MONITORING WELL
- ∅ MW- ABANDONED MONITORING WELL
- (980) DISSOLVED PHASE MTBE ISOOCONCENTRATION (µg/L)
- 500 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

North

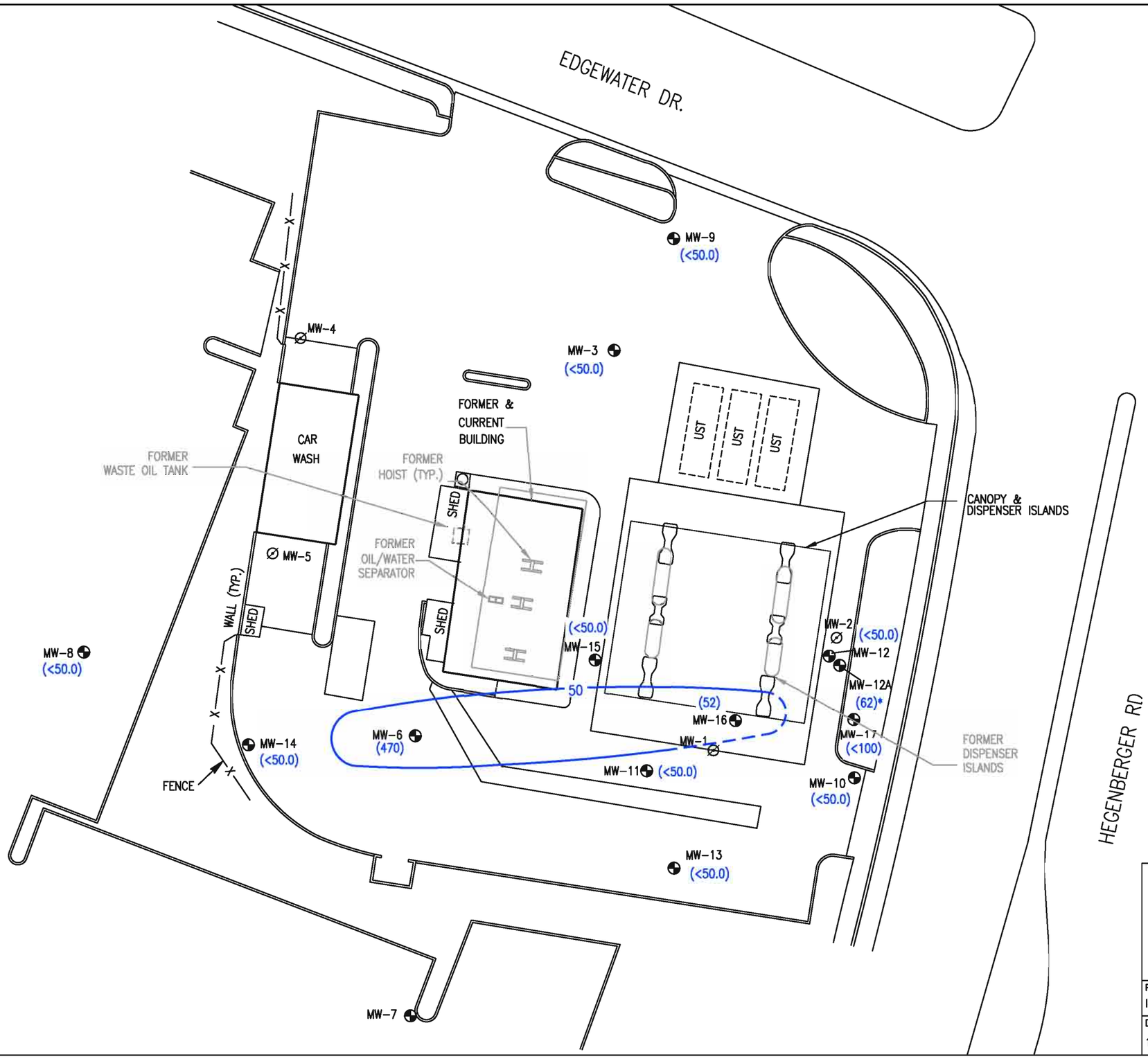
0 30

SCALE IN FEET

FIGURE 6
DISSOLVED PHASE MTBE ISOCONCENTRATION MAP
DECEMBER 13, 2012
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
1/14/13	DD	5191-SiteS

anteagroup



LEGEND

- MW- MONITORING WELL
- ∅ MW- ABANDONED MONITORING WELL
- (420) DISSOLVED PHASE TPHd ISOOCONCENTRATION (µg/L)
- — 50 — — DISSOLVED PHASE TPHd ISOCONTOUR (µg/L) –DASHED WHERE INFERRED

NOTES:

TPHd = TOTAL PETROLEUM HYDROCARBONS AS DIESEL
µg/L = MICROGRAMS PER LITER
<50.0 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
* = NOT USED IN CONTOURING

North

0 30

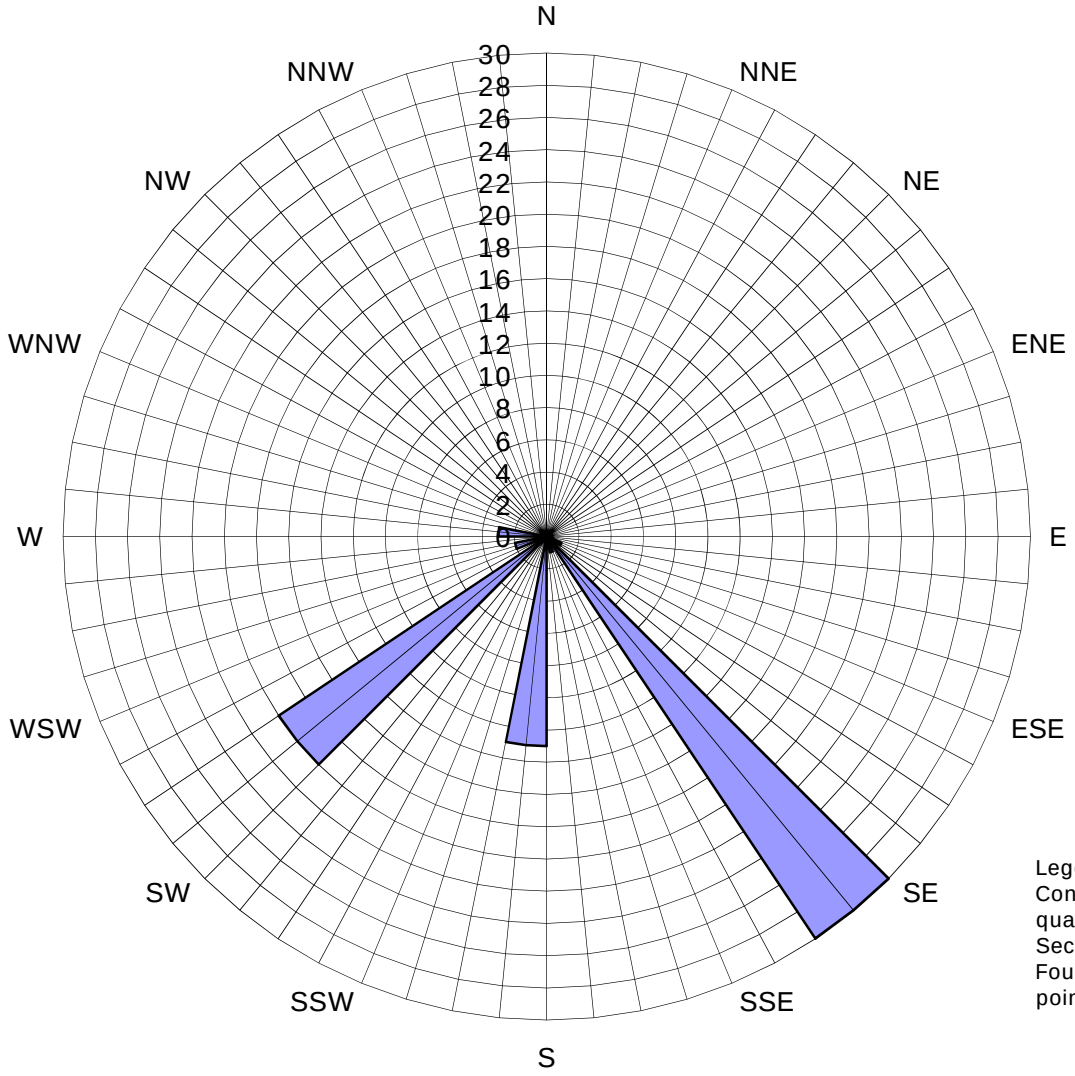
SCALE IN FEET

FIGURE 7
DISSOLVED PHASE TPHd ISOCONCENTRATION MAP
DECEMBER 13, 2012
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
1/14/13	DD	5191-SiteS

anteagroup

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



Legend
Concentric circles represent quarterly montoring events Second Quarter 1992 through Fourth Quarter 2012. 70 data points shown

Groundwater Flow Direction

Tables

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

Well I.D.	Drill Date	Well		Screen		Screen Length	Comments
		Depth (feet bgs)	Diameter (inches)	Top (feet bgs)	Bottom (feet bgs)	(feet)	
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 ROAD
OAKLAND, CALIFORNIA

antea group

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA								
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	TBA (ug/L)	Ethanol (ug/L)
MW-3	12/13/2012	10.81	2.50	NP	8.31	<50	**130**	<0.50	<0.50	<0.50	<0.50	**28**	**77**	<5.0
MW-6	12/13/2012	11.55	2.90	NP	8.65	**470**	**20,000**	**200**	**16**	**350**	**1,100**	<4.0	**22**	<40
MW-7	12/13/2012	11.64	3.43	NP	8.21	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<5.0
MW-8	12/13/2012	11.32	2.31	NP	9.01	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<5.0
MW-9	12/13/2012	10.94	1.80	NP	9.14	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<5.0
MW-10	12/13/2012	10.97	3.40	NP	7.57	<50	**120**	**15**	**1.1**	**1.7**	**5.2**	<0.50	<5.0	<5.0
MW-11	12/13/2012	10.53	1.56	NP	8.97	<50	<50	<0.50	<0.50	<0.50	<0.50	**27**	<5.0	<5.0
MW-12	12/13/2012	11.01	3.35	NP	7.66	<50	**480**	**70**	**4.6**	**7.2**	**19**	**820**	**19**	<15
MW-12A	12/13/2012	11.29	3.80	NP	7.49	**62**	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<5.0
MW-13	12/13/2012	11.08	3.80	NP	7.28	<50	<50	<0.50	<0.50	<0.50	<0.50	**130**	**14**	<5.0
MW-14	12/13/2012	12.00	3.26	NP	8.74	<50	**10,000**	**72**	**5.8**	**610**	**780**	<1.5	<7.0	<15
MW-15	12/13/2012	11.11	2.51	NP	8.60	<50	<50	<0.50	<0.50	<0.50	<0.50	**33**	**7.4**	<5.0
MW-16	12/13/2012	10.98	2.50	NP	8.48	**52**	<150	<1.5	<1.5	<1.5	<1.5	**980**	**55**	<20
MW-17	12/13/2012	11.52	4.20	NP	7.32	<100	**55,000**	**7,300**	**2,700**	**1,700**	**4,600**	<10	**300**	<100

Gauging Notes:
TOS - Top of Screen
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
ug/L - micrograms/liter
TPHd- Total petroleum hydrocarbons as diesel
TPHg- Total petroleum hydrocarbons as gasoline
MTBE- Methyl tertiary-butyl ether
TBA- Tertiary-butyl alcohol
Bold - Above the laboratory's indicated reporting limit

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

antea group

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (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-1	2/18/1992	NSVD	NG	NG	NG	13,000	150,000	17,000	26,000	5,200	26,000	--	--	--	--	--	--	--	--	--
	5/20/1992	NSVD	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/31/1992	NSVD	NG	NG	NG	8,900	64,000	13,000	12,000	2,500	22,000	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/4/1993	8.96	2.13	0.10	6.91	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/4/1993	8.96	2.92	0.03	6.06	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/3/1993	7.38	3.04	NP	4.34	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/7/1994	7.38	2.55	0.03	4.85	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/19/1994	7.38	2.23	0.01	5.16	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/25/1994	7.38	2.49	0.01	4.90	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/27/1994	7.38	3.10	NP	4.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	7.38	2.85	0.11	4.61	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/14/1994	7.38	2.97	0.12	4.50	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/21/1995	7.38	1.53	0.02	5.87	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/18/1995	NSVD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
MW-2	2/18/1992	NSVD	NG	NG	NG	4,300	29,000	1,000	5,300	260	7,900	--	--	--	--	--	--	--	--	--
	5/20/1992	NSVD	NG	NG	NG	4,300	24,000	2,200	7,600	630	11,000	--	--	--	--	--	--	--	--	--
	8/31/1992	NSVD	NG	NG	NG	1,600	9,000	1,800	640	140	2,000	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	5,700	29,000	2,000	3,400	1,200	6,900	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	6,100	18,000	1,600	3,000	ND	6,900	--	--	--	--	--	--	--	--	--
	5/4/1993	8.96	2.48	NP	6.48	7,100	63,000	3,200	17,000	470	17,000	--	--	--	--	--	--	--	--	--
	8/4/1993	8.96	3.20	NP	5.76	1,800	45,000	2,100	6,600	1,400	12,000	--	--	--	--	--	--	--	--	--
	11/3/1993	8.58	3.37	NP	5.21	2,600	72,000	3,700	16,000	3,700	20,000	--	--	--	--	--	--	--	--	--
	2/7/1994	8.58	2.40	NP	6.18	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/19/1994	8.58	2.13	NP	6.45	3,000	42,000	2,500	1,300	2,300	13,000	--	--	--	--	--	--	--	--	--
	6/25/1994	8.58	2.65	NP	5.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/27/1994	8.58	3.44	NP	5.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	8.58	3.25	NP	5.33	2,800	35,000	2,400	850	1,700	15,000	--	--	--	--	--	--	--	--	--
	11/14/1994	8.58	2.13	NP	6.45	10,000	43,000	2,200	6,500	1,800	14,000	--	--	--	--	--	--	--	--	--
	2/21/1995	8.58	1.65	NP	6.93	2,000	44,000	2,200	3,200	1,300	1,500	--	--	--	--	--	--	--	--	--
	5/18/1995	NSVD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
MW-3	2/18/1992	NSVD	NG	NG	NG	ND	230	5	22	2	33	--	--	--	--	--	--	--	--	--
	5/20/1992	NSVD	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	8/31/1992	NSVD	NG	NG	NG	92	210	1	ND	ND	ND	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	94	790	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	550	3,300	320	ND	96	6	--	--	--	--	--	--	--	--	--
	5/4/1993	7.84	4.32	NP	3.52	250	1,800	95	ND	ND	ND	--	--	--	--	--	--	--	--	--
	8/4/1993	7.84	4.94	NP	2.90	100	210	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	11/3/1993	7.42	4.53	NP	2.89	160	640	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/7/1994	7.42	2.40	NP	5.02	620	2,700	110	ND	17	ND	--	--	--	--	--	--	--	--	--
	5/19/1994	7.42	3.60	NP	3.82	480	1,800	83	ND	6	9	--	--	--	--	--	--	--	--	--
	6/25/1994	7.42	4.58	NP	2.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/27/1994	7.42	4.58	NP	2.84	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	7.42	4.65	NP	2.77	110	130	1	1	ND	1	--	--	--	--	--	--	--	--	--
	11/14/1994	7.42	3.18	NP	4.24	150	1,600	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/21/1995	7.42	1.81	NP	5.61	850	3,800	350	ND	130	22	--	--	--	--	--	--	--	--	--
	5/18/1995	7.42	4.56	NP	2.86	150	1,300	42	ND	ND	ND	--	--	--	--	--	--	--	--	--
	8/17/1995	7.42	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	7/26/1996	7.42	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	10/28/1996	7.42	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO	WO
	1/29/1997	7.42	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	4/15/1997	7.42	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	5/27/1997	7.42	3.45	NP	3.97	--	670	7	ND	ND	ND	250	--	--	--	--	--	--	--	--
	6/1/1997	7.42	3.50	NP	3.92	610	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/15/1997	8.04	3.71	NP	4.33	240	240	ND	ND	ND	ND	490	--	--	--	--	--	--	--	--
	10/9/1997	8.04	3.70	NP	4.34	500	270	1	ND	2	1	910	--	--	--	--	--	--	--	--
	1/14/1998	8.04	2.16	NP	5.88	340	310	ND	ND	1	1	140	--	--	--	--	--	--	--	--
	4/1/1998	8.04	2.20	NP	5.84	320	370	6	ND	ND	ND	93	--	--	--	--	--	--	--	--
	7/15/1998	8.04	3.38	NP	4.66	510	460	ND	ND	ND	ND	230	--	--	--	--	--	--	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

anteagroup

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (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	10/16/1998	8.04	2.30	NP	5.74	67	330	5	ND	ND	ND	60	--	--	--	--	--	--	--	--
	1/25/1999	8.04	2.42	NP	5.62	120	420	2	ND	ND	ND	180	--	--	--	--	--	--	--	--
	4/15/1999	8.04	2.16	NP	5.88	170	290	1	ND	ND	ND	160	--	--	--	--	--	--	--	--
	7/14/1999	8.04	2.35	NP	5.69	420	290	3	ND	ND	ND	160	--	--	--	--	--	--	--	--
	10/21/1999	8.04	2.49	NP	5.55	350	360	1	ND	ND	ND	82	--	--	--	--	--	--	--	--
	1/20/2000	8.04	2.38	NP	5.66	2,060	ND	1	ND	ND	ND	54	--	--	--	--	--	--	--	--
	4/13/2000	8.04	2.76	NP	5.28	200	250	1	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	95	--	--	--	--	--	--	--	--
	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	2	ND	ND	ND	118	--	--	--	--	--	--	--	--
	4/4/2001	8.04	3.98	NP	4.06	360	417	1	ND	ND	1	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	4	<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	1	1	2	--	66	--	--	--	--	<500	--	--
	4/26/2004	8.04	3.11	NP	4.93	160	440	3	6	3	9	--	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	6	15	10	46	--	48	--	--	--	--	<50	--	--
	1/10/2005	8.04	1.52	NP	6.52	250	280	<0.50	1	<0.50	2	--	64	--	--	--	--	<50	--	--
	6/15/2005	8.04	2.00	NP	6.04	360	460	<0.50	0.70	0.56	2	--	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	--	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	1	<1.5	--	43	--	--	--	--	<250	--	--
	3/29/2010	8.04	2.22	NP	5.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	10.81	2.91	NP	7.90	90	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	--	--
	3/6/2012	10.81	2.63	NP	8.18	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	10.81	2.99	NP	7.82	87.9	371	<0.50	<0.50	<0.50	<1.5	--	55.7	--	--	--	77.2	<250	--	--
	9/6/2012	10.81	2.50	NP	8.31	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	10.81	2.50	NP	8.31	<50	130	<0.50	<0.50	<0.50	<0.50	--	28	--	--	--	77	<5.0	--	--
MW-4	8/31/1992	NSVD	NG	NG	NG	90	240	ND	ND	ND	0.54	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	61	420	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/S043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

