PACIFIC
CONVENIENCE & FUELS LLC

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October 27, 2011

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

Subject: **Quarterly Summary Report, Third Quarter 2011**

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

Dear Ms. Jakub;

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

If you have any questions or need additional information, please call:

Liz Bermudez
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San Ramon, California 94583
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Sincerely,

PACIFIC CONVENIENCE & FUEL

Liz Bermudez

LIZ BERMUDEZ
Senior Paralegal
Division, Unit, or Group

Attachment

Quarterly Summary Report, Third Quarter 2011

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

Alameda County Health Care Services
Agency Fuel leak Case No. RO0000219
Regional Water Quality Control Board
San Francisco Bay No. 01-1601

GeoTracker Global ID No.T0600101476

Antea Group Project No. I42705191

October 27, 2011

Prepared for:
Ms. Barbara Jakub
Hazardous Materials Specialist
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, Third Quarter 2011*, for the referenced site in Oakland, CA (**Figure 1**). The subject site is an operating 76 station located on the southwestern corner of Hegenberger Road and Edgewater Drive in Oakland, California. Station facilities include three underground storage tanks (USTs), two dispenser islands, a station building, and a carwash. A total of fourteen groundwater monitoring wells are located at or near the site (**Figures 1 and 2**). Please refer to **Appendix A** for additional site information and for the history of environmental investigations and remedial actions.

This report summarizes the data obtained from the recent groundwater monitoring and sampling event conducted on September 7, 2011. Included herein are site figures and groundwater contaminant data tables and a discussion of trends. This report has received a technical review by Mr. Dennis Dettloff, California Professional Geologist No. 7480.

1.1 Work Performed [Third Quarter 2011]

1. Antea Group submitted the *Quarterly Summary Report, Second Quarter 2011*, dated July 26, 2011 to the Alameda County Health Care Services Agency (ACHCSA).
2. Antea Group submitted the Site Investigation Report, dated August 26, 2011 to the ACHCSA.
3. Blaine Tech Services, Inc. (Blaine Tech) conducted the third quarter 2011 groundwater monitoring and sampling event on September 7, 2011.

1.2 Work Proposed [Fourth Quarter 2011]

1. Antea Group will submit the *Quarterly Summary Report, Third Quarter 2011* (contained herein) to the ACHCSA.
2. Blaine tech will conduct the fourth quarter 2011 monitoring and sampling event.
3. Antea Group will prepare and submit a work plan proposing the advancement of five (5) borings in the southern portion of the site for hydraulic profiling. This proposed testing is to be conducted to assess if the soil conditions beneath the site are suitable for in-situ chemical oxidation.

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: 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 wells MW-1 through MW-3:	Min: 2.77 (MW-3, Q3 1994) Max: 9.17 (MW-9, Q4 2010)
Local receptors:	See **Attachment A**
Current remediation technique	None

2.1 Regulatory Correspondence

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

2.2 Remedial Activities

No remedial activities took place during the third quarter 2011.

2.3 Groundwater Monitoring

For the third quarter 2011 groundwater monitoring and sampling event, fourteen wells were gauged and ten wells were 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:	September 7, 2011
Wells gauged:	MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17
Wells sampled:	MW-6, MW-10, MW-11, MW-12, MW-12A, and MW-13 through 17
Purge method:	3 well casing volumes via electric, submersible pump
Sample collection method:	Disposable bailers
Groundwater parameters measured (**Attachment C**):	Temperature, pH, Conductivity, Oxidation-reduction potential (ORP), Turbidity, Dissolved Oxygen (DO)
Wells with measurable LNAPL:	None
Current depth to water range (ft BTOC):	Min: 1. 56 (MW-11) Max: 5.74 (MW-13)
Current groundwater elevation range (ft):	Min: 5.34 (MW-13) Max: 8.98 (MW-14)
Change in water depths from previous event (average change for all gauged wells):	0.0057 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 third quarter 2011 groundwater monitoring and sampling event was performed by Blaine Tech on September 7, 2011. The average groundwater elevation increased 0.0057 feet from the June 2011 event. Depth to groundwater in the site monitoring wells ranged from 1.56 feet (MW-11) to 5.74 feet (MW-13) BTOC during the current event. The groundwater flow direction and gradient were interpreted to be to the southeast at 0.02 ft/ft during the current event which is consistent with the historical groundwater flow direction and gradient (**Table 4**).

2.3.2 Groundwater Quality Data

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

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

Groundwater analytical results are presented in **Table 2** (current) and **Tables 3, 3a, 3b, and 3c** (historical). The following ranges of contaminant concentrations were reported in the specified site wells' groundwater samples collected on September 7, 2011. Only the reported contaminants are listed in the table below.

Constituents	Number of Reported Samples Above LRL of the Samples Collected	Minimum Reported Concentration, in µg/L (Sample ID)	Maximum Reported Concentration, in µg/L (Sample ID)
TPHg	7 of 10	167 (MW-13)	47,200 (MW-17)
DRO	5* of 10	90 (MW-16)	6,780 (MW-6)
Benzene	6 of 10	4.1 (MW-10)	9,620 (MW-17)
Toluene	4 of 10	10.6 (MW-6)	5,510 (MW-17)
Ethylbenzene	6 of 10	0.66 (MW-10)	2,990 (MW-14)
Total Xylenes	5 of 10	2.4 (MW-10)	7,300 (MW-14)
MTBE	6 of 10	0.74 (MW-12A)	1,240 (MW-16)

Explanations:
µg/L = Micrograms per liter LRL = Laboratory reporting limit
* = The DRO results for these samples did not match the pattern of the laboratory standard for diesel.

2.2.3 Groundwater Contaminant Trends

During the third quarter 2011, analytical results from the sample collected from monitoring well MW-6 indicated that DRO, TPHg, BTEX, MTBE, and ethanol decreased in concentration. Analytical results from the groundwater sample collected from monitoring well MW-10 indicated a decrease in TPHg and BTEX concentrations. DRO and MTBE concentrations in monitoring well MW-10 remained below the laboratory's indicated reporting limits, as shown in **Table 3**. Analytical results from the groundwater sample collected from monitoring well MW-11 indicated a decrease in DRO, toluene, and MTBE. Analytical results from the groundwater sample collected from monitoring well MW-12 indicated a decrease in DRO, TPHg, toluene, ethylbenzene, and total xylenes concentrations and an increase in benzene and MTBE concentrations. Analytical results from the groundwater sample collected from monitoring well MW-12A indicated an increase in MTBE concentration. Analytical results from the groundwater sample collected from monitoring well MW-13 indicated a decrease in DRO, TPHg, and MTBE concentrations. Analytical results from the groundwater sample collected from monitoring well MW-14 indicated a decrease in DRO, TPHg, benzene, toluene, and total xylenes concentrations and an increase in ethylbenzene concentration. Analytical results from the groundwater sample collected from monitoring well MW-15 indicated a decrease in DRO concentration and an increase in TPHg, benzene, ethylbenzene, and MTBE concentrations. Analytical results from the groundwater sample collected from monitoring well MW-16 indicated a decrease in DRO, TPHg, benzene, and ethylbenzene concentrations and an increase in MTBE concentration. Analytical results from the groundwater sample collected from monitoring well MW-17 indicated an increase in DRO, TPHg, and BTEX concentrations. Isoconcentration maps for TPHg, benzene, MTBE, and DRO are presented on **Figures 4** through **7** and historical groundwater flow directions are shown on **Figure 8**.

2.3.4 Waste Disposal Summary

Approximately 119 gallons of waste water was generated during well purging/sampling and equipment cleaning during the third quarter event. The waste water was transported to Blaine Tech's bulk facility in San Jose, California. After the batching process, the wastewater 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 Pace Laboratory analytical results for the September 2011 sampling event. Antea Group's laboratory data validation checklist and the Pace laboratory report are presented as **Appendix D**.

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

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

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

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

*pH – Post-analysis pH measurement indicates insufficient VOA sample preservation.

Based on a review of the laboratory's analytical report, including their QA/QC procedures and those implemented by Antea Group, we conclude that the laboratory data obtained during this groundwater sampling event are valid for their intended purpose.

3.0 CONCLUSIONS AND RECOMMENDATIONS

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

Based on the data from the recent site investigation and groundwater monitoring at this site, the petroleum hydrocarbon and fuel oxygenate impact to the groundwater reported in monitoring well MW-12A was due to drilling activities during the installation of this monitoring well. During the most recent groundwater monitoring event the groundwater in this monitoring well was impacted only by MTBE at a concentration of 0.74 µg/L. The data indicates that the groundwater monitored by this well at 30 feet to 34 feet bgs is not impacted at actionable concentrations and; therefore, Antea Group recommends that this monitoring well be destroyed.

4.0 REMARKS

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

Prepared by:

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

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

PROFESSIONAL GEOLOGIST
DENNIS SHANNON DETTLOFF
No. 7480
STATE OF CALIFORNIA

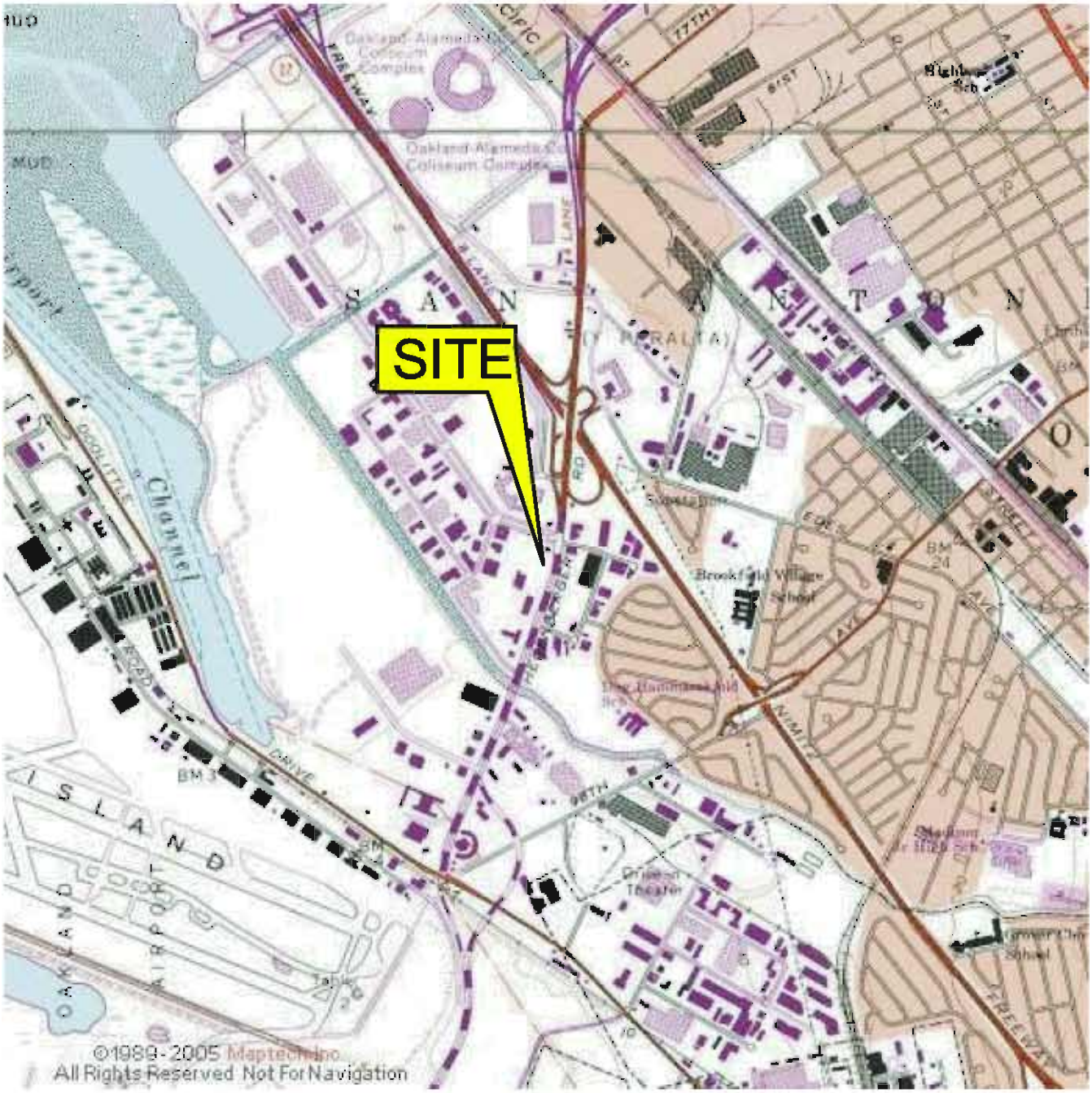
Licensed Approver:

