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February 1, 2011

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

Subject: Quarterly Summary Report – Fourth Quarter 2010

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

Dear Ms. Jakub;

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

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

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Sincerely,

PACIFIC CONVENIENCE & FUEL

LIZ BERMUDEZ
Senior Paralegal
Division, Unit, or Group

Attachment

Quarterly Summary Report, Fourth Quarter

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

Alameda County Health Care Services
Agency Fuel leak Case No.
R00000219
Regional Water Quality Control Board
San Francisco Bay No. 01-1601

GeoTracker Global ID
No.T0600101476

Antea Group Project No. 142705191

Prepared for:

Ms. Barbara Jakub
Hazardous Materials
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1.0 INTRODUCTION

Antea™ Group (formerly Delta Consultants) is pleased to submit this *Quarterly Summary Report, Fourth Quarter 2010*, 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 ten 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 a history of the environmental investigations and remedial actions.

This report summarizes the data obtained from the recent groundwater monitoring and sampling event conducted on December 8, 2010. Included herein are site figures and groundwater contaminant data tables and a discussion of trends. This report has received a technical review by Mr. Dennis Dettloff, California Professional Geologist No. 7480.

1.1 Work Performed [Fourth Quarter 2010]

1. Delta Consultants (now Antea Group) submitted the *Quarterly Summary Report, Third Quarter 2010*, dated October 25, 2010 to the Alameda County Health Care Services Agency (ACHCSA).
2. Delta Consultants conducted a batch extraction event using monitoring wells MW-6 and MW-12 on December 6 and 7, 2010.
3. Delta Consultants submitted a work plan to the ACHCSA on December 20, 2010 proposing additional investigation at the site.
4. Blaine Tech Services, Inc. (Blaine Tech) conducted the fourth quarter 2010 groundwater monitoring and sampling event on December 8, 2010.

1.2 Work Proposed [First Quarter 2011]

1. Antea Group will submit the *Quarterly Summary Report, Fourth Quarter 2010* (contained herein) to the ACHCSA by January 31, 2011.
2. Antea Group will conduct a batch extraction event using monitoring wells MW-6 and MW-12 before the next monitoring and sampling event.
3. Blaine tech will conduct the first quarter 2011 monitoring and sampling event.
4. If approved by the ACHCSA, Antea Group will begin site investigation activities proposed in the work plan submitted on December 20, 2010.

2.0 CURRENT PROJECT STATUS

Current phase of project:	Quarterly Groundwater Monitoring
Local Oversight Program (LOP) –	Alameda County Health Care Services Agency (ACHCSA), Case No.

Lead agency for cleanup oversight:	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
Monitoring well sampling schedule:	Quarterly: MW-6 and MW-10 Semi-Annual: MW-3, MW-7 through MW-9, MW-11, MW-12, MW-12A, and MW-13
Total number of monitoring/remediation wells (Table 1):	Ten (MW-3, MW-6 through MW-12, MW-12A, and MW-13).
Range of well depths (total depth below ground surface, bgs) (Table 1):	Both wells are set from 13 feet to 34 feet bgs.
Wells with historical measurable LNAPL (light non-aqueous phase liquid):	None
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	Batch Extraction

2.1 Regulatory Correspondence

No regulatory correspondence was sent to or received from the ACHCSA during the fourth quarter 2010.

2.2 Remedial Activities

Batch extraction using monitoring/extraction wells MW-6 and MW-12 was conducted on December 6 and 7, 2010. Approximately 1,600 gallons of groundwater were purged from the on-site wells during the extraction event and transported off-site for disposal at the Demenno Kerdoon disposal facility located in Compton, California.

2.3 Groundwater Monitoring

For the fourth quarter 2010 groundwater monitoring and sampling event, ten wells were gauged, purged, and sampled by Blaine Tech per standard sampling protocol (**Appendix B**). Copies of Blaine Tech's field data sheets are presented as **Appendix C**. The recent gauging and sampling data are summarized below and in **Tables 1, 2** and **2a**.

Well gauging and sampling date:	December 8, 2010
Wells gauged:	MW-3, MW-6 through MW-12, MW-12A, and MW-13
Wells sampled:	MW-3, MW-6 through MW-12, MW-12A, and MW-13
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: 1.77 (MW-9) Max: 8.42 (MW-6)

Current groundwater elevation range (ft):	Min: 3.13 (MW-6) Max: 9.17 (MW-9)
Change in water depths from previous event (average change for all gauged wells):	0.07 foot decrease
Groundwater flow direction and gradient in feet per foot (ft/ft):	Southeast at 0.01 ft/ft

2.3.1 Groundwater Flow Gradient and Directional Trends

With the recent installation of four additional wells, this site now has eight on-site and two off-site monitoring wells. Monitoring wells MW-3, MW-7, MW-8, and MW-9 are sampled during the 2nd and 4th quarters while monitoring wells MW-6, MW-10, MW-11, MW-12, MW-12a, and MW-13 are sampled quarterly. The fourth quarter 2010 groundwater monitoring and sampling event was performed by Blaine Tech on December 8, 2010. The average groundwater elevation decreased 0.07 feet from the September 2010 event. Depth to groundwater in the site monitoring wells ranged from 1.77 feet (MW-9) to 8.42 feet (MW-6) BTOC during the current event. The groundwater flow direction and gradient were interpreted to be to the southeast at 0.01 ft/ft during the current event which is consistent with the historical groundwater flow direction and gradient (**Table 3**).

2.3.2 Groundwater Quality Data

Groundwater samples collected during the fourth quarter 2010 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 by CA LUFT Method;
- Diesel Range Organics (DRO) [silica gel treated] by Environmental Protection Agency (EPA) Method 8015B;
- Benzene, toluene, ethylbenzene, total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), and ethanol by EPA Method 8260.

Groundwater analytical results are presented in **Tables 1** (current) and **Tables 2 and 2a** (historical). The following ranges of contaminant concentrations were reported in the specified site wells' groundwater samples collected on December 8, 2010. 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	4 of 10	177 (MW-13)	78,400 (MW-6)
DRO	8 of 10	52.7 (MW-11)	28,700 (MW-6)
Benzene	3 of 10	1.8 (MW-10)	1,300 (MW-6)

Toluene	2 of 10	117 (MW-12)	1,680 (MW-6)
Ethylbenzene	2 of 10	89.8 (MW-12)	3,490 (MW-6)
Total Xylenes	2 of 10	558 (MW-12)	20,600 (MW-6)
MTBE	6 of 10	9.4 (MW-12A)	1,470 (MW-12)

Explanations:

µg/L = Micrograms per liter

LRL = Laboratory reporting limit

2.2.3 Groundwater Contaminant Trends

During the fourth quarter 2010, analytical results from the sample collected from monitoring well MW-6 indicated that MTBE decreased in concentration while TPHg and DRO concentrations increased. Analytical results from the groundwater sample collected from monitoring well MW-10 indicated an increase in benzene. TPHg, DRO, and MTBE concentrations in monitoring well MW-10 remained below the laboratory's indicated reporting limits, as shown in **Table 2**. Analytical results from the groundwater sample collected from monitoring well MW-11 indicated a decrease in MTBE and an increase in DRO concentrations. Analytical results from the groundwater sample collected from monitoring well MW-12A indicated an increase in MTBE and DRO concentrations. Analytical results from the groundwater samples collected from monitoring wells MW-12 and MW-13 indicated a decrease in TPHg concentrations. Groundwater samples collected from monitoring well MW-12 also indicated a decrease in DRO concentration and monitoring well MW-13 an increase in DRO concentration. Groundwater samples collected from monitoring wells MW-12 and MW-13 indicated an increase in MTBE concentrations. Isoconcentration maps for TPHg, benzene, and MTBE are presented on **Figures 4** through **6** and historical flow directions are presented on **Figure 7**.

2.3.4 Waste Disposal Summary

Approximately 115 gallons of waste water was generated during well purging/sampling and equipment cleaning during the fourth quarter event. The waste water was transported to Blaine Tech's bulk facility in San Jose, California. After the batching process, the wastewater was transported to Seaport Environmental in Redwood City, California for disposal. A copy of the waste manifest is presented as **Appendix E**.

2.3.5 Quality Assurance / Quality Control

Antea Group's QA/QC measures included use of a field duplicate and a detailed QA/QC data validation check on the Pace Laboratory analytical results for the December 2010 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 – six qualifiers*
Are the data valid for their intended purpose?	Yes, the data are valid

*1n – Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference. This resulted in a higher reporting limit for Ethanol

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

*H1 – Analysis conducted outside the EPA method holding time.

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

*S4 – Surrogate recovery not evaluated against control limits due to sample dilution.

*p2 – Post-analysis pH measurement indicates pH>2.

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. The samples not analyzed within the EPA hold times were sampled in unpreserved containers which also resulted in the post-analysis pH levels being above 2.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Antea Group recommends continued quarterly monitoring of groundwater, as well as continuing quarterly batch extraction events using monitoring wells MW-6 and MW-12. In addition, Antea Group recommends that the remaining monitoring wells be sampled on a semi-annual basis only, during the second and fourth quarters.

4.0 Remarks

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

Prepared by:



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

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

Licensed Approver:



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

Date: 1/31/11



cc: GeoTracker (upload)

Figures

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Figure 2	Site Map
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Figure 7	Dissolved Phase DRO Isoconcentration Map – December 8, 2010
Figure 8	Historical Groundwater Flow Directions