antea group

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (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-4	2/4/1993	NSVD	NG	NG	NG	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	5/4/1993	9.00	4.09	NP	4.91	ND	110	0.95	ND	ND	ND	--	--	--	--	--	--	--	--	--
	8/4/1993	9.00	5.01	NP	3.99	81	250	ND	3.5	ND	4.1	--	--	--	--	--	--	--	--	--
	11/3/1993	8.41	4.23	NP	4.18	68	130	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/7/1994	8.41	3.35	NP	5.06	ND	56	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	5/19/1994	8.41	3.92	NP	4.49	90	140	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	6/25/1994	8.41	4.35	NP	4.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/27/1994	8.41	4.28	NP	4.13	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	8.41	4.27	NP	4.14	72	59	ND	0.6	ND	ND	--	--	--	--	--	--	--	--	--
	11/14/1994	8.41	4.05	NP	4.36	ND	130	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/21/1995	NSVD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
MW-5	8/31/1992	NSVD	NG	NG	NG	690	78	1	ND	ND	13	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	470	930	70	290	1	14	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	5,500	5,700	38	ND	620	170	--	--	--	--	--	--	--	--	--
	5/4/1993	8.95	4.37	NP	4.58	4,600	7,400	41	ND	1,000	35	--	--	--	--	--	--	--	--	--
	8/4/1993	8.95	5.81	NP	3.14	970	1,500	130	1	460	11	--	--	--	--	--	--	--	--	--
	11/3/1993	8.95	5.68	NP	3.27	2,100	13,000	350	ND	3,500	530	--	--	--	--	--	--	--	--	--
	2/7/1994	8.95	5.11	NP	3.84	830	2,000	87	ND	370	110	--	--	--	--	--	--	--	--	--
	5/19/1994	8.95	5.09	NP	3.86	600	260	44	ND	32	4	--	--	--	--	--	--	--	--	--
	6/25/1994	8.95	4.55	NP	4.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/27/1994	8.95	5.72	NP	3.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	8.95	5.68	NP	3.27	860	1,600	110	ND	340	72	--	--	--	--	--	--	--	--	--
	11/14/1994	8.95	5.63	NP	3.32	290	250	40	ND	ND	5	--	--	--	--	--	--	--	--	--
	2/21/1995	NSVD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
MW-6	8/31/1992	NSVD	NG	NG	NG	750	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	1,400	9,200	550	ND	740	1,600	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	890	3,600	340	ND	290	550	--	--	--	--	--	--	--	--	--
	5/4/1993	9.12	3.72	NP	5.40	1,800	4,900	360	18	450	430	--	--	--	--	--	--	--	--	--
	8/4/1993	9.12	5.15	NP	3.97	1,100	3,400	390	ND	440	190	--	--	--	--	--	--	--	--	--
	11/3/1993	8.87	5.25	NP	3.62	390	1,400	320	ND	200	8	--	--	--	--	--	--	--	--	--
	2/7/1994	8.87	4.55	NP	4.32	970	4,900	650	ND	250	35	--	--	--	--	--	--	--	--	--
	5/19/1994	8.87	4.62	NP	4.25	1,400	3,600	300	2	210	41	--	--	--	--	--	--	--	--	--
	8/15/1994	8.87	5.08	NP	3.79	790	1,300	130	7	54	57	--	--	--	--	--	--	--	--	--
	11/14/1994	8.87	5.30	NP	3.57	800	730	50	ND	ND	39	--	--	--	--	--	--	--	--	--
	2/21/1995	8.87	5.37	NP	3.50	730	2,000	250	5	25	30	--	--	--	--	--	--	--	--	--
	5/18/1995	8.87	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	8/17/1995	8.87	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI	WI
	7/26/1996	8.87	5.40	3.33	4.97	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/28/1996	8.87	4.10	0.21	4.93	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/13/1996	8.87	4.02	0.25	5.04	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/25/1996	8.87	4.01	0.75	5.42	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/4/1996	8.87	3.65	0.50	5.60	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/19/1996	8.87	4.80	2.20	5.72	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/8/1997	8.87	4.84	1.75	5.34	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/14/1997	8.87	4.51	1.15	5.22	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/27/1997	8.87	4.00	1.75	6.18	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/29/1997	8.87	3.24	0.31	5.86	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/11/1997	8.87	4.65	1.20	5.12	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/24/1997	8.87	4.81	1.10	4.89	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/10/1997	8.87	4.60	0.95	4.98	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/17/1997	8.87	4.50	0.89	5.04	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/31/1997	8.87	4.65	1.00	4.97	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/15/1997	8.87	4.90	1.03	4.74	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/28/1997	8.87	4.78	0.03	4.11	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/15/1997	8.87	4.60	0.25	4.46	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/27/1997	8.87	4.50	0.25	4.56	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/9/1997	8.87	4.60	0.20	4.42	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	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

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

antea group

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (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	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	67,600	130,000	2,900	8,600	2,000	16,000	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	8,700	140,000	5,000	14,000	3,600	27,000	7,700	--	--	--	--	--	--	--	--
	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	133,000	259,000	7,670	13,700	6,860	40,700	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	61,000	110,000	7,000	6,200	3,700	12,000	670	43	--	--	--	--	--	--	--
	1/3/2001	8.87	4.52	NP	4.35	929	84,700	3,950	4,130	3,650	11,800	ND	ND	--	--	--	--	--	--	--
	4/4/2001	8.87	4.29	NP	4.58	18,000	69,800	2,060	2,840	3,650	10,900	ND	48	ND	ND	ND	ND	ND	ND	ND
	7/17/2001	8.87	4.37	NP	4.50	20,000	100,000	3,200	3,300	3,400	12,000	ND	--	--	--	--	--	--	--	--
	10/1/2001	8.87	4.45	NP	4.42	24,000	110,000	3,200	2,400	4,500	13,000	<1000	--	--	--	--	--	--	--	--
	1/31/2002	8.87	4.03	NP	4.84	11,000	230,000	2,400	1,800	5,400	16,000	<2500	--	--	--	--	--	--	--	--
	4/18/2002	8.87	3.45	NP	5.42	3,500	94,000	6,800	13,000	3,000	19,000	<500	--	--	--	--	--	--	--	--
	7/28/2002	8.87	2.24	NP	6.63	27,000	110,000	530	170	3,200	7,300	--	<100	--	--	--	--	--	--	--
	10/9/2002	8.87	3.53	NP	5.34	170,000	970,000	10,000	39,000	13,000	94,000	--	<2000	--	--	--	--	--	--	--
	1/2/2003	8.87	2.34	NP	6.53	66,000	270,000	6,100	15,000	5,400	37,000	--	<200	--	--	--	--	--	--	--
	4/1/2003	8.87	3.17	NP	5.70	35,000	3,000,000	8,000	39,000	37,000	260,000	--	<2000	--	--	--	--	--	--	--
	7/1/2003	8.87	3.55	NP	5.32	11,000	38,000	2,100	990	2,700	6,500	--	<100	--	--	--	--	<25000	--	--
	10/2/2003	8.87	3.82	NP	5.05	<50	100,000	5,600	6,900	4,700	18,000	--	<800	--	--	--	--	<200000	--	--
	1/9/2004	8.87	2.80	NP	6.07	20,000	170,000	2,800	3,300	4,700	16,000	--	<200	--	--	--	--	<50000	--	--
	4/26/2004	8.87	3.40	NP	5.47	13,000	97,000	5,900	9,000	5,100	23,000	--	<50	--	--	--	--	<5000	--	--
	7/22/2004	8.87	3.54	NP	5.33	33,000	110,000	4,100	5,100	4,000	16,000	--	<200	--	--	--	--	<300000	--	--
	10/29/2004	8.87	3.03	NP	5.84	78,000	100,000	5,200	6,100	4,200	15,000	--	<50	--	--	--	--	<5000	--	--
	1/10/2005	8.87	2.35	NP	6.52	12,000	71,000	1,600	3,700	2,100	9,900	--	<50	--	--	--	--	<5000	--	--
	6/15/2005	8.87	2.47	NP	6.40	16,000	130,000	800	1,800	2,200	9,300	--	<50	--	--	--	--	<5000	--	--
	9/27/2005	8.87	2.55	NP	6.32	2,500	13,000	82	120	430	990	--	1	2	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.87	3.28	NP	5.59	18,000	68,000	1,500	1,100	2,200	7,700	--	<50	--	--	--	--	<25000	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

antea group

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (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	3/23/2006	8.87	2.87	NP	6.00	73,000	41,000	290	140	1,500	2,700	--	<50	--	--	--	--	<25000	--	--
	6/23/2006	8.87	3.15	NP	5.72	35,000	50,000	2,200	1,400	1,900	5,700	--	<12	--	--	--	--	<6200	--	--
	9/26/2006	8.87	3.08	NP	5.79	22,000	130,000	2,200	1,000	2,900	8,800	--	<50	--	--	--	--	<25000	--	--
	12/22/2006	8.87	2.90	NP	5.97	62,000	90,000	940	610	1,900	4,700	--	<50	--	--	--	--	<25000	--	--
	3/30/2007	8.87	3.26	NP	5.61	62,000	210,000	1,100	560	3,400	12,000	--	<10	--	--	--	--	<5000	--	--
	6/28/2007	8.87	3.46	NP	5.41	71,000	67,000	2,200	1,300	2,700	10,000	--	<25	--	--	--	--	<12000	--	--
	9/25/2007	8.87	3.52	NP	5.35	58,000	56,000	2,900	720	2,400	9,000	--	<25	--	--	--	--	<12000	--	--
	12/28/2007	8.87	3.27	NP	5.60	18,000	78,000	28,000	2,700	4,000	8,100	--	16,000	--	--	--	--	<12000	--	--
	3/22/2008	8.87	2.48	NP	6.39	68,000	66,000	380	150	1,500	2,400	--	<25	--	--	--	--	<12000	--	--
	6/23/2008	8.87	3.54	NP	5.33	68,000	59,000	1,600	130	1,800	4,100	--	25	--	--	--	--	<12000	--	--
	9/19/2008	8.87	4.06	NP	4.81	180,000	65,000	2,000	230	2,000	4,500	--	<12	--	--	--	--	<6200	--	--
	12/31/2008	8.87	3.45	NP	5.42	68,000	91,000	2,000	320	5,300	13,000	--	<50	--	--	--	--	<25000	--	--
	3/27/2009	8.87	3.09	NP	5.78	170,000	150,000	1,300	240	2,800	7,200	--	<50	--	--	--	--	<25000	--	--
	5/28/2009	8.87	3.49	NP	5.38	78,000	53,000	1,700	200	2,300	5,400	--	<50	--	--	--	--	<25000	--	--
	9/17/2009	8.87	3.64	NP	5.23	250,000 T4	77,000	2,100	1,400	2,600	8,500	--	<12	--	--	--	--	<6200	--	--
	12/17/2009	8.87	3.14	NP	5.73	30,300	59,100	1,730	199	2,260	5,460	--	20	--	--	--	--	<250	--	--
	3/29/2010	8.87	3.16	NP	5.71	106,000	48,400	1,980	208	3,070	8,070	--	12	--	--	--	--	<250	--	--
	6/30/2010	11.55	3.50	NP	8.05	170,000	78,700	2,130	281	2,860	8,400	--	6	--	--	--	--	<250	--	--
	7/6/2010	11.55	3.49	NP	8.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	11.55	3.75	NP	7.80	18,800	64,500	2,300	170	2,770	6,260	--	19	--	--	--	--	<250	--	--
	12/8/2010	11.55	8.42	NP	3.13	28,700	78,400	1,300	1,680	3,490	20,600	--	11	--	--	--	--	<250	--	--
	3/14/2011	11.55	3.40	NP	8.15	93,000	44,600	912	338	728	3,670	--	16	--	--	--	134	<250	--	--
	6/2/2011	11.55	2.76	NP	8.79	33,700 T4	56,200	780	262	651	3,890	--	7	--	--	--	81.0	<250	--	--
	9/7/2011	11.55	2.83	NP	8.72	6,780 T4	16,600	16	11	90	339	--	<0.50	--	--	--	--	<250	--	--
	12/5/2011	11.55	3.56	NP	7.99	20,200 T4	64,600	646	95	924	4,050	--	15	--	--	--	--	<250	--	--
	3/6/2012	11.55	3.43	NP	8.12	14,800 T4	55,000	1,020	131	1,320	4,730	--	19	--	--	--	316	<1250	--	--
	6/11/2012	11.55	3.33	NP	8.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	47,100 T4	33,400	773	61	840	3,110	--	11	--	--	--	123	<250	--	--
	9/6/2012	11.55	2.85	NP	8.70	<1000	24,000	450	51	610	1,800	--	6	<4.0	<4.0	<4.0	82	<40	<4.0	<4.0
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	11.55	2.90	NP	8.65	470	20,000	200	16	350	1,100	--	<4.0	--	--	--	22	<40	--	--
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	--	--	--	--	--	--	--
	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	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

antea group

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (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	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
	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 T4	--	<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	--	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/6/2012	11.64	4.54	NP	7.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	11.64	4.93	NP	6.71	<37.9	--	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/6/2012	11.64	4.03	NP	7.61	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	11.64	3.43	NP	8.21	<50	--	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<5.0	--	--
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	--	--	--	--	--	--	--
	7/1/2003	8.52	3.08	NP	5.44	170	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	10/2/2003	8.52	3.89	NP	4.63	350	540	3.9	15	29	80	--	<2.0	--	--	--	--	<500	--	--
	1/9/2004	8.52	2.38	NP	6.14	180	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	4/26/2004	8.52	2.89	NP	5.63	100	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	7/22/2004	8.52	3.25	NP	5.27	250	<50	<0.5	<0.5	<0.5	<1	--	<0.5	--	--	--	--	<1000	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

antea group

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-8	10/29/2004	8.52	3.06	NP	5.46	120	<50	<0.50	<0.50	0.82	2.5	--	<0.50	--	--	--	--	<50	--	--
	1/10/2005	8.52	1.92	NP	6.60	140	58	<0.50	0.61	1.2	4.0	--	<0.50	--	--	--	--	<50	--	--
	6/15/2005	8.52	2.22	NP	6.30	140	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	9/27/2005	8.52	2.43	NP	6.09	<200	<50	<0.50	<0.50	1.2	<1.0	--	<0.50	<0.50	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.52	2.89	NP	5.63	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/23/2006	8.52	2.12	NP	6.40	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2006	8.52	2.65	NP	5.87	<230	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/26/2006	8.52	2.75	NP	5.77	110	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/22/2006	8.52	2.58	NP	5.94	100	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	3/30/2007	8.52	2.74	NP	5.78	120	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	6/28/2007	8.52	2.90	NP	5.62	140	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	9/25/2007	8.52	3.26	NP	5.26	110	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/28/2007	8.52	2.64	NP	5.88	110	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/22/2008	8.52	2.31	NP	6.21	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2008	8.52	3.13	NP	5.39	<58	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/19/2008	8.52	3.72	NP	4.80	79	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	12/31/2008	8.52	2.98	NP	5.54	110	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/27/2009	8.52	2.49	NP	6.03	89	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	5/28/2009	8.52	3.12	NP	5.40	91	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/17/2009	8.52	3.63	NP	4.89	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/29/2010	8.52	WI	WI	WI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	11.32	2.60	NP	8.72	182	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	7/6/2010	11.32	3.03	NP	8.29	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	11.32	3.33	NP	7.99	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	11.32	2.82	NP	8.50	116	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/14/2011	11.32	3.84	NP	7.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	11.32	2.77	NP	8.55	--	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	11.32	2.84	NP	8.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	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	--	--
	3/6/2012	11.32	3.07	NP	8.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	11.32	3.08	NP	8.24	<37.9	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	8.3	<250	--	--
	9/6/2012	11.32	2.91	NP	8.41	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	11.32	2.31	NP	9.01	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<5.0	--	--
MW-9	2/21/1995	8.29	1.98	NP	6.31	71	70	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	5/18/1995	8.29	3.47	NP	4.82	ND	52	ND	1.1	ND	1.9	--	--	--	--	--	--	--	--	--
	8/17/1995	8.29	1.49	NP	6.80	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	7/26/1996	8.29	0.28	NP	8.01	98	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/28/1996	8.29	1.15	NP	7.14	99	ND	ND	ND	ND	ND	7.6	--	--	--	--	--	--	--	--
	1/29/1997	8.29	1.05	NP	7.24	54	ND	ND	ND	ND	ND	5.4	--	--	--	--	--	--	--	--
	4/15/1997	8.29	1.88	NP	6.41	94	ND	ND	ND	ND	ND	5.4	--	--	--	--	--	--	--	--
	5/27/1997	8.29	1.05	NP	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/15/1997	8.29	1.90	NP	6.39	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/9/1997	8.29	1.76	NP	6.53	160	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/14/1998	8.29	1.26	NP	7.03	110	ND	ND	ND	ND	ND	3.0	--	--	--	--	--	--	--	--
	4/1/1998	8.29	0.85	NP	7.44	110	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	7/15/1998	8.29	1.52	NP	6.77	200	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/16/1998	8.29	0.81	NP	7.48	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/25/1999	8.29	0.92	NP	7.37	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	4/15/1999	8.29	0.90	NP	7.39	ND	75	21	ND	ND	1.1	680	--	--	--	--	--	--	--	--
	7/14/1999	8.29	1.04	NP	7.25	140	ND	1.9	ND	ND	ND	260	--	--	--	--	--	--	--	--
	10/21/1999	8.29	1.23	NP	7.06	210	ND	ND	ND	ND	ND	170	--	--	--	--	--	--	--	--
	1/20/2000	8.29	1.18	NP	7.11	519	ND	1.1	ND	ND	ND	35	--	--	--	--	--	--	--	--
	4/13/2000	8.29	1.08	NP	7.21	81	160	0.64	ND	ND	ND	53	--	--	--	--	--	--	--	--
	7/14/2000	8.29	1.43	NP	6.86	107	ND	ND	ND	ND	ND	20.2	--	--	--	--	--	--	--	--
	10/26/2000	8.29	1.38	NP	6.91	240	240	2.9	ND	ND	ND	56	--	--	--	--	--	--	--	--
	1/3/2001	8.29	1.66	NP	6.63	164	166	0.763	0.776	ND	1.28	50.2	--	--	--	--	--	--	--	--
	4/4/2001	8.29	1.27	NP	7.02	240	296	0.738	ND	ND	0.907	135	--	--	--	--	--	--	--	--
	7/17/2001	8.29	1.38	NP	6.91	ND	ND	ND	ND	ND	ND	13	--	--	--	--	--	--	--	--
	10/1/2001	8.29	1.93	NP	6.36	<52	51	<0.50	<0.50	<0.50	<0.50	5.0	--	--	--	--	--	--	--	--
	1/31/2002	8.29	2.08	NP	6.21	200	<50	<0.50	<0.50	<0.50	<0.50	5.8	--	--	--	--	--	--	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