Date: 10/27/11

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

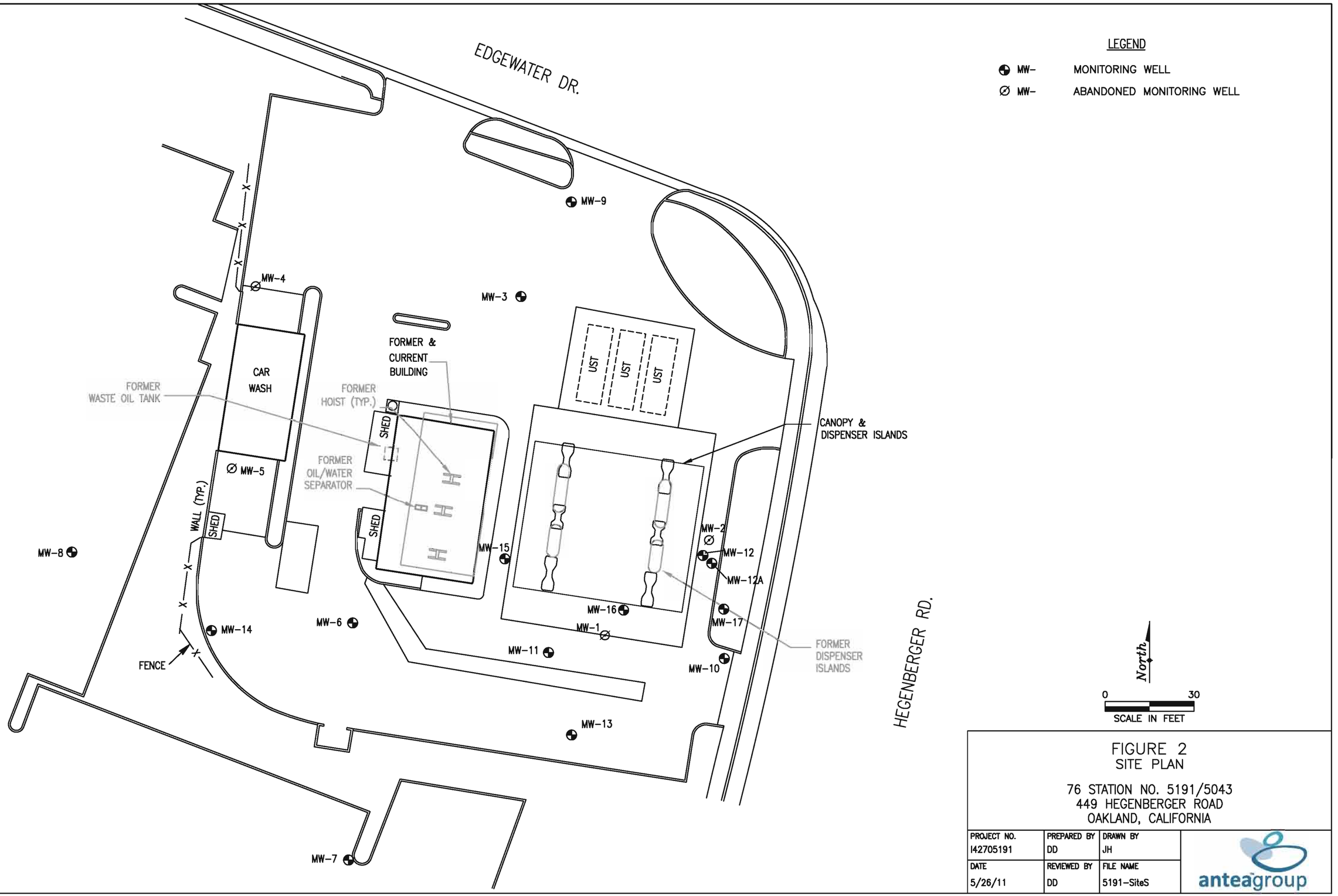


FIGURE 2
SITE PLAN

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

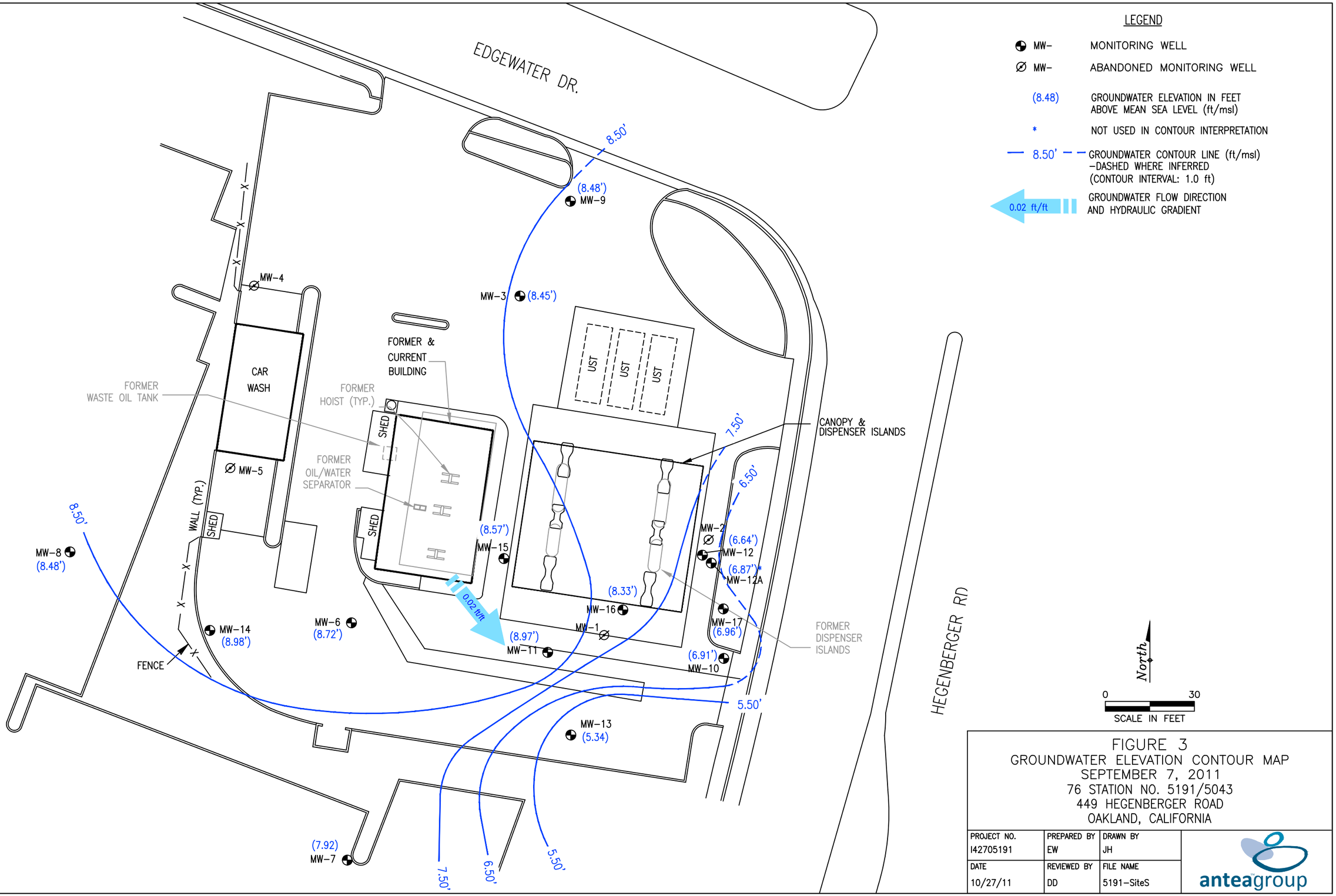
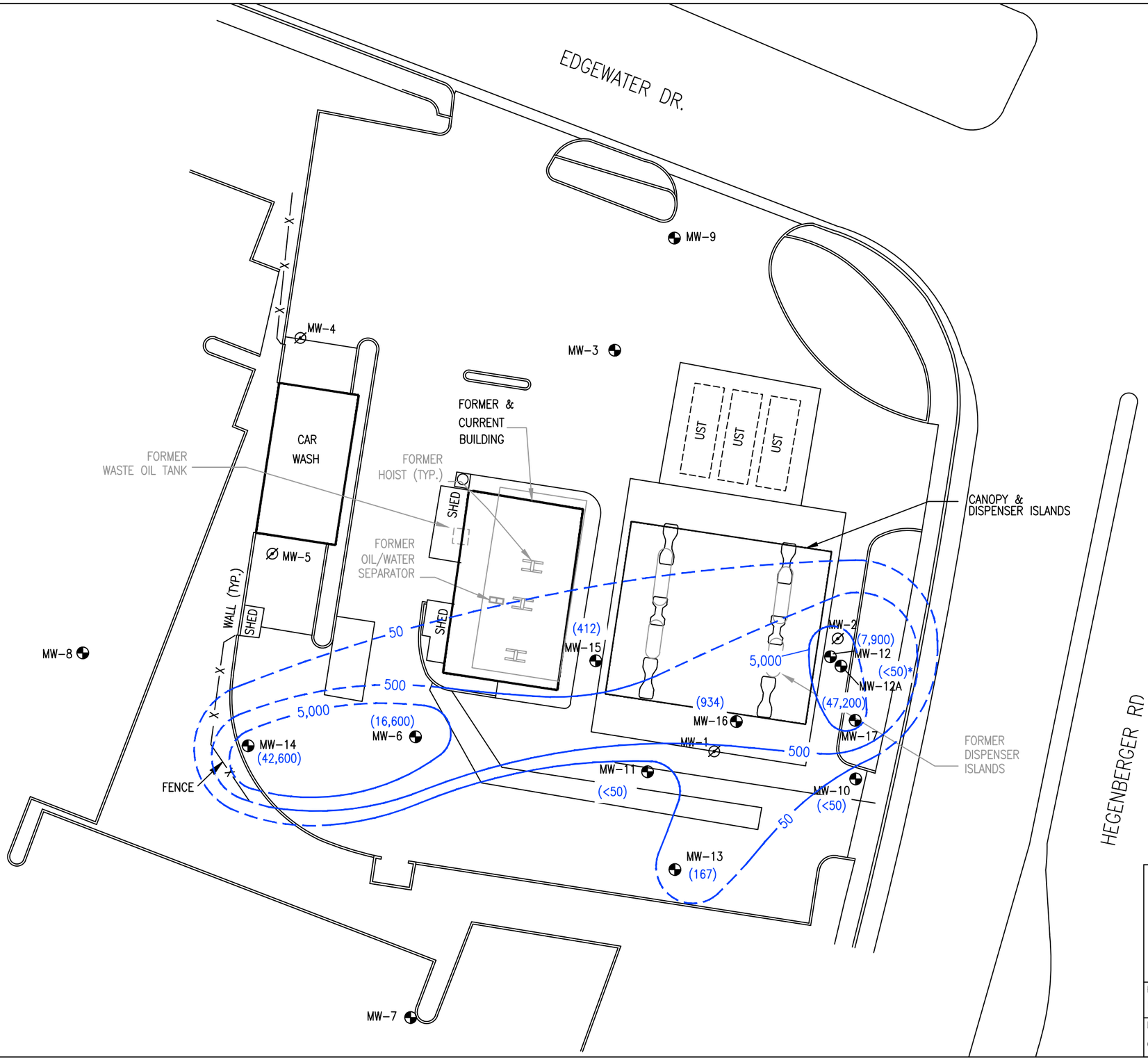


FIGURE 3
GROUNDWATER ELEVATION CONTOUR MAP
SEPTEMBER 7, 2011
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
10/27/11	DD	5191-SiteS

antea group



LEGEND

- MW- MONITORING WELL
- MW- ABANDONED MONITORING WELL
- (42,600) 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
<50.0 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
* = NOT USED IN CONTOURING

FIGURE 4
DISSOLVED PHASE TPHg ISOCONCENTRATION MAP
SEPTEMBER 7, 2011
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
07/15/11	DD	5191-SiteS

antea group

EDGEWATER DR.

MW-9

MW-4

MW-3

FORMER & CURRENT BUILDING

FORMER WASTE OIL TANK

CAR WASH

FORMER HOIST (TYP.)

SHED

FORMER OIL/WATER SEPARATOR

UST

UST

UST

CANOPY & DISPENSER ISLANDS

MW-5

WALL (TYP.)

SHED

SHED

MW-8

MW-15 (6.2)

(970)

MW-2

(<0.50)*

MW-12

MW-12A

(15.6) MW-6

(1,050) MW-14

500

50

5.0

0.50

FENCE

MW-16

MW-1 (<0.50)

500

50

5,000

(9,620)

MW-17

FORMER DISPENSER ISLANDS

MW-11 (<0.50)

MW-10 (4.1)

MW-13 (<0.50)

MW-7

HEGENBERGER RD

North

0 30

SCALE IN FEET

LEGEND

- MW- MONITORING WELL
- ∅ MW- ABANDONED MONITORING WELL
- (79.4) DISSOLVED PHASE BENZENE ISOOCONCENTRATION (µg/L)
- 50 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
SEPTEMBER 7, 2011
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
07/15/11	DD	5191-SiteS

anteagroup

EDGEWATER DR.

MW-9

MW-4

MW-3

FORMER & CURRENT BUILDING

CAR WASH

FORMER WASTE OIL TANK

FORMER HOIST (TYP.)

SHED

UST

UST

UST

CANOPY & DISPENSER ISLANDS

FORMER OIL/WATER SEPARATOR

MW-5

WALL (TYP.)

SHED

SHED

0.50

5.0

50

500

MW-2

MW-15 (128)

(896)

MW-12

MW-12A

(0.74)*

(1,240)

MW-16

MW-1

MW-17 (<0.50)

MW-8

MW-14 (<0.50)

MW-6 (<0.50)

FENCE

MW-11 (3.8)

MW-10 (<0.50)

FORMER DISPENSER ISLANDS

(207) MW-13

MW-7

HEGENBERGER RD

LEGEND

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

NOTES:

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

North

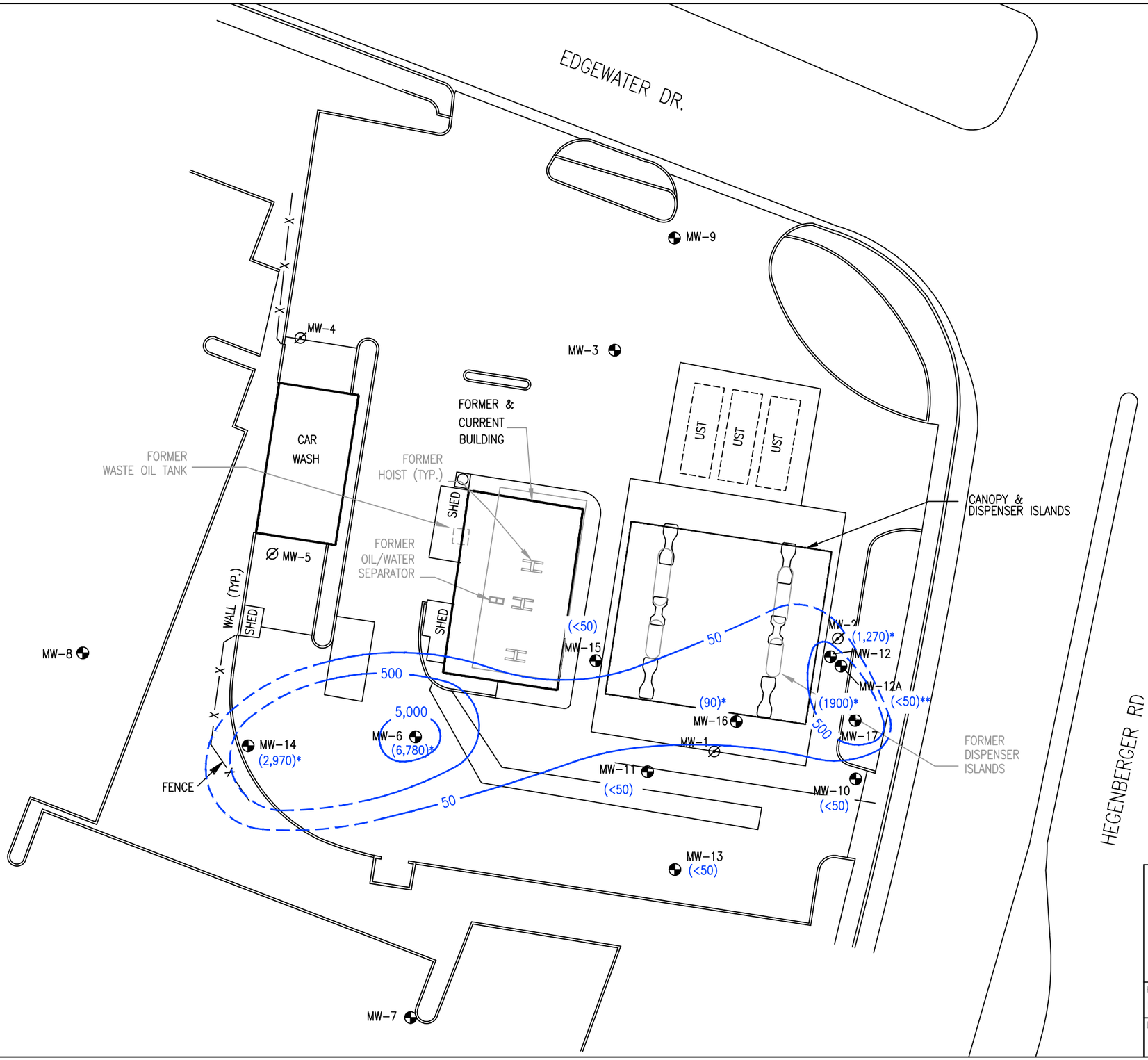
0 30

SCALE IN FEET

FIGURE 6
DISSOLVED PHASE MTBE ISOCONCENTRATION MAP
SEPTEMBER 7, 2011
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
1/31/11	DD	5191-SiteS

anteagroup



LEGEND

- MW- MONITORING WELL
- MW- ABANDONED MONITORING WELL
- (509) DISSOLVED PHASE DRO ISOOCONCENTRATION (µg/L)
- 500 DISSOLVED PHASE DRO ISOCONTOUR (µg/L) –DASHED WHERE INFERRED

NOTES:

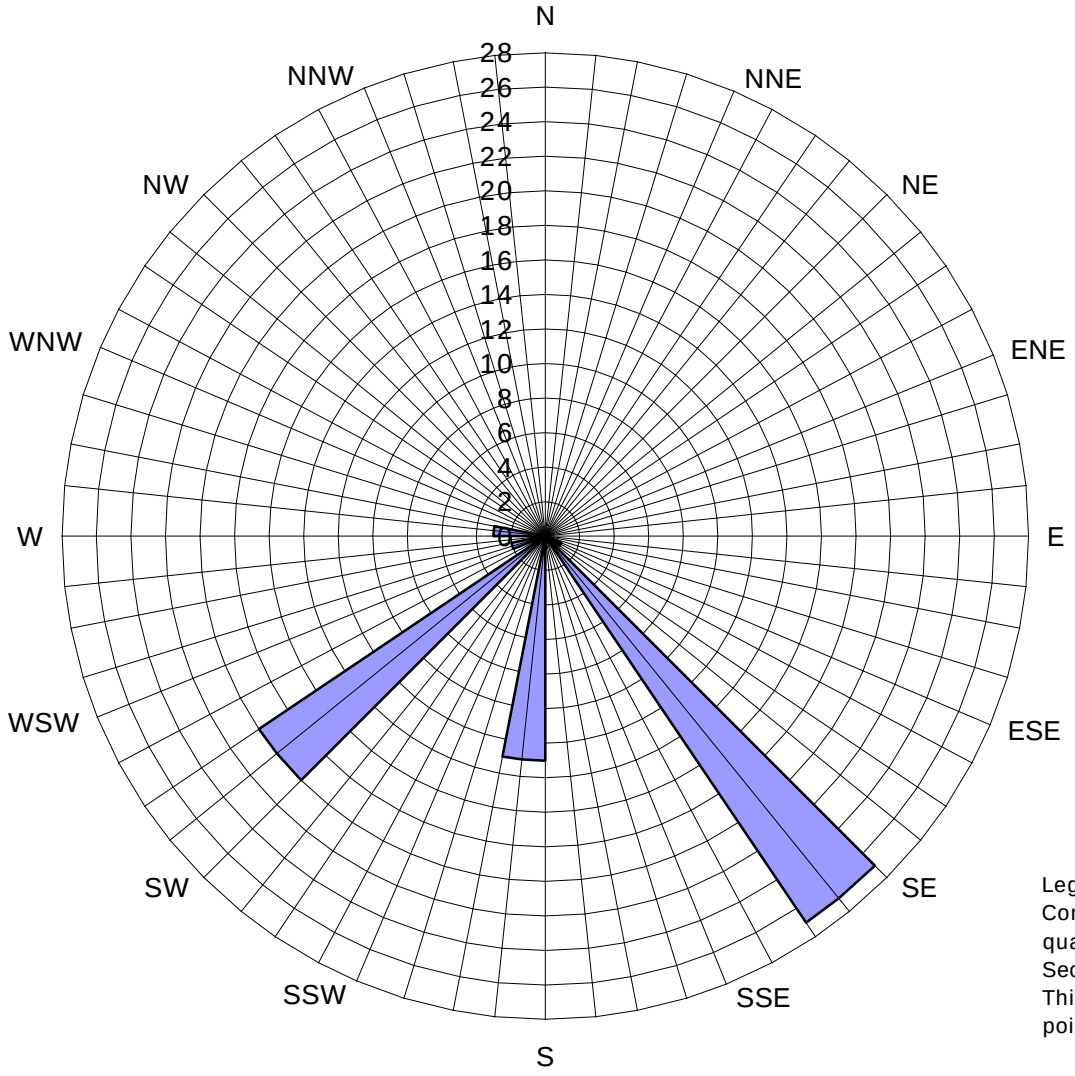
DRO = DIESEL RANGE ORGANICS
µg/L = MICROGRAMS PER LITER
<50.0= LESS THAN LABORATORY INDICATED REPORTING LIMIT
* = DRO DID NOT MATCH THE LABORATORY STANDARD FOR DIESEL
** = NOT USED IN CONTOURING