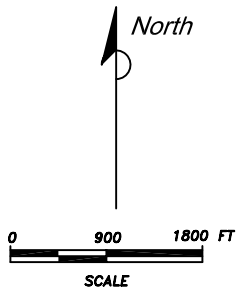
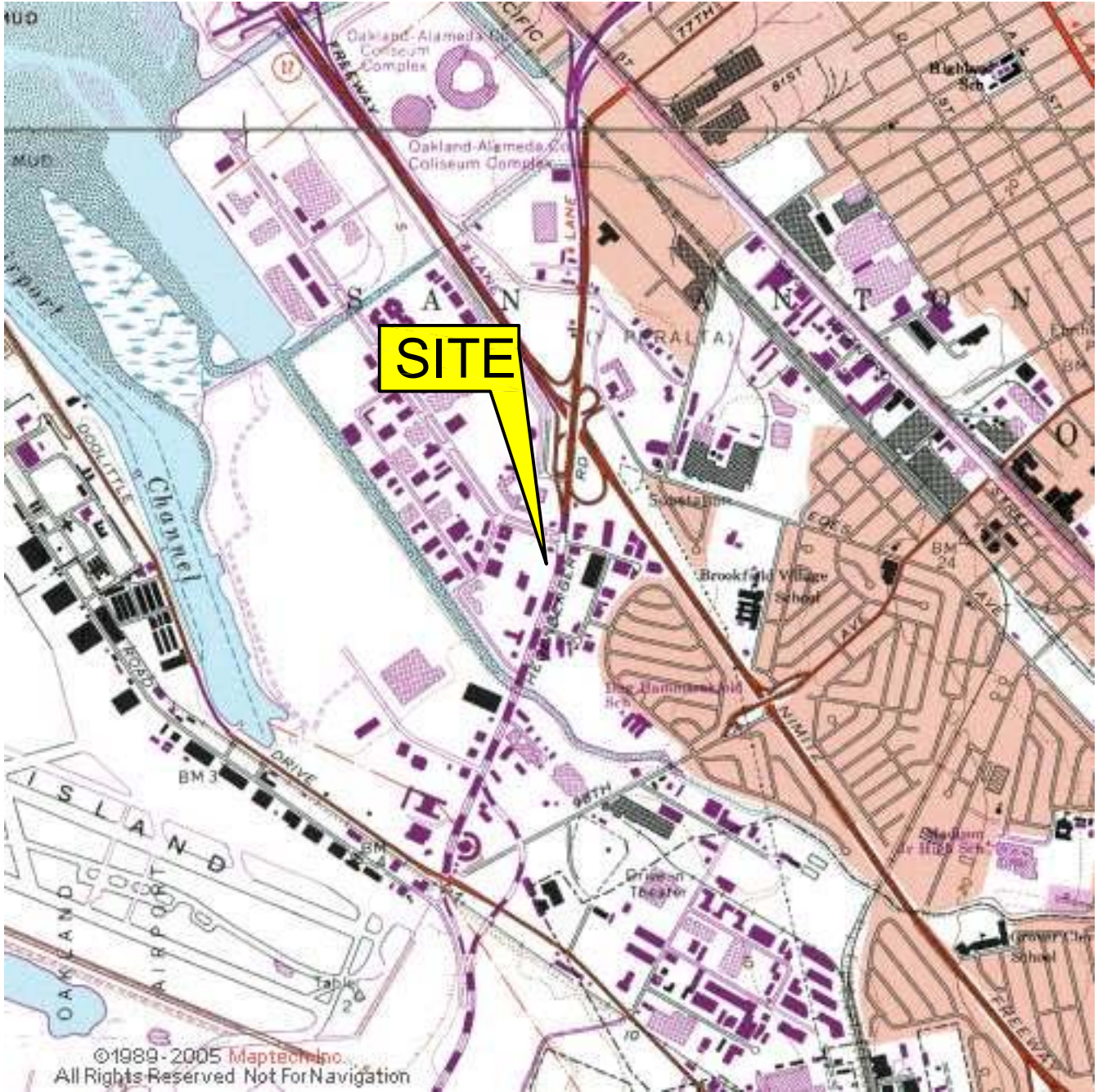


FIGURE 1
SITE LOCATION MAP
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

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

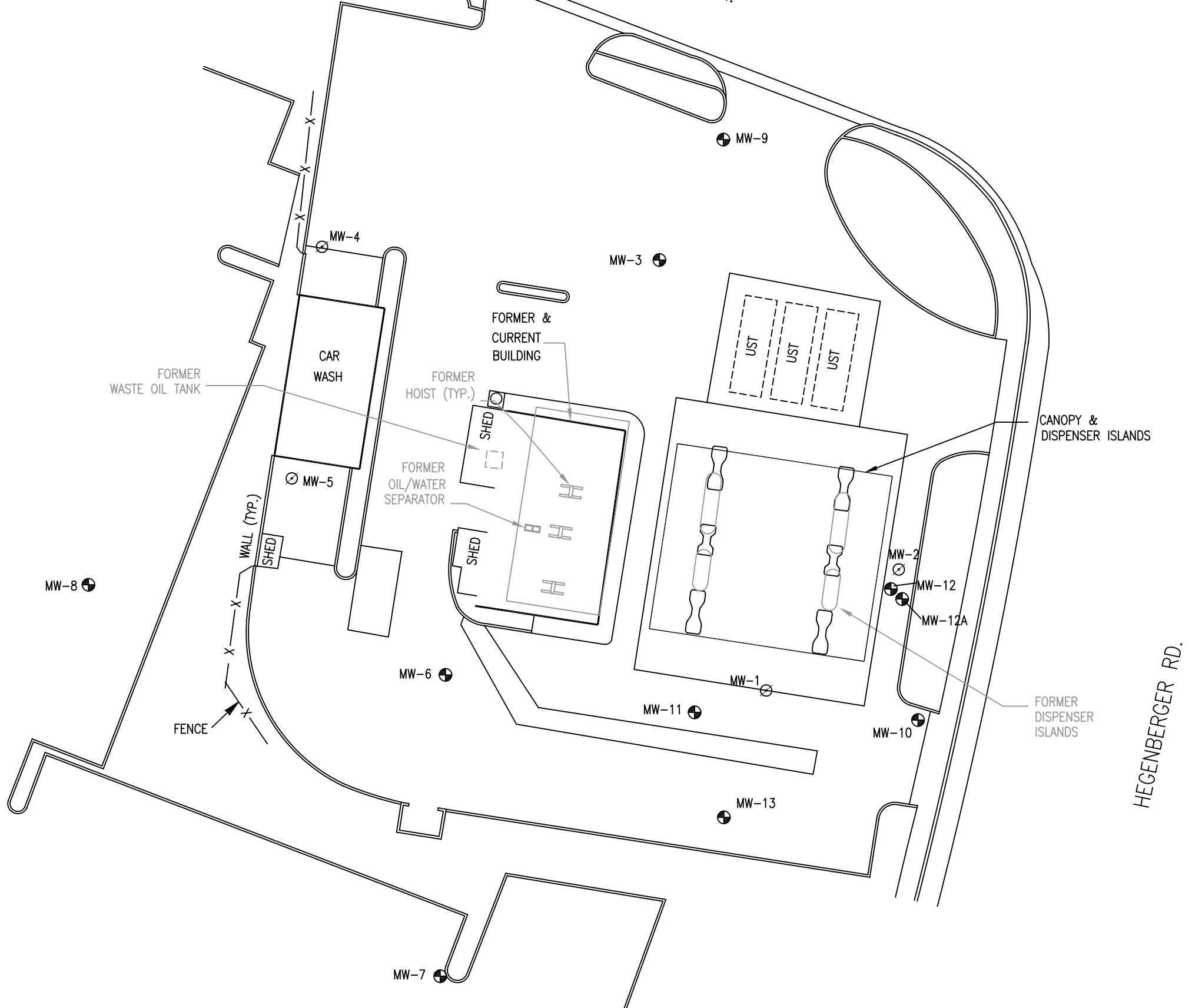


SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC MAP, OAKLAND EAST QUADRANGLE (1973)

EDGEWATER DR.

LEGEND

- ⊕ MW- MONITORING WELL
- ⊙ MW- ABANDONED MONITORING WELL



HEGENBERGER RD.

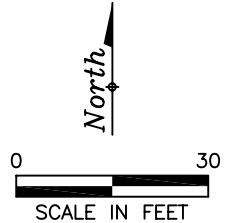

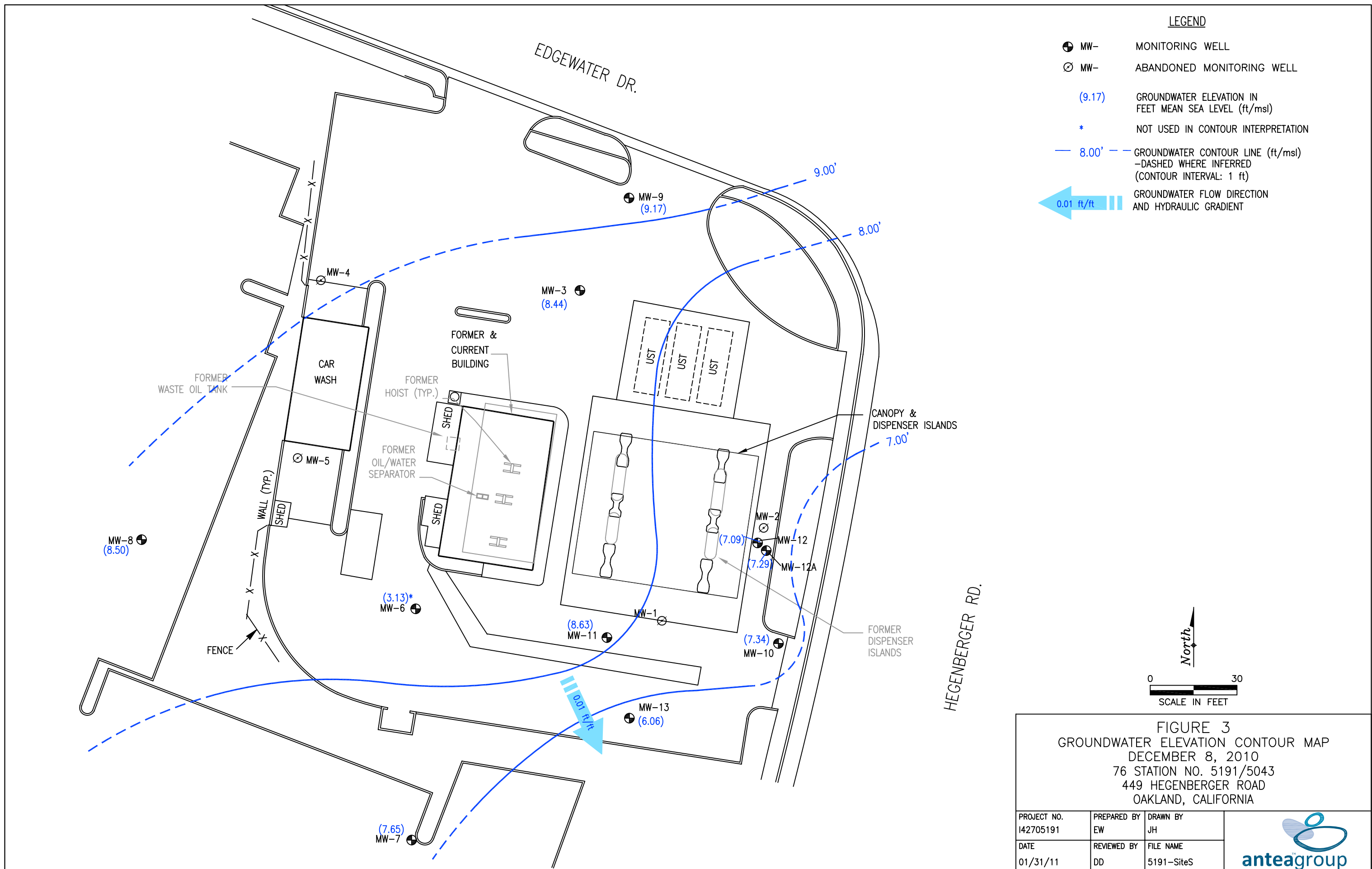


FIGURE 2
SITE PLAN

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

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



LEGEND

- ⊕ MW- MONITORING WELL
- ⊙ MW- ABANDONED MONITORING WELL
- (9.17) GROUNDWATER ELEVATION IN FEET MEAN SEA LEVEL (ft/msl)
- * NOT USED IN CONTOUR INTERPRETATION
- 8.00' — GROUNDWATER CONTOUR LINE (ft/msl) —DASHED WHERE INFERRED (CONTOUR INTERVAL: 1 ft)
- ← 0.01 ft/ft → GROUNDWATER FLOW DIRECTION AND HYDRAULIC GRADIENT