antea group

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-9	4/18/2002	8.29	1.76	NP	6.53	<50	<50	<0.50	<0.50	<0.50	<0.50	5.1	--	--	--	--	--	--	--	--
	7/28/2002	8.29	1.57	NP	6.72	<50	<50	<0.50	<0.50	<0.50	<1.0	--	3.5	--	--	--	--	--	--	--
	10/9/2002	8.29	1.45	NP	6.84	100	<50	<0.50	<0.50	<0.50	<1.0	--	17	--	--	--	--	--	--	--
	1/2/2003	8.29	1.18	NP	7.11	<50	<50	<0.50	<0.50	<0.50	<1.0	--	8.6	--	--	--	--	--	--	--
	4/1/2003	8.29	2.04	NP	6.25	56	<50	<0.50	<0.50	<0.50	<1.0	--	9.4	--	--	--	--	--	--	--
	7/1/2003	8.29	2.80	NP	5.49	<50	<50	<0.50	<0.50	<0.50	<1.0	--	3.2	--	--	--	--	<500	--	--
	10/2/2003	8.29	2.70	NP	5.59	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	1/9/2004	8.29	1.90	NP	6.39	91	74	<0.50	0.98	2.3	6.2	--	<2.0	--	--	--	--	<500	--	--
	4/26/2004	8.29	1.62	NP	6.67	<50	51	<0.50	<0.50	<0.50	<1.0	--	0.51	--	--	--	--	<50	--	--
	7/22/2004	8.29	1.88	NP	6.41	<200	<50	<0.5	<0.5	<0.5	<1	--	0.78	--	--	--	--	<1000	--	--
	10/29/2004	8.29	1.28	NP	7.01	76	<50	<0.50	<0.50	<0.50	1.0	--	<0.50	--	--	--	--	<50	--	--
	1/10/2005	8.29	0.07	NP	8.22	77	93	0.60	2.3	2.4	9.0	--	<0.50	--	--	--	--	<50	--	--
	6/15/2005	8.29	1.70	NP	6.59	67	<50	<0.50	<0.50	<0.50	<1.0	--	6.6	--	--	--	--	<50	--	--
	9/27/2005	8.29	1.98	NP	6.31	<200	<50	<0.50	0.73	<0.50	<1.0	--	2.3	<0.50	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.29	2.26	NP	6.03	<200	<50	<0.50	<0.50	<0.50	<1.0	--	2.9	--	--	--	--	<250	--	--
	3/23/2006	8.29	1.32	NP	6.97	<200	<50	<0.50	<0.50	<0.50	<1.0	--	2.7	--	--	--	--	<250	--	--
	6/23/2006	8.29	1.98	NP	6.31	<200	<50	<0.50	<0.50	<0.50	<1.0	--	1.9	--	--	--	--	<250	--	--
	9/26/2006	8.29	2.52	NP	5.77	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/22/2006	8.29	1.98	NP	6.31	150	<50	<0.50	0.57	1.8	4.6	--	1.6	--	--	--	--	<250	--	--
	3/30/2007	8.29	2.01	NP	6.28	72	<50	<0.50	<0.50	<0.50	<0.50	--	3.4	--	--	--	--	<250	--	--
	6/28/2007	8.29	1.90	NP	6.39	1000	<50	<0.50	<0.50	<0.50	<0.50	--	4.9	--	--	--	--	<250	--	--
	9/25/2007	8.29	1.57	NP	6.72	100	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/28/2007	8.29	1.98	NP	6.31	56	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/22/2008	8.29	0.80	NP	7.49	<50	<50	<0.50	<0.50	<0.50	<1.0	--	0.61	--	--	--	--	<250	--	--
	6/23/2008	8.29	1.80	NP	6.49	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/19/2008	8.29	2.43	NP	5.86	56	<50	<0.50	<0.50	<0.50	<1.0	--	3.9	--	--	--	--	<250	--	--
	12/31/2008	8.29	2.66	NP	5.63	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/27/2009	8.29	2.01	NP	6.28	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	5/28/2009	8.29	2.20	NP	6.09	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/17/2009	8.29	1.83	NP	6.46	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/17/2009	8.29	1.52	NP	6.77	105	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/29/2010	8.29	2.21	NP	6.08	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	10.94	2.32	NP	8.62	95.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.85	--	--	--	--	<250	--	--
	7/6/2010	10.94	2.02	NP	8.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	10.94	2.03	NP	8.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	10.94	1.77	NP	9.17	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/14/2011	10.94	2.24	NP	8.70	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	6/2/2011	10.94	2.24	NP	8.70	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	10.94	2.46	NP	8.48	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	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	--	--
	3/6/2012	10.94	3.03	NP	7.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	10.94	1.75	NP	9.19	<37.9	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/6/2012	10.94	1.24	NP	9.70	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	10.94	1.80	NP	9.14	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<5.0	--	--
MW-10	2/21/1995	8.62	4.69	NP	3.93	270	1500	250	26	9.1	160	--	--	--	--	--	--	--	--	--
	5/18/1995	8.62	4.92	NP	3.70	75	810	520	ND	18	23	--	--	--	--	--	--	--	--	--
	8/17/1995	8.62	4.05	NP	4.57	ND	67	25	ND	2.4	ND	--	--	--	--	--	--	--	--	--
	7/26/1996	8.62	4.08	NP	4.54	ND	ND	3.7	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/28/1996	8.62	4.09	NP	4.53	ND	ND	1.1	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	1/29/1997	8.62	2.94	NP	5.68	ND	210	41	0.67	7.2	4.8	11	--	--	--	--	--	--	--	--
	4/15/1997	8.62	4.07	NP	4.55	ND	110	12	ND	0.77	ND	9.7	--	--	--	--	--	--	--	--
	5/27/1997	8.62	4.40	NP	4.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/15/1997	8.62	4.19	NP	4.43	ND	ND	2.1	ND	0.67	0.73	ND	--	--	--	--	--	--	--	--
	10/9/1997	8.62	4.75	NP	3.87	ND	190	38	0.92	6.6	7.6	ND	--	--	--	--	--	--	--	--
	1/14/1998	8.62	2.66	NP	5.96	--	59	9.5	0.85	1.2	1.7	4.5	--	--	--	--	--	--	--	--
	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	--	--	--	--	--	--	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
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)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (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	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	--	--	--	--	<500	--	--
	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	--	--
	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	--	--
	3/6/2012	10.97	3.74	NP	7.23	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	58.7	<250	--	--
	6/11/2012	10.97	3.99	NP	6.98	<37.9	<50.0	0.79	<0.50	<0.50	<1.5	--	0.72	--	--	--	17.2	<250	--	--
	9/6/2012	10.97	4.00	NP	6.97	110	64	6.9	0.89	1.8	3.9	--	<0.50	<0.50	<0.50	<0.50	<5.0	<5.0	<0.50	<0.50
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	10.97	3.40	NP	7.57	<50	120	15	1.1	1.7	5.2	--	<0.50	--	--	--	<5.0	<5.0	--	--
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 1n	<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	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

antea group

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-11	6/2/2011	10.53	1.75	NP	8.78	69.0 T4	<50.0	<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	<1.5	--	3.8	--	--	--	--	<250	--	--
	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	--	--
	3/6/2012	10.53	2.31	NP	8.22	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	35.3	--	--	--	5.7	<250	--	--
	6/11/2012	10.53	2.24	NP	8.29	<37.9	<50.0	<0.50	<0.50	<0.50	<1.5	--	20.9	--	--	--	10.4	<250	--	--
	9/6/2012	10.53	1.70	NP	8.83	64	<50	<0.50	<0.50	<0.50	<0.50	--	7.7	<0.50	<0.50	<0.50	<5.0	<5.0	<0.50	<0.50
	12/13/2012	10.53	1.56	NP	8.97	<50	<50	<0.50	<0.50	<0.50	<0.50	--	27	--	--	--	<5.0	<5.0	--	--
MW-12	7/6/2010	11.01	4.00	NP	7.01	990	20,300	1,030	955	311	2,450	--	1,650	<0.50	<0.50	1.0	1,430	<250	<1.0	<1.0
	9/20/2010	11.01	4.18	NP	6.83	5,220	73,700	6,020	6,390	2,970	18,300	--	894	--	--	--	--	<250	--	--
	12/8/2010	11.01	3.92	NP	7.09	428	3,350	249	117	90	558	--	1,470	--	--	--	--	<2500	--	--
	3/14/2011	11.01	3.70	NP	7.31	283	2,420	287	81	49	243	--	1,020	--	--	--	70	<250	--	--
	6/2/2011	11.01	4.40	NP	6.61	1,330 T4	12,200	688	71	225	619	--	824	--	--	--	110	<250	--	--
	9/7/2011	11.01	4.37	NP	6.64	1,270 T4	7,900	920	25	187	267	--	896	--	--	--	--	<2500	--	--
	12/5/2011	11.01	4.32	NP	6.69	286 T4	2,240	296	38	38.0	122	--	1,040	--	--	--	--	<250	--	--
	3/6/2012	11.01	4.01	NP	7.00	272 T4	1,260	193	23	29	81	--	835	--	--	--	78	<250	--	--
	6/11/2012	11.01	4.20	NP	6.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	957 T4	1,030	178	17.0	24	69	--	993	--	--	--	448	<250	--	--
	9/6/2012	11.01	4.15	NP	6.86	<200	580	120	10	15	37	--	840	<1.5	<1.5	<1.5	15	<15	<1.5	14
	12/13/2012	11.01	3.35	NP	7.66	<50	480	70	5	7	19	--	820	--	--	--	19	<15	--	--
MW-12A	7/6/2010	11.29	4.22	NP	7.07	89	664	18	1	2	50	--	14	<0.50	<0.50	<0.50	12	<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	--	9	--	--	--	--	<250	--	--
	12/8/2010	11.29	4.00	NP	7.29	76	<50.0	<0.50	<0.50	<0.50	<1.5	--	9	--	--	--	--	<250	--	--
	3/14/2011	11.29	3.81	NP	7.48	62	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	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	--	1	--	--	--	--	<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	--	--
	3/6/2012	11.29	4.32	NP	6.97	52.0 T4	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	6/11/2012	11.29	4.36	NP	6.93	<37.9	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/6/2012	11.29	4.45	NP	6.84	300	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50	<0.50	<5.0	<5.0	<0.50	<0.50
	12/13/2012	11.29	3.80	NP	7.49	62	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	<5.0	<5.0	--	--
MW-13	7/6/2010	11.08	4.26	NP	7	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	<50.0	250 1n	<0.50	<0.50	<0.50	<1.5	--	272	--	--	--	--	<250	--	--
	12/8/2010	11.08	5.02	NP	6	97.0	177 1n	<0.50	<0.50	<0.50	<1.5	--	390	--	--	--	--	<250	--	--
	3/14/2011	11.08	4.32	NP	7	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 T4	260 1n	<0.50	<0.50	<0.50	<1.5	--	228	--	--	--	45	<250	--	--
	9/7/2011	11.08	5.74	NP	5	<50.0	167	<0.50	<0.50	<0.50	<1.5	--	207	--	--	--	--	<250	--	--
	12/5/2011	11.08	5.00	NP	6	<50.0	166 1n	<0.50	<0.50	<0.50	<1.5	--	215	--	--	--	--	<250	--	--
	3/6/2012	11.08	5.37	NP	6	<50.0	63.9 1n	<0.50	<0.50	<0.50	<1.5	--	110	--	--	--	39	<250	--	--
	6/11/2012	11.08	5.73	NP	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	<37.9	118 1n	<0.50	<0.50	<0.50	<1.5	--	220	--	--	--	82	<250	--	--
	9/6/2012	11.08	4.14	NP	7	87	<50	<0.50	<0.50	<0.50	<0.50	--	140	<0.50	<0.50	<0.50	10	<5.0	<0.50	<0.50
	12/13/2012	11.08	3.80	NP	7	<50	<50	<0.50	<0.50	<0.50	<0.50	--	130	--	--	--	14	<5.0	--	--
MW-14	6/2/2011	12.00	3.58	NP	8.42	4,180 T4	51,600	2,750	67.9	1,790	13,400	--	1.9	--	--	--	27.2	<250	--	--
	9/7/2011	12.00	3.02	NP	8.98	2,970 T4	42,600	1,050	28.1	2,990	7,300	--	<25.0	--	--	--	--	<12500	--	--
	12/5/2011	12.00	4.05	NP	7.95	3,980 T4	14,000	709	9.1	1,420	2,530	--	0.97	--	--	--	--	<250	--	--
	3/6/2012	12.00	3.94	NP	8.06	3,640 T4	16,600	959	15.0	2,330	3,830	--	<2.5	--	--	--	28.1	<1250	--	--
	6/11/2012	12.00	3.91	NP	8.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	4,580	15,700	1,200	14.0	1,580	3,010	--	1.4	--	--	--	23.3	<250	--	--
	9/6/2012	12.00	3.35	NP	8.65	<2000	12,000	210	9.1	1,100	1,800	--	<4.0	<4.0	<4.0	<4.0	<20	<40	<4.0	<4.0
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	12.00	3.26	NP	8.74	<50	10,000	72	5.8	610	780	--	<1.5	--	--	--	<7.0	<15	--	--
MW-15	6/2/2011	11.11	2.50	NP	8.61	124 T4	357	<0.50	<0.50	<0.50	<1.5	--	15	--	--	--	6	<250	--	--
	9/7/2011	11.11	2.54	NP	8.57	<50.0	412	6	<0.50	43	<1.5	--	128	--	--	--	--	<250	--	--
	12/5/2011	11.11	2.70	NP	8.41	50.5 T4	201	7	<0.50	1	<1.5	--	142	--	--	--	--	<250	--	--
	3/6/2012	11.11	2.69	NP	8.42	56.2 T4	<50.0	<0.50	<0.50	<0.50	<1.5	--	106	--	--	--	101	<250	--	--
	6/11/2012	11.11	2.84	NP	8.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	<37.9	74.3 1n	<0.50	<0.50	<0.50	<1.5	--	114	--	--	--	91	<250	--	--
	9/6/2012	11.11	2.24	NP	8.87	64	59	<0.50	<0.50	<0.50	<0.50	--	76	<0.50	<0.50	<0.50	45	<5.0	<0.50	<0.50
	12/13/2012	11.11	2.51	NP	8.60	<50	<50	<0.50	<0.50	<0.50	<0.50	--	33	--	--	--	7	<5.0	--	--

TABLE 3
HISTORICAL GROUNDWATER GAUGING AND ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

antea group

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (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-16	6/2/2011	10.98	3.00	NP	7.98	**509 T4**	**1,420 1n**	**79**	<0.50	**4**	<1.5	--	**1,200**	--	--	--	**257**	<250	--	--
	9/7/2011	10.98	2.65	NP	8.33	**90.0 T4**	**934**	<0.50	<0.50	<0.50	<1.5	--	**1,240**	--	--	--	--	<250	--	--
	12/5/2011	10.98	3.18	NP	7.80	**196 T4**	**948 1n**	<0.50	<0.50	<0.50	<1.5	--	**1,320**	--	--	--	--	<250	--	--
	3/6/2012	10.98	2.91	NP	8.07	**204 T4**	**392 1n**	<0.50	<0.50	<0.50	<1.5	--	**1,090**	--	--	--	**134**	<250	--	--
	6/11/2012	10.98	3.04	NP	7.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	**48.1 T4**	**430 1n**	<0.50	<0.50	<0.50	<1.5	--	**1,100**	--	--	--	**374**	<250	--	--
	9/6/2012	10.98	2.61	NP	8.37	**390**	<150	<1.5	<1.5	<1.5	<1.5	--	**960**	<1.5	<1.5	<1.5	**70**	<15	<1.5	<1.5
	12/13/2012	10.98	2.50	NP	8.48	**52**	<150	<1.5	<1.5	<1.5	<1.5	--	**980**	--	--	--	**55**	<20	--	--
MW-17	6/2/2011	11.52	5.78	NP	5.74	**687 T4**	**9,130**	**2,530**	**960**	**35**	**907**	--	**1**	--	--	--	**366**	<250	--	--
	9/7/2011	11.52	4.56	NP	6.96	**1,900 T4**	**47,200**	**9,620**	**5,510**	**1,210**	**4,510**	--	<25.0	--	--	--	--	<12500	--	--
	12/5/2011	11.52	4.70	NP	6.82	**1,790 T4**	**17,300**	**4,720**	**511**	**238**	**747**	--	<2.5	--	--	--	--	<1250	--	--
	3/6/2012	11.52	4.64	NP	6.88	**1,530 T4**	**1,580**	**2,090**	**24**	**39**	**166**	--	**1**	--	--	--	**481**	<250	--	--
	6/11/2012	11.52	4.67	NP	6.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	**1,090 T4**	**4,950**	**2,340**	**123**	**153**	**610**	--	<2.5	--	--	--	**411**	<1250	--	--
	9/6/2012	11.52	4.39	NP	7.13	<1000	**18,000**	**4,300**	**170**	**370**	**1,100**	--	<10	<10	<10	<10	**300**	<100	<10	110
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	11.52	4.20	NP	7.32	<100	55,000	**7,300**	**2,700**	**1,700**	**4,600**	--	<10	--	--	--	**300**	<100	--	--

Gauging Notes:
TOS - Top of Screen
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
ug/L - micrograms/liter
DRO- diesel range organics
TPHd- Total petroleum hydrocarbons as diesel
TPHg- Total petroleum hydrocarbons as gasoline
MTBE- Methyl tertiary-butyl ether
TBA- Tertiary-butyl alcohol
Bold - Above the laboratory's indicated reporting limit
1n - The TPHg result for this sample did not match the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample.
T4- Result reported for the hydrocarbons within the method-specific range that do not match pattern of laboratoty standard.