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

PROJECT NO.	PREPARED BY	DRAWN BY
142705191	EW	JH
DATE	REVIEWED BY	FILE NAME
10/27/11	DD	5191-SiteS

antea group

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 Third Quarter 2011 66 data points shown

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 RD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA							
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	Ethanol (ug/L)
MW-3	9/7/2011	10.81	2.36	NP	8.45	--	--	--	--	--	--	--	--
MW-6	9/7/2011	11.55	2.83	NP	8.72	**6,780 1n**	**16,600**	**15.6**	**10.6**	**89.6**	**339**	<0.50	<250
MW-7	9/7/2011	11.64	3.72	NP	7.92	--	--	--	--	--	--	--	--
MW-8	9/7/2011	11.32	2.84	NP	8.48	--	--	--	--	--	--	--	--
MW-9	9/7/2011	10.94	2.46	NP	8.48	--	--	--	--	--	--	--	--
MW-10	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
MW-11	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
MW-12	9/7/2011	11.01	4.37	NP	6.64	**1,270 1n**	**7,900**	**920**	**25.4**	**187**	**267**	**896**	<2500
MW-12A	9/7/2011	11.29	4.42	NP	6.87	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	**0.74**	<250
MW-13	9/7/2011	11.08	5.74	NP	5.34	<50.0	**167**	<0.50	<0.50	<0.50	<1.5	**207**	<250
MW-14	9/7/2011	12.00	3.02	NP	8.98	**2,970 1n**	**42,600**	**1,050**	**28.1**	**2,990**	**7,300**	<25.0	<12500
MW-15	9/7/2011	11.11	2.54	NP	8.57	<50.0	**412**	**6.2**	<0.50	**42.8**	<1.5	**128**	<250
MW-16	9/7/2011	10.98	2.65	NP	8.33	**90.0 1n**	**934**	<0.50	<0.50	<0.50	<1.5	**1,240**	<250
MW-17	9/7/2011	11.52	4.56	NP	6.96	**1,900 1n**	**47,200**	**9,620**	**5,510**	**1,210**	**4,510**	<25.0	<12500

Gauging Notes:
TOC - Top of Casing
ft - Feet
NP - LNAPL not present
LNAPL - Light non-aqueous phase liquid
* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
-- - No information available

Analytical Notes:
< - Below laboratory's indicated reporting limit
ug/L - micrograms/liter
DRO- diesel range organics
TPHg- Total petroleum hydrocarbons as gasoline
MTBE- Methyl tertiary-butly ether
BOLD - Above laboratory's indicated reporting limit
1n - The DRO result did not match the laboratory standard for diesel

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

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-1	2/18/1992	NSVD	NG	NG	NG	13000	150000	17000	26000	5200	26000	--	--	--	--	--	--	--	--	--
	5/20/1992	NSVD	NG	NG	NG	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/31/1992	NSVD	NG	NG	NG	8900	64000	13000	12000	2500	22000	--	--	--	--	--	--	--	--	--
	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	4300	29000	1000	5300	260	7900	--	--	--	--	--	--	--	--	--
	5/20/1992	NSVD	NG	NG	NG	4300	24000	2200	7600	630	11000	--	--	--	--	--	--	--	--	--
	8/31/1992	NSVD	NG	NG	NG	1600	9000	1800	640	140	2000	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	5700	29000	2000	3400	1200	6900	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	6100	18000	1600	3000	ND	6900	--	--	--	--	--	--	--	--	--
	5/4/1993	8.96	2.48	NP	6.48	7100	63000	3200	17000	470	17000	--	--	--	--	--	--	--	--	--
	8/4/1993	8.96	3.20	NP	5.76	1800	45000	2100	6600	1400	12000	--	--	--	--	--	--	--	--	--
	11/3/1993	8.58	3.37	NP	5.21	2600	72000	3700	16000	3700	20000	--	--	--	--	--	--	--	--	--
	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	3000	42000	2500	1300	2300	13000	--	--	--	--	--	--	--	--	--
	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	2800	35000	2400	850	1700	15000	--	--	--	--	--	--	--	--	--
	11/14/1994	8.58	2.13	NP	6.45	10000	43000	2200	6500	1800	14000	--	--	--	--	--	--	--	--	--
	2/21/1995	8.58	1.65	NP	6.93	2000	44000	2200	3200	1300	1500	--	--	--	--	--	--	--	--	--
	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	4.8	22	1.8	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	3300	320	ND	96	6.1	--	--	--	--	--	--	--	--	--
	5/4/1993	7.84	4.32	NP	3.52	250	1800	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	2700	110	ND	17	ND	--	--	--	--	--	--	--	--	--
	5/19/1994	7.42	3.60	NP	3.82	480	1800	83	ND	6.2	9.1	--	--	--	--	--	--	--	--	--
	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	0.54	ND	0.97	--	--	--	--	--	--	--	--	--
	11/14/1994	7.42	3.18	NP	4.24	150	1600	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	2/21/1995	7.42	1.81	NP	5.61	850	3800	350	ND	130	22	--	--	--	--	--	--	--	--	--
	5/18/1995	7.42	4.56	NP	2.86	150	1300	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	6.5	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	1.1	ND	2.4	1.4	910	--	--	--	--	--	--	--	--
	1/14/1998	8.04	2.16	NP	5.88	340	310	ND	ND	0.62	0.65	140	--	--	--	--	--	--	--	--
	4/1/1998	8.04	2.20	NP	5.84	320	370	5.7	ND	ND	ND	93	--	--	--	--	--	--	--	--	--
	7/15/1998	8.04	3.38	NP	4.66	510	460	ND	ND	ND	ND	230	--	--	--	--	--	--	--	--
	10/16/1998	8.04	2.30	NP	5.74	67	330	4.7	ND	ND	ND	60	--	--	--	--	--	--	--	--
	1/25/1999	8.04	2.42	NP	5.62	120	420	1.5	ND	ND	ND	180	--	--	--	--	--	--	--	--

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

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-3	4/15/1999	8.04	2.16	NP	5.88	170	290	0.54	ND	ND	ND	160	--	--	--	--	--	--	--	--
	7/14/1999	8.04	2.35	NP	5.69	420	290	3.2	ND	ND	ND	160	--	--	--	--	--	--	--	--
	10/21/1999	8.04	2.49	NP	5.55	350	360	0.77	ND	ND	ND	82	--	--	--	--	--	--	--	--
	1/20/2000	8.04	2.38	NP	5.66	2060	ND	0.81	ND	ND	ND	54	--	--	--	--	--	--	--	--
	4/13/2000	8.04	2.76	NP	5.28	200	250	0.69	ND	ND	ND	91	150	ND	ND	ND	ND	ND	ND	ND
	7/14/2000	8.04	3.26	NP	4.78	423	345	ND	ND	ND	ND	94.7	--	--	--	--	--	--	--	--
	10/26/2000	8.04	3.12	NP	4.92	330	480	6.0	ND	ND	ND	120	--	--	--	--	--	--	--	--
	1/3/2001	8.04	3.65	NP	4.39	287	364	1.59	ND	ND	ND	118	--	--	--	--	--	--	--	--
	4/4/2001	8.04	3.98	NP	4.06	360	417	1.24	ND	ND	0.802	237	--	--	--	--	--	--	--	--
	7/17/2001	8.04	3.12	NP	4.92	270	480	ND	ND	ND	ND	150	--	--	--	--	--	--	--	--
	10/1/2001	8.04	3.25	NP	4.79	270	310	1.0	<0.50	<0.50	<0.50	53	--	--	--	--	--	--	--	--
	1/31/2002	8.04	2.27	NP	5.77	250	250	3.5	<1.0	<1.0	<1.0	110	--	--	--	--	--	--	--	--
	4/18/2002	8.04	3.55	NP	4.49	320	300	<2.0	<2.0	<2.0	<2.0	--	59	--	--	--	--	--	--	--
	7/28/2002	8.04	2.55	NP	5.49	310	500	<0.50	<0.50	<0.50	<1.0	--	130	--	--	--	--	--	--	--
	10/9/2002	8.04	2.47	NP	5.57	700	690	<5	<5	<5	<10	--	120	--	--	--	--	--	--	--
	1/2/2003	8.04	1.70	NP	6.34	210	310	<0.50	<0.50	<0.50	<1.0	--	110	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	4/1/2003	8.04	3.48	NP	4.56	200	250	<1.0	<1.0	<1.0	<2.0	--	210	--	--	--	--	--	--	--
	7/1/2003	8.04	2.65	NP	5.39	380	450	<2.5	<2.5	<2.5	<5.0	--	70	--	--	--	--	<2500	--	--
	10/2/2003	8.04	3.12	NP	4.92	300	<250	<2.5	<2.5	<2.5	<5.0	--	210	--	--	--	--	<2500	--	--
	1/9/2004	8.04	2.39	NP	5.65	200	300	<0.50	0.53	0.53	1.5	--	66	--	--	--	--	<500	--	--
	4/26/2004	8.04	3.11	NP	4.93	160	440	2.5	5.5	2.9	9.4	--	81	--	--	--	--	<50	--	--
	7/22/2004	8.04	2.51	NP	5.53	330	420	<0.5	<0.5	<0.5	<1	--	72	--	--	--	--	<1000	--	--
	10/29/2004	8.04	2.00	NP	6.04	200	460	5.6	15	10	46	--	48	--	--	--	--	<50	--	--
	1/10/2005	8.04	1.52	NP	6.52	250	280	<0.50	0.62	<0.50	2.4	--	64	--	--	--	--	<50	--	--
	6/15/2005	8.04	2.00	NP	6.04	360	460	<0.50	0.70	0.56	1.9	--	110	--	--	--	--	<50	--	--
	9/27/2005	8.04	1.90	NP	6.14	<200	210	<0.50	0.60	<0.50	<1.0	--	100	<0.50	<0.50	<0.50	79	<250	--	--
	12/13/2005	8.04	2.35	NP	5.69	230	230	<0.50	<0.50	<0.50	<1.0	--	92	--	--	--	--	<250	--	--
	3/23/2006	8.04	1.84	NP	6.20	260	290	<0.50	<0.50	<0.50	<1.0	--	88	--	--	--	--	<250	--	--
	6/23/2006	8.04	2.26	NP	5.78	330	500	<0.50	<0.50	<0.50	<1.0	--	75	--	--	--	--	<250	--	--
	9/26/2006	8.04	2.08	NP	5.96	260	270	<0.50	<0.50	<0.50	<0.50	--	73	--	--	--	--	<250	--	--
	12/22/2006	8.04	1.88	NP	6.16	250	260	<0.50	<0.50	<0.50	1.2	--	71	--	--	--	--	<250	--	--
	3/30/2007	8.04	2.47	NP	5.57	210	390	<0.50	<0.50	<0.50	<0.50	--	120	--	--	--	--	<250	--	--
	6/28/2007	8.04	2.54	NP	5.50	290	370	<0.50	<0.50	<0.50	<0.50	--	55	--	--	--	--	<250	--	--
	9/25/2007	8.04	2.56	NP	5.48	210	350	<0.50	<0.50	<0.50	<0.50	--	61	--	--	--	--	<250	--	--
	12/28/2007	8.04	2.29	NP	5.75	150	260	<0.50	<0.50	<0.50	<1.0	--	66	--	--	--	--	<250	--	--
	3/22/2008	8.04	3.26	NP	4.78	230	390	<0.50	<0.50	<0.50	<1.0	--	39	--	--	--	--	<250	--	--
	6/23/2008	8.04	2.60	NP	5.44	130	200	<0.50	<0.50	<0.50	<1.0	--	46	--	--	--	--	<250	--	--
	9/19/2008	8.04	3.45	NP	4.59	93	180	<0.50	<0.50	<0.50	<1.0	--	120	--	--	--	--	<250	--	--
	12/31/2008	8.04	2.55	NP	5.49	110	190	<0.50	<0.50	<0.50	<1.0	--	38	--	--	--	--	<250	--	--
	3/27/2009	8.04	2.37	NP	5.67	130	150	<0.50	<0.50	<0.50	<1.0	--	50	--	--	--	--	<250	--	--
	5/28/2009	8.04	3.32	NP	4.72	120	190	<0.50	<0.50	<0.50	<1.0	--	60	--	--	--	--	<250	--	--
	9/17/2009	8.04	2.63	NP	5.41	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	12/17/2009	8.04	2.13	NP	5.91	338	300	<0.50	<0.50	0.78	<1.5	--	43.1	--	--	--	--	<250	--	--
	3/29/2010	8.04	2.22	NP	5.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	10.81	2.91	NP	7.90	89.7	261	<0.50	<0.50	<0.50	<1.5	--	89.0	--	--	--	--	<250	--	--
	7/6/2010	10.81	2.66	NP	8.15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	10.81	3.12	NP	7.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	10.81	2.37	NP	8.44	137	306	<0.50	<0.50	<0.50	<1.5	--	58.8	--	--	--	--	<250	--	--
	3/14/2011	10.81	2.26	NP	8.55	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	10.81	2.43	NP	8.38	155	283	0.58	1.3	<0.50	2.2	--	42.1	--	--	--	55.7	<250	--	--
	9/7/2011	10.81	2.36	NP	8.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-4	8/31/1992	NSVD	NG	NG	NG	90	240	ND	ND	ND	0.54	--	--	--	--	--	--	--	--	--
MW-4	11/30/1992	NSVD	NG	NG	NG	61	420	ND	ND	ND	ND	--	--	--	--	--	--	--	--	--
	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	--	--	--	--	--	--	--	--	--

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

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-5	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
	8/31/1992	NSVD	NG	NG	NG	690	78	0.89	ND	ND	13	--	--	--	--	--	--	--	--	--
	11/30/1992	NSVD	NG	NG	NG	470	930	70	290	0.79	14	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	5500	5700	38	ND	620	170	--	--	--	--	--	--	--	--	--
	5/4/1993	8.95	4.37	NP	4.58	4600	7400	41	ND	1000	35	--	--	--	--	--	--	--	--	--
	8/4/1993	8.95	5.81	NP	3.14	970	1500	130	1	460	11	--	--	--	--	--	--	--	--	--
	11/3/1993	8.95	5.68	NP	3.27	2100	13000	350	ND	3500	530	--	--	--	--	--	--	--	--	--
	2/7/1994	8.95	5.11	NP	3.84	830	2000	87	ND	370	110	--	--	--	--	--	--	--	--	--
	5/19/1994	8.95	5.09	NP	3.86	600	260	44	ND	32	4.1	--	--	--	--	--	--	--	--	--
	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	1600	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	1400	9200	550	ND	740	1600	--	--	--	--	--	--	--	--	--
	2/4/1993	NSVD	NG	NG	NG	890	3600	340	ND	290	550	--	--	--	--	--	--	--	--	--
	5/4/1993	9.12	3.72	NP	5.40	1800	4900	360	18	450	430	--	--	--	--	--	--	--	--	--
	8/4/1993	9.12	5.15	NP	3.97	1100	3400	390	ND	440	190	--	--	--	--	--	--	--	--	--
	11/3/1993	8.87	5.25	NP	3.62	390	1400	320	ND	200	7.7	--	--	--	--	--	--	--	--	--
	2/7/1994	8.87	4.55	NP	4.32	970	4900	650	ND	250	35	--	--	--	--	--	--	--	--	--
	5/19/1994	8.87	4.62	NP	4.25	1400	3600	300	1.7	210	41	--	--	--	--	--	--	--	--	--
	8/15/1994	8.87	5.08	NP	3.79	790	1300	130	6.7	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	2000	250	4.6	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	6.40	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
	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