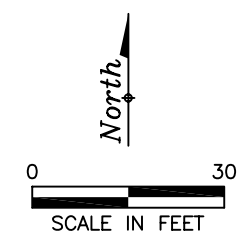
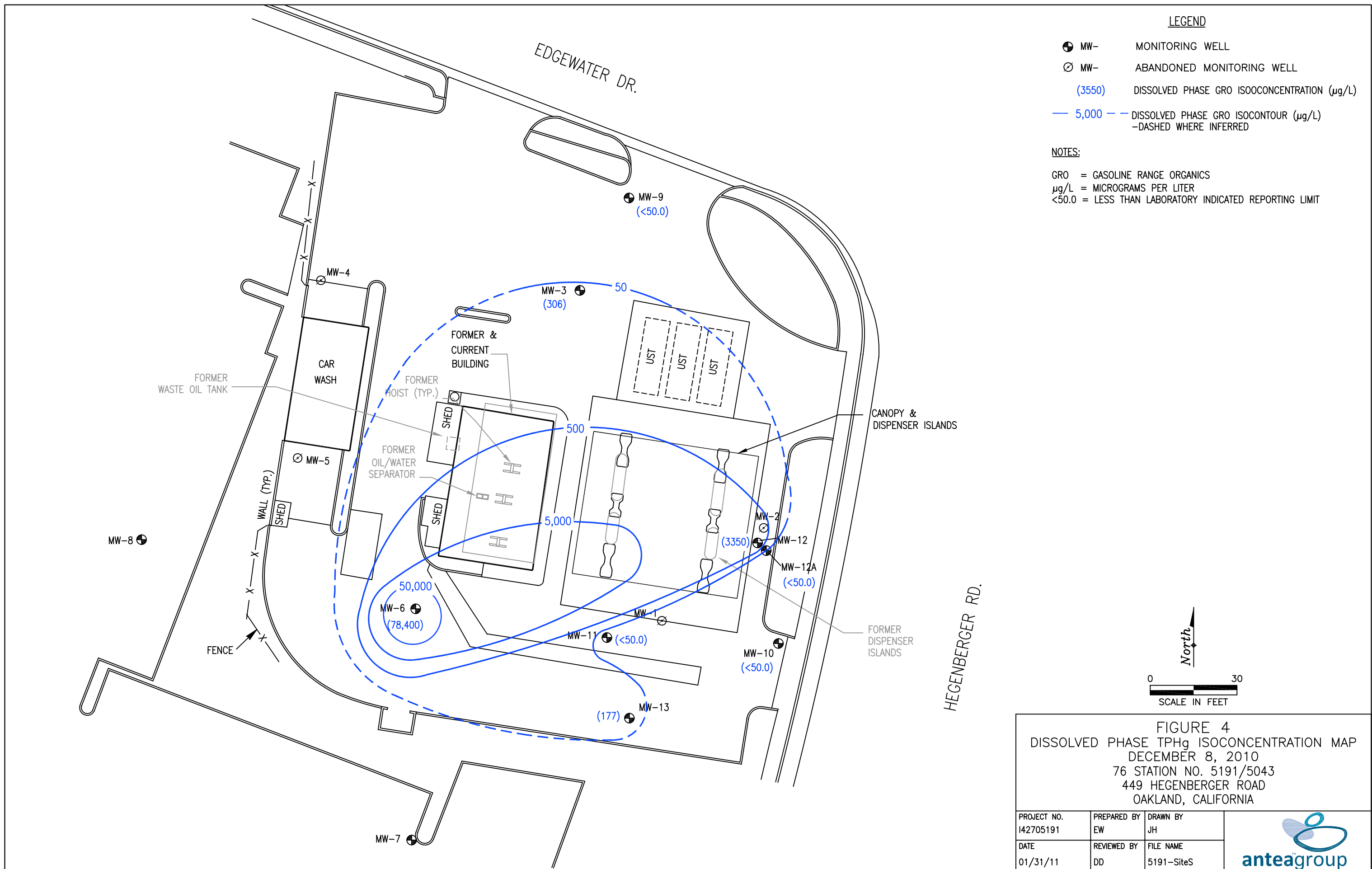


FIGURE 3
GROUNDWATER ELEVATION CONTOUR MAP
DECEMBER 8, 2010
76 STATION NO. 5191/5043
449 HEGENBERGER ROAD
OAKLAND, CALIFORNIA

PROJECT NO. 142705191	PREPARED BY EW	DRAWN BY JH	
DATE 01/31/11	REVIEWED BY DD	FILE NAME 5191-SiteS	



LEGEND

- ⊕ MW- MONITORING WELL
- ⊙ MW- ABANDONED MONITORING WELL
- (3550) DISSOLVED PHASE GRO ISOCONCENTRATION (µg/L)
- 5,000 — DISSOLVED PHASE GRO ISOCONTOUR (µg/L)
-DASHED WHERE INFERRED

NOTES:

GRO = GASOLINE RANGE ORGANICS
 µg/L = MICROGRAMS PER LITER
 <50.0 = LESS THAN LABORATORY INDICATED REPORTING LIMIT

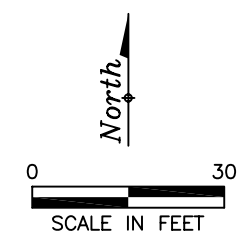
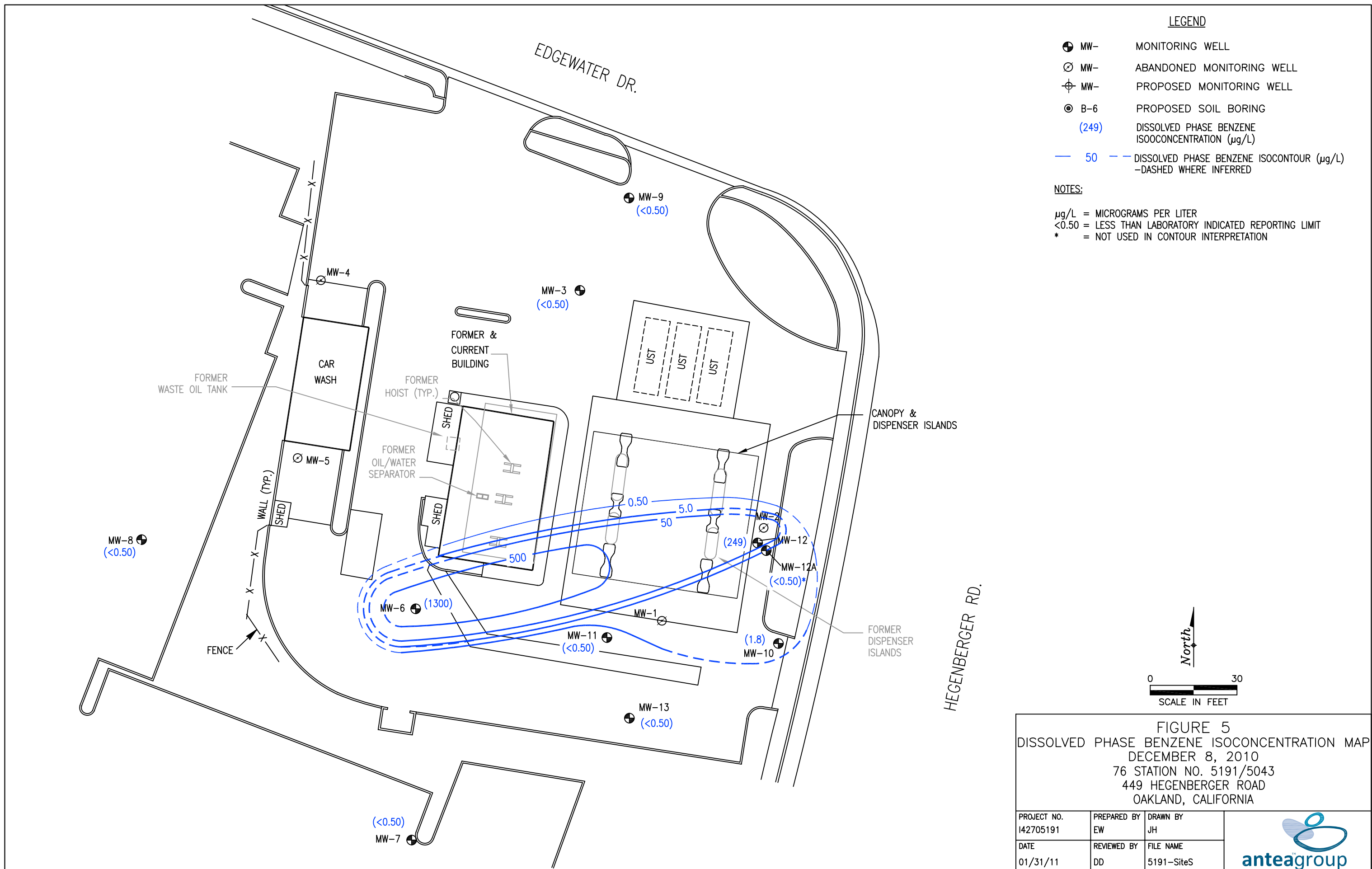


FIGURE 4
 DISSOLVED PHASE TPHg ISOCONCENTRATION MAP
 DECEMBER 8, 2010
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. 142705191	PREPARED BY EW	DRAWN BY JH
DATE 01/31/11	REVIEWED BY DD	FILE NAME 5191-Sites





LEGEND

- ⊕ MW- MONITORING WELL
- ⊙ MW- ABANDONED MONITORING WELL
- ⊕ MW- PROPOSED MONITORING WELL
- ⊙ B-6 PROPOSED SOIL BORING
- (249) DISSOLVED PHASE BENZENE ISOCONCENTRATION (µg/L)
- 50 — DISSOLVED PHASE BENZENE ISOCONCENTRATION (µg/L) -DASHED WHERE INFERRED

NOTES:

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

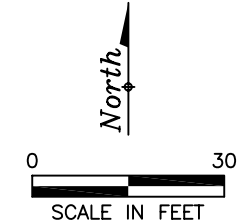
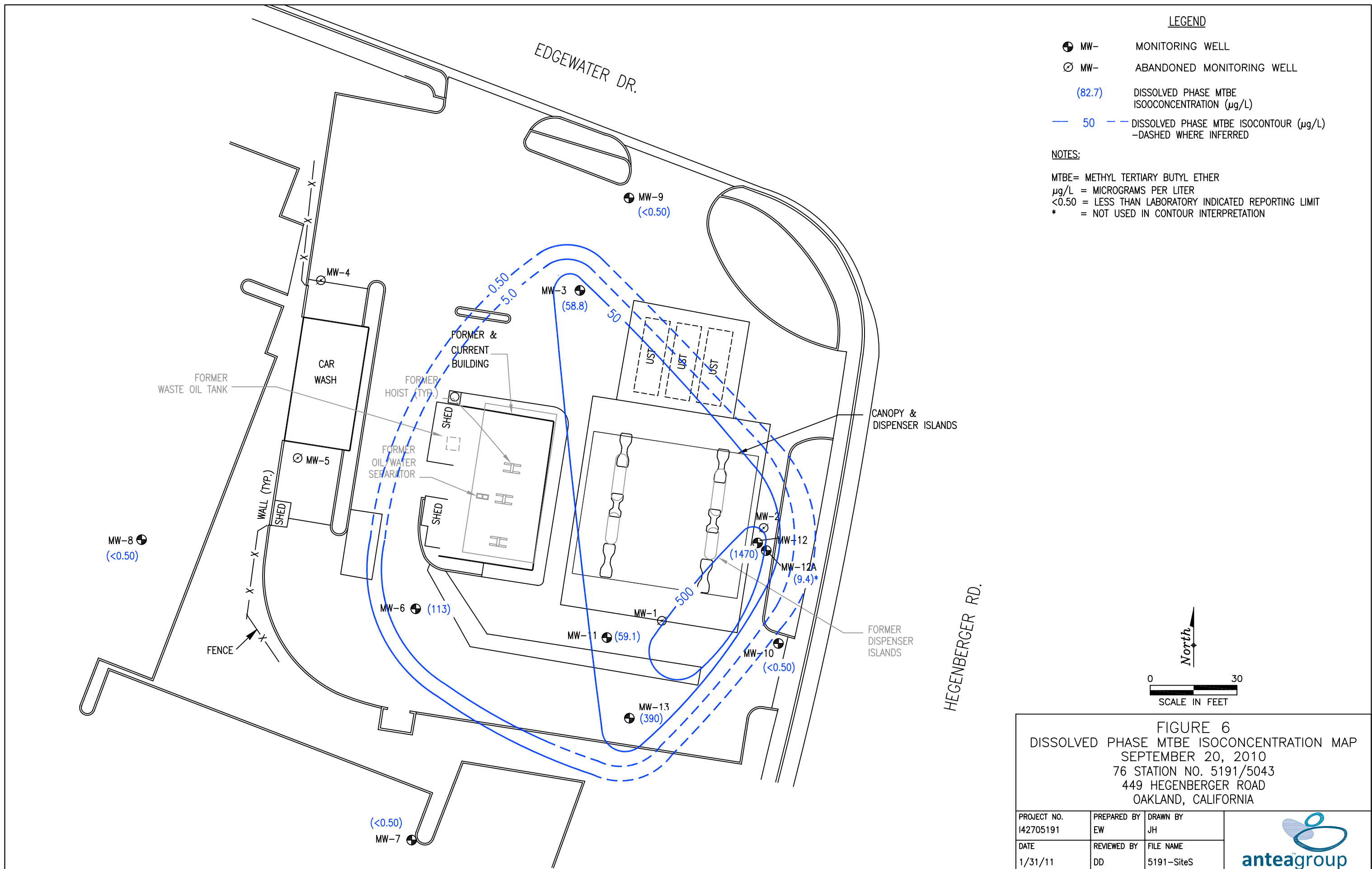


FIGURE 5
 DISSOLVED PHASE BENZENE ISOCONCENTRATION MAP
 DECEMBER 8, 2010
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. 142705191	PREPARED BY EW	DRAWN BY JH
DATE 01/31/11	REVIEWED BY DD	FILE NAME 5191-SiteS





LEGEND

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

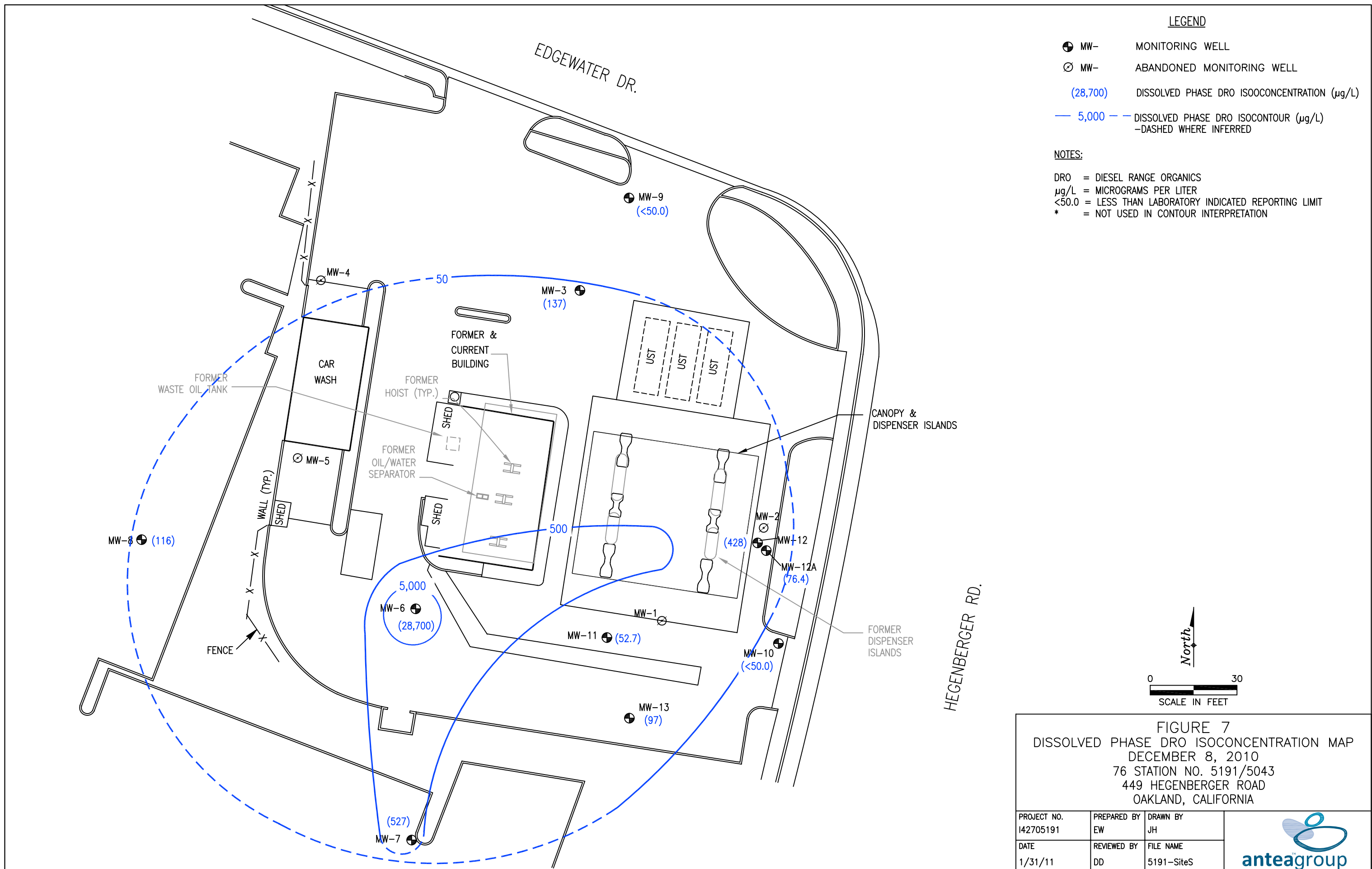
NOTES:

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

FIGURE 6
 DISSOLVED PHASE MTBE ISOCONCENTRATION MAP
 SEPTEMBER 20, 2010
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

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





LEGEND

- MW- MONITORING WELL
- ⊙ MW- ABANDONED MONITORING WELL
- (28,700) DISSOLVED PHASE DRO ISOCONCENTRATION (µg/L)
- 5,000 — 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
- * = NOT USED IN CONTOUR INTERPRETATION

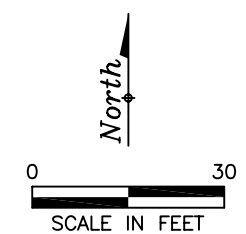
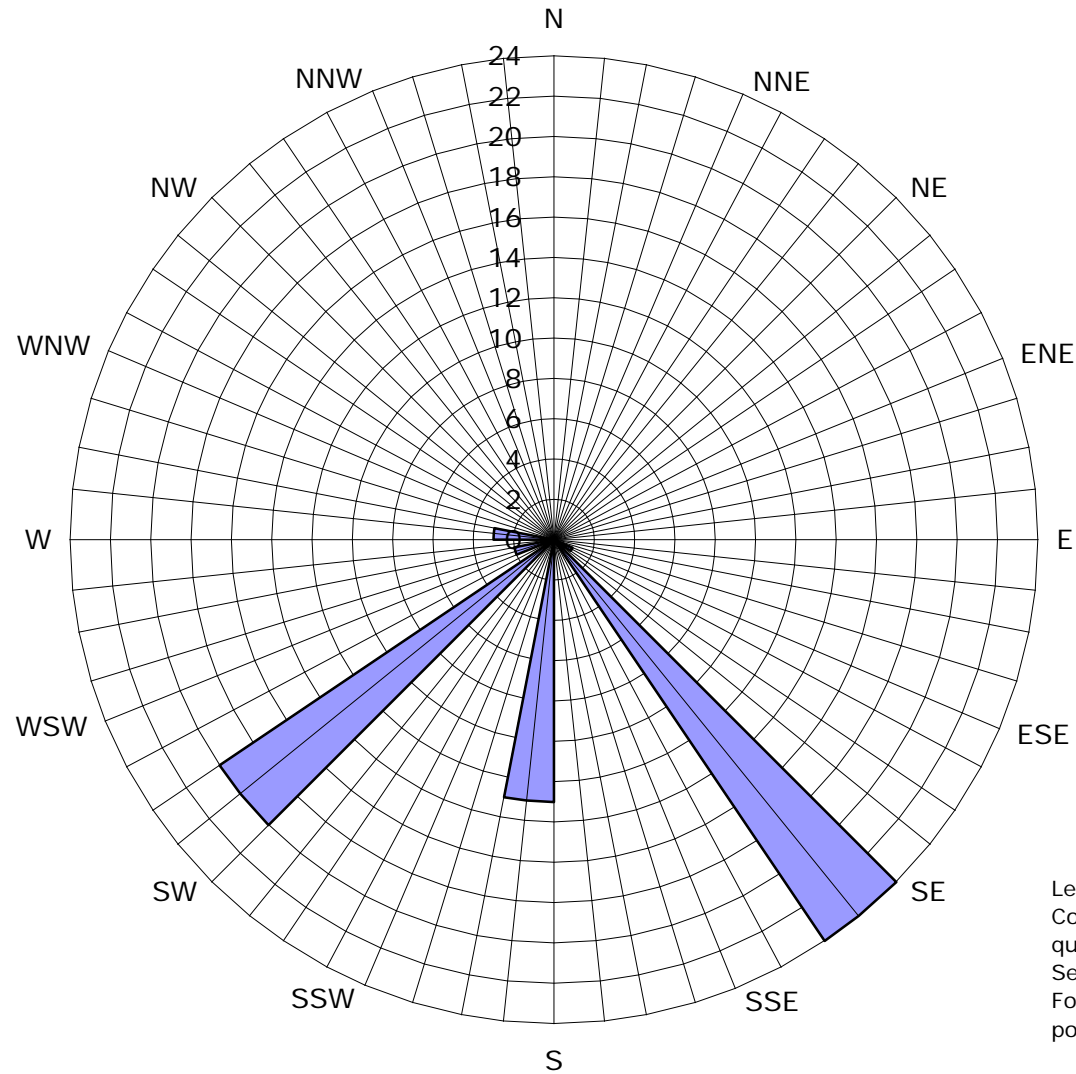