TABLE 3a
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
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 A2320B (mg/L)	Antimony (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Beryllium (ug/L)	Biochemical Oxygen Demand (ug/L)	Bromate (mg/L)	Bromide (mg/L)	Cadmium S(ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Chromium (ug/L)	Chromium, Hexavalent (ug/L)	Cobalt (ug/L)	Coliform, Total (MPN/100ML)	E. Coli (MPN/100ML)
MW-6	3/14/2011	**18**	--	--	--	--	<60.0	**23**	**216**	<5.0	**32,200**	--	--	<5.0	**173,000**	**204,000**	--	--	<50.0	--	--
	6/2/2011	<5.0	**828**	<1	**828**	<1	<60.0	**22.0**	**191**	<5.0	**45,100**	<0.005	**2**	<5.0	**121,000**	**149,000**	**4**	<2	<50.0	**42,000**	<100
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/6/2012	--	--	--	--	**650**	--	--	--	--	--	--	--	--	--	--	<5.0	<10	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	3/14/2011	<5.0	--	--	--	--	<60.0	<20.0	<100	<5.0	**7,160.0**	--	--	<5.0	**11,500.0**	**34,700.0**	--	--	<50.0	--	--
	6/2/2011	<5.0	**226.0**	<1	**226.0**	<1	<60.0	<20.0	<100	<5.0	**4,170.0**	<0.005	**2.0**	<5.0	**15,100.0**	**32,400.0**	**2.4**	<0.2	<50.0	**2.0**	<1
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	9/6/2012	--	--	--	--	**561**	--	--	--	--	--	--	--	--	--	--	**17**	<10	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	3/14/2011	<5.0	--	--	--	--	<60.0	<20.0	<100	<5.0	<2000	--	--	<5.0	**80,100**	**8,240,000**	--	--	<50.0	--	--
	6/2/2011	<5.0	**905**	<1	**905**	<1	<60.0	<20.0	<100	<5.0	**7,240**	<0.05	**33**	<5.0	**191,000**	**7,260,000**	**3**	<2	<50.0	**210**	**<1**
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/6/2012	--	--	--	--	**806**	--	--	--	--	--	--	--	--	--	--	<5.0	<10	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	9/6/2012	--	--	--	--	**1,720**	--	--	--	--	--	--	--	--	--	--	**24**	<10	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	9/6/2012	--	--	--	--	**2,820**	--	--	--	--	--	--	--	--	--	--	**38**	<10	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analytical Notes:
< - Below laboratory's indicated reporting limit
mg/L - milligrams per liter
MPN/100ML - most probable number per 100 ml
ug/L - micrograms/liter
Bold - Above the laboratory's indicated reporting limit

TABLE 3b
ADDITIONAL HISORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. S191/S04
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

anteagroup

Well I.D.	Date	GROUND WATER ANALYTICAL DATA																		
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous (ug/L)	Lead (ug/L)	Manganese (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum (ug/L)	Nickel (ug/L)	Nitrate as N E300.0 (mg/L)	Nitrate as N E353/E351 (ug/L)	Nitrite as N (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)
MW-3	12/17/2009	--	--	12,300	--	--	--	--	--	--	--	--	--	<50.0	<50.0	--	<50.0	--	--	--
	3/29/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	5,550	10,700	--	--	--	--	--	--	--	--	--	<50.0	95.0	--	76	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	--	--	13,600	--	--	--	--	--	--	--	--	--	<50.0	<10.0	--	53	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	10,900	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-6	9/17/2009	--	--	1,500	--	--	--	--	--	--	--	--	<0.00044	<0.44	--	--	--	--	--	--
	12/17/2009	--	--	2,460	--	--	--	--	--	--	--	--	--	<50.0	<50.0	--	<50.0	--	--	--
	3/29/2010	--	1,790	1,510	--	--	--	--	--	--	--	--	--	<50.0	41	--	55	--	--	--
	6/30/2010	--	946	2,310	--	--	--	--	--	--	--	--	--	<50.0	58	--	69	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	2,730	2,600	--	--	--	--	--	--	--	--	--	<50.0	<10.0	--	52	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	4,900	3,900	1,000	27	1,270	<0.20	474	<20.0	<40.0	--	50	<10.0	--	54	--	--	--
	6/2/2011	870	--	4,320	2,520	1,800	23	1,510	<0.20	445	<20.0	<40.0	--	<50.0	<10.0	3	51	5	--	1,500
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	1,240	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	1,000	--	--	--	--	2,890	--	--	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	<0.10	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/30/2010	--	836	7,550	--	--	--	--	--	--	--	--	--	<50.0	74	--	74	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	--	--	7,800	--	--	--	--	--	--	--	--	--	233	<10.0	--	239	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	264	--	--	--	--	--	--	--	--	--	<50.0	67	--	111	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	6/30/2010	--	4,710	8,000	--	--	--	--	--	--	--	--	--	<50.0	68	--	60	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	--	--	24,900	--	--	--	--	--	--	--	--	--	61	<10.0	--	61	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	21,000	--	--	--	--	--	--	--	--	--	<50.0	48	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	12/17/2009	--	--	2,270	--	--	--	--	--	--	--	--	--	<50.0	<50.0	--	<50.0	--	--	--
	3/29/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	3,210	8,820	--	--	--	--	--	--	--	--	--	<50.0	15	--	<50.0	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3b
ADDITIONAL HISORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/504
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

anteagroup

Well I.D.	Date	GROUND WATER ANALYTICAL DATA																		
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous (ug/L)	Lead (ug/L)	Manganese (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum (ug/L)	Nickel (ug/L)	Nitrate as N E300.0 (mg/L)	Nitrate as N E353/E351 (ug/L)	Nitrite as N (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)
MW-9	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	1,560	157	1,400	<10.0	148	<0.20	419	<20.0	<40.0	--	<50.0	<10.0	--	<50.0	--	--	--
	6/2/2011	240	--	1,260	1,060	200	<10.0	92	<0.20	673	<20.0	<40.0	--	<50.0	<10.0	1	<50.0	1	--	405
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	731	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	9/17/2009	--	--	9,800	--	--	--	--	--	--	--	--	0	12	--	--	--	--	--	--
	12/17/2009	--	--	3,410	--	--	--	--	--	--	--	--	--	1,970	60	--	2,030	--	--	--
	3/29/2010	--	365	2,410	--	--	--	--	--	--	--	--	--	1,960	19	--	1,970	--	--	--
	6/30/2010	--	216	1,860	--	--	--	--	--	--	--	--	--	2,120	68	--	2,190	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	280	3,080	--	--	--	--	--	--	--	--	--	2,690	68	--	2,750	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	2,620	--	--	--	--	--	--	--	--	--	--	--	--	2,350	--	--	--
	6/2/2011	--	--	9,870	--	--	--	--	--	--	--	--	--	1,290	49	--	1,340	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	11,300	--	--	--	--	--	--	--	--	--	1,510	57	--	1,570	--	--	--
	9/6/2012	--	--	--	11,000	--	--	--	--	467	--	--	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	7/6/2010	--	<100	3,510	--	--	--	--	--	--	--	--	--	<50.0	31.0	--	67	--	--	--
	9/20/2010	--	<100	1,690	--	--	--	--	--	--	--	--	--	167	<10.0	--	172	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	756	--	--	--	--	--	--	--	--	--	--	--	--	<50.0	--	--	--
	6/2/2011	--	--	1,040	--	--	--	--	--	--	--	--	--	110	<10.0	--	115	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	1,300	--	--	--	--	--	--	--	--	--	89	<10	--	94	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	7/6/2010	--	<100	30,200	--	--	--	--	--	--	--	--	--	<50.0	61	--	<50.0	--	--	--
	9/20/2010	--	552	3,890	--	--	--	--	--	--	--	--	--	72	<10.0	--	75	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	793	593	200	<10.0	12,400	<0.20	114	<20.0	151	--	<50.0	61	--	54	--	--	--
	6/2/2011	1,100	--	9,340	8,740	600	<10.0	12,800	<0.20	287	<20.0	119	--	<50.0	<10.0	0	58.0	1	--	15,600
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	497	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	190	--	--	--	--	64	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12A	7/6/2010	--	716	57,300	--	--	--	--	--	--	--	--	--	3,680	164	--	3,840	--	--	--
	9/20/2010	--	<100	523	--	--	--	--	--	--	--	--	--	4,680	10	--	4,690	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	523	--	--	--	--	--	--	--	--	--	--	--	--	4,790	--	--	--
	6/2/2011	--	--	754	--	--	--	--	--	--	--	--	--	4,710	<10.0	--	4,720	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	859	--	--	--	--	--	--	--	--	--	4,250	<10	--	4,260	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 3b
ADDITIONAL HISORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/504
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUND WATER ANALYTICAL DATA																		
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous (ug/L)	Lead (ug/L)	Manganese (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum (ug/L)	Nickel (ug/L)	Nitrate as N E300.0 (mg/L)	Nitrate as N E353/E351 (ug/L)	Nitrite as N (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)
MW-13	7/6/2010	--	116	92,600	--	--	--	--	--	--	--	--	--	<50.0	65	--	70	--	--	--
	9/20/2010	--	279	59,500	--	--	--	--	--	--	--	--	--	<50.0	<10.0	--	<50.0	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	44,600	--	--	--	--	--	--	--	--	--	--	--	--	<50.0	--	--	--
	6/2/2011	--	--	36,700	--	--	--	--	--	--	--	--	--	72	15	--	86.0	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	3,760	--	--	--	--	--	--	--	--	--	<50.0	19	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	6/2/2011	--	--	47,500	--	--	--	--	--	--	--	--	--	<50.0	10	--	50	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	1,150	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	8,900	--	--	--	--	718	--	--	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	<0.10	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	6/2/2011	--	--	11,700	--	--	--	--	--	--	--	--	--	890	38.0	--	928	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	2,920	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	6/2/2011	--	--	34,200	--	--	--	--	--	--	--	--	--	<50.0	<10.0	--	<50.0	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	1,730	--	--	--	--	--	--	--	--	--	<50.0	<10	--	<50.0	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	6/2/2011	--	--	109,000	--	--	--	--	--	--	--	--	--	<50.0	30	--	<50.0	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	44,300	--	--	--	--	--	--	--	--	--	<50.0	39	--	<50.0	--	--	--
	9/6/2012	--	--	--	21,000	--	--	--	--	182	--	--	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--	--	--	--	<0.50	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Analytical Notes:
< - Below laboratory's indicated reporting limit
mg/L - milligrams per liter
ug/L - micrograms/liter
Bold - Above the laboratory's indicated reporting limit

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5041
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

anteagroup

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Selenium (ug/L)	Silver (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium (ug/L)	Total Organic Carbon (mg/L)	Vanadium (ug/L)	Zinc (ug/L)
MW-3	12/17/2009	--	--	--	<0.5	--	--	--	--
	3/29/2010	--	--	--	--	--	--	--	--
	6/30/2010	--	--	<5000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--
	6/2/2011	--	--	<5000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	<2000	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-6	9/17/2009	--	--	<1.0	<0.0010	--	--	--	--
	12/17/2009	--	--	--	<0.5	--	--	--	--
	3/29/2010	--	--	<1000	--	--	--	--	--
	6/30/2010	--	--	<5000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	<1000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	<10.0	<10.0	**35,400**	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	<10.0	**38,900**	--	<20.0	41	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**1,110**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-7	6/30/2010	--	--	**191,000**	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--
	6/2/2011	--	--	**48,900**	--	--	--	--	--

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5041
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Selenium (ug/L)	Silver (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium (ug/L)	Total Organic Carbon (mg/L)	Vanadium (ug/L)	Zinc (ug/L)
MW-7	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	56,900	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-8	6/30/2010	--	--	2,360,000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--
	6/2/2011	--	--	2,830,000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	2,570,000	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-9	12/17/2009	--	--	--	11	--	--	--	--
	3/29/2010	--	--	--	--	--	--	--	--
	6/30/2010	--	--	19,000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	<10.0	<10.0	8,980	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	<10.0	18,600	--	<20.0	5	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	42,500	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-10	9/17/2009	--	--	84	0	--	--	--	--
	12/17/2009	--	--	--	86	--	--	--	--
	3/29/2010	--	--	73,600	--	--	--	--	--
	6/30/2010	--	--	70,800	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5041
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Selenium (ug/L)	Silver (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium (ug/L)	Total Organic Carbon (mg/L)	Vanadium (ug/L)	Zinc (ug/L)
MW-10	9/20/2010	--	--	82,000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	68,600	--	--	--	--	--
	6/2/2011	--	--	71,700	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	70,100	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-11	7/6/2010	--	--	82,100	--	--	--	--	--
	9/20/2010	--	--	58,300	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	59,900	--	--	--	--	--
	6/2/2011	--	--	62,900	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	79,400	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-12	7/6/2010	--	--	3,030,000	--	--	--	--	--
	9/20/2010	--	--	1,970,000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	<10.0	<10.0	2,500,000	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	<10.0	2,330,000	--	<20.0	9	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	2,130,000	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-12A	7/6/2010	--	--	100,000	--	--	--	--	--
	9/20/2010	--	--	82,500	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5041
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Selenium (ug/L)	Silver (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium (ug/L)	Total Organic Carbon (mg/L)	Vanadium (ug/L)	Zinc (ug/L)
MW-12A	3/14/2011	--	--	81,000	--	--	--	--	--
	6/2/2011	--	--	101,000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	118,000	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-13	7/6/2010	--	--	450,000	--	--	--	--	--
	9/20/2010	--	--	241,000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	3/14/2011	--	--	375,000	--	--	--	--	--
	6/2/2011	--	--	188,000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	131,000	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-14	6/2/2011	--	--	56,300	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	439,000	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-15	6/2/2011	--	--	62,700	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	42,100	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 STATION NO. 5191/5041
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

anteagroup

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Selenium (ug/L)	Silver (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium (ug/L)	Total Organic Carbon (mg/L)	Vanadium (ug/L)	Zinc (ug/L)
MW-16	6/2/2011	--	--	**8,740**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**19,900**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--
MW-17	6/2/2011	--	--	**3,920,000**	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--
	6/12/2012	--	--	**2,520,000**	--	--	--	--	--
	9/6/2012	--	--	--	--	--	--	--	--
	9/11/2012	--	--	--	--	--	--	--	--
	12/13/2012	--	--	--	--	--	--	--	--

Analytical Notes:
< - Below laboratory's indicated reporting limit
mg/L - milligrams per liter
ug/L - micrograms/liter
Bold - Above the laboratory's indicated reporting limit

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	1	0	0	0	0	0	0	0	0	0
	05/18/95	0.07	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	07/28/96	0.02	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	10/28/96	0.02	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	01/29/97	0.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	04/15/97	0.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	07/15/97	0.10	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	10/09/97	0.10	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	01/14/98	0.02	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	04/01/98	0.05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	07/15/98	0.04	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	09/30/98	0.05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	01/25/99	0.05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	04/15/99	0.04	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	10/21/99	0.03	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	07/14/99	0.04	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	04/13/00	0.050	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	07/14/00	0.033	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	10/26/00	0.060	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	01/03/01	0.070	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	07/17/01	0.040	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	10/01/01	0.030	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	01/31/02	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	07/28/02	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	10/09/02	0.016	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	01/02/03	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	04/01/03	0.008	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	07/29/09	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	10/02/03	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	01/09/04	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	04/26/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	07/22/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	10/29/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	01/10/05	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	06/15/05	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	09/27/05	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	12/13/05	0.005	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	03/23/06	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	06/23/06	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	09/26/06	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	12/22/06	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	03/30/07	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	09/25/07	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	12/28/07	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	06/28/07	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	03/22/08	0.020	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	06/23/08	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	09/19/08	0.006	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	12/31/08	0.005	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	03/27/09	0.008	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	05/28/09	0.008	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	09/17/09	0.010	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
	12/17/09	0.008	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	03/29/10	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	06/30/10	0.009	0	0	0	0	0	0	1	0	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	1	0	0	0	0	0	0	0	0	0
	03/14/11	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	06/02/11	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	09/07/11	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	12/05/11	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	03/06/12	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
	06/11/12	0.050	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	09/06/12	Variable	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	12/13/12	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
		0.025 Average	0	0	0	0	0	1	30	1	13	0	20	2	3	0	0	0

Explanation
NA = Not available
Number of Events = 67

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).