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

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-6	3/3/1998	8.87	4.51	0.02	4.38	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/1/1998	8.87	3.67	1.60	6.40	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/26/1998	8.87	4.11	0.50	5.14	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/15/1998	8.87	5.03	0.30	4.07	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/15/1998	8.87	4.56	0.05	4.35	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/21/1998	8.87	4.77	0.02	4.12	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/30/1998	8.87	5.08	0.03	3.81	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/16/1998	8.87	4.31	2.40	6.36	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/6/1998	8.87	3.98	0.17	5.02	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/25/1998	8.87	3.92	0.10	5.03	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	12/28/1998	8.87	3.90	0.20	5.12	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/25/1999	8.87	4.18	0.60	5.14	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	2/22/1999	8.87	4.07	0.22	4.97	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	3/22/1999	8.87	4.32	0.15	4.66	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	4/15/1999	8.87	4.23	0.95	5.35	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	5/28/1999	8.87	4.38	0.39	4.78	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	6/29/1999	8.87	4.12	0.02	4.77	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	7/14/1999	8.87	4.20	0.03	4.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	8/23/1999	8.87	4.51	0.24	4.54	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	9/30/1999	8.87	4.17	0.17	4.83	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	10/21/1999	8.87	4.27	0.12	4.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/29/1999	8.87	4.18	NP	4.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/20/1999	8.87	4.26	0.01	4.62	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/20/2000	8.87	4.31	NP	4.56	67600	130000	2900	8600	2000	16000	ND	--	--	--	--	--	--	--	--
	2/26/2000	8.87	3.98	NP	4.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/31/2000	8.87	4.14	NP	4.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/13/2000	8.87	4.04	NP	4.83	8700	140000	5000	14000	3600	27000	7700	--	--	--	--	--	--	--	--
	5/26/2000	8.87	4.41	NP	4.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/17/2000	8.87	4.35	NP	4.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/14/2000	8.87	4.47	NP	4.40	133000	259000	7670	13700	6860	40700	ND	ND	--	--	--	--	--	--	--
	8/24/2000	8.87	3.71	NP	5.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2000	8.87	4.33	NP	4.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/26/2000	8.87	4.32	NP	4.55	61000	110000	7000	6200	3700	12000	670	43	--	--	--	--	--	--	--
	1/3/2001	8.87	4.52	NP	4.35	929	84700	3950	4130	3650	11800	ND	ND	--	--	--	--	--	--	--
	4/4/2001	8.87	4.29	NP	4.58	18000	69800	2060	2840	3650	10900	ND	47.8	ND	ND	ND	ND	ND	ND	ND
	7/17/2001	8.87	4.37	NP	4.50	20000	100000	3200	3300	3400	12000	ND	--	--	--	--	--	--	--	--
	10/1/2001	8.87	4.45	NP	4.42	24000	110000	3200	2400	4500	13000	<1000	--	--	--	--	--	--	--	--
	1/31/2002	8.87	4.03	NP	4.84	11000	230000	2400	1800	5400	16000	<2500	--	--	--	--	--	--	--	--
	4/18/2002	8.87	3.45	NP	5.42	3500	94000	6800	13000	3000	19000	<500	--	--	--	--	--	--	--	--
	7/28/2002	8.87	2.24	NP	6.63	27000	110000	530	170	3200	7300	--	<100	--	--	--	--	--	--	--
	10/9/2002	8.87	3.53	NP	5.34	170000	970000	10000	39000	13000	94000	--	<2000	--	--	--	--	--	--	--
	1/2/2003	8.87	2.34	NP	6.53	66000	270000	6100	15000	5400	37000	--	<200	--	--	--	--	--	--	--
	4/1/2003	8.87	3.17	NP	5.70	35000	3000000	8000	39000	37000	260000	--	<2000	--	--	--	--	--	--	--
	7/1/2003	8.87	3.55	NP	5.32	11000	38000	2100	990	2700	6500	--	<100	--	--	--	--	<25000	--	--
	10/2/2003	8.87	3.82	NP	5.05	<50	100000	5600	6900	4700	18000	--	<800	--	--	--	--	<200000	--	--
	1/9/2004	8.87	2.80	NP	6.07	20000	170000	2800	3300	4700	16000	--	<200	--	--	--	--	<50000	--	--
	4/26/2004	8.87	3.40	NP	5.47	13000	97000	5900	9000	5100	23000	--	<50	--	--	--	--	<5000	--	--
	7/22/2004	8.87	3.54	NP	5.33	33000	110000	4100	5100	4000	16000	--	<200	--	--	--	--	<300000	--	--
	10/29/2004	8.87	3.03	NP	5.84	78000	100000	5200	6100	4200	15000	--	<50	--	--	--	--	<5000	--	--
	1/10/2005	8.87	2.35	NP	6.52	12000	71000	1600	3700	2100	9900	--	<50	--	--	--	--	<5000	--	--
	6/15/2005	8.87	2.47	NP	6.40	16000	130000	800	1800	2200	9300	--	<50	--	--	--	--	<5000	--	--
	9/27/2005	8.87	2.55	NP	6.32	2500	13000	82	120	430	990	--	0.56	1.8	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.87	3.28	NP	5.59	18000	68000	1500	1100	2200	7700	--	<50	--	--	--	--	<25000	--	--
	3/23/2006	8.87	2.87	NP	6.00	73000	41000	290	140	1500	2700	--	<50	--	--	--	--	<25000	--	--
	6/23/2006	8.87	3.15	NP	5.72	35000	50000	2200	1400	1900	5700	--	<12	--	--	--	--	<6200	--	--
	9/26/2006	8.87	3.08	NP	5.79	22000	130000	2200	1000	2900	8800	--	<50	--	--	--	--	<25000	--	--
	12/22/2006	8.87	2.90	NP	5.97	62000	90000	940	610	1900	4700	--	<50	--	--	--	--	<25000	--	--
	3/30/2007	8.87	3.26	NP	5.61	62000	210000	1100	560	3400	12000	--	<10	--	--	--	--	<5000	--	--
	6/28/2007	8.87	3.46	NP	5.41	71000	67000	2200	1300	2700	10000	--	<25	--	--	--	--	<12000	--	--

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

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-6	9/25/2007	8.87	3.52	NP	5.35	58000	56000	2900	720	2400	9000	--	<25	--	--	--	--	<12000	--	--
	12/28/2007	8.87	3.27	NP	5.60	18000	78000	28000	2700	4000	8100	--	16000	--	--	--	--	<12000	--	--
	3/22/2008	8.87	2.48	NP	6.39	68000	66000	380	150	1500	2400	--	<25	--	--	--	--	<12000	--	--
	6/23/2008	8.87	3.54	NP	5.33	68000	59000	1600	130	1800	4100	--	25	--	--	--	--	<12000	--	--
	9/19/2008	8.87	4.06	NP	4.81	180000	65000	2000	230	2000	4500	--	<12	--	--	--	--	<6200	--	--
	12/31/2008	8.87	3.45	NP	5.42	68000	91000	2000	320	5300	13000	--	<50	--	--	--	--	<25000	--	--
	3/27/2009	8.87	3.09	NP	5.78	170000	150000	1300	240	2800	7200	--	<50	--	--	--	--	<25000	--	--
	5/28/2009	8.87	3.49	NP	5.38	78000	53000	1700	200	2300	5400	--	<50	--	--	--	--	<25000	--	--
	9/17/2009	8.87	3.64	NP	5.23	250000	77000	2100	1400	2600	8500	--	<12	--	--	--	--	<6200	--	--
	12/17/2009	8.87	3.14	NP	5.73	30300	59100	1730	199	2260	5460	--	20.3	--	--	--	--	<250	--	--
	3/29/2010	8.87	3.16	NP	5.71	106000	48400	1980	208	3070	8070	--	12.1	--	--	--	--	<250	--	--
	6/30/2010	11.55	3.50	NP	8.05	170000	78700	2130	281	2860	8400	--	5.8	--	--	--	--	<250	--	--
	7/6/2010	11.55	3.49	NP	8.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	11.55	3.75	NP	7.80	18800	64500	2300	170	2770	6260	--	19.3	--	--	--	--	<250	--	--
	12/8/2010	11.55	8.42	NP	3.13	28700	78400	1300	1680	3490	20600	--	11.3	--	--	--	--	<250	--	--
	3/14/2011	11.55	3.40	NP	8.15	93000	44600	912	338	728	3670	--	16.3	--	--	--	134	<250	--	--
	6/2/2011	11.55	2.76	NP	8.79	33700	56200	780	262	651	3890	--	6.7	--	--	--	81.0	<250	--	--
	9/7/2011	11.55	2.83	NP	8.72	6780	16600	15.6	10.6	89.6	339	--	<0.50	--	--	--	--	<250	--	--
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	--	--
MW-7	1/9/2004	8.83	3.55	NP	5.28	75	54	<0.50	<0.50	<0.50	<1.0	--	2.4	--	--	--	--	<500	--	--
	4/26/2004	8.83	4.49	NP	4.34	<50	<50	<0.50	<0.50	<0.50	1.5	--	2.3	--	--	--	--	<50	--	--
	7/22/2004	8.83	4.93	NP	3.90	<200	82	0.90	2.0	3.5	9.9	--	1.4	--	--	--	--	<1000	--	--
	10/29/2004	8.83	3.71	NP	5.12	54	210	0.67	1.6	1.7	5.8	--	<0.50	--	--	--	--	<50	--	--
	1/10/2005	8.83	2.77	NP	6.06	<50	74	0.51	2.2	1.7	7.0	--	<0.50	--	--	--	--	<50	--	--
	6/15/2005	8.83	3.40	NP	5.43	<50	<50	<0.50	<0.50	<0.50	<1.0	--	0.88	--	--	--	--	<50	--	--
	9/27/2005	8.83	3.44	NP	5.39	<200	<50	0.59	1.2	<0.50	<1.0	--	0.96	<0.50	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.83	3.98	NP	4.85	<200	<50	<0.50	<0.50	<0.50	<1.0	--	0.65	--	--	--	--	<250	--	--
	3/23/2006	8.83	3.37	NP	5.46	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2006	8.83	5.25	NP	3.58	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/26/2006	8.83	4.13	NP	4.70	<50	<50	<0.50	<0.50	<0.50	<0.50	--	0.77	--	--	--	--	<250	--	--
	12/22/2006	8.83	3.63	NP	5.20	630	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	3/30/2007	8.83	4.31	NP	4.52	94	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	6/28/2007	8.83	4.62	NP	4.21	<50	<50	<0.50	<0.50	<0.50	<0.50	--	0.54	--	--	--	--	<250	--	--
	9/25/2007	8.83	4.65	NP	4.18	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
	12/28/2007	8.83	3.99	NP	4.84	75	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/22/2008	8.83	4.08	NP	4.75	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--

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

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
	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	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	11.64	3.72	NP	7.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--
MW-8	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	--	--
	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	--	--

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

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-9	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	168	<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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
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	--	--	--	--	--	--	--	--
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	--	--

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

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
	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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	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	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	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	--	--	--	--	--	--	--	--
	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	--	--
MW-10	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	--	--

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

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
	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	--	--
MW-11	7/6/2010	10.53	2.44	NP	8.09	226	99.2	<0.50	<0.50	<0.50	<1.5	--	165	<0.50	<0.50	<0.50	174	<250	<1.0	<1.0
	9/20/2010	10.53	2.80	NP	7.73	<50.0	76.4	<0.50	<0.50	<0.50	<1.5	--	82.7	--	--	--	--	<250	--	--
	12/8/2010	10.53	1.90	NP	8.63	52.7	<50.0	<0.50	<0.50	<0.50	<1.5	--	59.1	--	--	--	--	<250	--	--
	3/14/2011	10.53	1.89	NP	8.64	67.8	<50.0	<0.50	<0.50	<0.50	<1.5	--	44.0	--	--	--	<5.0	<250	--	--
	6/2/2011	10.53	1.75	NP	8.78	69.0	<50.0	<0.50	0.61	<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	--	--
MW-12	7/6/2010	11.01	4.00	NP	7.01	990	20300	1030	955	311	2450	--	1650	<0.50	<0.50	1.0	1430	<250	<1.0	<1.0
	9/20/2010	11.01	4.18	NP	6.83	5220	73700	6020	6390	2970	18300	--	894	--	--	--	--	<250	--	--
	12/8/2010	11.01	3.92	NP	7.09	428	3350	249	117	89.8	558	--	1470	--	--	--	--	<2500	--	--
	3/14/2011	11.01	3.70	NP	7.31	283	2420	287	80.9	49.1	243	--	1020	--	--	--	69.6	<250	--	--
	6/2/2011	11.01	4.40	NP	6.61	1330	12200	688	70.5	225	619	--	824	--	--	--	110	<250	--	--
	9/7/2011	11.01	4.37	NP	6.64	1270	7900	920	25.4	187	267	--	896	--	--	--	--	<2500	--	--
MW-12A	7/6/2010	11.29	4.22	NP	7.07	89.3	664	18.3M0	0.78	2.3	50.2M0	--	14.3M0	<0.50	<0.50	<0.50	11.9M0	<250	<1.0	<1.0
	9/20/2010	11.29	4.39	NP	6.90	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	8.5	--	--	--	--	<250	--	--
	12/8/2010	11.29	4.00	NP	7.29	76.4	<50.0	<0.50	<0.50	<0.50	<1.5	--	9.4	--	--	--	--	<250	--	--
	3/14/2011	11.29	3.81	NP	7.48	61.5	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	6/2/2011	11.29	4.20	NP	7.09	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	11.29	4.42	NP	6.87	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.74	--	--	--	--	<250	--	--
MW-13	7/6/2010	11.08	4.26	NP	6.82	469	122	<0.50	<0.50	<0.50	<1.5	--	217	<0.50	<0.50	<0.50	199	<250	<1.0	<1.0
	9/20/2010	11.08	4.81	NP	6.27	<50.0	250	<0.50	<0.50	<0.50	<1.5	--	272	--	--	--	--	<250	--	--
	12/8/2010	11.08	5.02	NP	6.06	97.0	177	<0.50	<0.50	<0.50	<1.5	--	390	--	--	--	--	<250	--	--
	3/14/2011	11.08	4.32	NP	6.76	162	127	<0.50	<0.50	<0.50	<1.5	--	241	--	--	--	125	<250	--	--
	6/2/2011	11.08	3.98	NP	7.10	89.9	260	<0.50	<0.50	<0.50	<1.5	--	228	--	--	--	44.7	<250	--	--
	9/7/2011	11.08	5.74	NP	5.34	<50.0	167	<0.50	<0.50	<0.50	<1.5	--	207	--	--	--	--	<250	--	--
MW-14	6/2/2011	12.00	3.58	NP	8.42	4180	51600	2750	67.9	1790	13400	--	1.9	--	--	--	27.2	<250	--	--
	9/7/2011	12.00	3.02	NP	8.98	2970	42600	1050	28.1	2990	7300	--	<25.0	--	--	--	--	<12500	--	--
MW-15	6/2/2011	11.11	2.50	NP	8.61	124	357	<0.50	<0.50	<0.50	<1.5	--	15.2	--	--	--	6.4	<250	--	--
	9/7/2011	11.11	2.54	NP	8.57	<50.0	412	6.2	<0.50	42.8	<1.5	--	128	--	--	--	--	<250	--	--
MW-16	6/2/2011	10.98	3.00	NP	7.98	509	1420	79.4	<0.50	4.2	<1.5	--	1200	--	--	--	257	<250	--	--
	9/7/2011	10.98	2.65	NP	8.33	90.0	934	<0.50	<0.50	<0.50	<1.5	--	1240	--	--	--	--	<250	--	--
MW-17	6/2/2011	11.52	5.78	NP	5.74	687	9130	2530	960	35.1	907	--	0.74	--	--	--	366	<250	--	--
	9/7/2011	11.52	4.56	NP	6.96	1900	47200	9620	5510	1210	4510	--	<25.0	--	--	--	--	<12500	--	--

Gauging Notes:
TOC - Top of Casing
ft - Feet
NP - LNAPL not present
LNAPL - Light non-aqueous phase liquid
* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
NG - Not gauged

Analytical Notes:
-- - No information available
< - Below laboratory's indicated reporting limit
LPH - Liquid Phase Hydrocarbons
M0 - 209.
ND - Not detected, and detection limit is not known
NS - Well not sampled.