FIGURE 7
 DISSOLVED PHASE DRO ISOCONCENTRATION MAP
 DECEMBER 8, 2010
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

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



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



Legend
Concentric circles represent
quarterly monitoring events
Second Quarter 1992 through
Fourth Quarter 2010 63 data
points shown

■ Groundwater Flow Direction

Tables

Table 1	Current Groundwater Gauging and Analytical Data
Table 2	Historical Groundwater Gauging and Analytical Data
Table 2a	Additional Historical Groundwater Analytical Data
Table 3	Historical Groundwater Gradient and Flow Direction Data

TABLE 1
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)	GRO (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8260B) (ug/L)	Ethanol (ug/L)	DRO (ug/L)
MW-3	12/8/2010	10.81	2.37	NP	8.44	306	<0.50	<0.50	<0.50	<1.5	58.8	<250	137
MW-6	12/8/2010	11.55	8.42	NP	3.13	78400	1300	1680	3490	20600	11.3	<250	28700
MW-7	12/8/2010	11.64	3.99	NP	7.65	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<250	57.7
MW-8	12/8/2010	11.32	2.82	NP	8.50	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<250	116
MW-9	12/8/2010	10.94	1.77	NP	9.17	<50.0	<0.50	<0.50	<0.50	<1.5	<0.50	<250	<50.0
MW-10	12/8/2010	10.97	3.63	NP	7.34	<50.0	1.8	<0.50	<0.50	<1.5	<0.50	<250	<50.0
MW-11	12/8/2010	10.53	1.90	NP	8.63	<50.0	<0.50	<0.50	<0.50	<1.5	59.1	<250	52.7
MW-12	12/8/2010	11.01	3.92	NP	7.09	3350	249	117	89.8	558	1470	<2500	428
MW-12A	12/8/2010	11.29	4.00	NP	7.29	<50.0	<0.50	<0.50	<0.50	<1.5	9.4	<250	76.4
MW-13	12/8/2010	11.08	5.02	NP	6.06	177	<0.50	<0.50	<0.50	<1.5	390	<250	97.0

Gauging Notes:

TOC - Top of Casing

ft - Feet

NP - LNAPL not present

LNAPL - Light non-aqueous phase liquid

* - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)

-- - No information available

Analytical Notes:

BOLD- Above laboratory's indicated reporting limit

< - Not detected at or above indicated laboratory reporting limit

ug/L - micrograms/liter

TPHg- Total petroleum hydrocarbons as gasoline

MTBE- Methyl tertiary-butyl ether

DRO- diesel range organics

TABLE 2
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	DRO (ug/L)
MW-6	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
	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	130000	2900	8600	2000	16000	ND	--	--	--	--	--	--	--	--	67600
	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	140000	5000	14000	3600	27000	7700	--	--	--	--	--	--	--	--	8700	
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	259000	7670	13700	6860	40700	ND	ND	--	--	--	--	--	--	--	133000	
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	110000	7000	6200	3700	12000	670	43	--	--	--	--	--	--	--	61000	
1/3/2001	8.87	4.52	NP	4.35	84700	3950	4130	3650	11800	ND	ND	--	--	--	--	--	--	--	929	
4/4/2001	8.87	4.29	NP	4.58	69800	2060	2840	3650	10900	ND	47.8	ND	ND	ND	ND	ND	ND	ND	18000	
7/17/2001	8.87	4.37	NP	4.50	100000	3200	3300	3400	12000	ND	--	--	--	--	--	--	--	--	20000	
10/1/2001	8.87	4.45	NP	4.42	110000	3200	2400	4500	13000	<1000	--	--	--	--	--	--	--	--	24000	
1/31/2002	8.87	4.03	NP	4.84	230000	2400	1800	5400	16000	<2500	--	--	--	--	--	--	--	--	11000	
4/18/2002	8.87	3.45	NP	5.42	94000	6800	13000	3000	19000	<500	--	--	--	--	--	--	--	--	3500	
7/28/2002	8.87	2.24	NP	6.63	110000	530	170	3200	7300	--	<100	--	--	--	--	--	--	--	27000	
10/9/2002	8.87	3.53	NP	5.34	970000	10000	39000	13000	94000	--	<2000	--	--	--	--	--	--	--	170000	
1/2/2003	8.87	2.34	NP	6.53	270000	6100	15000	5400	37000	--	<200	--	--	--	--	--	--	--	66000	
4/1/2003	8.87	3.17	NP	5.70	3000000	8000	39000	37000	260000	--	<2000	--	--	--	--	--	--	--	35000	
7/1/2003	8.87	3.55	NP	5.32	38000	2100	990	2700	6500	--	<100	--	<25000	--	--	--	--	--	11000	
10/2/2003	8.87	3.82	NP	5.05	100000	5600	6900	4700	18000	--	<800	--	<200000	--	--	--	--	--	<50	



TABLE 2
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	DRO (ug/L)
MW-6	1/9/2004	8.87	2.80	NP	6.07	170000	2800	3300	4700	16000	--	<200	--	<50000	--	--	--	--	--	20000
	4/26/2004	8.87	3.40	NP	5.47	97000	5900	9000	5100	23000	--	<50	--	<5000	--	--	--	--	--	13000
	7/22/2004	8.87	3.54	NP	5.33	110000	4100	5100	4000	16000	--	<200	--	<300000	--	--	--	--	--	33000
	10/29/2004	8.87	3.03	NP	5.84	100000	5200	6100	4200	15000	--	<50	--	<5000	--	--	--	--	--	78000
	1/10/2005	8.87	2.35	NP	6.52	71000	1600	3700	2100	9900	--	<50	--	<5000	--	--	--	--	--	12000
	6/15/2005	8.87	2.47	NP	6.40	130000	800	1800	2200	9300	--	<50	--	<5000	--	--	--	--	--	16000
	9/27/2005	8.87	2.55	NP	6.32	13000	82	120	430	990	--	0.56	<10	<250	1.8	<0.50	<0.50	--	--	2500
	12/13/2005	8.87	3.28	NP	5.59	68000	1500	1100	2200	7700	--	<50	--	<25000	--	--	--	--	--	18000
	3/23/2006	8.87	2.87	NP	6.00	41000	290	140	1500	2700	--	<50	--	<25000	--	--	--	--	--	73000
	6/23/2006	8.87	3.15	NP	5.72	50000	2200	1400	1900	5700	--	<12	--	<6200	--	--	--	--	--	35000
	9/26/2006	8.87	3.08	NP	5.79	130000	2200	1000	2900	8800	--	<50	--	<25000	--	--	--	--	--	22000
	12/22/2006	8.87	2.90	NP	5.97	90000	940	610	1900	4700	--	<50	--	<25000	--	--	--	--	--	62000
	3/30/2007	8.87	3.26	NP	5.61	210000	1100	560	3400	12000	--	<10	--	<5000	--	--	--	--	--	62000
	6/28/2007	8.87	3.46	NP	5.41	67000	2200	1300	2700	10000	--	<25	--	<12000	--	--	--	--	--	71000
	9/25/2007	8.87	3.52	NP	5.35	56000	2900	720	2400	9000	--	<25	--	<12000	--	--	--	--	--	58000
	12/28/2007	8.87	3.27	NP	5.60	78000	28000	2700	4000	8100	--	16000	--	<12000	--	--	--	--	--	18000
	3/22/2008	8.87	2.48	NP	6.39	66000	380	150	1500	2400	--	<25	--	<12000	--	--	--	--	--	68000
	6/23/2008	8.87	3.54	NP	5.33	59000	1600	130	1800	4100	--	25	--	<12000	--	--	--	--	--	68000
	9/19/2008	8.87	4.06	NP	4.81	65000	2000	230	2000	4500	--	<12	--	<6200	--	--	--	--	--	180000
	12/31/2008	8.87	3.45	NP	5.42	91000	2000	320	5300	13000	--	<50	--	<25000	--	--	--	--	--	68000
	3/27/2009	8.87	3.09	NP	5.78	150000	1300	240	2800	7200	--	<50	--	<25000	--	--	--	--	--	170000
	5/28/2009	8.87	3.49	NP	5.38	53000	1700	200	2300	5400	--	<50	--	<25000	--	--	--	--	--	78000
	9/17/2009	8.87	3.64	NP	5.23	77000	2100	1400	2600	8500	--	<12	--	<6200	--	--	--	--	--	250000
	12/17/2009	8.87	3.14	NP	5.73	59100	1730	199	2260	5460	--	20.3	--	<250	--	--	--	--	--	30300
3/29/2010	8.87	3.16	NP	5.71	48400	1980	208	3070	8070	--	12.1	--	<250	--	--	--	--	--	106000	
6/30/2010	11.55	3.50	NP	8.05	78700	2130	281	2860	8400	--	5.8	--	<250	--	--	--	--	--	170000	
7/6/2010	11.55	3.49	NP	8.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9/20/2010	11.55	3.75	NP	7.80	64500	2300	170	2770	6260	--	19.3	--	<250	--	--	--	--	--	18800	
12/8/2010	11.55	8.42	NP	3.13	78400	1300	1680	3490	20600	--	11.3	--	<250	--	--	--	--	--	28700	
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	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	190
	1/14/1998	8.83	2.88	NP	5.95	ND	ND	ND	ND	ND	36	--	--	--	--	--	--	--	--	65
	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	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	74
	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	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	69
	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	4.2	--	--	--	--	--	--	--	--	ND
	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	ND	ND	ND	ND	ND	7.83	--	--	--	--	--	--	--	--	68.0
	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	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	--	--	--	--	<51
	1/31/2002	8.83	3.88	NP	4.95	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	90
	4/18/2002	8.83	4.03	NP	4.80	<50	<0.50	<0.50	<0.50	<0.50	<0.50	5.7	--	--	--	--	--	--	--	78
	7/28/2002	8.83	3.59	NP	5.24	<50	<0.50	<0.50	<0.50	<1.0	--	3.9	--	--	--	--	--	--	--	<50
10/9/2002	8.83	4.53	NP	4.30	<50	<0.50	<0.50	<0.50	<1.0	--	3.9	--	--	--	--	--	--	--	<96	
1/3/2003	8.83	3.36	NP	5.47	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	78	
	4/1/2003	8.83	3.94	NP	4.89	71	<0.50	<0.50	0.71	<1.0	--	3.4	--	--	--	--	--	--	--	67
	7/1/2003	8.83	4.60	NP	4.23	64	<0.50	<0.50	0.77	2.0	--	35	--	<500	--	--	--	--	68	
	10/2/2003	8.83	5.46	NP	3.37	<50	<0.50	<0.50	<0.50	<1.0	--	4.9	--	<500	--	--	--	--	82	
	1/9/2004	8.83	3.55	NP	5.28	54	<0.50	<0.50	<0.50	<1.0	--	2.4	--	<500	--	--	--	--	75	
4/26/2004	8.83	4.49	NP	4.34	<50	<0.50	<0.50	<0.50	1.5	--	2.3	--	<50	--	--	--	--	--	<50	