March 2012 – Antea Group advanced five soil borings (HPB-1 through HPB-5) at the site. The borings were advanced using direct push technology. The borings were used to obtain a hydraulic profile of the substrate beneath the site. The data obtained during the investigation will be used to determine the best path forward in terms of remediation.

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 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**

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 dewaters 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.

Appendix C

Blaine Tech Services Groundwater Sampling Field Data Sheets

Well-Head Inspection & Well Gauging Form

Antea Group Project No: 270591 **Site Address:** 449 Hegenberger Rd Oakland CA

Field Technician: Jose Ortiz Blaine Tech **Date:** 12-13-17 **Weather:** Clear

(Print Full Name & Company)*

			Well Condition												
	Sample Order	Field Point	Bolts	Seal	Lid Secure	Lock	Expanding Cap	Water in Well Box	Well Casing Dia.	Time Gauged	Depth to Water (Feet)	Depth to Bottom (Feet)	Depth to LNAPL (Feet)	LNAPL Thickness (Feet)	Comments
JO	5	MW-3	G	G	G	G	G	Y	2	0845	2.50	13.90	—	—	
BW	12	MW-6	G	G	G	G	G	N	2	0914	2.90	12.62	—	—	
BW	2	MW-7	G	G	G	G	G	N	2	0845	3.43	12.92	—	—	
BW	1	MW-8	G	G	G	G	G	N	2	0840	2.31	14.68	—	—	
BW	4	MW-9	P	G	G	G	G	Y	2	0850	1.80	12.59	—	—	1/3 Bolts missing 1/3 Tabs Broken
JO	7	MW-10	G	G	G	G	G	N	2	0859	3.40	12.66	—	—	
BW	6	MW-11	G	G	G	G	G	N	4	0855	1.56	19.53	—	—	
JO	11	MW-12	G	G	G	G	G	Y	4	0912	3.35	19.50	—	—	
JO	3	MW-12A	G	G	G	G	G	Y	2	0841	3.80	32.62	—	—	
BW	8	MW-13	G	G	G	G	G	Y	2	0850	3.80	14.52	—	—	
JO	13	MW-14	G	G	G	G	G	N	2	0916	3.26	12.77	—	—	
BW	9	MW-15	G	G	G	G	G	N	2	0904	2.51	12.69	—	—	
JO	10	MW-16	G	G	G	G	G	Y	2	0910	2.50	12.67	—	—	
JO	14	MW-17	G	G	G	G	G	N	2	0920	4.20	12.67	—	—	

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

Groundwater Sampling Form

Site Address:	949 Heyenbergen Rd Oakland CA		
Project No:	270519 1 J	Field Technician:	JO
Field Point:	MW-3	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	2.50	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	___	Thickness of LNAPL (ft):	___
Total Depth of Well (ft bgs):	13.90	Water Column Height (ft):	11.40

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): 11.40 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.9

Casing Volume (gal): 1.9 X Specified Volumes: 3 ~~5~~ = Calculated Purge (gal): 5.7

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

Purge: Start Time: 0942 Stop Time: 0948

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								
0943	20.0	6.79	2991	-107.6	33	0.24	1.0	
0944	20.2	6.79	3006	-107.1	36	0.27	2.0	
0945	20.3	6.79	3015	-109.7	37	0.27	3.0	
0946	20.3	6.79	3023	-111.4	37	0.28	4.0	
0947	20.3	6.79	3025	-113.9	38	0.28	5.0	
0948	20.3	6.79	3030	-115.7	38	0.28	6.0	
Post-Purge								

Did Well dewater? Yes No Total Purge volume (gal): 6.0

Other Comments: 80% = 4.78
DTW = ~~4.50~~ 4.27 (2hr)
Purged through flow cell

Sample Info:

Sample ID: MW-3-20121231 Sample Date and Time: 12-13-12 / 1150

Selected Analysis: See COC

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

Signature: [signature] Date: 12-13-12

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Antea™Group, 1-800-477-7411

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

Groundwater Sampling Form

Site Address:	449 Heyenbergers Rd Oakland CA		
Project No:	270519 J	Field Technician:	SO
Field Point:	MW-6	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	2.90	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.62	Water Column Height (ft):	9.72

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): 9.72 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.7

Casing Volume (gal): 1.7 X Specified Volumes: 3 = Calculated Purge (gal): 5.1

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

Purge: Start Time: 1132 Stop Time: 1357

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								
1134	18.8	6.58	1116	-104	108	0.44	0.8	
1135	18.8	6.51	978	-100	81	0.40	1.7	
1136	18.9	6.48	1216	-102	52	0.38	2.5	
1137	18.9	6.46	1429	-104	41	0.37	3.4	
1138	* Dewatered @ 3.5 gallons *						~~4.2~~	
1355	19.0	6.60	1412	-102	33	0.40	~~5.1~~	
Post-Purge								

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

Other Comments:
80% = 4.84
DTW = Purged through Flow Cell

Sample Info:

Sample ID: MW-6_20121231 Sample Date and Time: 12-13-12 / 1355

Selected Analysis: See COC

This form was provided by Antea Group and completed by: (Print Full Name) ~~Jose Ortiz~~ Brian Weeks, an employee of Blaine Tech Services, Inc.

Signature: Date: 12-13-12

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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:	449 Heyenbergers Rd Oakland CA		
Project No:	270519 1	Field Technician:	SD
Field Point:	MW-7	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	3.43	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.92	Water Column Height (ft):	9.49

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/ PCE Extraction Port); Dedicated Tubing; Disposable Tubing; Other:

Water Column Height (ft): 9.49 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.6

Casing Volume (gal): 1.6 X Specified Volumes: 3 = Calculated Purge (gal): 4.8

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

Purge: Start Time: 0947 Stop Time: 0953

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								
0946	21.1	6.93	1965	-56	42	0.50	0.8	
0949	20.0	6.87	1279	-44	21	0.43	1.6	
0950	20.0	6.83	1177	-42	12	0.40	2.4	
0951	19.5	6.79	1162	-37	9	0.35	3.2	
0952	19.4	6.75	1164	-35	8	0.34	4.0	
0953	19.4	6.73	1170	-34	7	0.33	4.8	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 4.8

Other Comments: 80% = 5.33 DTW = 3.48 Purged Through flow cell

Sample Info:

Sample ID: MW-7_20121231 Sample Date and Time: 12-13-12 / 1000

Selected Analysis: See COC

This form was provided by Antea Group and completed by: (Print Full Name) ~~Jose Ortiz~~ Brian Weeks, an employee of Blaine Tech Services, Inc.

Signature: Date: 12-13-12

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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:	449 Heyenberger Rd Oakland CA		
Project No:	270519	Field Technician:	SO
Field Point:	MW-8	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	2.31	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	___	Thickness of LNAPL (ft):	___
Total Depth of Well (ft bgs):	14.68	Water Column Height (ft):	12.37

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): 12.37 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 2.1

Casing Volume (gal): 2.1 X Specified Volumes: 3 = Calculated Purge (gal): 6.3

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

Purge: Start Time: 0928 Stop Time: 0936

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								
0930	20.7	6.24	8519	-49	237	0.53	1.0	
0931	19.3	6.24	6298	-54	102	0.42	2.1	
0932	19.4	6.23	7011	-60	42	0.41	3.2	
0934	20.1	6.22	7123	-64	19	0.43	4.2	
0935	20.2	6.20	7179	-67	22	0.46	5.2	
0936	20.3	6.23	7208	-69	26	0.47	6.3	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 6.3

Other Comments: 80% = 4.78

DTW = 3.72 Purged through Flow Cell

Sample Info:

Sample ID:	MW-8 - 20121231	Sample Date and Time:	12-13-12 / 1325
Selected Analysis:	See COC		

This form was provided by Antea Group and completed by: (Print Full Name) ~~Joe Orez~~ Brian Meeks, an employee of Blaine Tech Services, Inc.

Signature: ~~Joe~~ [signature] Date: 12-13-12

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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:	449 Heyenbergers Rd Oakland CA		
Project No:	270519 1 J	Field Technician:	JO
Field Point:	MW-9	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	1.80	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	___	Thickness of LNAPL (ft):	___
Total Depth of Well (ft bgs):	12.59	Water Column Height (ft):	10.79

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): 10.79 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.8

Casing Volume (gal): 1.8 X Specified Volumes: 3 = Calculated Purge (gal): 5.4

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

Purge: Start Time: 1015 Stop Time: 1022

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								
1016	20.4	6.61	1624	-105	17	0.36	0.9	
1017	19.8	6.57	1279	-110	12	0.34	1.8	
1018	20.1	6.58	1400	-112	9	0.41	2.7	
1020	20.3	6.63	4268	-119	5	0.32	3.6	
1021	20.2	6.70	5159	-120	4	0.30	4.5	
1022	20.1	6.72	5189	-120	4	0.29	5.4	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 5.4

Other Comments: 80% = 3.96
DTW = 2.68 Purged through Flow Cell

Sample Info:

Sample ID: MW-9-20121231 Sample Date and Time: 12-13-12 / 1335

Selected Analysis: See COC

This form was provided by Antea Group and completed by: (Print Full Name) ~~Jose Ortiz~~ Brian Wicks, an employee of Blaine Tech Services, Inc.

Signature: [signature] Date: 12-13-12

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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:	449 Heyenbergers Rd Oakland CA		
Project No:	270519 V J	Field Technician:	SO
Field Point:	MW-10	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	3.40	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	___	Thickness of LNAPL (ft):	___
Total Depth of Well (ft bgs):	12.66	Water Column Height (ft):	9.26

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): 9.26 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.6

Casing Volume (gal): 1.6 X Specified Volumes: 3 = Calculated Purge (gal): 4.8

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

Purge: Start Time: 0947 Stop Time: 1012

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								
0958	20.2	6.86	2458	-664	37	0.36	0.8	
0959	20.2	6.89	2460	-673	38	0.39	1.6	
1000	20.2	6.87	2463	-697	39	0.37	2.4	
1001	20.2	6.88	2467	-737	39	0.36	3.2	
1002	20.2	6.88	2469	-754	40	0.37	4.0	
1003	20.2	6.89	2469	-754	40	0.38	4.8	
Post-Purge				—		—		

Did Well dewater? Yes (No) Total Purge volume (gal): 4.8

Other Comments: 80% = 5.25 DTW = 3.58 Purged through flow cell

Sample Info:

Sample ID: MW-10-20121231 Sample Date and Time: 12-13-12 / 1010

Selected Analysis: SEE COC

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

Signature: [signature] Date: 12-13-12

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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:	449 Heyenbergers Rd Oakland CA		
Project No:	270519 1 V V	Field Technician:	JO
Field Point:	MW-11	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	1.58	Well Diameter (in):	2 (4) 6 8 ___
Depth to LNAPL (ft bgs):	___	Thickness of LNAPL (ft):	___
Total Depth of Well (ft bgs):	19.53	Water Column Height (ft):	17.97

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/ Bottom Extraction Port) Dedicated Tubing Disposable Tubing Other:___

Water Column Height (ft): 17.97 X Conversion Factor (gal/ft): 0.66 = Casing Volume (gal): 11.9

Casing Volume (gal): 11.9 X Specified Volumes: 3 = Calculated Purge (gal): 35.7

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

Purge: Start Time: 1038 Stop Time: 1050

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								
1040	20.9	7.34	1028	-52	40	0.21	6.0	
1042	21.2	7.33	1045	-36	12	0.16	11.9	
1044	21.3	7.31	1041	-31	7	0.14	18.0	
1046	21.4	7.31	1038	-29	5	0.12	24.0	
1048	21.4	7.30	1030	-28	5	0.11	30.0	
1050	21.4	7.29	1035	-29	5	0.11	36.0	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 36.0

Other Comments: 80% = 5.15
DTW = 3.67 Purged through Flow Cell

Sample Info:

Sample ID: MW-11 : 20121231 Sample Date and Time: 12-13-12 / 1100

Selected Analysis: See COC

This form was provided by Antea Group and completed by: (Print Full Name) ~~Joe Ortiz~~ Brian Weeks, an employee of Blaine Tech Services, Inc.

Signature: _____ Date: 12-13-12

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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:	449 Heyenbergers Rd Oakland CA		
Project No:	270519 1 V	Field Technician:	JO
Field Point:	MW-12A	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	3.00	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	———	Thickness of LNAPL (ft):	———
Total Depth of Well (ft bgs):	32.62	Water Column Height (ft):	29.62

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/ RED
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:

Water Column Height (ft): 29.62 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 4.9

Casing Volume (gal): 4.9 X Specified Volumes: 3 = Calculated Purge (gal): 14.7

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

Purge: Start Time: 0925 Stop Time: 0932

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								
0926	19.2	6.93	3119	-126	>1000	0.29	2.5	
0927	19.2	6.94	3120	-123.4	>1000	0.27	5.0	
0928	19.2	6.94	3122	-127.6	326	0.26	7.5	
0929	19.3	6.94	3126	-129.7	129	0.24	10.0	
0930	19.3	6.94	3126	-130.1	124	0.24	12.5	
0931	19.4	6.94	3129	-131.6	122	0.24	15.0	
Post-Purge				———		———		

Did Well dewater? Yes (No) Total Purge volume (gal): 15.0

Other Comments: 80% = 9.86 DTW = 3.97 purged through flowcell

Sample Info:

Sample ID:	MW-12A_20121231	Sample Date and Time:	12-13-12 / 0935
Selected Analysis:	See COC		

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

Signature: Date: 12-13-12

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Antea™Group, 1-800-477-7411

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

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

Groundwater Sampling Form

Site Address:	449 Heyenbergers Rd Oakland CA		
Project No:	270519	Field Technician:	JO
Field Point:	MW-12	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	3.35	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):	16.15

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/ Rope)
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:

Water Column Height (ft): 16.15 X Conversion Factor (gal/ft): ~~0.66~~ 0.66 = Casing Volume (gal): 10.6

Casing Volume (gal): 10.6 X Specified Volumes: 3 = Calculated Purge (gal): 31.8

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

Purge: Start Time: 1134 Stop Time: 1137

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								
1122	19.2	6.67	17025	-33.7	22	0.49	5.3	
1125	19.2	6.67	16885	-36.4	24	0.50	10.6	
1129	19.2	6.68	16442	-39.7	24	0.51	15.9	
1131	19.2	6.69	16412	-39.6	24	0.49	21.2	
1134	19.2	6.70	16397	-41.2	22	0.49	26.5	
1137	19.2	6.70	16391	-43.6	23	0.49	31.8	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 31.8

Other Comments: 80% = 6.58
DTW = 5.34 FD1-121312@1145

Sample Info:

Sample ID: MW-12-20121231 Sample Date and Time: 12-13-12 / 1140

Selected Analysis: See COC

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

Signature: [signature] Date: 12-13-12

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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:	449 Hegenberger Rd Oakland CA		
Project No:	2705191	Field Technician:	JO
Field Point:	MW-13	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	3.80	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	14.52	Water Column Height (ft):	10.72

Purging Info and Calculations:

Purge Method:

Low-Flow
(3 casing volumes) [circled]
Other:____________

Purge Equipment:

Disposable Bailer
(Electric Submersible) [circled]
Peristaltic Pump
Bladder Pump
Other:____________

Sample Collection Method:

(Disposable Bailer) [circled]
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:____________

Water Column Height (ft): 10.72 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.8

Casing Volume (gal): 1.8 X Specified Volumes: 3 = Calculated Purge (gal): 5.4

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

Purge: Start Time: 1023 Stop Time: 1029

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								
1024	18.8	7.41	3362	-104.1	33	0.41	0.9	
1025	18.7	7.40	3362	-105.2	32	0.42	1.8	
1026	18.7	7.40	3358	-106.9	33	0.43	2.7	
1027	18.6	7.39	3354	-107.3	34	0.42	3.6	
1028	18.6	7.41	3351	-109.6	34	0.42	4.5	
1029	18.6	7.41	3350	-109.9	34	0.42	5.4	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 5.4

Other Comments: 80% = 5.18 Purged through flowcell
DTW = 4.06

Sample Info:

Sample ID:	MW-13_20121231	Sample Date and Time:	12-13-12 / 1035
Selected Analysis:	See COC		

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

Signature: [signature] Date: 12-13-12

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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:	449 Hegenberger Rd Oakland CA		
Project No:	2705191	Field Technician:	JO
Field Point:	MW-14	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	3.26	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.77	Water Column Height (ft):	9.51

Purging Info and Calculations:

Purge Method: Low-Flow; (3 casing volumes) [circled]; Other: ______

Purge Equipment: Disposable Bailer; (Electric Submersible) [circled]; Peristaltic Pump; Bladder Pump; Other: ______

Sample Collection Method: (Disposable Bailer) [circled] w BCP; ~~Extraction Port~~; Dedicated Tubing; Disposable Tubing; Other: ______

Water Column Height (ft): 9.51 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.6

Casing Volume (gal): 1.6 X Specified Volumes: 3 = Calculated Purge (gal): 4.8

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

Purge: Start Time: 1153 Stop Time: 1158

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								
1153	16.4	6.92	4681	-70	80	0.41	0.8	
1154	16.5	6.98	4582	-72	52	0.38	1.6	
1155	16.9	6.93	5281	-74	28	0.31	2.4	
1156	17.5	6.88	14321	-76	18	0.30	3.2	
1157	17.6	6.81	14812	-77	15	0.30	4.0	
1158	17.8	6.80	14932	-78	11	0.29	4.8	
Post-Purge								

Did Well dewater? Yes (No) [circled] Total Purge volume (gal): 4.8

Other Comments: 80% = 5.16
DTW = 4.21 FOR 123112 @ 1411 Purged Through Flow Cell

Sample Info:

Sample ID:	MW-14-20121231	Sample Date and Time:	12-13-12 / 1405
Selected Analysis:	See COC		

This form was provided by Antea Group and completed by: (Print Full Name) ~~Jose Ortiz~~ Brian Weeks, an employee of Blaine Tech Services, Inc.