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

Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE 8021 (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)

WD - Well Destroyed
WI - Well Inaccessable
WO - Well Obstruction
NSVD - Not surveyed
-- - No information available

ug/L - micrograms/liter
WD - Well Destroyed
WI - Well Inaccessable
WO - Well Obstruction
DRO- diesel range organics
TPHg- Total petroleum hydrocarbons as gasoline
MTBE- Methyl tertiary-butly ether
TBA- Tertiary-butyl alcohol
DIPE- Di-isopropyl ether
ETBE- Ethyl tertiary-butyl ether
TAME- Tertiary-amyl methyl ether

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

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

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

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

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																		
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Manganese SW6010 D (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum SW6010 D (ug/L)	Nickel SW6010 D (ug/L)	Nitrate as N (ug/L)	Nitrite as N E353/E351 (ug/L)	Nitrite as N SM4500 (ug/L)	Nitrogen, Ammonia (mg/L)	Nitrogen, NO2 plus NO3 (ug/L)	Nitrogen, Total Kjeldahl (mg/L)	Oil and Grease (ug/L)	Salinity (mg/L)	Selenium SW6010 D (ug/L)
MW-3	12/17/2009	--	--	12300	--	--	--	--	--	--	--	--	<50.0	<50.0	--	--	<50.0	--	--	--	--
	3/29/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	--	5550	10700	--	--	--	--	--	--	--	--	<50.0	--	95.0	--	75.7	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	--	--	13600	--	--	--	--	--	--	--	--	<50.0	--	<10.0	--	52.5	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-5	11/30/1992	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--
	2/4/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--
	5/4/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--
	8/4/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND	--	--
	11/3/1993	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/7/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	5/19/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/25/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/27/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	8/15/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	11/14/1994	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2/21/1995	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD	WD
MW-6	9/17/2009	--	--	1500	--	--	--	--	--	--	--	--	<0.44	--	--	--	--	--	--	--	--
	12/17/2009	--	--	2460	--	--	--	--	--	--	--	--	<50.0	<50.0	--	--	<50.0	--	--	--	--
	3/29/2010	--	1790	1510	--	--	--	--	--	--	--	--	<50.0	--	41.3	--	54.9	--	--	--	--
	6/30/2010	--	946	2310	--	--	--	--	--	--	--	--	<50.0	--	57.9	--	69.3	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	2730	2600	--	--	--	--	--	--	--	--	<50.0	--	<10.0	--	52.1	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	4900	3900	1000	26.8	1270	<0.20	474	<20.0	<40.0	50.1	--	<10.0	--	54.2	--	--	--	<10.0
	6/2/2011	870	--	4320	2520	1800	22.6	1510	<0.20	445	<20.0	<40.0	<50.0	--	<10.0	2.9	50.5	4.8	--	1500	<10.0
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-7	6/30/2010	--	836	7550	--	--	--	--	--	--	--	--	<50.0	--	73.9	--	73.6	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	--	--	7800	--	--	--	--	--	--	--	--	233	--	<10.0	--	239	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-8	6/30/2010	--	4710	8000	--	--	--	--	--	--	--	--	<50.0	--	68.2	--	59.7	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	--	--	24900	--	--	--	--	--	--	--	--	60.9	--	<10.0	--	60.9	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	3/14/2011	--	--	1560	157	1400	<10.0	148	<0.20	419	<20.0	<40.0	<50.0	--	<10.0	--	<50.0	--	--	--	<10.0
	6/2/2011	240	--	1260	1060	200	<10.0	91.5	<0.20	673	<20.0	<40.0	<50.0	--	<10.0	0.86	<50.0	0.6	--	405	<10.0
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-10	9/17/2009	--	--	9800	--	--	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--
	12/17/2009	--	--	3410	--	--	--	--	--	--	--	--	1970	60.3	--	--	2030	--	--	--	--
	3/29/2010	--	365	2410	--	--	--	--	--	--	--	--	1960	--	18.7	--	1970	--	--	--	--
	6/30/2010	--	216	1860	--	--	--	--	--	--	--	--	2120	--	68.1	--	2190	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	--	280	3080	--	--	--	--	--	--	--	--	2690	--	68.2	--	2750	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	2620	--	--	--	--	--	--	--	--	--	--	--	--	2350	--	--	--	--
	6/2/2011	--	--	9870	--	--	--	--	--	--	--	--	1290	--	49.3	--	1340	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-11	7/6/2010	--	<100	3510	--	--	--	--	--	--	--	--	<50.0	--	31.0	--	66.9	--	--	--	--
	9/20/2010	--	<100	1690	--	--	--	--	--	--	--	--	167	--	<10.0	--	172	--	--	--	--

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

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																		
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Manganese SW6010 D (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum SW6010 D (ug/L)	Nickel SW6010 D (ug/L)	Nitrate as N (ug/L)	Nitrite as N E353/E351 (ug/L)	Nitrite as N SM4500 (ug/L)	Nitrogen, Ammonia (mg/L)	Nitrogen, NO2 plus NO3 (ug/L)	Nitrogen, Total Kjeldahl (mg/L)	Oil and Grease (ug/L)	Salinity (mg/L)	Selenium SW6010 D (ug/L)
MW-11	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	756	--	--	--	--	--	--	--	--	--	--	--	--	<50.0	--	--	--	--
	6/2/2011	--	--	1040	--	--	--	--	--	--	--	--	110	--	<10.0	--	115	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	7/6/2010	--	<100	30200	--	--	--	--	--	--	--	--	<50.0	--	60.5	--	<50.0	--	--	--	--
	9/20/2010	--	552	3890	--	--	--	--	--	--	--	--	72.3	--	<10.0	--	75.2	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	793	593	200	<10.0	12400	<0.20	114	<20.0	151	<50.0	--	60.6	--	54.4	--	--	--	<10.0
	6/2/2011	1100	--	9340	8740	600	<10.0	12800	<0.20	287	<20.0	119	<50.0	--	<10.0	0.14	58.0	0.91	--	15600	<10.0
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12A	7/6/2010	--	716	57300	--	--	--	--	--	--	--	--	3680	--	164	--	3840	--	--	--	--
	9/20/2010	--	<100	523	--	--	--	--	--	--	--	--	4680	--	10.2	--	4690	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	523	--	--	--	--	--	--	--	--	--	--	--	--	4790	--	--	--	--
	6/2/2011	--	--	754	--	--	--	--	--	--	--	--	4710	--	<10.0	--	4720	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-13	7/6/2010	--	116	92600	--	--	--	--	--	--	--	--	<50.0	--	64.9	--	70.4	--	--	--	--
	9/20/2010	--	279	59500	--	--	--	--	--	--	--	--	<50.0	--	<10.0	--	<50.0	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/14/2011	--	--	44600	--	--	--	--	--	--	--	--	--	--	--	--	<50.0	--	--	--	--
	6/2/2011	--	--	36700	--	--	--	--	--	--	--	--	71.5	--	14.5	--	86.0	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-14	6/2/2011	--	--	47500	--	--	--	--	--	--	--	--	<50.0	--	10.4	--	50.1	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-15	6/2/2011	--	--	11700	--	--	--	--	--	--	--	--	890	--	38.0	--	928	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-16	6/2/2011	--	--	34200	--	--	--	--	--	--	--	--	<50.0	--	<10.0	--	<50.0	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-17	6/2/2011	--	--	109000	--	--	--	--	--	--	--	--	<50.0	--	29.7	--	<50.0	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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

TABLE 3c
ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
76 Station No. S191/5043
449 HEGENBERGER RD
OAKLAND, CALIFORNIA

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA						
		Silver SW6010 D (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium SW6010 D (ug/L)	Total Organic Carbon (mg/L)	Vanadium SW6010 D (ug/L)	Zinc SW6010 D (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	--	--	--	--	--	--	--
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	35400	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	38900	--	<20.0	41	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--
MW-7	6/30/2010	--	191000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--
	6/2/2011	--	48900	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
MW-8	6/30/2010	--	2360000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--
	6/2/2011	--	2830000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
MW-9	12/17/2009	--	--	11	--	--	--	--
	3/29/2010	--	--	--	--	--	--	--
	6/30/2010	--	19000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	<10.0	8980	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	18600	--	<20.0	4.7	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--
MW-10	9/17/2009	--	84	0.084	--	--	--	--
	12/17/2009	--	--	86	--	--	--	--
	3/29/2010	--	73600	--	--	--	--	--

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

Well I.D.	Date	GROUNDWATER ANALYTICAL DATA						
		Silver SW6010 D (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium SW6010 D (ug/L)	Total Organic Carbon (mg/L)	Vanadium SW6010 D (ug/L)	Zinc SW6010 D (ug/L)
MW-10	6/30/2010	--	70800	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--
	9/20/2010	--	82000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	68600	--	--	--	--	--
	6/2/2011	--	71700	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
MW-11	7/6/2010	--	82100	--	--	--	--	--
	9/20/2010	--	58300	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	59900	--	--	--	--	--
	6/2/2011	--	62900	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
MW-12	7/6/2010	--	3030000	--	--	--	--	--
	9/20/2010	--	1970000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	<10.0	2500000	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	2330000	--	<20.0	9.1	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--
MW-12A	7/6/2010	--	100000	--	--	--	--	--
	9/20/2010	--	82500	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	81000	--	--	--	--	--
	6/2/2011	--	101000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
MW-13	7/6/2010	--	450000	--	--	--	--	--
	9/20/2010	--	241000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	375000	--	--	--	--	--
	6/2/2011	--	188000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
MW-14	6/2/2011	--	56300	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
MW-15	6/2/2011	--	62700	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
MW-16	6/2/2011	--	8740	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
MW-17	6/2/2011	--	3920000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--

Analytical Notes:

-- - No information available
< - Below laboratory's indicated reporting limit
LPH - Liquid Phase Hydrocarbons
mg/L - milligrams per liter
NS - Well not sampled.
ug/L - micrograms/liter
WD - Well Destroyed
WI - Well Inaccessable
WO - Well Obstruction

TABLE 4
Historical Groundwater Gradient and Flow Direction Data
76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California

Site	Monitoring Date	Groundwater Gradient (feet per foot)	Groundwater Flow Direction															
			N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW
	04/22/92		0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0
	08/31/92	0.05	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0
	11/30/92	0.04	0	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0
	02/07/94		0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0
	11/14/94	0.03	0	0	0	0	0	0	0	0	0	0	0	**1**	0	0	0	0
	02/21/95	0.08	0	0	0	0	0	0	**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
	07/26/96	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	0.006	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
		0.046 Average	**0**	**0**	**0**	**0**	**0**	**1**	**27**	**0**	**13**	**0**	**20**	**2**	**3**	**0**	**0**	**0**

Explanation
NA = Not available
Number of Events = 60

Appendix A

Previous Investigation and Site History Summary

PREVIOUS INVESTIGATION AND SITE HISTORY SUMMARY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SENSITIVE RECEPTORS

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

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: 270519 **Site Address:** 4419 Hegenberger Rd, Oakland

Field Technician: Patrick Harms / Blaine Tech Services **Date:** 9/7/11 **Weather:** Sunny

(Print Full Name & Company)*

Sample Order	Field Point	Well Condition: 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
8	MW-3	G	G	G	G	G	Y	2	0844	2.36	13.97			
14	MW-6	G	G	G	G	G	Y	2	0916	2.83	12.65			odor
3	MW-7	G	G	G	G	G	N	2	0817	3.72	13.00			
4	MW-8	G	G	G	G	G	N	2	0828	2.84	14.70			
2	MW-9	P	P	G	G	G	Y	2	0808	2.46	12.64			1/3 tabs broken 1/3 w/ threads
6	MW-10	G	G	G	G	G	N	2	0825	4.06	12.67			
5	MW-11	G	G	G	G	G	N	4	0820	1.56	19.58			
12	MW-12	G	G	G	G	G	N	4	0906	4.37	19.54			
1	MW-12A	G	G	G	G	G	N	2	0800	4.42	32.71			
7	MW-13	G	G	G	G	G	N	2	0840	5.74	14.60			
13	MW-14	G	G	G	G	G	N	2	0911	3.02	12.84			
9	MW-15	G	G	G	G	G	N	2	0848	2.54	12.75			lock replaced
10	MW-16	G	G	G	G	G	N	2	0855	2.65	12.70			lock replaced
11	MW-17	G	G	G	G	G	N	2	0900	4.56	12.70			

Notes:

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

CIRCLE ONE: YES or (NO**)

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*Form provided by Antea Group

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

Groundwater Sampling Form

Site Address:	4419 Heyenberger, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-6	Date:	9/7/11
Depth to Water (DTW) (ft bgs):	2.83	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.65	Water Column Height (ft):	9.82

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

Casing Volume (gal): 1.7 X Specified Volumes: 3 = Calculated Purge (gal): 5.0

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

Purge: **Start Time:** 1432 **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								
1432	23.44	7.08	7960	-100.7	331	2.29	1.0	
1434	23.57	7.09	2171	-101.2	69	1.67	2.0	
1436	24.22	6.83	1334	-94.3	45	1.45	3.0	
1437	24.76	6.75	1121	-88.0	20	1.36	3.5	
1439	25.42	6.73	1119	-84.0	14	1.36	4.5	
1440	25.64	6.72	1100	-83.2	13	1.31	5.0	7.3m
Post-Purge								

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

Other Comments: 80% @ 4.79 DTW = 3.05 NOT at 80% COOL/SHEEN Purged Through Flow Cell

Sample Info:

Sample ID:	MW-6 .20110920	Sample Date and Time:	9/7/11 1605
Selected Analysis:	See COC		

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

Signature: Date: 9/7/11

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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:	419 Hegenberger, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-10	Date:	9/7/11
Depth to Water (DTW) (ft bgs):	4.06	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):	8.61

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/ 3FD; Extraction Port; Dedicated Tubing; Disposable Tubing; Other:_____

Water Column Height (ft): 8.61 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.5

Casing Volume (gal): 1.5 X Specified Volumes: 3 = Calculated Purge (gal): 4.4

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: 1035

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								
1025	20.91	7.05	3128	26.3	10	3.43	1.0	
1026	21.69	6.94	3120	20.5	60	2.75	1.5	
1028	22.32	7.12	2736	2.7	44	2.60	2.5	
1029	22.28	7.06	2630	-9.8	16	2.17	3.0	
1031	22.23	7.03	2267	-21.2	6	1.56	4.0	
1032	22.19	7.00	2180	-26.9	4	1.42	4.5	
1034	22.16	7.00	2050	-33.7	3	1.18	5.5	
1035	22.13	6.97	2067	-38.6	3	1.07	6.0	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 6

Other Comments: 80% @ 5.75 DTW = 4.10 Purged Through Flow Cell

Sample Info:

Sample ID:	MW-10-20110920	Sample Date and Time:	9/7/11 1040
Selected Analysis:	See COC		

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

Signature: _____ Date: 9/7/11

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

Groundwater Sampling Form

Site Address:	419 Hegenberger, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-11	Date:	9/7/11
Depth to Water (DTW) (ft bgs):	1.56	Well Diameter (in):	2 (4) 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	19.58	Water Column Height (ft):	18.02

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): 18.02 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: 1052 Stop Time: 1104

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								
~~1052~~	22.77	7.37	1216	-24.9	26	3.60	~~12~~ 6	
1056	21.64	7.40	1081	-31.4	35	1.66	12	
1058	22.25	7.37	1048	-37.6	17	0.86	18	
1100	22.50	7.35	1056	-40.0	11	0.60	24	
1102	22.58	7.34	1083	-40.7	8	0.54	30	
1104	22.64	7.34	1063	-41.1	6	0.50	36	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 36

Other Comments: 80% @ 5.16 DTW = 2.02 * Purged out of order due to access - car stalled on well * Gross Decon Purged Through Flow Cell

Sample Info:

Sample ID:	MW-11-20110907	Sample Date and Time:	9/7/11 1110
Selected Analysis:	See COC		

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

Signature: _____ Date: 9/7/11

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

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

Groundwater Sampling Form

Site Address:	419 Hegenberger, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-12	Date:	9/7/11
Depth to Water (DTW) (ft bgs):	4.37	Well Diameter (in):	2 (4) 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	19.54	Water Column Height (ft):	15.17

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/ 3ED; Extraction Port; Dedicated Tubing; Disposable Tubing; Other:_____

Water Column Height (ft): 15.17 X Conversion Factor (gal/ft): 0.66 = Casing Volume (gal): 10.0

Casing Volume (gal): 10.0 X Specified Volumes: 3 = Calculated Purge (gal): 30.0

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

Purge: Start Time: 1352 Stop Time: 1402

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								
1354	20.24	6.76	32155	-33.1	48	1.31	6	
1356	20.06	6.72	22368	-31.5	38	1.33	12	
1357	19.95	6.72	22075	-36.4	36	1.53	15	
1359	20.09	6.72	21787	-43.0	37	1.61	21	
1400	20.10	6.76	21054	-54.6	41	1.67	24	
1402	20.16	6.80	20714	-61.4	49	1.70	30	8.42
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 30

Other Comments: 80% @ 7.40 Not at 80% Purged Through Flow Cell

DTW = 4.25

Sample Info:

Sample ID:	MW-12-20110920	Sample Date and Time:	9/7/11 1540
Selected Analysis:	See COC		

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

Signature: _____ Date: 9/7/11

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

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

Groundwater Sampling Form

Site Address:	4419 Hegenberger, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-12A	Date:	9/7/11
Depth to Water (DTW) (ft bgs):	4.42	Well Diameter (in):	2 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	32.71	Water Column Height (ft):	28.29

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/ 3ED
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:

Water Column Height (ft): 28.29 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 4.8

Casing Volume (gal): 4.8 X Specified Volumes: 3 = Calculated Purge (gal): 14.4

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

Purge: Start Time: 0940 Stop Time: 0950

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								
0942	19.95	6.69	2640	-77.5	>1000	1.90	3.0	
0944	19.67	6.72	3063	-66.4	193	1.24	6.0	
0946	19.65	6.76	3068	-56.7	50	0.91	9.0	
0947	19.66	6.77	3077	-52.9	30	0.85	10.5	
0949	19.67	6.74	3106	-44.7	18	0.80	13.5	
0950	19.67	6.74	3118	-40.4	13	0.79	15.0	
Post-Purge								

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

Other Comments: 80% @ 10.07 MS/MSD Purged Through Flow Cell
DTW = 4.42

Sample Info:

Sample ID:	MW-12A20110930	Sample Date and Time:	9/7/11 0955
Selected Analysis:	See COC		

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

Signature: Date: 9/7/11

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

Groundwater Sampling Form

Site Address:	419 Hegenberger, Oakland		
Project No:	270519	Field Technician:	Patrick Harms
Field Point:	MW-13	Date:	9/7/11
Depth to Water (DTW) (ft bgs):	5.74	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	14.60	Water Column Height (ft):	8.86

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/ 3ED, Extraction Port, Dedicated Tubing, Disposable Tubing, Other:_____)

Water Column Height (ft): 8.86 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.5

Casing Volume (gal): 1.5 X Specified Volumes: 3 = Calculated Purge (gal): 4.5

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

Purge: **Start Time:** 1122 **Stop Time:** 1134

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								
1124	23.55	7.27	2755	3.3	>1000	3.85	1.0	
1125	22.35	7.43	9210	-85.2	254	1.92	1.5	
1127	22.31	7.44	4036	-99.8	83	1.49	2.5	
1128	22.39	7.39	4133	-108.4	56	1.25	3.0	
1130	22.37	7.33	4641	-115.2	48	1.01	4.0	
1131	22.29	7.27	5245	-118.3	46	0.93	4.5	
1133	22.21	7.23	5680	-119.0	50	0.97	5.5	
1134	22.15	7.20	5947	-117.9	48	1.04	6.0	
Post-Purge								