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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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	DRO (ug/L)
MW-7	7/22/2004	8.83	4.93	NP	3.90	82	0.90	2.0	3.5	9.9	--	1.4	--	<1000	--	--	--	--	--	<200
	10/29/2004	8.83	3.71	NP	5.12	210	0.67	1.6	1.7	5.8	--	<0.50	--	<50	--	--	--	--	--	54
	1/10/2005	8.83	2.77	NP	6.06	74	0.51	2.2	1.7	7.0	--	<0.50	--	<50	--	--	--	--	--	<50
	6/15/2005	8.83	3.40	NP	5.43	<50	<0.50	<0.50	<0.50	<1.0	--	0.88	--	<50	--	--	--	--	--	<50
	9/27/2005	8.83	3.44	NP	5.39	<50	0.59	1.2	<0.50	<1.0	--	0.96	<10	<250	<0.50	<0.50	<0.50	--	--	<200
	12/13/2005	8.83	3.98	NP	4.85	<50	<0.50	<0.50	<0.50	<1.0	--	0.65	--	<250	--	--	--	--	--	<200
	3/23/2006	8.83	3.37	NP	5.46	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<200
	6/23/2006	8.83	5.25	NP	3.58	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<200
	9/26/2006	8.83	4.13	NP	4.70	<50	<0.50	<0.50	<0.50	<0.50	--	0.77	--	<250	--	--	--	--	--	<50
	12/22/2006	8.83	3.63	NP	5.20	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	630
	3/30/2007	8.83	4.31	NP	4.52	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	94
	6/28/2007	8.83	4.62	NP	4.21	<50	<0.50	<0.50	<0.50	<0.50	--	0.54	--	<250	--	--	--	--	--	<50
	9/25/2007	8.83	4.65	NP	4.18	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	<50
	12/28/2007	8.83	3.99	NP	4.84	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	75
	3/22/2008	8.83	4.08	NP	4.75	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50
	6/23/2008	8.83	4.10	NP	4.73	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50
	9/19/2008	8.83	4.86	NP	3.97	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50
	12/31/2008	8.83	4.17	NP	4.66	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50
	3/27/2009	8.83	4.00	NP	4.83	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50
	5/28/2009	8.83	4.71	NP	4.12	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50
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	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	66.0	
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	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	57.7	
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	2.7	3.8	ND	--	--	--	--	--	--	--	--	ND
	10/9/1997	8.52	3.73	NP	4.79	590	1.4	ND	32	4.1	ND	--	--	--	--	--	--	--	--	390
	1/14/1998	8.52	1.92	NP	6.60	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	230
	4/1/1998	8.52	2.38	NP	6.14	ND	ND	ND	ND	ND	4.7	--	--	--	--	--	--	--	--	510
	7/15/1998	8.52	3.53	NP	4.99	ND	ND	ND	0.56	1.1	ND	--	--	--	--	--	--	--	--	140
	10/16/1998	8.52	3.04	NP	5.48	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	170
	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	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	91
	7/14/1999	8.52	3.03	NP	5.49	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	120
	10/21/1999	8.52	3.11	NP	5.41	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	110
	1/20/2000	8.52	3.06	NP	5.46	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	583
	4/13/2000	8.52	2.84	NP	5.68	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	80
	7/14/2000	8.52	3.39	NP	5.13	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	113
	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	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	--	--	--	--	<50
	1/31/2002	8.52	2.75	NP	5.77	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	260
	4/18/2002	8.52	2.98	NP	5.54	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	160
	7/28/2002	8.52	2.41	NP	6.11	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	140
10/9/2002	8.52	2.09	NP	6.43	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	120	
1/2/2003	8.52	1.98	NP	6.54	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	210	
4/1/2003	8.52	2.66	NP	5.86	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	220	
7/1/2003	8.52	3.08	NP	5.44	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	<500	--	--	--	--	170	
10/2/2003	8.52	3.89	NP	4.63	540	3.9	15	29	80	--	<2.0	--	<500	--	--	--	--	--	350	
1/9/2004	8.52	2.38	NP	6.14	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	<500	--	--	--	--	180	
4/26/2004	8.52	2.89	NP	5.63	<50	<0.50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<50	--	--	--	--	100	
7/22/2004	8.52	3.25	NP	5.27	<50	<0.5	<0.5	<0.5	<0.5	<1	--	<0.5	--	<1000	--	--	--	--	250	
10/29/2004	8.52	3.06	NP	5.46	<50	<0.50	<0.50	0.82	2.5	--	<0.50	--	<50	--	--	--	--	--	120	
1/10/2005	8.52	1.92	NP	6.60	58	<0.50	0.61	1.2	4.0	--	<0.50	--	<50	--	--	--	--	--	140	

TABLE 2
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	DRO (ug/L)
MW-8	6/15/2005	8.52	2.22	NP	6.30	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<50	--	--	--	--	--	140
	9/27/2005	8.52	2.43	NP	6.09	<50	<0.50	<0.50	1.2	<1.0	--	<0.50	<10	<250	<0.50	<0.50	<0.50	--	--	<200
	12/13/2005	8.52	2.89	NP	5.63	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<200
	3/23/2006	8.52	2.12	NP	6.40	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<200
	6/23/2006	8.52	2.65	NP	5.87	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<230
	9/26/2006	8.52	2.75	NP	5.77	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	110
	12/22/2006	8.52	2.58	NP	5.94	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	100
	3/30/2007	8.52	2.74	NP	5.78	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	120
	6/28/2007	8.52	2.90	NP	5.62	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	140
	9/25/2007	8.52	3.26	NP	5.26	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	110
	12/28/2007	8.52	2.64	NP	5.88	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	110
	3/22/2008	8.52	2.31	NP	6.21	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50
	6/23/2008	8.52	3.13	NP	5.39	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<58
	9/19/2008	8.52	3.72	NP	4.80	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	79
	12/31/2008	8.52	2.98	NP	5.54	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	110
	3/27/2009	8.52	2.49	NP	6.03	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	89
	5/28/2009	8.52	3.12	NP	5.40	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	91
	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	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	182	
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	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	116	
MW-9	2/21/1995	8.29	1.98	NP	6.31	70	ND	ND	ND	ND	--	--	--	--	--	--	--	--	71	
	5/18/1995	8.29	3.47	NP	4.82	52	ND	1.1	ND	1.9	--	--	--	--	--	--	--	--	ND	
	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	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	98	
	10/28/1996	8.29	1.15	NP	7.14	ND	ND	ND	7.14	ND	7.6	--	--	--	--	--	--	--	99	
	1/29/1997	8.29	1.05	NP	7.24	ND	ND	ND	ND	ND	5.4	--	--	--	--	--	--	--	54	
	4/15/1997	8.29	1.88	NP	6.41	ND	ND	ND	ND	ND	5.4	--	--	--	--	--	--	--	94	
	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	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	160	
	1/14/1998	8.29	1.26	NP	7.03	ND	ND	ND	ND	ND	3.0	--	--	--	--	--	--	--	110	
	4/1/1998	8.29	0.85	NP	7.44	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	110	
	7/15/1998	8.29	1.52	NP	6.77	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	200	
	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	75	21	ND	ND	1.1	680	--	--	--	--	--	--	--	ND	
	7/14/1999	8.29	1.04	NP	7.25	ND	1.9	ND	ND	ND	260	--	--	--	--	--	--	--	140	
	10/21/1999	8.29	1.23	NP	7.06	ND	ND	ND	ND	ND	170	--	--	--	--	--	--	--	210	
	1/20/2000	8.29	1.18	NP	7.11	ND	1.1	ND	ND	ND	35	--	--	--	--	--	--	--	519	
	4/13/2000	8.29	1.08	NP	7.21	160	0.64	ND	ND	ND	53	--	--	--	--	--	--	--	81	
7/14/2000	8.29	1.43	NP	6.86	ND	ND	ND	ND	ND	20.2	--	--	--	--	--	--	--	107		
10/26/2000	8.29	1.38	NP	6.91	240	2.9	ND	ND	ND	56	--	--	--	--	--	--	--	240		
1/3/2001	8.29	1.66	NP	6.63	166	0.763	0.776	ND	1.28	50.2	--	--	--	--	--	--	--	164		
4/4/2001	8.29	1.27	NP	7.02	296	0.738	ND	ND	0.907	135	--	--	--	--	--	--	--	240		
7/17/2001	8.29	1.38	NP	6.91	ND	ND	ND	ND	ND	13	--	--	--	--	--	--	--	ND		
10/1/2001	8.29	1.93	NP	6.36	51	<0.50	<0.50	<0.50	<0.50	5.0	--	--	--	--	--	--	--	<52		
1/31/2002	8.29	2.08	NP	6.21	<50	<0.50	<0.50	<0.50	<0.50	5.8	--	--	--	--	--	--	--	200		
4/18/2002	8.29	1.76	NP	6.53	<50	<0.50	<0.50	<0.50	<0.50	5.1	--	--	--	--	--	--	--	<50		
7/28/2002	8.29	1.57	NP	6.72	<50	<0.50	<0.50	<0.50	<1.0	--	3.5	--	--	--	--	--	--	<50		
10/9/2002	8.29	1.45	NP	6.84	<50	<0.50	<0.50	<0.50	<1.0	--	17	--	--	--	--	--	--	100		
1/2/2003	8.29	1.18	NP	7.11	<50	<0.50	<0.50	<0.50	<1.0	--	8.6	--	--	--	--	--	--	<50		
4/1/2003	8.29	2.04	NP	6.25	<50	<0.50	<0.50	<0.50	<1.0	--	9.4	--	--	--	--	--	--	56		
7/1/2003	8.29	2.80	NP	5.49	<50	<0.50	<0.50	<0.50	<1.0	--	3.2	--	<500	--	--	--	--	<50		