Signature: [signature] Date: 12-13-12

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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:	949 Heyenbergers Rd Oakland CA		
Project No:	270519 J J	Field Technician:	JO
Field Point:	MW-15	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	2.51	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	———	Thickness of LNAPL (ft):	———
Total Depth of Well (ft bgs):	12.69	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) WATER
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): 5.1

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

Purge: Start Time: 1114 Stop Time: 1121

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								
1115	19.3	6.40	1549	-66	39	0.45	0.8	
1116	19.4	6.38	1602	-74	21	0.41	1.7	
1117	20.1	6.49	2201	-75	18	0.44	2.6	
1118	20.4	6.62	2892	-75	15	0.41	3.4	
1120	20.6	6.70	2942	-75	17	0.40	4.2	
1121	20.6	6.72	3002	-76	18	0.39	5.1	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 5.1

Other Comments: 80% = 4.55
DTW = 4.00
Purged through Flow Cell

Sample Info:

Sample ID:	MW-15-20121231	Sample Date and Time:	12-13-12 / 1345
Selected Analysis:	See COC		

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

Signature: _____ Date: 12-13-12

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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:	449 Heyenberger Rd Oakland CA		
Project No:	270519 1 V	Field Technician:	JO
Field Point:	MW-16	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	2.50	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	———	Thickness of LNAPL (ft):	———
Total Depth of Well (ft bgs):	12.67	Water Column Height (ft):	10.17

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/ Bottom)
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 10.17 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.7

Casing Volume (gal): 1.7 X Specified Volumes: 3 = Calculated Purge (gal): 5.1

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

Purge: Start Time: 1152 Stop Time: 1205

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								
1058	19.9	7.29	5202	-77.8	>1000	2.87		
1059	19.9	7.12	4367	-70.2	>1000	1.24	1.7	
1100	19.9	6.99	3629	-65.6	349	0.21		
1101	20.1	6.97	3633	-64.3	309	0.22	3.4	
1102	20.2	6.92	3630	-59.9	279	0.20		
1103	20.2	6.92	3625	-57.9	374	0.21	5.1	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 5.1

Other Comments: 80% = 9.53 DTW = 4.21 Purged through flowcell

Sample Info:

Sample ID:	MW-16_20121231	Sample Date and Time:	12-13-12 / 1110
Selected Analysis:	See COC		

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

Signature: _____ Date: 12-13-12

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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:	449 Heyenbergers Rd Oakland CA		
Project No:	270519 J	Field Technician:	JO
Field Point:	MW-17	Date:	12-13-12
Depth to Water (DTW) (ft bgs):	4.20	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.67	Water Column Height (ft):	8.47

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) Extraction Port Dedicated Tubing Disposable Tubing Other:_____

Water Column Height (ft): 8.47 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.4

Casing Volume (gal): 1.4 X Specified Volumes: 3 = Calculated Purge (gal): 4.2

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

Purge: **Start Time:**_____ **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								
1205	20.1	6.62	20261	-126.4	37	0.68	0.7	
1206	20.0	6.65	20392	-125.9	40	0.92	1.4	
1207	20.0	6.67	21421	-119.6	40	0.77	2.1	
1208	20.0	6.68	21976	-117.2	42	0.80	2.8	
1209	20.0	6.69	22384	-115.4	43	0.81	3.5	
	Well	dewatered	@		4.0	gallons		
						J		
1425	20.1	6.67	21124	-131.6	44	0.76		
Post-Purge								

Did Well dewater? (Yes) (No) Total Purge volume (gal): 4.0

Other Comments: 80% = 5.89 Purged Through Flowcell
DTW: 6.22 (2hr)

Sample Info:

Sample ID:	MW-17_20121231	Sample Date and Time:	12-13-12 / 1425
Selected Analysis:	See COC		

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

Signature: _____ Date: 12-13-12

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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

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COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2
Cooler # ____ of ____

4Q12 GW Event

Required Lab Information:

Lab Name:	Kiff Analytical
Address:	2795 Second Street #300
Davis, CA 95618	
Lab PM:	Scott Forbes
Phone/Fax:	P: 530-297-4800 F: 530-297-4808
Lab PM email	SForbes@kiffanalytical.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	2705191
Task:	WG_Q_201212
AnteaGrp proj#	
Site Address	449 Hegenberger
City	Oakland
State	CA 94621
AG PM Name:	Dennis Dettloff
Phone/Fax:	P: 916-503-1261 F: 916-638-8385
AG PM Email:	dennis.dettloff@anteagroup.com

Required Invoice Information:

Send Invoice to:	Sandy Hayes
Address:	11050 White Rock Road, Suite 110
City/State	Rancho Cordova CA 95670
Phone #:	916-638-2085
Reimbursement project?	
Non-reimbursement project?	Y
Mark one	
Send EDD to	copeltdata@intelligentehs.com
CC Hardcopy report to	
CC Hardcopy report to	

Turn around time (days)	10
QC level Required: Standard	Special: Mark one
NJ Reduced Deliverable Package?	
MA MCP Cert?	CT RCP Cert? Mark One
Lab Project ID (lab use)	

Valid Matrix Codes

MATRIX		MATRIX	
DRINKING WATER	WP	WATER	W
GROUND WATER	WG	SURFACE WATER	WS
WASTE WATER	WW	WATER QC	WQ
FREE PRODUCT	LF	SLUDGE	SL
SOIL	SO	SEDIMENT	SD
OIL	OL	OTHER	OT
WIPE	SW	ANIMAL TISSUE	TA
AMBIENT AIR	AF		
LIVE AIR	AE		
SOIL GAS	SG		

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	8015TPHDiesel W Silic.	8260 GC/MS GRO	8260BNexMtbeTBA	8260Ethanol	Comments/Lab Sample I.D.
1	MW-10_20121231	WG	G	12-13-12	10 10	5	N				Y					X	X	X	X	
2	MW-11_20121231	WG			11 00						Y					X	X	X	X	8015 Diesel is
3	MW-12_20121231	WG			11 40						Y					X	X	X	X	with Silica Gel
4	MW-12A_20121231	WG			09 35						Y					X	X	X	X	
5	MW-13_20121231	WG			10 35						Y					X	X	X	X	
6	MW-14_20121231	WG			14 05						Y					X	X	X	X	
7	MW-15_20121231	WG			13 45						Y					X	X	X	X	
8	MW-16_20121231	WG			11 10						Y					X	X	X	X	
9	MW-17_20121231	WG			14 25						Y					X	X	X	X	
10	MW-3_20121231	WG			11 50						Y					X	X	X	X	
11	MW-6_20121231	WG			13 55						Y					X	X	X	X	
12	MW-7_20121231	WG			10 00						Y					X	X	X	X	

Additional Comments/Special Instructions:

Global ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	12-13-12	1605		12-13-12	1605

Sample Receipt Conditions

	Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N
		Y / N	Y / N	Y / N

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: Time:

Inogen Environmental Labs

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COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

4Q12 GW Event

Required Lab Information:

Lab Name:	Kiff Analytical
Address:	2795 Second Street #300
Davis, CA 95618	
Lab PM:	Scott Forbes
Phone/Fax:	P: 530-297-4800 F: 530-297-4808
Lab PM email	SForbes@kiffanalytical.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	2705191
Task:	WG_Q_201212
AnteaGrp proj#	
Site Address	449 Hegenberger
City	Oakland
State	CA 94621
AG PM Name:	Dennis Dettloff
Phone/Fax:	P: 916-503-1261 F: 916-638-8385
AG PM Email:	dennis.dettloff@anteagroup.com

Required Invoice Information:

Send Invoice to:	Sandy Hayes
Address:	11050 White Rock Road, Suite 110
City/State	Rancho Cordova CA 95670
Phone #:	916-638-2085
Reimbursement project?	
Non-reimbursement project?	Y
Mark one	
Send EDD to	copeltdata@intelligentehs.com
CC Hardcopy report to	
CC Hardcopy report to	

Turn around time (days)	10
QC level Required: Standard	Special / Mark one
NJ Reduced Deliverable Package?	
MA MCP Cert? / CT RCP Cert?	Mark One
Lab Project ID (lab use)	

Valid Matrix Codes

MATRIX		MATRIX	
DRINKING WATER	WP	WATER	W
GROUND WATER	WG	SURFACE WATER	WS
WASTE WATER	WW	WATER QC	WQ
FREE PRODUCT	LT	SLUDGE	SL
SOIL	SO	RINSEATE	WH
OIL	OL	OTHER	OT
WIPE	SW	ANIMAL TISSUE	TA
AMBIENT AIR	AA		
SVE AIR	AF		
SOIL GAS	GE		

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analyses: 8015TPHDiesel W/ Silic.	8260 GC/MS GRO	8260BtexMtbeTBA	8260Ethanol	Comments/Lab Sample I.D.
1	MW-8_20121231	WG	G	12-13-12	13 25	5	N				X					X	X	X	X	
2	MW-9_20121231	WG			13 35						X					X	X	X	X	8015 Diesel is with Silica Gel
3	FD1_20121231	W			11 45						X					X	X	X	X	
4	FD2_20121231	W			14 10						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
	12-13-12	1605		12-13-12	1605

Sample Receipt Conditions

	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?

SHIPPING METHOD: (mark as appropriate) UPS COURIER FEDEX US MAIL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed: Time:

Inogen Environmental Alliance

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME COP 270991				PROJECT NUMBER 121312-J01			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI Pro plus	10G102052	02-13-12 0615	7,10,4 3900 DO% ORP	7.01,3.91,9.99 3902 us 100% 236.2	yes	16°C	JD

Appendix D

Certified Laboratory Analytical Report and Data Validation Form

Is the Data Set Valid? (circle)	Preservation Temperature (if Known): 2.0 °C
Yes / No	

Antea™Group Laboratory Data Validation Sheet

Project/Client: 76 Station No. 5191 / COP-ELT
Project #: 142705191
Date of Validation: 12/28/12 **Date of Analysis:** 12/20/12 + 12/21/12
Sample Date: 12/13/12 **Completed By:** ETW
Signature:

Circle or Highlight **Yes** / **No** (below)

Analytical Lab Used and Report # (if any): Kiff # 83531

1.	Were the analyses the ones requested?	**Yes** / No
2.	Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?	**Yes** / No
3.	Were samples prepared (extracted, filtered, etc.) within EPA holding times?	**Yes** / No
4.	Once prepared/extracted, were the samples analyzed within the EPA holding times?	**Yes** / No
5.	Were Laboratory blanks performed, if so, were they non-detect?	**Yes** / No
6.	Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m^3,etc.)	**Yes** / No
7.	Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?	**Yes** / No
8.	In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?	**Yes** / No
9.	Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approximately 80-120%, depending on the analyte)?	Yes / **No**
10.	Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?	**Yes** / No
11.	Were Relative Percent Difference values within the acceptable range (i.e. ±25%)?	**Yes** / No

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

9. LCS + MS/MSD for Ethanol associated w/ MW-10, MW-11, MW-12A, MW-3, MW-6, and MW-8 were above control limits. Since Ethanol was not detected above the MRL in associated sample, no data is flagged.

other: TBA for MW-12 + FD-1 may be biased high due to the conversion of MTBE to TBA during testing. Data flagged w/ a J.

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/2012

Laboratory Results

Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Subject : 16 Water Samples
Project Name : 2705191
Project Number :

Dear Mr. Dettloff,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed. Testing procedures comply with the 2003 NELAC and TNI 2009 standards. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Troy G. Turpen

Troy Turpen

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/2012

Subject : 16 Water Samples
Project Name : 2705191
Project Number :

Case Narrative

Tert-Butanol results for samples MW-12_20121231 and FD1_20121231 may be biased slightly high and are flagged with a 'J'. A fraction of MtBE (typically less than 1%) converts to Tert-Butanol during the analysis of water samples. We consider this conversion effect to be mathematically significant in samples that contain MtBE/Tert-Butanol in ratios of over 20:1.

LCS and Matrix Spike/Matrix Spike Duplicate results associated with samples MW-10_20121231, MW-11_20121231, MW-12A_20121231, MW-3_20121231, MW-6_20121231, and MW-8_20121231 for the analyte Ethanol were above control limits. This may indicate a high bias for the sample that was spiked. Since Ethanol was not detected above the Method Reporting Limit in the associated samples, no data are flagged.

KIFF Analytical LLC

Analysis Summary

Report Number : 83531

Date : 12/21/12

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :2705191
Project Number :

			Sample Name	MW-10_20121231		MW-11_20121231		MW-12_20121231		MW-12A_2012123		MW-13_20121231		MW-14_20121231		MW-15_20121231	
			Sample Date	12/13/12		12/13/12		12/13/12		12/13/12		12/13/12		12/13/12		12/13/12	
Analyte	Method	Units		MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	ug/L		0.50	**15**	0.50	ND	1.5	**70**	0.50	ND	0.50	ND	1.5	**72**	0.50	ND
Ethylbenzene	EPA 8260B	ug/L		0.50	**1.7**	0.50	ND	1.5	**7.2**	0.50	ND	0.50	ND	1.5	**610**	0.50	ND
Toluene	EPA 8260B	ug/L		0.50	**1.1**	0.50	ND	1.5	**4.6**	0.50	ND	0.50	ND	1.5	**5.8**	0.50	ND
Total Xylenes	EPA 8260B	ug/L		0.50	**5.2**	0.50	ND	1.5	**19**	0.50	ND	0.50	ND	1.5	**780**	0.50	ND
Ethanol	EPA 8260B	ug/L		5.0	ND	5.0	ND	15	ND	5.0	ND	5.0	ND	15	ND	5.0	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	ug/L		0.50	ND	0.50	**27**	1.5	**820**	0.50	ND	0.50	**130**	1.5	ND	0.50	**33**
Tert-Butanol	EPA 8260B	ug/L		5.0	ND	5.0	ND	7.0	**19 J**	5.0	ND	5.0	**14**	7.0	ND	5.0	**7.4**
TPH as Gasoline	EPA 8260B	ug/L		50	**120**	50	ND	150	**480**	50	ND	50	ND	150	**10000**	50	ND
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%			99.5		104		98.4		100		97.5		97.9		98.2
Toluene - d8 (Surr)	EPA 8260B	%			101		102		99.6		101		99.7		99.6		99.9
TPH as Diesel (Silica Gel)	M EPA 8015	ug/L		50	ND	50	ND	50	ND	50	**62**	50	ND	50	ND	50	ND
Octacosane (Silica Gel Surr)	M EPA 8015	%			112		110		106		107		92.3		107		104

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Analysis Summary

Report Number : 83531
Date : 12/21/12

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :2705191
Project Number :

			Sample Name	MW-16_20121231		MW-17_20121231		MW-3_20121231		MW-6_20121231		MW-7_20121231		MW-8_20121231		MW-9_20121231	
			Sample Date	12/13/12		12/13/12		12/13/12		12/13/12		12/13/12		12/13/12		12/13/12	
Analyte	Method	Units		MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results	MRL	Results
Benzene	EPA 8260B	ug/L		1.5	ND	15	**7300**	0.50	ND	4.0	**200**	0.50	ND	0.50	ND	0.50	ND
Ethylbenzene	EPA 8260B	ug/L		1.5	ND	10	**1700**	0.50	ND	4.0	**350**	0.50	ND	0.50	ND	0.50	ND
Toluene	EPA 8260B	ug/L		1.5	ND	10	**2700**	0.50	ND	4.0	**16**	0.50	ND	0.50	ND	0.50	ND
Total Xylenes	EPA 8260B	ug/L		1.5	ND	10	**4600**	0.50	ND	4.0	**1100**	0.50	ND	0.50	ND	0.50	ND
Ethanol	EPA 8260B	ug/L		20	ND	100	ND	5.0	ND	40	ND	5.0	ND	5.0	ND	5.0	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	ug/L		2.0	**980**	10	ND	0.50	**28**	4.0	ND	0.50	ND	0.50	ND	0.50	ND
Tert-Butanol	EPA 8260B	ug/L		9.0	**55**	70	**300**	5.0	**77**	20	**22**	5.0	ND	5.0	ND	5.0	ND
TPH as Gasoline	EPA 8260B	ug/L		150	ND	1000	**55000**	50	**130**	400	**20000**	50	ND	50	ND	50	ND
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%			102		98.1		102		102		98.2		103		98.9
Toluene - d8 (Surr)	EPA 8260B	%			101		105		101		101		105		100		99.3
TPH as Diesel (Silica Gel)	M EPA 8015	ug/L		50	**52**	100	ND	50	ND	50	**470**	50	ND	50	ND	50	ND
Octacosane (Silica Gel Surr)	M EPA 8015	%			106		81.6		103		108		117		101		106

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Analysis Summary

Report Number : 83531

Date : 12/21/12

Attention : Dennis Dettloff
Antea Group
11050 White Rock Rd. Suite 110
Rancho Cordova, CA 95670

Project Name :2705191
Project Number :

			Sample Name	FD1_20121231	FD2_20121231	
			Sample Date	12/13/12	12/13/12	
Analyte	Method	Units	MRL	Results	MRL	Results
Benzene	EPA 8260B	ug/L	1.5	**70**	1.5	**65**
Ethylbenzene	EPA 8260B	ug/L	1.5	**7.1**	1.5	**570**
Toluene	EPA 8260B	ug/L	1.5	**4.8**	1.5	**5.1**
Total Xylenes	EPA 8260B	ug/L	1.5	**20**	1.5	**650**
Ethanol	EPA 8260B	ug/L	15	ND	15	ND
Methyl-t-butyl ether (MTBE)	EPA 8260B	ug/L	1.5	**810**	1.5	ND
Tert-Butanol	EPA 8260B	ug/L	7.0	**18 J**	7.0	ND
TPH as Gasoline	EPA 8260B	ug/L	150	**490**	150	**9000**
1,2-Dichloroethane-d4 (Surr)	EPA 8260B	%		98.6		98.4
Toluene - d8 (Surr)	EPA 8260B	%		100		99.1
TPH as Diesel (Silica Gel)	M EPA 8015	ug/L	50	ND	50	ND
Octacosane (Silica Gel Surr)	M EPA 8015	%		105		102