Did Well dewater? Yes (No) Total Purge volume (gal): 6

Other Comments: 80% @ 7.51 DTW = 7.10 Purged Through Flow Cell

Sample Info:

Sample ID:	MW-13.20110907	Sample Date and Time:	9/7/11 1140
Selected Analysis:	See COC		

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

Signature: _____ Date: 9/7/11

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

Groundwater Sampling Form

Site Address:	4419 Hegenberger, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-14	Date:	9/7/11
Depth to Water (DTW) (ft bgs):	3.02	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.84	Water Column Height (ft):	9.82

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

Casing Volume (gal): 1.7 X Specified Volumes: 3 = Calculated Purge (gal): 5.0

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

Purge: **Start Time:** 1414 **Stop Time:** 1422

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								
1416	20.77	6.70	21556	-49.4	43	1.15	1.0	
1418	21.69	7.03	8453	-79.0	211	4.65	2.0	
1420	22.20	6.99	5252	-69.4	78	4.23	3.0	
1422	22.47	6.97	5673	-75.5	52	2.07	4.0	
1426		— Reached @ 4 gallons —					4/5	
1424							5.0	
1550	24.46	7.08	9909	-45.7	42	5.44	—	
Post-Purge								

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

Other Comments: 80% @ 4.98 Purged Through Flow Cell

DTW = 5.84 HCl Reaction

Sample Info:

Sample ID:	MW-14.20110920	Sample Date and Time:	9/7/11 1550
Selected Analysis:	See COC		

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

Signature: _____ Date: 9/7/11

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

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

Groundwater Sampling Form

Site Address:	419 Hegenberger, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-15	Date:	9/7/11
Depth to Water (DTW) (ft bgs):	2.54	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.75	Water Column Height (ft):	10.21

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/ 3ED; Extraction Port; Dedicated Tubing; Disposable Tubing; Other:

Water Column Height (ft): 10.21 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.7

Casing Volume (gal): 1.7 X Specified Volumes: 3 = Calculated Purge (gal): 5.2

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

Purge: **Start Time:** 1241 **Stop Time:** 1252

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								
1243	24.93	7.21	6903	-83.5	>1000	2.52	1	
1245	25.97	7.09	7415	-70.1	>1000	4.80	2	
1247	24.26	6.89	3462	-60.4	107	~~1.24~~ 1.60	3	
1248	23.96	6.63	2181	-46.2	37	1.75	3.5	
1250	23.93	6.56	2114	-36.7	36	1.84	4.5	
1252	23.95	6.57	2150	-34.9	42	1.86	5.5	9.80
Post-Purge								

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

Other Comments: 80%@4.58 Not at 80% Purged Through Flow Cell
DTW=7.45 (>2hours) HCl Reaction

Sample Info:

Sample ID:	MW-15-20110930	Sample Date and Time:	9/7/11 1255
Selected Analysis:	See COC		

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

Signature: Date: 9/7/11

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

Groundwater Sampling Form

Site Address:	4419 Hegenberger, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-16	Date:	9/7/11
Depth to Water (DTW) (ft bgs):	2.65	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.70	Water Column Height (ft):	10.05

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/ 3ED
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 10.05 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: 1312 Stop Time: 1323

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								
1314	25.34	6.74	4200	-62.7	132	1.78	1.0	
1316	25.80	6.82	4430	-66.8	320	3.49	2.0	
1318	23.51	6.85	3180	-60.1	70	1.51	3.0	
1319	26.46	6.89	3218	-51.0	41	1.31	3.5	
1321	26.88	6.88	3220	-44.8	48	1.24	4.5	
1323	27.05	6.88	3220	-42.5	56	1.21	5.5	6.80
Post-Purge								

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

Other Comments: 80% @ 4.66 DTW = 4.52 Next cut 50% Purged Through Flow Cell

Sample Info:

Sample ID:	MW-16.20110920	Sample Date and Time:	9/7/11 1510
Selected Analysis:	See COC		

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

Signature: _____ Date: 9/7/11

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

Groundwater Sampling Form

Site Address:	4419 Hegenberger, Oakland		
Project No:	2705191	Field Technician:	Patrick Harms
Field Point:	MW-17	Date:	9/7/11
Depth to Water (DTW) (ft bgs):	4.56	Well Diameter (in):	(2) 4 6 8 ___
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.70	Water Column Height (ft):	8.14

Purging Info and Calculations:

Purge Method:
Low-Flow
(3 casing volumes)
Other:_____

Purge Equipment:
Disposable Bailer
(Electric Submersible)
Peristaltic Pump
Bladder Pump
Other:_____

Sample Collection Method:
(Disposable Bailer) w/ BED
Extraction Port
Dedicated Tubing
Disposable Tubing
Other:_____

Water Column Height (ft): 8.14 X Conversion Factor (gal/ft): 0.17 = Casing Volume (gal): 1.4

Casing Volume (gal): 1.4 X Specified Volumes: 3 = Calculated Purge (gal): 4.1

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

Purge: Start Time: 1323 Stop Time: 1344

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								
1335	27.59	6.96	3265	-58.0	107	1.61	1.0	
1336	27.35	6.92	3263	-70.2	111	0.98	1.5	
1338	27.94	6.81	4949	-70.3	140	1.20	2.5	
1339	27.63	6.59	29061	-56.5	122	2.78	3.0	
1341	27.31	6.61	29886	-60.9	89	2.79	4.0	
1342	26.33	6.72	26522	-75.3	60	2.65	4.5	
1343	25.73	6.80	23345	-82.5	58	2.42	5.0	
1344	25.38	6.82	22682	-82.1	72	2.57	5.5	8.21
Post-Purge								

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

Other Comments: 80% @ 6.18 not at 80% Purged Through Flow Cell
DTW = 7.35 HCl Reaction

Sample Info:

Sample ID:	MW-17-20110920	Sample Date and Time:	9/7/11 1325
Selected Analysis:	See COC		

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

Signature: _____ Date: 9/7/11

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

20110930.2705191.WG_Q_201109.

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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
Cooler # 1 of 1

3Q11 GW Event

Required Lab Information:

Lab Name	Pace-Seattle
Address:	940 S. Harney Street Seattle WA 98108
Lab PM.	Regina Ste. Marie
Phone/Fax:	P: 206-957-2433 F: 206-767-5063
Lab PM email	Regina.SteMarie@pacelabs.com
Applicable Lab Quote #:	

Required Project Information:

Site ID #:	2705191
Task:	WG_Q_201109
AnteaGrp proj#	
Site Address	449 Hegenberger
City	Oakland
State	CA 94621
AG PM Name:	Dennis Dettloff
Phone/Fax:	P: 1-800-477-7411 F: 916-638-8385
AG PM Email:	dennis.dettloff@anteagroup.com

Required Invoice Information:

Send Invoice to:	David Sowle
Address:	11050 White Rock Road, Suite 110
City/State	Rancho Cordova CA 95670
Phone #:	1-800-477-7411
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
NJ Reduced Deliverable Package?	
MA MCP Cert?	CT RCP Cert? Mark
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	WD
PRODUCT	LF	SLUDGE	SL
SOIL	SO	RINSEATE	WH
OIL	OL	OTHER	OT
WIPE	SW	ANIMAL TISSUE	TA
AMBIENT AIR	AA		
SVE AIR	AS		
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	Requested Analyses: 8015TPHDiesel	8260 GC/MS GRO	8260BtexMtbe	8260Ethanol	Comments/Lab Sample I.D.
1	MW-10_20110930	WG		9/7/11	1040	8	N									X	X	X	X	8015TPHDiesel is with
2	MW-11_20110930	WG			1110	1										X	X	X	X	silica gel cleanup
3	MW-12_20110930	WG			1540	↓										X	X	X	X	
4	MW-12A_20110930	WG			0955	16										X	X	X	X	
5	MW-13_20110930	WG			1140	8										X	X	X	X	
6	MW-14_20110930	WG			1550	|	|									X	X	X	X	
7	MW-15_20110930	WG			1455	|	|									X	X	X	X	
8	MW-16_20110930	WG			1510	|	|									X	X	X	X	
9	MW-17_20110930	WG			1525	|	|									X	X	X	X	
10	MW-6_20110930	WG		↓	1605	↓	↓										X	X	X	X	
11																				
12																				

Additional Comments/Special Instructions:

Global ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / ITS	9/8/11	1720			

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: Patrick Harms / Blaine Tech Services

SIGNATURE of SAMPLER: [signature] DATE Signed: 9/8/11 Time: 1720

Inogen Environmental Alliance

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 4149 Hegenberger Rd, Oakland				PROJECT NUMBER 160907-PH1			
EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
YSI 556	08A100352	9/7/11 0925	PH 7.00 10.00 4.00	7.00 10.00 3.99	✓ ✓ ✓		PH
			Conductivity 3900 us/cm	3900	✓		PH
			ORP 234.0 DO 100%	234.0 100.4	✓ ✓	23.9	PH

Appendix D

Certified Laboratory Analytical Report and Data Validation Form

Is the Data Set Valid? (circle)	Preservation Temperature (if Known): 0.7 °C
Yes / **No**	

Antea™ Group Laboratory Data Validation Sheet

Project/Client: 76 Station No. 5191 COP-ELT
Project #: 142705191
Date of Validation: 9-27-11 **Date of Analysis:** 9/12 - 9/20
Sample Date: 9-7-11 **Completed By:** ETW
Signature:

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

Analytical Lab Used and Report # (if any): Pace #: 259145

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. M1: Matrix Spike recovery exceeded QC limits. Batch based on lab control sample recovery. Noted on BTEX and MTBE for MS/MSD 85492
Other Qualifiers: 1n: DRO does not match lab standard on MW-12, MW-14 85493
D4- sample diluted due to presence of high levels of target analytes: MW-12 + MW-14 + MW-16, MW-17, + MW-6
pH- post analysis pH measurements indicates insufficient VOA sample preservation MW-19

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

September 23, 2011

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

RE: Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Dear Dennis Dettloff:
Enclosed are the analytical results for sample(s) received by the laboratory on September 09, 2011. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

Regina Ste. Marie

Regina SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Tara Bosch, Antea USA
Jonathon Fillingame, Antea USA
Lia Holden, Antea USA
Dan Keltner, Antea USA
Josh Mahoney, Antea USA
Stephen Meninger, Antea USA
Tony Perini, Antea USA
Nicole Persaud, Antea USA
Don Pinkerton, Antea USA
Doug Umland, Antea USA
Ed Weyrens, Antea USA

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

CERTIFICATIONS

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Washington Certification IDs
940 South Harney Street, Seattle, WA 98108
Alaska CS Certification #: UST-025
Arizona Certification #: AZ0770
California Certification #: 01153CA
Florida/NELAP Certification #: E87617
Oregon Certification #: WA200007
Washington Certification #: C555

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

SAMPLE ANALYTE COUNT

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
259145001	MW-10_20110930	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LNH	10	PASI-S
		CA LUFT	LPM	2	PASI-S
259145002	MW-11_20110930	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LNH	10	PASI-S
		CA LUFT	LNH	2	PASI-S
259145003	MW-12_20110930	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LNH	10	PASI-S
		CA LUFT	LNH	2	PASI-S
259145004	MW-12A_20110930	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LNH	10	PASI-S
		CA LUFT	LNH	2	PASI-S
259145005	MW-13_20110930	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	CC, LNH	10	PASI-S
		CA LUFT	CC	2	PASI-S
259145006	MW-14_20110930	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LNH	10	PASI-S
		CA LUFT	LNH	2	PASI-S
259145007	MW-15_20110930	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	LNH	10	PASI-S
		CA LUFT	LNH	2	PASI-S
259145008	MW-16_20110930	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	CC, LNH	10	PASI-S
		CA LUFT	CC	2	PASI-S
259145009	MW-17_20110930	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	ERB	10	PASI-S
		CA LUFT	ERB	2	PASI-S
259145010	MW-6_20110930	EPA 8015B	AY1	3	PASI-S
		EPA 5030B/8260	ERB	10	PASI-S
		CA LUFT	ERB	2	PASI-S

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Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
259145001	**MW-10_20110930**					
EPA 5030B/8260	Benzene	4.1	ug/L	0.50	09/13/11 16:49	
EPA 5030B/8260	Ethylbenzene	0.66	ug/L	0.50	09/13/11 16:49	
EPA 5030B/8260	Xylene (Total)	2.4	ug/L	1.5	09/13/11 16:49	
259145002	**MW-11_20110930**					
EPA 5030B/8260	Methyl-tert-butyl ether	3.8	ug/L	0.50	09/13/11 17:06	
259145003	**MW-12_20110930**					
EPA 8015B	TPH-DRO (C10-C24) SG	1270	ug/L	50.0	09/12/11 18:38	1n
EPA 5030B/8260	Benzene	920	ug/L	5.0	09/13/11 19:48	
EPA 5030B/8260	Ethylbenzene	187	ug/L	5.0	09/13/11 19:48	
EPA 5030B/8260	Methyl-tert-butyl ether	896	ug/L	5.0	09/13/11 19:48	
EPA 5030B/8260	Toluene	25.4	ug/L	5.0	09/13/11 19:48	
EPA 5030B/8260	Xylene (Total)	267	ug/L	15.0	09/13/11 19:48	
CA LUFT	TPH-Gasoline (C05-C12)	7900	ug/L	500	09/13/11 19:48	
259145004	**MW-12A_20110930**					
EPA 5030B/8260	Methyl-tert-butyl ether	0.74	ug/L	0.50	09/13/11 17:24	
259145005	**MW-13_20110930**					
EPA 5030B/8260	Methyl-tert-butyl ether	207	ug/L	2.5	09/13/11 19:28	
CA LUFT	TPH-Gasoline (C05-C12)	167	ug/L	50.0	09/17/11 00:49	
259145006	**MW-14_20110930**					
EPA 8015B	TPH-DRO (C10-C24) SG	2970	ug/L	50.0	09/12/11 20:37	1n
EPA 5030B/8260	Benzene	1050	ug/L	25.0	09/13/11 20:46	
EPA 5030B/8260	Ethylbenzene	2990	ug/L	25.0	09/13/11 20:46	
EPA 5030B/8260	Toluene	28.1	ug/L	25.0	09/13/11 20:46	
EPA 5030B/8260	Xylene (Total)	7300	ug/L	75.0	09/13/11 20:46	
CA LUFT	TPH-Gasoline (C05-C12)	42600	ug/L	2500	09/13/11 20:46	
259145007	**MW-15_20110930**					
EPA 5030B/8260	Benzene	6.2	ug/L	0.50	09/13/11 17:41	
EPA 5030B/8260	Ethylbenzene	42.8	ug/L	0.50	09/13/11 17:41	
EPA 5030B/8260	Methyl-tert-butyl ether	128	ug/L	0.50	09/13/11 17:41	
CA LUFT	TPH-Gasoline (C05-C12)	412	ug/L	50.0	09/13/11 17:41	
259145008	**MW-16_20110930**					
EPA 8015B	TPH-DRO (C10-C24) SG	90.0	ug/L	50.0	09/14/11 12:22	1n
EPA 5030B/8260	Methyl-tert-butyl ether	1240	ug/L	5.0	09/13/11 20:07	
CA LUFT	TPH-Gasoline (C05-C12)	934	ug/L	50.0	09/17/11 01:06	
259145009	**MW-17_20110930**					
EPA 8015B	TPH-DRO (C10-C24) SG	1900	ug/L	50.0	09/12/11 21:29	1n
EPA 5030B/8260	Benzene	9620	ug/L	25.0	09/20/11 03:59	
EPA 5030B/8260	Ethylbenzene	1210	ug/L	25.0	09/20/11 03:59	
EPA 5030B/8260	Toluene	5510	ug/L	25.0	09/20/11 03:59	
EPA 5030B/8260	Xylene (Total)	4510	ug/L	75.0	09/20/11 03:59	
CA LUFT	TPH-Gasoline (C05-C12)	47200	ug/L	2500	09/20/11 03:59	pH