TABLE 2
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	DRO (ug/L)
MW-10	1/31/2002	8.62	3.68	NP	4.94	110	16	<0.50	2.3	5.6	<2.5	--	--	--	--	--	--	--	--	170
	4/18/2002	8.62	4.01	NP	4.61	<50	11	<0.50	1.4	4.5	<2.5	--	--	--	--	--	--	--	--	130
	7/28/2002	8.62	4.11	NP	4.51	67	15	<0.50	0.94	7.3	--	<2.0	--	--	--	--	--	--	--	58
	10/9/2002	8.62	3.97	NP	4.65	<50	0.67	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	<94
	1/2/2003	8.62	3.03	NP	5.59	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	64
	4/1/2003	8.62	3.83	NP	4.79	<50	11	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	76
	7/1/2003	8.62	4.13	NP	4.49	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	<500	--	--	--	--	--	87
	10/2/2003	8.62	4.05	NP	4.57	77	9.9	0.78	2.3	4.9	--	<2.0	--	<500	--	--	--	--	--	160
	1/9/2004	8.62	3.40	NP	5.22	53	1.2	<0.50	0.70	1.6	--	<2.0	--	<500	--	--	--	--	--	74
	4/26/2004	8.62	3.89	NP	4.73	<50	2.8	1.3	1.0	2.9	--	<0.50	--	<50	--	--	--	--	--	<50
	7/22/2004	8.62	3.73	NP	4.89	<50	<0.5	<0.5	<0.5	<1	--	<0.5	--	<1000	--	--	--	--	--	<200
	10/29/2004	8.62	3.41	NP	5.21	100	2.0	1.2	1.1	3.6	--	<0.50	--	<50	--	--	--	--	--	<50
	1/10/2005	8.62	2.68	NP	5.94	84	7.8	2.7	2.2	8.9	--	<0.50	--	<50	--	--	--	--	--	94
	6/15/2005	8.62	4.63	NP	3.99	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<50	--	--	--	--	--	62
	9/27/2005	8.62	3.96	NP	4.66	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	<10	<250	<0.50	<0.50	<0.50	--	--	<200
	12/13/2005	8.62	3.75	NP	4.87	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<200
	3/23/2006	8.62	3.13	NP	5.49	50	13	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<200
	6/23/2006	8.62	3.90	NP	4.72	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<200
	9/26/2006	8.62	3.66	NP	4.96	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	<50
	12/22/2006	8.62	3.56	NP	5.06	<50	<0.50	<0.50	<0.50	1.8	--	<0.50	--	<250	--	--	--	--	--	81
	3/30/2007	8.62	3.93	NP	4.69	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	82
	6/28/2007	8.62	4.03	NP	4.59	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	57
	9/25/2007	8.62	3.91	NP	4.71	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	<250	--	--	--	--	--	82
	12/28/2007	8.62	3.64	NP	4.98	<50	2.1	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	62
3/22/2008	8.62	4.00	NP	4.62	64	13	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50	
6/23/2008	8.62	3.90	NP	4.72	94	30	0.53	3.4	3.5	--	<0.50	--	<250	--	--	--	--	--	<50	
9/19/2008	8.62	3.85	NP	4.77	130	15	1.7	5.7	11	--	<0.50	--	<250	--	--	--	--	--	<50	
12/31/2008	8.62	3.69	NP	4.93	82	11	<0.50	0.81	1.7	--	<0.50	--	<250	--	--	--	--	--	<50	
3/27/2009	8.62	3.75	NP	4.87	210	28	1.4	1.2	3.9	--	<0.50	--	<250	--	--	--	--	--	730	
5/28/2009	8.62	3.66	NP	4.96	<50	0.91	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	<50	
9/17/2009	8.62	3.85	NP	4.77	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	<250	--	--	--	--	--	65	
12/17/2009	8.62	3.00	NP	5.62	<50.0	1.2	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	57.7	
3/29/2010	8.62	3.81	NP	4.81	<50.0	0.77	<0.50	<0.50	3.4	--	<0.50	--	<250	--	--	--	--	--	82.2	
6/30/2010	10.97	3.90	NP	7.07	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	53.4	
7/6/2010	10.97	3.73	NP	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
9/20/2010	10.97	3.85	NP	7.12	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	<50.0	
12/8/2010	10.97	3.63	NP	7.34	<50.0	1.8	<0.50	<0.50	<1.5	--	<0.50	--	<250	--	--	--	--	--	<50.0	
MW-11	7/6/2010	10.53	2.44	NP	8.09	99.2	<0.50	<0.50	<0.50	<1.5	--	165	174	<250	<0.50	<0.50	<0.50	<1.0	<1.0	226
	9/20/2010	10.53	2.80	NP	7.73	76.4	<0.50	<0.50	<0.50	<1.5	--	82.7	--	<250	--	--	--	--	--	<50.0
	12/8/2010	10.53	1.90	NP	8.63	<50.0	<0.50	<0.50	<0.50	<1.5	--	59.1	--	<250	--	--	--	--	--	52.7
MW-12	7/6/2010	11.01	4.00	NP	7.01	20300	1030	955	311	2450	--	1650	1430	<250	<0.50	<0.50	1.0	<1.0	<1.0	990
	9/20/2010	11.01	4.18	NP	6.83	73700	6020	6390	2970	18300	--	894	--	<250	--	--	--	--	--	5220
	12/8/2010	11.01	3.92	NP	7.09	3350	249	117	89.8	558	--	1470	--	<2500	--	--	--	--	--	428
MW-12A	7/6/2010	11.29	4.22	NP	7.07	664	18.3	0.78	2.3	50.2	--	14.3	11.9	<250	<0.50	<0.50	<0.50	<1.0	<1.0	89.3
	9/20/2010	11.29	4.39	NP	6.90	<50.0	<0.50	<0.50	<0.50	<1.5	--	8.5	--	<250	--	--	--	--	--	<50.0
	12/8/2010	11.29	4.00	NP	7.29	<50.0	<0.50	<0.50	<0.50	<1.5	--	9.4	--	<250	--	--	--	--	--	76.4
MW-13	7/6/2010	11.08	4.26	NP	6.82	122	<0.50	<0.50	<0.50	<1.5	--	217	199	<250	<0.50	<0.50	<0.50	<1.0	<1.0	469
MW-13	9/20/2010	11.08	4.81	NP	6.27	250	<0.50	<0.50	<0.50	<1.5	--	272	--	<250	--	--	--	--	--	<50.0
	12/8/2010	11.08	5.02	NP	6.06	177	<0.50	<0.50	<0.50	<1.5	--	390	--	<250	--	--	--	--	--	97.0

Gauging Notes:

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

Analytical Notes:

-- - No information available
< - Not detected at or above indicated laboratory reporting limit
LPH - Liquid Phase Hydrocarbons
ND - Not detected, and detection limit is not known
NS - Well not sampled.
ugL - micrograms/liter

TABLE 2
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)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	TBA (ug/L)	Ethanol (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	DRO (ug/L)

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

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

TABLE 2a
 ADDITIONAL HISTORICAL GROUNDWATER ANALYTICAL DATA
 76 STATION No. 5191/5043
 449 HEGENBERGER RD
 OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA							
		Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Nitrate as N (ug/L)	Nitrite as N E353/E351 (ug/L)	Nitrite as N SM4500 (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Oil and Grease (ug/L)	Sulfate (ug/L)
MW-3	9/17/2009	NS	NS	NS	NS	NS	NS	NS	NS
	12/17/2009	12300	12300	<50.0	<50.0	--	<50.0	--	--
	3/29/2010	--	--	--	--	--	--	--	--
	6/30/2010	10700	10700	<50.0	--	95.0	75.7	--	<5000
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
MW-6	9/17/2009	1500	1500	<0.44	--	--	--	--	<1.0
	12/17/2009	2460	2460	<50.0	<50.0	--	<50.0	--	--
	3/29/2010	1510	1510	<50.0	--	41.3	54.9	--	<1000
	6/30/2010	2310	2310	<50.0	--	57.9	69.3	--	<5000
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	2600	2600	<50.0	--	<10.0	52.1	--	<1000
	12/8/2010	--	--	--	--	--	--	--	--
MW-7	9/17/2009	NS	NS	NS	NS	NS	NS	NS	NS
	3/29/2010	--	--	--	--	--	--	--	--
	6/30/2010	7550	7550	<50.0	--	73.9	73.6	--	191000
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
MW-8	9/17/2009	NS	NS	NS	NS	NS	NS	NS	NS
	3/29/2010	--	--	--	--	--	--	--	--
	6/30/2010	8000	8000	<50.0	--	68.2	59.7	--	2360000
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
MW-9	9/17/2009	NS	NS	NS	NS	NS	NS	NS	NS
	12/17/2009	2270	2270	<50.0	<50.0	--	<50.0	--	--
	3/29/2010	--	--	--	--	--	--	--	--
	6/30/2010	8820	8820	<50.0	--	14.9	<50.0	--	19000
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--	--
MW-10	9/17/2009	9800	9800	12	--	--	--	--	84
	12/17/2009	3410	3410	1970	60.3	--	2030	--	--
	3/29/2010	2410	2410	1960	--	18.7	1970	--	73600
	6/30/2010	1860	1860	2120	--	68.1	2190	--	70800
	7/6/2010	--	--	--	--	--	--	--	--
	9/20/2010	3080	3080	2690	--	68.2	2750	--	82000
	12/8/2010	--	--	--	--	--	--	--	--
MW-11	7/6/2010	3510	3510	<50.0	--	31.0	66.9	--	82100
	9/20/2010	1690	1690	167	--	<10.0	172	--	58300
	12/8/2010	--	--	--	--	--	--	--	--
MW-12	7/6/2010	30200	30200	<50.0	--	60.5	<50.0	--	3030000
	9/20/2010	3890	552	72.3	--	<10.0	75.2	--	1970000
	12/8/2010	--	--	--	--	--	--	--	--
MW-12A	7/6/2010	57300	57300	3680	--	164	3840	--	100000
	9/20/2010	523	523	4680	--	10.2	4690	--	82500
	12/8/2010	--	--	--	--	--	--	--	--
MW-13	7/6/2010	116	92600	<50.0	--	64.9	70.4	--	450000
	9/20/2010	59500	59500	<50.0	--	<10.0	<50.0	--	241000
	12/8/2010	--	--	--	--	--	--	--	--