MRL = Method Reporting Limit
ND = Not Detected

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800
ELAP # 2236

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-10_20121231** Matrix : Water Lab Number : 83531-01
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**15**	0.50	ug/L	EPA 8260B	12/20/12 10:00
Toluene	**1.1**	0.50	ug/L	EPA 8260B	12/20/12 10:00
Ethylbenzene	**1.7**	0.50	ug/L	EPA 8260B	12/20/12 10:00
Total Xylenes	**5.2**	0.50	ug/L	EPA 8260B	12/20/12 10:00
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 10:00
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 10:00
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 10:00
TPH as Gasoline	**120**	50	ug/L	EPA 8260B	12/20/12 10:00
1,2-Dichloroethane-d4 (Surr)	99.5		% Recovery	EPA 8260B	12/20/12 10:00
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/20/12 10:00
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/20/12 14:56
Octacosane (Silica Gel Surr)	112		% Recovery	M EPA 8015	12/20/12 14:56

KIFF Analytical LLC

Report Number : 83531

Date : 12/21/12

Project Name : **2705191**

Project Number :

Sample : **MW-11_20121231** Matrix : Water Lab Number : 83531-02

Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 13:00
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 13:00
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 13:00
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 13:00
Methyl-t-butyl ether (MTBE)	**27**	0.50	ug/L	EPA 8260B	12/20/12 13:00
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 13:00
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 13:00
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/20/12 13:00
1,2-Dichloroethane-d4 (Surr)	104		% Recovery	EPA 8260B	12/20/12 13:00
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	12/20/12 13:00
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/20/12 15:25
Octacosane (Silica Gel Surr)	110		% Recovery	M EPA 8015	12/20/12 15:25

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-12_20121231** Matrix : Water Lab Number : 83531-03
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**70**	1.5	ug/L	EPA 8260B	12/21/12 01:57
Toluene	**4.6**	1.5	ug/L	EPA 8260B	12/21/12 01:57
Ethylbenzene	**7.2**	1.5	ug/L	EPA 8260B	12/21/12 01:57
Total Xylenes	**19**	1.5	ug/L	EPA 8260B	12/21/12 01:57
Methyl-t-butyl ether (MTBE)	**820**	1.5	ug/L	EPA 8260B	12/21/12 01:57
Tert-Butanol	**19 J**	7.0	ug/L	EPA 8260B	12/21/12 01:57
Ethanol	< 15	15	ug/L	EPA 8260B	12/21/12 01:57
TPH as Gasoline	**480**	150	ug/L	EPA 8260B	12/21/12 01:57
1,2-Dichloroethane-d4 (Surr)	98.4		% Recovery	EPA 8260B	12/21/12 01:57
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	12/21/12 01:57
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/20/12 15:54
Octacosane (Silica Gel Surr)	106		% Recovery	M EPA 8015	12/20/12 15:54

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-12A_20121231** Matrix : Water Lab Number : 83531-04
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 14:13
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 14:13
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 14:13
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 14:13
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 14:13
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 14:13
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 14:13
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/20/12 14:13
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	12/20/12 14:13
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/20/12 14:13
TPH as Diesel (Silica Gel)	**62**	50	ug/L	M EPA 8015	12/21/12 01:19
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	107		% Recovery	M EPA 8015	12/21/12 01:19

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-13_20121231** Matrix : Water Lab Number : 83531-05
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 23:04
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 23:04
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 23:04
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 23:04
Methyl-t-butyl ether (MTBE)	**130**	0.50	ug/L	EPA 8260B	12/20/12 23:04
Tert-Butanol	**14**	5.0	ug/L	EPA 8260B	12/20/12 23:04
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 23:04
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/20/12 23:04
1,2-Dichloroethane-d4 (Surr)	97.5		% Recovery	EPA 8260B	12/20/12 23:04
Toluene - d8 (Surr)	99.7		% Recovery	EPA 8260B	12/20/12 23:04
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/21/12 01:54
Octacosane (Silica Gel Surr)	92.3		% Recovery	M EPA 8015	12/21/12 01:54

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-14_20121231** Matrix : Water Lab Number : 83531-06
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**72**	1.5	ug/L	EPA 8260B	12/21/12 12:30
Toluene	**5.8**	1.5	ug/L	EPA 8260B	12/21/12 12:30
Ethylbenzene	**610**	1.5	ug/L	EPA 8260B	12/21/12 12:30
Total Xylenes	**780**	1.5	ug/L	EPA 8260B	12/21/12 12:30
Methyl-t-butyl ether (MTBE)	< 1.5	1.5	ug/L	EPA 8260B	12/21/12 12:30
Tert-Butanol	< 7.0	7.0	ug/L	EPA 8260B	12/21/12 12:30
Ethanol	< 15	15	ug/L	EPA 8260B	12/21/12 12:30
TPH as Gasoline	**10000**	150	ug/L	EPA 8260B	12/21/12 12:30
1,2-Dichloroethane-d4 (Surr)	97.9		% Recovery	EPA 8260B	12/21/12 12:30
Toluene - d8 (Surr)	99.6		% Recovery	EPA 8260B	12/21/12 12:30
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/21/12 02:27
Octacosane (Silica Gel Surr)	107		% Recovery	M EPA 8015	12/21/12 02:27

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-15_20121231** Matrix : Water Lab Number : 83531-07
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 23:39
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 23:39
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 23:39
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 23:39
Methyl-t-butyl ether (MTBE)	**33**	0.50	ug/L	EPA 8260B	12/20/12 23:39
Tert-Butanol	**7.4**	5.0	ug/L	EPA 8260B	12/20/12 23:39
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 23:39
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/20/12 23:39
1,2-Dichloroethane-d4 (Surr)	98.2		% Recovery	EPA 8260B	12/20/12 23:39
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	12/20/12 23:39
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/21/12 03:02
Octacosane (Silica Gel Surr)	104		% Recovery	M EPA 8015	12/21/12 03:02

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-16_20121231** Matrix : Water Lab Number : 83531-08
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 1.5	1.5	ug/L	EPA 8260B	12/20/12 16:39
Toluene	< 1.5	1.5	ug/L	EPA 8260B	12/20/12 16:39
Ethylbenzene	< 1.5	1.5	ug/L	EPA 8260B	12/20/12 16:39
Total Xylenes	< 1.5	1.5	ug/L	EPA 8260B	12/20/12 16:39
Methyl-t-butyl ether (MTBE)	**980**	2.0	ug/L	EPA 8260B	12/21/12 02:32
Tert-Butanol	**55**	9.0	ug/L	EPA 8260B	12/21/12 02:32
Ethanol	< 20	20	ug/L	EPA 8260B	12/21/12 02:32
TPH as Gasoline	< 150	150	ug/L	EPA 8260B	12/20/12 16:39
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	12/20/12 16:39
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/20/12 16:39
TPH as Diesel (Silica Gel)	**52**	50	ug/L	M EPA 8015	12/21/12 03:36
(Note: Hydrocarbons are higher-boiling than typical Diesel Fuel.)					
Octacosane (Silica Gel Surr)	106		% Recovery	M EPA 8015	12/21/12 03:36

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-17_20121231** Matrix : Water Lab Number : 83531-09
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**7300**	15	ug/L	EPA 8260B	12/20/12 14:40
Toluene	**2700**	10	ug/L	EPA 8260B	12/20/12 12:51
Ethylbenzene	**1700**	10	ug/L	EPA 8260B	12/20/12 12:51
Total Xylenes	**4600**	10	ug/L	EPA 8260B	12/20/12 12:51
Methyl-t-butyl ether (MTBE)	< 10	10	ug/L	EPA 8260B	12/20/12 12:51
Tert-Butanol	**300**	70	ug/L	EPA 8260B	12/20/12 14:40
Ethanol	< 100	100	ug/L	EPA 8260B	12/20/12 12:51
TPH as Gasoline	**55000**	1000	ug/L	EPA 8260B	12/20/12 12:51
1,2-Dichloroethane-d4 (Surr)	98.1		% Recovery	EPA 8260B	12/20/12 12:51
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	12/20/12 12:51
TPH as Diesel (Silica Gel)	< 100	100	ug/L	M EPA 8015	12/21/12 04:10
(Note: MRL increased due to interference from Gasoline-range hydrocarbons.)					
Octacosane (Silica Gel Surr)	81.6		% Recovery	M EPA 8015	12/21/12 04:10

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-3_20121231** Matrix : Water Lab Number : 83531-10
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 17:15
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 17:15
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 17:15
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 17:15
Methyl-t-butyl ether (MTBE)	**28**	0.50	ug/L	EPA 8260B	12/20/12 17:15
Tert-Butanol	**77**	5.0	ug/L	EPA 8260B	12/20/12 17:15
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 17:15
TPH as Gasoline	**130**	50	ug/L	EPA 8260B	12/20/12 17:15
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	12/20/12 17:15
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/20/12 17:15
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/21/12 04:44
Octacosane (Silica Gel Surr)	103		% Recovery	M EPA 8015	12/21/12 04:44

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-6_20121231** Matrix : Water Lab Number : 83531-11
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**200**	4.0	ug/L	EPA 8260B	12/20/12 17:50
Toluene	**16**	4.0	ug/L	EPA 8260B	12/20/12 17:50
Ethylbenzene	**350**	4.0	ug/L	EPA 8260B	12/20/12 17:50
Total Xylenes	**1100**	4.0	ug/L	EPA 8260B	12/20/12 17:50
Methyl-t-butyl ether (MTBE)	< 4.0	4.0	ug/L	EPA 8260B	12/20/12 17:50
Tert-Butanol	**22**	20	ug/L	EPA 8260B	12/20/12 17:50
Ethanol	< 40	40	ug/L	EPA 8260B	12/20/12 17:50
TPH as Gasoline	**20000**	400	ug/L	EPA 8260B	12/20/12 17:50
1,2-Dichloroethane-d4 (Surr)	102		% Recovery	EPA 8260B	12/20/12 17:50
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/20/12 17:50
TPH as Diesel (Silica Gel)	**470**	50	ug/L	M EPA 8015	12/20/12 20:15
(Note: Some hydrocarbons lower-boiling, some higher-boiling than Diesel.)					
Octacosane (Silica Gel Surr)	108		% Recovery	M EPA 8015	12/20/12 20:15

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-7_20121231** Matrix : Water Lab Number : 83531-12
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 09:22
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 09:22
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 09:22
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 09:22
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 09:22
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 09:22
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 09:22
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/20/12 09:22
1,2-Dichloroethane-d4 (Surr)	98.2		% Recovery	EPA 8260B	12/20/12 09:22
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	12/20/12 09:22
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/21/12 15:07
Octacosane (Silica Gel Surr)	117		% Recovery	M EPA 8015	12/21/12 15:07

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **MW-8_20121231** Matrix : Water Lab Number : 83531-13
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/21/12 00:55
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/21/12 00:55
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/21/12 00:55
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/21/12 00:55
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/21/12 00:55
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/21/12 00:55
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/21/12 00:55
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/21/12 00:55
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	12/21/12 00:55
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	12/21/12 00:55
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/20/12 21:13
Octacosane (Silica Gel Surr)	101		% Recovery	M EPA 8015	12/20/12 21:13

KIFF Analytical LLC

Report Number : 83531

Date : 12/21/12

Project Name : **2705191**

Project Number :

Sample : **MW-9_20121231** Matrix : Water Lab Number : 83531-14

Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 09:19
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 09:19
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 09:19
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 09:19
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/20/12 09:19
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 09:19
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12 09:19
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/20/12 09:19
1,2-Dichloroethane-d4 (Surr)	98.9		% Recovery	EPA 8260B	12/20/12 09:19
Toluene - d8 (Surr)	99.3		% Recovery	EPA 8260B	12/20/12 09:19
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/21/12 12:50
Octacosane (Silica Gel Surr)	106		% Recovery	M EPA 8015	12/21/12 12:50

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **FD1_20121231** Matrix : Water Lab Number : 83531-15
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**70**	1.5	ug/L	EPA 8260B	12/21/12 01:23
Toluene	**4.8**	1.5	ug/L	EPA 8260B	12/21/12 01:23
Ethylbenzene	**7.1**	1.5	ug/L	EPA 8260B	12/21/12 01:23
Total Xylenes	**20**	1.5	ug/L	EPA 8260B	12/21/12 01:23
Methyl-t-butyl ether (MTBE)	**810**	1.5	ug/L	EPA 8260B	12/21/12 01:23
Tert-Butanol	**18 J**	7.0	ug/L	EPA 8260B	12/21/12 01:23
Ethanol	< 15	15	ug/L	EPA 8260B	12/21/12 01:23
TPH as Gasoline	**490**	150	ug/L	EPA 8260B	12/21/12 01:23
1,2-Dichloroethane-d4 (Surr)	98.6		% Recovery	EPA 8260B	12/21/12 01:23
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	12/21/12 01:23
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/20/12 22:11
Octacosane (Silica Gel Surr)	105		% Recovery	M EPA 8015	12/20/12 22:11

KIFF Analytical LLC

Report Number : 83531
Date : 12/21/12

Project Name : **2705191**
Project Number :

Sample : **FD2_20121231** Matrix : Water Lab Number : 83531-16
Sample Date :12/13/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	**65**	1.5	ug/L	EPA 8260B	12/21/12 11:55
Toluene	**5.1**	1.5	ug/L	EPA 8260B	12/21/12 11:55
Ethylbenzene	**570**	1.5	ug/L	EPA 8260B	12/21/12 11:55
Total Xylenes	**650**	1.5	ug/L	EPA 8260B	12/21/12 11:55
Methyl-t-butyl ether (MTBE)	< 1.5	1.5	ug/L	EPA 8260B	12/21/12 11:55
Tert-Butanol	< 7.0	7.0	ug/L	EPA 8260B	12/21/12 11:55
Ethanol	< 15	15	ug/L	EPA 8260B	12/21/12 11:55
TPH as Gasoline	**9000**	150	ug/L	EPA 8260B	12/21/12 11:55
1,2-Dichloroethane-d4 (Surr)	98.4		% Recovery	EPA 8260B	12/21/12 11:55
Toluene - d8 (Surr)	99.1		% Recovery	EPA 8260B	12/21/12 11:55
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/20/12 22:40
Octacosane (Silica Gel Surr)	102		% Recovery	M EPA 8015	12/20/12 22:40

Report Number : 83531

Date : 12/21/12

QC Report : Method Blank Data

Project Name : **2705191**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/20/12
Octacosane (Silica Gel Surr)	103		%	M EPA 8015	12/20/12
TPH as Diesel (Silica Gel)	< 50	50	ug/L	M EPA 8015	12/21/12
Octacosane (Silica Gel Surr)	92.6		%	M EPA 8015	12/21/12
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/20/12
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	12/20/12
Toluene - d8 (Surr)	101		%	EPA 8260B	12/20/12
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/20/12
1,2-Dichloroethane-d4 (Surr)	100		%	EPA 8260B	12/20/12
Toluene - d8 (Surr)	106		%	EPA 8260B	12/20/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/20/12
1,2-Dichloroethane-d4 (Surr)	98.9		%	EPA 8260B	12/20/12
Toluene - d8 (Surr)	99.8		%	EPA 8260B	12/20/12
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/20/12
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/20/12
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/20/12
1,2-Dichloroethane-d4 (Surr)	98.3		%	EPA 8260B	12/20/12
Toluene - d8 (Surr)	100		%	EPA 8260B	12/20/12

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 83531

QC Report : Method Blank Data

Date : 12/21/12

Project Name : **2705191**

Project Number :

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/21/12
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/21/12
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/21/12
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/21/12
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	12/21/12
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/21/12
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	12/21/12
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/21/12
1,2-Dichloroethane-d4 (Surr)	98.2		%	EPA 8260B	12/21/12
Toluene - d8 (Surr)	99.6		%	EPA 8260B	12/21/12

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 83531

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 12/21/12

Project Name : **2705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)														
	BLANK	<50	1000	1000	810	808	ug/L	M EPA 8015	12/20/12	81.0	80.8	0.280	70-130	25
Benzene														
	83531-01	15	40.0	39.9	55.1	54.2	ug/L	EPA 8260B	12/20/12	99.1	97.0	2.08	80-120	25
Ethanol														
	83531-01	<5.0	99.6	99.4	271	205	ug/L	EPA 8260B	12/20/12	**272**	**206**	**27.6**	55.1-159	25
Ethylbenzene														
	83531-01	1.7	40.0	39.9	45.2	44.6	ug/L	EPA 8260B	12/20/12	109	107	1.31	80-120	25
Methyl-t-butyl ether														
	83531-01	<0.50	40.1	40.0	41.0	43.7	ug/L	EPA 8260B	12/20/12	102	109	6.67	69.7-121	25
P + M Xylene														
	83531-01	3.6	40.0	39.9	44.7	43.8	ug/L	EPA 8260B	12/20/12	103	101	1.86	76.8-120	25
Tert-Butanol														
	83531-01	<5.0	201	201	216	208	ug/L	EPA 8260B	12/20/12	108	103	4.08	80-120	25
Toluene														
	83531-01	1.1	40.0	39.9	43.2	43.0	ug/L	EPA 8260B	12/20/12	105	105	0.245	80-120	25
Benzene														
	83531-12	<0.50	40.0	40.0	41.0	40.6	ug/L	EPA 8260B	12/20/12	102	102	0.899	80-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 12/21/2012