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Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
259145010	**MW-6_20110930**					
EPA 8015B	TPH-DRO (C10-C24) SG	6780	ug/L	50.0	09/12/11 21:46	1n
EPA 5030B/8260	Benzene	15.6	ug/L	0.50	09/20/11 05:30	
EPA 5030B/8260	Ethylbenzene	89.6	ug/L	0.50	09/20/11 05:30	
EPA 5030B/8260	Toluene	10.6	ug/L	0.50	09/20/11 05:30	
EPA 5030B/8260	Xylene (Total)	339	ug/L	1.5	09/20/11 05:30	
CA LUFT	TPH-Gasoline (C05-C12)	16600	ug/L	500	09/20/11 05:49	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Sample: MW-10_20110930 **Lab ID: 259145001** Collected: 09/07/11 10:40 Received: 09/09/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	ND	ug/L	50.0	1	09/12/11 10:25	09/14/11 11:47		
o-Terphenyl (S) SG	91	%	51-147	1	09/12/11 10:25	09/14/11 11:47	84-15-1	
n-Octacosane (S) SG	104	%	50-150	1	09/12/11 10:25	09/14/11 11:47	630-02-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**4.1**	ug/L	0.50	1		09/13/11 16:49	71-43-2	
Ethanol	ND	ug/L	250	1		09/13/11 16:49	64-17-5	
Ethylbenzene	**0.66**	ug/L	0.50	1		09/13/11 16:49	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		09/13/11 16:49	1634-04-4	
Toluene	ND	ug/L	0.50	1		09/13/11 16:49	108-88-3	
Xylene (Total)	**2.4**	ug/L	1.5	1		09/13/11 16:49	1330-20-7	
4-Bromofluorobenzene (S)	108	%	79-121	1		09/13/11 16:49	460-00-4	
Dibromofluoromethane (S)	105	%	81-119	1		09/13/11 16:49	1868-53-7	
1,2-Dichloroethane-d4 (S)	108	%	72-127	1		09/13/11 16:49	17060-07-0	
Toluene-d8 (S)	102	%	77-120	1		09/13/11 16:49	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	ug/L	50.0	1		09/19/11 11:38		
4-Bromofluorobenzene (S)	111	%	76-121	1		09/19/11 11:38	460-00-4	

Sample: MW-11_20110930 **Lab ID: 259145002** Collected: 09/07/11 11:10 Received: 09/09/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	ND	ug/L	50.0	1	09/12/11 10:25	09/14/11 12:04		
o-Terphenyl (S) SG	84	%	51-147	1	09/12/11 10:25	09/14/11 12:04	84-15-1	
n-Octacosane (S) SG	87	%	50-150	1	09/12/11 10:25	09/14/11 12:04	630-02-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	0.50	1		09/13/11 17:06	71-43-2	
Ethanol	ND	ug/L	250	1		09/13/11 17:06	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		09/13/11 17:06	100-41-4	
Methyl-tert-butyl ether	**3.8**	ug/L	0.50	1		09/13/11 17:06	1634-04-4	
Toluene	ND	ug/L	0.50	1		09/13/11 17:06	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		09/13/11 17:06	1330-20-7	
4-Bromofluorobenzene (S)	110	%	79-121	1		09/13/11 17:06	460-00-4	
Dibromofluoromethane (S)	104	%	81-119	1		09/13/11 17:06	1868-53-7	
1,2-Dichloroethane-d4 (S)	108	%	72-127	1		09/13/11 17:06	17060-07-0	
Toluene-d8 (S)	101	%	77-120	1		09/13/11 17:06	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	ug/L	50.0	1		09/13/11 17:06		
4-Bromofluorobenzene (S)	110	%	76-121	1		09/13/11 17:06	460-00-4	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Sample: MW-12_20110930 **Lab ID: 259145003** Collected: 09/07/11 15:40 Received: 09/09/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	**1270**	ug/L	50.0	1	09/12/11 10:25	09/12/11 18:38		1n
o-Terphenyl (S) SG	73	%	51-147	1	09/12/11 10:25	09/12/11 18:38	84-15-1	
n-Octacosane (S) SG	83	%	50-150	1	09/12/11 10:25	09/12/11 18:38	630-02-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**920**	ug/L	5.0	10		09/13/11 19:48	71-43-2	
Ethanol	ND	ug/L	2500	10		09/13/11 19:48	64-17-5	
Ethylbenzene	**187**	ug/L	5.0	10		09/13/11 19:48	100-41-4	
Methyl-tert-butyl ether	**896**	ug/L	5.0	10		09/13/11 19:48	1634-04-4	
Toluene	**25.4**	ug/L	5.0	10		09/13/11 19:48	108-88-3	
Xylene (Total)	**267**	ug/L	15.0	10		09/13/11 19:48	1330-20-7	
4-Bromofluorobenzene (S)	109	%	79-121	10		09/13/11 19:48	460-00-4	D4
Dibromofluoromethane (S)	106	%	81-119	10		09/13/11 19:48	1868-53-7	
1,2-Dichloroethane-d4 (S)	111	%	72-127	10		09/13/11 19:48	17060-07-0	
Toluene-d8 (S)	105	%	77-120	10		09/13/11 19:48	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**7900**	ug/L	500	10		09/13/11 19:48		
4-Bromofluorobenzene (S)	109	%	76-121	10		09/13/11 19:48	460-00-4	

Sample: MW-12A_20110930 **Lab ID: 259145004** Collected: 09/07/11 09:55 Received: 09/09/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	ND	ug/L	50.0	1	09/12/11 10:25	09/13/11 16:46		
o-Terphenyl (S) SG	83	%	51-147	1	09/12/11 10:25	09/13/11 16:46	84-15-1	
n-Octacosane (S) SG	90	%	50-150	1	09/12/11 10:25	09/13/11 16:46	630-02-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	0.50	1		09/13/11 17:24	71-43-2	
Ethanol	ND	ug/L	250	1		09/13/11 17:24	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		09/13/11 17:24	100-41-4	
Methyl-tert-butyl ether	**0.74**	ug/L	0.50	1		09/13/11 17:24	1634-04-4	
Toluene	ND	ug/L	0.50	1		09/13/11 17:24	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		09/13/11 17:24	1330-20-7	
4-Bromofluorobenzene (S)	107	%	79-121	1		09/13/11 17:24	460-00-4	
Dibromofluoromethane (S)	104	%	81-119	1		09/13/11 17:24	1868-53-7	
1,2-Dichloroethane-d4 (S)	108	%	72-127	1		09/13/11 17:24	17060-07-0	
Toluene-d8 (S)	101	%	77-120	1		09/13/11 17:24	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	ug/L	50.0	1		09/13/11 17:24		
4-Bromofluorobenzene (S)	107	%	76-121	1		09/13/11 17:24	460-00-4	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Sample: MW-13_20110930 **Lab ID: 259145005** Collected: 09/07/11 11:40 Received: 09/09/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	ND	ug/L	50.0	1	09/12/11 10:25	09/12/11 20:20		
o-Terphenyl (S) SG	74	%	51-147	1	09/12/11 10:25	09/12/11 20:20	84-15-1	
n-Octacosane (S) SG	82	%	50-150	1	09/12/11 10:25	09/12/11 20:20	630-02-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	0.50	1		09/17/11 00:49	71-43-2	
Ethanol	ND	ug/L	250	1		09/17/11 00:49	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		09/17/11 00:49	100-41-4	
Methyl-tert-butyl ether	**207**	ug/L	2.5	5		09/13/11 19:28	1634-04-4	
Toluene	ND	ug/L	0.50	1		09/17/11 00:49	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		09/17/11 00:49	1330-20-7	
4-Bromofluorobenzene (S)	111	%	79-121	1		09/17/11 00:49	460-00-4	
Dibromofluoromethane (S)	105	%	81-119	1		09/17/11 00:49	1868-53-7	
1,2-Dichloroethane-d4 (S)	109	%	72-127	1		09/17/11 00:49	17060-07-0	
Toluene-d8 (S)	101	%	77-120	1		09/17/11 00:49	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**167**	ug/L	50.0	1		09/17/11 00:49		
4-Bromofluorobenzene (S)	111	%	76-121	1		09/17/11 00:49	460-00-4	

Sample: MW-14_20110930 **Lab ID: 259145006** Collected: 09/07/11 15:50 Received: 09/09/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	**2970**	ug/L	50.0	1	09/12/11 10:25	09/12/11 20:37		1n
o-Terphenyl (S) SG	92	%	51-147	1	09/12/11 10:25	09/12/11 20:37	84-15-1	
n-Octacosane (S) SG	**101**	%	50-150	1	09/12/11 10:25	09/12/11 20:37	630-02-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**1050**	ug/L	25.0	50		09/13/11 20:46	71-43-2	
Ethanol	ND	ug/L	12500	50		09/13/11 20:46	64-17-5	
Ethylbenzene	**2990**	ug/L	25.0	50		09/13/11 20:46	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	25.0	50		09/13/11 20:46	1634-04-4	
Toluene	**28.1**	ug/L	25.0	50		09/13/11 20:46	108-88-3	
Xylene (Total)	**7300**	ug/L	75.0	50		09/13/11 20:46	1330-20-7	
4-Bromofluorobenzene (S)	108	%	79-121	50		09/13/11 20:46	460-00-4	D4
Dibromofluoromethane (S)	105	%	81-119	50		09/13/11 20:46	1868-53-7	
1,2-Dichloroethane-d4 (S)	118	%	72-127	50		09/13/11 20:46	17060-07-0	
Toluene-d8 (S)	106	%	77-120	50		09/13/11 20:46	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**42600**	ug/L	2500	50		09/13/11 20:46		
4-Bromofluorobenzene (S)	108	%	76-121	50		09/13/11 20:46	460-00-4	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Sample: MW-15_20110930 **Lab ID: 259145007** Collected: 09/07/11 14:55 Received: 09/09/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	ND	ug/L	50.0	1	09/12/11 10:25	09/12/11 20:55		
o-Terphenyl (S) SG	78	%	51-147	1	09/12/11 10:25	09/12/11 20:55	84-15-1	
n-Octacosane (S) SG	86	%	50-150	1	09/12/11 10:25	09/12/11 20:55	630-02-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**6.2**	ug/L	0.50	1		09/13/11 17:41	71-43-2	
Ethanol	ND	ug/L	250	1		09/13/11 17:41	64-17-5	
Ethylbenzene	**42.8**	ug/L	0.50	1		09/13/11 17:41	100-41-4	
Methyl-tert-butyl ether	**128**	ug/L	0.50	1		09/13/11 17:41	1634-04-4	
Toluene	ND	ug/L	0.50	1		09/13/11 17:41	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		09/13/11 17:41	1330-20-7	
4-Bromofluorobenzene (S)	106	%	79-121	1		09/13/11 17:41	460-00-4	
Dibromofluoromethane (S)	108	%	81-119	1		09/13/11 17:41	1868-53-7	
1,2-Dichloroethane-d4 (S)	117	%	72-127	1		09/13/11 17:41	17060-07-0	
Toluene-d8 (S)	100	%	77-120	1		09/13/11 17:41	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**412**	ug/L	50.0	1		09/13/11 17:41		
4-Bromofluorobenzene (S)	106	%	76-121	1		09/13/11 17:41	460-00-4	

Sample: MW-16_20110930 **Lab ID: 259145008** Collected: 09/07/11 15:10 Received: 09/09/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	**90.0**	ug/L	50.0	1	09/12/11 10:25	09/14/11 12:22		1n
o-Terphenyl (S) SG	88	%	51-147	1	09/12/11 10:25	09/14/11 12:22	84-15-1	
n-Octacosane (S) SG	100	%	50-150	1	09/12/11 10:25	09/14/11 12:22	630-02-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	0.50	1		09/17/11 01:06	71-43-2	
Ethanol	ND	ug/L	250	1		09/17/11 01:06	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		09/17/11 01:06	100-41-4	
Methyl-tert-butyl ether	**1240**	ug/L	5.0	10		09/13/11 20:07	1634-04-4	
Toluene	ND	ug/L	0.50	1		09/17/11 01:06	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		09/17/11 01:06	1330-20-7	
4-Bromofluorobenzene (S)	109	%	79-121	1		09/17/11 01:06	460-00-4	
Dibromofluoromethane (S)	106	%	81-119	1		09/17/11 01:06	1868-53-7	
1,2-Dichloroethane-d4 (S)	109	%	72-127	1		09/17/11 01:06	17060-07-0	
Toluene-d8 (S)	102	%	77-120	1		09/17/11 01:06	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**934**	ug/L	50.0	1		09/17/11 01:06		
4-Bromofluorobenzene (S)	109	%	76-121	1		09/17/11 01:06	460-00-4	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Sample: MW-17_20110930 **Lab ID: 259145009** Collected: 09/07/11 15:25 Received: 09/09/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	**1900**	ug/L	50.0	1	09/12/11 10:25	09/12/11 21:29		1n
o-Terphenyl (S) SG	67	%	51-147	1	09/12/11 10:25	09/12/11 21:29	84-15-1	
n-Octacosane (S) SG	75	%	50-150	1	09/12/11 10:25	09/12/11 21:29	630-02-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**9620**	ug/L	25.0	50		09/20/11 03:59	71-43-2	
Ethanol	ND	ug/L	12500	50		09/20/11 03:59	64-17-5	
Ethylbenzene	**1210**	ug/L	25.0	50		09/20/11 03:59	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	25.0	50		09/20/11 03:59	1634-04-4	
Toluene	**5510**	ug/L	25.0	50		09/20/11 03:59	108-88-3	
Xylene (Total)	**4510**	ug/L	75.0	50		09/20/11 03:59	1330-20-7	
4-Bromofluorobenzene (S)	96	%	79-121	50		09/20/11 03:59	460-00-4	D4,pH
Dibromofluoromethane (S)	109	%	81-119	50		09/20/11 03:59	1868-53-7	
1,2-Dichloroethane-d4 (S)	121	%	72-127	50		09/20/11 03:59	17060-07-0	
Toluene-d8 (S)	100	%	77-120	50		09/20/11 03:59	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**47200**	ug/L	2500	50		09/20/11 03:59		pH
4-Bromofluorobenzene (S)	96	%	76-121	50		09/20/11 03:59	460-00-4	

Sample: MW-6_20110930 **Lab ID: 259145010** Collected: 09/07/11 16:05 Received: 09/09/11 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	**6780**	ug/L	50.0	1	09/12/11 10:25	09/12/11 21:46		1n
o-Terphenyl (S) SG	92	%	51-147	1	09/12/11 10:25	09/12/11 21:46	84-15-1	
n-Octacosane (S) SG	112	%	50-150	1	09/12/11 10:25	09/12/11 21:46	630-02-4	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	**15.6**	ug/L	0.50	1		09/20/11 05:30	71-43-2	
Ethanol	ND	ug/L	250	1		09/20/11 05:30	64-17-5	
Ethylbenzene	**89.6**	ug/L	0.50	1		09/20/11 05:30	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		09/20/11 05:30	1634-04-4	
Toluene	**10.6**	ug/L	0.50	1		09/20/11 05:30	108-88-3	
Xylene (Total)	**339**	ug/L	1.5	1		09/20/11 05:30	1330-20-7	
4-Bromofluorobenzene (S)	105	%	79-121	1		09/20/11 05:30	460-00-4	
Dibromofluoromethane (S)	107	%	81-119	1		09/20/11 05:30	1868-53-7	
1,2-Dichloroethane-d4 (S)	103	%	72-127	1		09/20/11 05:30	17060-07-0	
Toluene-d8 (S)	98	%	77-120	1		09/20/11 05:30	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	**16600**	ug/L	500	10		09/20/11 05:49		
4-Bromofluorobenzene (S)	97	%	76-121	10		09/20/11 05:49	460-00-4	

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

QC Batch: OEXT/4359 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510 Modified Analysis Description: 8015B CA DRO Silica Gel
Associated Lab Samples: 259145001, 259145002, 259145003, 259145004, 259145005, 259145006, 259145007, 259145008, 259145009, 259145010

METHOD BLANK: 85354 Matrix: Water
Associated Lab Samples: 259145001, 259145002, 259145003, 259145004, 259145005, 259145006, 259145007, 259145008, 259145009, 259145010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	ND	50.0	09/14/11 04:55	
n-Octacosane (S) SG	%	88	50-150	09/14/11 04:55	
o-Terphenyl (S) SG	%	80	51-147	09/14/11 04:55	

LABORATORY CONTROL SAMPLE: 85355

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	3120	2330	75	51-147	
n-Octacosane (S) SG	%			93	50-150	
o-Terphenyl (S) SG	%			86	51-147	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 85356 85357

Parameter	Units	259145004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-DRO (C10-C24) SG	ug/L	ND	3120	3120	1760	1950	55	61	51-147	10	
n-Octacosane (S) SG	%						78	88	50-150		
o-Terphenyl (S) SG	%						71	80	51-147		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

QC Batch: MSV/5366 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 259145001, 259145002, 259145003, 259145004, 259145005, 259145006, 259145007, 259145008

METHOD BLANK: 85490 Matrix: Water
Associated Lab Samples: 259145001, 259145002, 259145003, 259145004, 259145005, 259145006, 259145007, 259145008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	09/13/11 12:03	
Ethanol	ug/L	ND	250	09/13/11 12:03	
Ethylbenzene	ug/L	ND	0.50	09/13/11 12:03	
Methyl-tert-butyl ether	ug/L	ND	0.50	09/13/11 12:03	
Toluene	ug/L	ND	0.50	09/13/11 12:03	
Xylene (Total)	ug/L	ND	1.5	09/13/11 12:03	
1,2-Dichloroethane-d4 (S)	%	103	72-127	09/13/11 12:03	
4-Bromofluorobenzene (S)	%	107	79-121	09/13/11 12:03	
Dibromofluoromethane (S)	%	104	81-119	09/13/11 12:03	
Toluene-d8 (S)	%	102	77-120	09/13/11 12:03	

LABORATORY CONTROL SAMPLE: 85491

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	20.3	101	66-123	
Ethanol	ug/L	800	973	122	40-160	
Ethylbenzene	ug/L	20	20.0	100	67-122	
Methyl-tert-butyl ether	ug/L	20	19.9	99	65-138	
Toluene	ug/L	20	19.7	98	64-118	
Xylene (Total)	ug/L	60	57.2	95	68-122	
1,2-Dichloroethane-d4 (S)	%			106	72-127	
4-Bromofluorobenzene (S)	%			104	79-121	
Dibromofluoromethane (S)	%			104	81-119	
Toluene-d8 (S)	%			101	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 85492 85493

Parameter	Units	259117001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	14.3	12.6	71	62	63-138	13	M1
Ethanol	ug/L	ND	800	800	544	485	68	61	40-160	12	
Ethylbenzene	ug/L	ND	20	20	14.1	12.6	70	62	65-135	11	M1
Methyl-tert-butyl ether	ug/L	ND	20	20	11.7	11.3	56	55	59-143	3	M1
Toluene	ug/L	ND	20	20	14.1	12.5	70	62	64-128	12	M1
Xylene (Total)	ug/L	ND	60	60	40.5	36.1	66	59	65-133	12	M1
1,2-Dichloroethane-d4 (S)	%						98	101	72-127		
4-Bromofluorobenzene (S)	%						106	106	79-121		
Dibromofluoromethane (S)	%						103	103	81-119		
Toluene-d8 (S)	%						102	101	77-120		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

QC Batch: MSV/5404 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 259145005, 259145008

METHOD BLANK: 86007 Matrix: Water
Associated Lab Samples: 259145005, 259145008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	09/16/11 20:15	
Ethanol	ug/L	ND	250	09/16/11 20:15	
Ethylbenzene	ug/L	ND	0.50	09/16/11 20:15	
Toluene	ug/L	ND	0.50	09/16/11 20:15	
Xylene (Total)	ug/L	ND	1.5	09/16/11 20:15	
1,2-Dichloroethane-d4 (S)	%	108	72-127	09/16/11 20:15	
4-Bromofluorobenzene (S)	%	111	79-121	09/16/11 20:15	
Dibromofluoromethane (S)	%	105	81-119	09/16/11 20:15	
Toluene-d8 (S)	%	102	77-120	09/16/11 20:15	

LABORATORY CONTROL SAMPLE: 86008

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	17.0	85	66-123	
Ethanol	ug/L	800	703	88	40-160	
Ethylbenzene	ug/L	20	17.2	86	67-122	
Toluene	ug/L	20	16.6	83	64-118	
Xylene (Total)	ug/L	60	49.2	82	68-122	
1,2-Dichloroethane-d4 (S)	%			105	72-127	
4-Bromofluorobenzene (S)	%			105	79-121	
Dibromofluoromethane (S)	%			106	81-119	
Toluene-d8 (S)	%			101	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 86242 86243

Parameter	Units	259108009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	20.1	21.2	100	106	63-138	5	
Ethanol	ug/L	ND	800	800	900	954	113	119	40-160	6	
Ethylbenzene	ug/L	ND	20	20	20.1	21.3	100	106	65-135	6	
Toluene	ug/L	ND	20	20	19.6	20.8	98	104	64-128	6	
Xylene (Total)	ug/L	ND	60	60	56.2	59.6	93	99	65-133	6	
1,2-Dichloroethane-d4 (S)	%						106	106	72-127		
4-Bromofluorobenzene (S)	%						106	106	79-121		
Dibromofluoromethane (S)	%						105	106	81-119		
Toluene-d8 (S)	%						102	101	77-120		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

QC Batch: MSV/5417
QC Batch Method: EPA 5030B/8260
Analysis Method: EPA 5030B/8260
Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 259145009, 259145010

METHOD BLANK: 86270 Matrix: Water
Associated Lab Samples: 259145009, 259145010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	09/19/11 22:10	
Ethanol	ug/L	ND	250	09/19/11 22:10	
Ethylbenzene	ug/L	ND	0.50	09/19/11 22:10	
Methyl-tert-butyl ether	ug/L	ND	0.50	09/19/11 22:10	
Toluene	ug/L	ND	0.50	09/19/11 22:10	
Xylene (Total)	ug/L	ND	1.5	09/19/11 22:10	
1,2-Dichloroethane-d4 (S)	%	107	72-127	09/19/11 22:10	
4-Bromofluorobenzene (S)	%	97	79-121	09/19/11 22:10	
Dibromofluoromethane (S)	%	106	81-119	09/19/11 22:10	
Toluene-d8 (S)	%	98	77-120	09/19/11 22:10	

LABORATORY CONTROL SAMPLE: 86271

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	17.0	85	66-123	
Ethanol	ug/L	800	1010	126	40-160	
Ethylbenzene	ug/L	20	16.9	84	67-122	
Methyl-tert-butyl ether	ug/L	20	16.8	84	65-138	
Toluene	ug/L	20	15.7	78	64-118	
Xylene (Total)	ug/L	60	49.6	83	68-122	
1,2-Dichloroethane-d4 (S)	%			101	72-127	
4-Bromofluorobenzene (S)	%			98	79-121	
Dibromofluoromethane (S)	%			105	81-119	
Toluene-d8 (S)	%			99	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 86397 86398

Parameter	Units	259108015 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Benzene	ug/L	ND	20	20	16.5	16.4	82	82	63-138	.6	
Ethanol	ug/L	ND	800	800	907	902	113	113	40-160	.5	
Ethylbenzene	ug/L	ND	20	20	16.4	16.0	82	80	65-135	2	
Methyl-tert-butyl ether	ug/L	ND	20	20	16.4	15.9	82	79	59-143	3	
Toluene	ug/L	ND	20	20	15.4	15.0	77	75	64-128	2	
Xylene (Total)	ug/L	ND	60	60	47.5	46.8	79	78	65-133	2	
1,2-Dichloroethane-d4 (S)	%						101	101	72-127		
4-Bromofluorobenzene (S)	%						100	99	79-121		
Dibromofluoromethane (S)	%						107	107	81-119		
Toluene-d8 (S)	%						100	99	77-120		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

QC Batch: MSV/5364 Analysis Method: CA LUFT
QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 259145002, 259145003, 259145004, 259145006, 259145007

METHOD BLANK: 85467 Matrix: Water
Associated Lab Samples: 259145002, 259145003, 259145004, 259145006, 259145007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	09/13/11 12:03	
4-Bromofluorobenzene (S)	%	107	76-121	09/13/11 12:03	

LABORATORY CONTROL SAMPLE: 85468

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	601	120	57-139	
4-Bromofluorobenzene (S)	%			108	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 85790 85791

Parameter	Units	259117002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	2060	500	500	2570	2370	102	62	40-150	8	
4-Bromofluorobenzene (S)	%						110	109	76-121		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

QC Batch: MSV/5407
QC Batch Method: CA LUFT
Analysis Method: CA LUFT
Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 259145005, 259145008

METHOD BLANK: 86021
Matrix: Water
Associated Lab Samples: 259145005, 259145008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	09/16/11 20:15	
4-Bromofluorobenzene (S)	%	111	76-121	09/16/11 20:15	

LABORATORY CONTROL SAMPLE: 86022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	505	101	57-139	
4-Bromofluorobenzene (S)	%			108	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 86244 86245

Parameter	Units	259145005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	167	500	500	654	625	97	92	40-150	5	
4-Bromofluorobenzene (S)	%						106	108	76-121		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

QC Batch: MSV/5411
QC Batch Method: CA LUFT
Analysis Method: CA LUFT
Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 259145001

METHOD BLANK: 86158 Matrix: Water
Associated Lab Samples: 259145001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	09/19/11 09:39	
4-Bromofluorobenzene (S)	%	110	76-121	09/19/11 09:39	

LABORATORY CONTROL SAMPLE: 86159

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	539	108	57-139	
4-Bromofluorobenzene (S)	%			106	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 86411 86412

Parameter	Units	259117004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	ND	500	500	724	578	136	107	40-150	22	
4-Bromofluorobenzene (S)	%						107	107	76-121		

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QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

QC Batch: MSV/5419
QC Batch Method: CA LUFT
Analysis Method: CA LUFT
Analysis Description: CA LUFT MSV GRO
Associated Lab Samples: 259145009, 259145010

METHOD BLANK: 86274 Matrix: Water
Associated Lab Samples: 259145009, 259145010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	09/19/11 22:10	
4-Bromofluorobenzene (S)	%	97	76-121	09/19/11 22:10	

LABORATORY CONTROL SAMPLE: 86275

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	594	119	57-139	
4-Bromofluorobenzene (S)	%			97	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 86588 86589

Parameter	Units	259278001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
TPH-Gasoline (C05-C12)	ug/L	117	500	500	563	590	89	95	40-150	5	
4-Bromofluorobenzene (S)	%						98	97	76-121		

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QUALIFIERS

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel Clean-Up

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

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

LABORATORIES

PASI-S	Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

1n	The DRO result for this sample did not match the pattern of the laboratory standard for diesel.
D4	Sample was diluted due to the presence of high levels of target analytes.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
pH	Post-analysis pH measurement indicates insufficient VOA sample preservation.

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
940 South Harney
Seattle, WA 98108
(206)767-5060

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191 449 Hegenberger
Pace Project No.: 259145

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
259145001	MW-10_20110930	EPA 3510 Modified	OEXT/4359	EPA 8015B	GCSV/2895
259145002	MW-11_20110930	EPA 3510 Modified	OEXT/4359	EPA 8015B	GCSV/2895
259145003	MW-12_20110930	EPA 3510 Modified	OEXT/4359	EPA 8015B	GCSV/2895
259145004	MW-12A_20110930	EPA 3510 Modified	OEXT/4359	EPA 8015B	GCSV/2895
259145005	MW-13_20110930	EPA 3510 Modified	OEXT/4359	EPA 8015B	GCSV/2895
259145006	MW-14_20110930	EPA 3510 Modified	OEXT/4359	EPA 8015B	GCSV/2895
259145007	MW-15_20110930	EPA 3510 Modified	OEXT/4359	EPA 8015B	GCSV/2895
259145008	MW-16_20110930	EPA 3510 Modified	OEXT/4359	EPA 8015B	GCSV/2895
259145009	MW-17_20110930	EPA 3510 Modified	OEXT/4359	EPA 8015B	GCSV/2895
259145010	MW-6_20110930	EPA 3510 Modified	OEXT/4359	EPA 8015B	GCSV/2895
259145001	MW-10_20110930	EPA 5030B/8260	MSV/5366		
259145002	MW-11_20110930	EPA 5030B/8260	MSV/5366		
259145003	MW-12_20110930	EPA 5030B/8260	MSV/5366		
259145004	MW-12A_20110930	EPA 5030B/8260	MSV/5366		
259145005	MW-13_20110930	EPA 5030B/8260	MSV/5366		
259145005	MW-13_20110930	EPA 5030B/8260	MSV/5404		
259145006	MW-14_20110930	EPA 5030B/8260	MSV/5366		
259145007	MW-15_20110930	EPA 5030B/8260	MSV/5366		
259145008	MW-16_20110930	EPA 5030B/8260	MSV/5366		
259145008	MW-16_20110930	EPA 5030B/8260	MSV/5404		
259145009	MW-17_20110930	EPA 5030B/8260	MSV/5417		
259145010	MW-6_20110930	EPA 5030B/8260	MSV/5417		
259145001	MW-10_20110930	CA LUFT	MSV/5411		
259145002	MW-11_20110930	CA LUFT	MSV/5364		
259145003	MW-12_20110930	CA LUFT	MSV/5364		
259145004	MW-12A_20110930	CA LUFT	MSV/5364		
259145005	MW-13_20110930	CA LUFT	MSV/5407		
259145006	MW-14_20110930	CA LUFT	MSV/5364		
259145007	MW-15_20110930	CA LUFT	MSV/5364		
259145008	MW-16_20110930	CA LUFT	MSV/5407		
259145009	MW-17_20110930	CA LUFT	MSV/5419		
259145010	MW-6_20110930	CA LUFT	MSV/5419		

20110930.2705191.WG_Q_201109.BO

anteagroup

COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

259145

Page: 1 of 1

Cooler # 1 of 1

3Q11 GW Event

Required Lab Information:		Required Project Information:				Required Invoice Information:			
Lab Name:	Pace-Seattle	Site ID #:	2705191	Task:	WG_Q_201109	Send Invoice to:	~~David Sowle~~ Tarah Beech		
Address:		AnteaGrp proj#				Address:	11050 White Rock Road, Suite 110		
940 S. Harney Street Seattle WA 98108		Site Address	449 Hegenberger			City/State	Rancho Cordova CA 95670	Phone #:	1-800-477-7411
Lab PM:	Regina Ste. Marie	City	Oakland	State	CA 94621	Reimbursement project?		Non-reimbursement project?	Y
Phone/Fax:	P: 206-957-2433 F: 206-767-5063	AG PM Name:	Dennis Dettloff			Send EDD to	copeltdata@intelligentehs.com		
Lab PM email	Regina.SteMarie@pacelabs.com	Phone/Fax:	P: 1-800-477-7411 F: 916-638-8385			CC Hardcopy report to			
Applicable Lab Quote #:		AG PM Email:	dennis.dettloff@anteagroup.com			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, GROUND WATER, WASTE WATER, FREE PRODUCT, SOIL, AIR, SOIL GAS, WATER, SURFACE WATER, WATER QC, BLEACH, FORMATE, OTHER, ANIMAL TISSUE

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	8260 GCMS CRO	8260Benzinfbs	8260Ethanol	Comments/Lab Sample I.D.
1	MW-10_20110930	WG	G	9/7/11	1040	8	N									X	X	X	X	8015TPHDiesel is with
2	MW-11_20110930	WG	"		1110	"	"									X	X	X	X	silica gel cleanup
3	MW-12_20110930	WG	"		1540	"	"									X	X	X	X	
4	MW-12A_20110930	WG	"		0955	16										X	X	X	X	
5	MW-13_20110930	WG	"		1140	8										X	X	X	X	
6	MW-14_20110930	WG	"		1550	"										X	X	X	X	
7	MW-15_20110930	WG	"		1455	"										X	X	X	X	
8	MW-16_20110930	WG	"		1510	"										X	X	X	X	
9	MW-17_20110930	WG	"		1525	"										X	X	X	X	
10	MW-6_20110930	WG	"	"	1605	"	"									X	X	X	X	
11																				
12																				

Additional Comments/Special Instructions:

VOAs HAVE HEAD SPACE DUE TO RXN
OK TO RUN

Global ID: T0600101476

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
[signature] / ITS	9/8/11	1720			
FED EX	090911	0900	Colette Weaver / PACE	090911	0900

Sample Receipt Conditions

Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
	Y/N	Y/N	Y/N
0.7	(Y) N	(Y) N	Y (N)
0.9	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: Patrick Harms / Blaine Tech Services

SIGNATURE of SAMPLER: [signature] DATE Signed: 9/9/11 Time: 1720

Final 11/13/06. AMTait

Inogen Environmental Alliance

Sample Container Count

259145

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BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	AG2U			Comments
							2			
							2			
							2			
							6			
							2			
							2			
							2			
							2			
							2			
							2			
										Trip Blank? No

	BP2S	500mL H2SO4 plastic	JGFU	4oz unpreserved amber wide
	BP2U	500mL unpreserved plastic	R	terra core kit
	BP2Z	500mL NaOH, Zn Ac	U	Summa Can
	BP3C	250mL NaOH plastic	VG9H	40mL HCL clear vial
	BP3N	250mL HNO3 plastic	VG9T	40mL Na Thio. clear vial
	BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
	BP3U	250mL unpreserved plastic	VG9W	40mL glass vial preweighted (EPA 5035)
	DG9B	40mL Na Bisulfate amber vial	VSG	Headspace septa vial & HCL
	DG9H	40mL HCL amber voa vial	WGFU	4oz clear soil jar
	DG9M	40mL MeOH clear vial	WGFX	4oz wide jar w/hexane wipe
	DG9T	40mL Na Thio amber vial	ZPLC	Ziploc Bag
	DG9U	40mL unpreserved amber vial		
	I	Wipe/Swab		

Pace Analytical

Sample Condition Upon Receipt

259145

Client Name: Antea Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8756 0531 5764, 8756 0531, 5775

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

Packing Material: ☑ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other Temp. Blank Yes ✓ No

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

Cooler Temperature 0.7c, 0.9c Biological Tissue is Frozen: Yes No

Temp should be above freezing ≤ 6°C

Date and initials of person examining contents: 090911 CW

Comments:

Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Follow Up / Hold Analysis Requested:	☐Yes	☑No	☐N/A	8.
Sufficient Volume:	☑Yes	☐No	☐N/A	9.
Correct Containers Used:	☑Yes	☐No	☐N/A	10.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	11.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	12.
Sample Labels match COC:	☑Yes	☐No	☐N/A	13.
-Includes date/time/ID/Analysis Matrix: WT				
All containers needing preservation have been checked.	☐Yes	☐No	☑N/A	14.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes	☐No	☑N/A	
Exceptions: VOA, coliform, TOC, O&G				Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	15.
Headspace in VOA Vials (>6mm):	☑Yes	☐No	☐N/A	16. 1 voa from MW-12_20110930 has a bubble in it, 1 voa from MW-13_20110930 has a bubble, 3 voas from MW-15_20110930 has bubbles. mw
Trip Blanks Present:	☐Yes	☑No	☐N/A	
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Creation Date:				

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

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: ARB Date: 9/9/11

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