Project Name : **2705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Ethanol														
	83531-12	<5.0	99.6	99.6	102	98.1	ug/L	EPA 8260B	12/20/12	102	98.5	3.90	55.1-159	25
Ethylbenzene														
	83531-12	<0.50	40.0	40.0	41.9	40.9	ug/L	EPA 8260B	12/20/12	105	102	2.39	80-120	25
Methyl-t-butyl ether														
	83531-12	<0.50	40.1	40.1	46.0	45.8	ug/L	EPA 8260B	12/20/12	115	114	0.465	69.7-121	25
P + M Xylene														
	83531-12	<0.50	40.0	40.0	40.6	39.7	ug/L	EPA 8260B	12/20/12	102	99.3	2.29	76.8-120	25
Tert-Butanol														
	83531-12	<5.0	201	201	216	213	ug/L	EPA 8260B	12/20/12	107	106	1.33	80-120	25
Toluene														
	83531-12	<0.50	40.0	40.0	44.0	43.2	ug/L	EPA 8260B	12/20/12	110	108	1.93	80-120	25
Benzene														
	83531-14	<0.50	40.0	40.0	41.9	40.1	ug/L	EPA 8260B	12/20/12	105	100	4.26	80-120	25
Ethanol														
	83531-14	<5.0	99.6	99.6	124	126	ug/L	EPA 8260B	12/20/12	125	127	1.47	55.1-159	25
Ethylbenzene														
	83531-14	<0.50	40.0	40.0	41.0	39.2	ug/L	EPA 8260B	12/20/12	102	98.1	4.42	80-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 83531

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 12/21/2012

Project Name : **2705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Methyl-t-butyl ether														
	83531-14	<0.50	40.1	40.1	40.9	40.1	ug/L	EPA 8260B	12/20/12	102	100	1.85	69.7-121	25
P + M Xylene														
	83531-14	<0.50	40.0	40.0	40.7	38.8	ug/L	EPA 8260B	12/20/12	102	97.1	4.67	76.8-120	25
Tert-Butanol														
	83531-14	<5.0	201	201	208	207	ug/L	EPA 8260B	12/20/12	104	103	0.900	80-120	25
Toluene														
	83531-14	<0.50	40.0	40.0	42.4	40.6	ug/L	EPA 8260B	12/20/12	106	101	4.39	80-120	25
Benzene														
	83598-02	79	40.0	40.0	118	114	ug/L	EPA 8260B	12/20/12	97.1	88.0	9.82	80-120	25
Ethanol														
	83598-02	5.8	99.6	99.6	130	128	ug/L	EPA 8260B	12/20/12	124	123	0.922	55.1-159	25
Ethylbenzene														
	83598-02	<0.50	40.0	40.0	40.8	39.2	ug/L	EPA 8260B	12/20/12	102	98.1	4.05	80-120	25
Methyl-t-butyl ether														
	83598-02	110	40.1	40.1	156	153	ug/L	EPA 8260B	12/20/12	117	109	6.95	69.7-121	25
P + M Xylene														
	83598-02	0.59	40.0	40.0	40.2	39.0	ug/L	EPA 8260B	12/20/12	99.1	96.1	3.05	76.8-120	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

Report Number : 83531

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 12/21/2012

Project Name : **2705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Tert-Butanol														
	83598-02	65	201	201	284	278	ug/L	EPA 8260B	12/20/12	109	106	2.67	80-120	25
Toluene														
	83598-02	0.55	40.0	40.0	42.2	40.8	ug/L	EPA 8260B	12/20/12	104	100	3.52	80-120	25
Benzene														
	83551-13	<0.50	40.0	40.0	41.1	40.3	ug/L	EPA 8260B	12/21/12	103	101	2.01	80-120	25
Ethanol														
	83551-13	<5.0	99.6	99.6	125	123	ug/L	EPA 8260B	12/21/12	125	124	1.32	55.1-159	25
Ethylbenzene														
	83551-13	<0.50	40.0	40.0	39.5	38.7	ug/L	EPA 8260B	12/21/12	98.8	96.7	2.17	80-120	25
Methyl-t-butyl ether														
	83551-13	54	40.1	40.1	95.5	94.6	ug/L	EPA 8260B	12/21/12	103	101	2.24	69.7-121	25
P + M Xylene														
	83551-13	<0.50	40.0	40.0	38.5	38.0	ug/L	EPA 8260B	12/21/12	96.4	95.1	1.27	76.8-120	25
Tert-Butanol														
	83551-13	<5.0	201	201	207	205	ug/L	EPA 8260B	12/21/12	103	102	1.26	80-120	25
Toluene														
	83551-13	<0.50	40.0	40.0	41.3	40.6	ug/L	EPA 8260B	12/21/12	103	101	1.79	80-120	25

Report Number : 83531

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 12/21/2012

Project Name : **2705191**

Project Number :

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH-D (Si Gel)														
	BLANK	<50	1000	1000	814	816	ug/L	M EPA 8015	12/21/12	81.4	81.6	0.214	70-130	25

KIFF ANALYTICAL, LLC

2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

QC Report : Laboratory Control Sample (LCS)

Project Name : **2705191**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	12/20/12	99.6	80-120
Ethanol	99.6	ug/L	EPA 8260B	12/20/12	**203**	55.1-159
Ethylbenzene	40.0	ug/L	EPA 8260B	12/20/12	107	80-120
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	12/20/12	102	69.7-121
P + M Xylene	40.0	ug/L	EPA 8260B	12/20/12	101	76.8-120
Tert-Butanol	201	ug/L	EPA 8260B	12/20/12	102	80-120
Toluene	40.0	ug/L	EPA 8260B	12/20/12	104	80-120
Benzene	40.0	ug/L	EPA 8260B	12/20/12	102	80-120
Ethanol	99.6	ug/L	EPA 8260B	12/20/12	108	55.1-159
Ethylbenzene	40.0	ug/L	EPA 8260B	12/20/12	104	80-120
Methyl-t-butyl ether	40.1	ug/L	EPA 8260B	12/20/12	113	69.7-121
P + M Xylene	40.0	ug/L	EPA 8260B	12/20/12	103	76.8-120
TPH as Gasoline	498	ug/L	EPA 8260B	12/20/12	104	70.0-130
Tert-Butanol	201	ug/L	EPA 8260B	12/20/12	107	80-120
Toluene	40.0	ug/L	EPA 8260B	12/20/12	110	80-120
Benzene	40.1	ug/L	EPA 8260B	12/20/12	104	80-120
Ethanol	99.9	ug/L	EPA 8260B	12/20/12	128	55.1-159
Ethylbenzene	40.1	ug/L	EPA 8260B	12/20/12	103	80-120
Methyl-t-butyl ether	40.2	ug/L	EPA 8260B	12/20/12	100	69.7-121
P + M Xylene	40.1	ug/L	EPA 8260B	12/20/12	103	76.8-120

QC Report : Laboratory Control Sample (LCS)

Project Name : **2705191**

Project Number :

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
TPH as Gasoline	495	ug/L	EPA 8260B	12/20/12	98.6	70.0-130
Tert-Butanol	202	ug/L	EPA 8260B	12/20/12	104	80-120
Toluene	40.1	ug/L	EPA 8260B	12/20/12	106	80-120
Benzene	40.1	ug/L	EPA 8260B	12/20/12	102	80-120
Ethanol	99.9	ug/L	EPA 8260B	12/20/12	122	55.1-159
Ethylbenzene	40.1	ug/L	EPA 8260B	12/20/12	100	80-120
Methyl-t-butyl ether	40.2	ug/L	EPA 8260B	12/20/12	98.4	69.7-121
P + M Xylene	40.1	ug/L	EPA 8260B	12/20/12	97.6	76.8-120
TPH as Gasoline	495	ug/L	EPA 8260B	12/20/12	93.6	70.0-130
Tert-Butanol	202	ug/L	EPA 8260B	12/20/12	102	80-120
Toluene	40.1	ug/L	EPA 8260B	12/20/12	103	80-120
Benzene	40.1	ug/L	EPA 8260B	12/21/12	99.8	80-120
Ethanol	99.9	ug/L	EPA 8260B	12/21/12	126	55.1-159
Ethylbenzene	40.1	ug/L	EPA 8260B	12/21/12	96.1	80-120
Methyl-t-butyl ether	40.2	ug/L	EPA 8260B	12/21/12	96.3	69.7-121
P + M Xylene	40.1	ug/L	EPA 8260B	12/21/12	94.7	76.8-120
TPH as Gasoline	497	ug/L	EPA 8260B	12/21/12	96.2	70.0-130
Tert-Butanol	202	ug/L	EPA 8260B	12/21/12	100	80-120
Toluene	40.1	ug/L	EPA 8260B	12/21/12	101	80-120

KIFF ANALYTICAL, LLC
2795 2nd Street, Suite 300 Davis, CA 95618 530-297-4800

83531

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COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: 1 of 2
Cooler # ____ of ____

4Q12 GW Event

Required Lab Information:

Lab Name:	Kiff Analytical
Address:	2795 Second Street #300
	Davis, CA 95618
Lab PM:	Scott Forbes
Phone/Fax:	P: 530-297-4800 F: 530-297-4808
Lab PM email	SForbes@kiffanalytical.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	2705191
Task:	WG_Q_201212
AnteaGrp proj#	
Site Address	449 Hegenberger
City	Oakland
State	CA 94621
AG PM Name:	Dennis Dettloff
Phone/Fax:	P: 916-503-1261 F: 916-638-8385
AG PM Email:	dennis.dettloff@anteagroup.com

Required Invoice Information:

Send Invoice to:	Sandy Hayes
Address:	11050 White Rock Road, Suite 110
City/State	Rancho Cordova CA 95670
Phone #:	916-638-2085
Reimbursement project?	
Non-reimbursement project?	Y
Mark one	
Send EDD to	copeltdata@intelligentehs.com
CC Hardcopy report to	
CC Hardcopy report to	

Turn around time (days)	10
QC level Required: Standard	Special / Mark one
NJ Reduced Deliverable Package?	
MA MCP Cert?	CT RCP Cert? / Mark One
Lab Project ID (lab use)	

Valid Matrix Codes: MATRIX — DRINKING WATER WP; GROUND WATER WG; WASTE WATER WW; FREE PRODUCT LF; SOIL SO; OIL OL; WIPE SW; AMBIENT AIR AA; SVE AIR AE; SOIL GAS GS; WATER W; SURFACE WATER WS; WATER QC WQ; SLUDGE SL; RINSEATE WH; OTHER OT; ANIMAL TISSUE TA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analyses: 8015TPHDiesel W/ Silic	8260 GCMS GRO	8260BTEXMtbeTBA	8260Ethanol	Comments/Lab Sample I.D.	
01	MW-10_20121231	WG	G	12-13-12	10 10	5	N				Y					x	x	x	x	8015 Diesel is with Silica Gel	01
02	MW-11_20121231	WG			11 00						X					x	x	x	x		02
03	MW-12_20121231	WG			11 40						X					x	x	x	x		03
04	MW-12A_20121231	WG			09 35						X					x	x	x	x		04
05	MW-13_20121231	WG			10 35						X					x	x	x	x		05
06	MW-14_20121231	WG			14 05						X					x	x	x	x		06
07	MW-15_20121231	WG			13 45						X					x	x	x	x		07
08	MW-16_20121231	WG			11 10						X					x	x	x	x		08
09	MW-17_20121231	WG			14 25						X					x	x	x	x		09
10	MW-3_20121231	WG			11 50						X					x	x	x	x		10
11	MW-6_20121231	WG			13 55						X					x	x	x	x		11
12	MW-7_20121231	WG			10 00						X					x	x	x	x		12

Additional Comments/Special Instructions:

Global ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
BTS	12-13-12	1605	BTS	12-13-12	1605
(Sample Custody)			Ron McGee Kiff Anal	121412	1133

Sample Receipt Conditions

	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

Temp in °C | Samples on Ice? | Sample intact? | Trip Blank?

SHIPPING METHOD (check as applicable) — SAMPLER NAME AND SIGNATURE

UPS COURIER FEDEX
US MAIL

PRINT Name of SAMPLER: Jose Ortiz

SIGNATURE of SAMPLER: (Sample Custody) DATE Signed 12/14/12 Time 1605

Inogen Environmental Labs

20121231.2705191.Oakland

83531

COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

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Cooler # ____ of ____

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4Q12 GW Event

Required Lab Information:		**Required** Project Information:				**Required** Invoice Information:					
Lab Name:	Kiff Analytical	Site ID #:	2705191	Task:	WG_Q_201212	Send Invoice to:	Sandy Hayes				
Address:	2795 Second Street #300	AnteaGrp proj#				Address:	11050 White Rock Road, Suite 110			Turn around time (days)	10
Davis, CA 95618		Site Address	449 Hegenberger			City/State	Rancho Cordova CA 95670	Phone #:	916-638-2085	QC level Required: Standard	Special / Mark one
Lab PM:	Scott Forbes	City	Oakland	State	CA 94621	Reimbursement project?		Non-reimbursement project?	Y / Mark one	NJ Reduced Deliverable Package?	
Phone/Fax:	P: 530-297-4800 F: 530-297-4808	AG PM Name:	Dennis Dettloff			Send EDD to	copeltdata@intelligentehs.com			MA MCP Cert? / CT RCP Cert?	Mark One
Lab PM email	SForbes@kiffanalytical.com	Phone/Fax:	P: 916-503-1261 F: 916-638-8385			CC Hardcopy report to				Lab Project ID (lab use)	
Applicable Lab Quote #:		AG PM Email:	dennis.dettloff@anteagroup.com			CC Hardcopy report to					

Valid Matrix Codes: DRINKING WATER WP; GROUND WATER WG; WASTE WATER WW; FREE PRODUCT LF; SOIL SO; OIL OL; WIPE SW; AMBIENT AIR AA; SVE AIR AE; SOIL GAS GS; WATER W; SURFACE WATER WS; WATER QC WQ; SLUDGE SL; RINSEATE WH; OTHER OT; ANIMAL TISSUE TA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / ,-) Samples IDs MUST BE UNIQUE)	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Requested Analyses: 8015TPHDiesel W/ Silic	8260 GC/MS GRO	8260BtexMtbeTBA	8260Ethanol	Comments/Lab Sample I.D.
1	MW-8_20121231	WG	G	12-13-12	13 25	5	N				X					X	X	X	X	13
2	MW-9_20121231	WG			13 35						X					X	X	X	X	14
3	FD1_20121231	W			11 45						X					X	X	X	X	15
4	FD2_20121231	W			14 10						X					X	X	X	X	16
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

8015 Diesel is with Silica Gel

Additional Comments/Special Instructions:

Global ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	12/13/12	1605		12-13-12	1605
(Sample Custody)			Ron McGee Kiff Analytical	121412	1133

Sample Receipt Conditions

Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SHIPPING METHOD: UPS COURIER FEDEX / US MAIL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Jose Ortiz

SIGNATURE of SAMPLER: (Sample Custody) DATE Signed 12/11/12 Time: 1133

Inogen Environmental Alliance

KIFF Analytical LLC

SAMPLE RECEIPT CHECKLIST

RECEIVER: RLM (Initials)

SRG#: 83531 Date: 121412

Project ID: 2705191

Method of Receipt: [X] Courier [ ] Over-the-counter [ ] Shipper

Shipping Only: [ ] FedEx * [ ] OnTrac * [ ] Greyhound [ ] Other *Service level if not Priority or Sunrise (M-F): _____

COC Inspection

Is COC present?			[X] Yes	[ ] No
Custody seals on shipping container?			[ ] Intact	[ ] Broken [ ] Not present [X] N/A
Is COC Signed by Relinquisher?	[X] Yes	[ ] No	Dated? [ ] Yes	[ ] No
Is sampler name legibly indicated on COC?			[ ] Yes	[ ] No
Is analysis or hold requested for all samples?			[X] Yes	[ ] No
Is the turnaround time indicated on COC?			[X] Yes	[ ] No
Is COC free of whiteout and uninitialed cross-outs?			[X] Yes	[ ] No, Whiteout [ ] No, Cross-outs

Sample Inspection

Coolant Present: [X] Yes [ ] No (includes water)

Temperature °C 2.0 Therm. ID# IR-4 Initial RLM Date/Time 121412/1547 [ ] N/A

Are there custody seals on sample containers?			[ ] Intact	[ ] Broken [X] Not present
Do containers match COC?	[X] Yes	[ ] No	[ ] No, COC lists absent sample(s)	[ ] No, Extra sample(s) present
Are there samples matrices other than soil, water, air or carbon?			[ ] Yes	[X] No
Are any sample containers broken, leaking or damaged?			[ ] Yes	[X] No
Are preservatives indicated?	[ ] Yes, on sample containers		[X] Yes, on COC	[ ] Not indicated [ ] N/A
Are preservatives correct for analyses requested?			[X] Yes	[ ] No [ ] N/A
Are samples within holding time for analyses requested?			[X] Yes	[ ] No
Are the correct sample containers used for the analyses requested?			[X] Yes	[ ] No
Is there sufficient sample to perform testing?			[X] Yes	[ ] No

Does any sample contain product, have strong odor or are otherwise suspected to be hot? [ ] Yes [X] No

Receipt Details

Matrix WA	Container type VOA	# of containers received 80
Matrix _____	Container type _____	# of containers received _____
Matrix _____	Container type _____	# of containers received _____

Date and Time Sample Put into Temp Storage Date: 121412 Time: 1600

Quicklog

Are the Sample ID's indicated:	[ ] On COC	[ ] On sample container(s)	[X] On Both	[ ] Not indicated
If Sample ID's are listed on both COC and containers, do they all match?	[ ] Yes		[X] No	[ ] N/A
Is the Project ID indicated:	[ ] On COC	[ ] On sample container(s)	[X] On Both	[ ] Not indicated
If project ID is listed on both COC and containers, do they all match?			[X] Yes [ ] No	[ ] N/A
Are the sample collection dates indicated:	[ ] On COC	[ ] On sample container(s)	[X] On Both	[ ] Not indicated
If collection dates are listed on both COC and containers, do they all match?			[X] Yes [ ] No	[ ] N/A
Are the sample collection times indicated:	[ ] On COC	[ ] On sample container(s)	[X] On Both	[ ] Not indicated
If collection times are listed on both COC and containers, do they all match?	[ ] Yes		[X] No	[ ] N/A

COMMENTS: Sample 83531-13 (MW-8_20121231) has a time of 1325 on all vials. Sample 83531-11-05 (MW-6_20121231) has a sample ID that is not ~~identifiable~~ identifiable. The date and time match the COC. 121212 1500 121712