Analytical Notes:

- - No information available
- < - Not detected at or above indicated laboratory reporting limit
- LPH - Liquid Phase Hydrocarbons
- ND - Not detected, and detection limit is not known
- NS - Well not sampled.
- ug/L - micrograms/liter
- WD - Well Destroyed
- WI - Well Inaccessible
- WO - Well Obstruction

TABLE 3
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	0	0	0	0			
	08/31/92	0.05	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	11/30/92	0.04	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
	02/07/94		0	0	0	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	0	0	0	1	0	0	0	0
	02/21/95	0.08	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
	05/18/95	0.07	0	0	0	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	0	1	0	0	0	0	0	0	0	0	0	0	0
	10/28/96	0.02	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	01/29/97	0.01	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	04/15/97	0.01	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	07/15/97	0.10	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	10/09/97	0.10	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	01/14/98	0.02	0	0	0	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	0	0	1	0	0	0	0	0	0	0	0
	07/15/98	0.04	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	09/30/98	0.05	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	01/25/99	0.05	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	04/15/99	0.04	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	10/21/99	0.03	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	07/14/99	0.04	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	04/13/00	0.050	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	07/14/00	0.033	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	10/26/00	0.060	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	01/03/01	0.070	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	07/17/01	0.040	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	10/01/01	0.030	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	01/31/02	0.010	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	07/28/02	0.020	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	10/09/02	0.016	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	01/02/03	0.010	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	04/01/03	0.008	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	07/29/09	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	10/02/03	0.010	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	01/09/04	0.010	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	04/26/04	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	07/22/04	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	10/29/04	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	01/10/05	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	06/15/05	0.020	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	09/27/05	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	12/13/05	0.005	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	03/23/06	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	06/23/06	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	09/26/06	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	12/22/06	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	03/30/07	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	09/25/07	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	12/28/07	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	06/28/07	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	03/22/08	0.020	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	06/23/08	0.010	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	09/19/08	0.006	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	12/31/08	0.005	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	03/27/09	0.006	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	05/28/09	0.008	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	09/17/09	0.010	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
	12/17/09	0.008	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
	03/29/10	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	06/30/10	0.009	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	09/20/10	0.007	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	12/08/10	0.018	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
	0.046 Average		0	0	0	0	0	0	1	24	0	13	0	20	2	3	0	0	0	0	

Explanation
 NA = Not available
 Number of Events = 60

Quarterly Summary Report, Fourth Quarter 2010
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix A

Site Details and Summary of Previous Environmental Investigations

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 well MW-3, which was damaged during the UST cavity over excavation in 1995, was fully drilled out and reconstructed in the same borehole.

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, two existing monitoring wells were destroyed in order to accommodate the construction of a car wash at the site. Monitoring wells MW-4 and MW-5 were fully drilled out and backfilled with neat cement.

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.

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 dewateres and does not recharge.

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

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

PURGEWATER CONTAINMENT

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

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

SAMPLE COLLECTION DEVICES

All samples are collected using disposable bailers.

SAMPLE CONTAINERS

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

TRIP BLANKS

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

DUPLICATES

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

SAMPLE STORAGE

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

DOCUMENTATION CONVENTIONS

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

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

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

DECONTAMINATION

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

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

and bailers.

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

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

DISSOLVED OXYGEN READINGS

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

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

OXYIDATON REDUCTION POTENTIAL READINGS

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

Appendix C

Blaine Tech Services Groundwater Sampling Field Data Sheets

COP-ELT Well-Head Inspection & Well Gauging Form

Project No: 2705191 Site Address: 449 Hegenberger Rd Oakland
 Field Technician: B Panell Date: 12/08/10 Weather: overcast / rain

Sample Order	Well Condition								Gauging Information					Comments
	Field Point	Bolts	Seal	Lid Secure	Lock	Expanding Cap	Water in Well Box	Well Casing Dia.	Time	Depth to Water (Feet)	Depth to Bottom (Feet)	Depth to LNAPL (Feet)	LNAPL Thickness (Feet)	
4	MW-3	G	G	G	G	G	Y	2	0731	2.37	13.89	-	-	
10	MW-6	G	G	G	G	G	N	2	0803	8.42	12.63	-	-	
2	MW-7	G	G	G	G	G	N	2	0720	3.99	12.94	-	-	
1	MW-8	G	G	G	G	G	Y	2	0715	2.82	14.66	-	-	
3	MW-9	P	G	P	G	G	Y	2	0726	1.77	12.55	-	-	1/3 tabs broken
5	MW-10	G	G	G	G	G	N	2	0736	3.63	12.61	-	-	
6	MW-11	G	G	G	G	G	N	4	0741	1.90	19.51	-	-	
8	MW-12A	G	G	G	G	G	N	2	0752	4.00	32.77	-	-	
7	MW-13	G	G	G	G	G	N	2	0747	5.02	14.55	-	-	
9	MW-12	G	G	G	G	G	N	4	0757	3.92	19.40	-	-	

Notes: _____



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

COP-ELT Groundwater Sampling Form

Site Address:	449 Hegenberger Rd Oakland		
Project No:	2705191	Field Technician:	B. Paul II
Field Point:	MW-3	Date:	12/08/10
Depth to Water (DTW) (ft bgs):	2.37	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	13.89	Water Column Height (ft):	11.52

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Electric Submersible Disposable Bailer Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer w/ BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>11.52</u> X Conversion Factor (gal/ft): <u>0.17</u> = Casing Volume (gal): <u>2.0</u> Casing Volume (gal): <u>2.0</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>6.0</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	Start Time: <u>0935</u>	Stop Time: <u>0941</u>						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				<u>-107</u>		<u>0.30</u>		
<u>0937</u>	<u>19.8</u>	<u>6.87</u>	<u>3624</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>2.0</u>	
<u>0939</u>	<u>19.6</u>	<u>6.94</u>	<u>2750</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>4.0</u>	
<u>0941</u>	<u>19.9</u>	<u>6.90</u>	<u>2661</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>6.0</u>	<u>11.68</u>
Post-Purge				<u>-139</u>		<u>0.22</u>		
Did Well dewater? Yes <u>No</u>		Total Purge volume (gal): <u>6.0</u>						

Other Comments: 8070 @ : 4.67
DTW: 6.65 (2hr)

Sample Info:	
Sample ID: <u>MW-3-20101231</u>	Sample Date and Time: <u>12/8/10 @ 1430</u>
Selected Analysis: <u>SEE COC</u>	
Signature: <u>B. Paul</u>	Date: <u>12/8/10</u>

DELTA Consultants, 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



COMMIT Groundwater Sampling Form

Site Address: <u>449 Hegenberger Rd Oakland</u>	
Project No: <u>2705191</u>	Field Technician: <u>B. Pell</u>
Field Point: <u>MW-6</u>	Date: <u>12/08/10</u>
Depth to Water (DTW) (ft bgs): <u>8.42</u>	Well Diameter (in): <u>9 4 6 8</u>
Depth to LNAPL (ft bgs): <u>—</u>	Thickness of LNAPL (ft): <u>—</u>
Total Depth of Well (ft bgs): <u>12.63</u>	Water Column Height (ft): <u>4.21</u>

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailor <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailor w/ BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>4.21</u> X Conversion Factor (gal/ft): <u>0.17</u> = Casing Volume (gal): <u>0.7</u> Casing Volume (gal): <u>0.7</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>2.1</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: _____		Start Time: <u>1320</u>		Stop Time: <u>1525</u>				
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				<u>77</u>		<u>0.63</u>		
<u>1321</u>	<u>17.7</u>	<u>6.41</u>	<u>27.53</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>0.7</u>	
<u>1322</u>	<u>18.6</u>	<u>6.99</u>	<u>5575</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>1.4</u>	
<u>1323</u>	<u>18.3</u>	<u>7.09</u>	<u>5446</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>2.1</u>	<u>11.08</u>
Post-Purge				<u>-12</u>		<u>1.02</u>		
Did Well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Total Purge volume (gal): <u>2.1</u>						

Other Comments: 8070 @: 9.26 * Strong odor sheen on pump
DTW: 9.45 (2 hr)

Sample Info:	
Sample ID: <u>MW-6-20101231</u>	Sample Date and Time: <u>12/8/10 @ 1525</u>
Selected Analysis: <u>SEE COC</u>	
Signature: <u>B. Pell</u>	Date: <u>12/8/10</u>



COI eLT Groundwater Sampling Form

Site Address:	449 Hegenberger Rd Oakland		
Project No:	2705191	Field Technician:	B. Pell
Field Point:	MW-7	Date:	12/08/10
Depth to Water (DTW) (ft bgs):	3.99	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.94	Water Column Height (ft):	8.95

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailor <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailor</u> / BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>8.95</u> X Conversion Factor (gal/ft): <u>0.17</u> = Casing Volume (gal): <u>1.5</u> Casing Volume (gal): <u>1.5</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>4.5</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	Start Time: <u>0859</u>	Stop Time: <u>0905</u>						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				<u>-90</u>		<u>0.62</u>		
<u>0901</u>	<u>20.5</u>	<u>6.34</u>	<u>12.16ms</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1.5</u>	
<u>0902</u>	<u>21.8</u>	<u>6.88</u>	<u>2340µs</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>3.0</u>	
<u>0903</u>	<u>20.9</u>	<u>6.93</u>	<u>2340µs</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>4.5</u>	
<u>0905</u>	<u>21.3</u>	<u>6.87</u>	<u>2350µs</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>6.0</u>	<u>9.50</u>
Post-Purge				<u>-76</u>		<u>1.82</u>		
Did Well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Total Purge volume (gal): <u>6.0</u>						

Other Comments: 8070 @: 5.78
DTW: 4.02

Sample Info:	
Sample ID: <u>MW-7-20101231</u>	Sample Date and Time: <u>12/8/10 @ 1400</u>
Selected Analysis: <u>SEE COC</u>	
Signature: <u>B. Pell</u>	Date: <u>12/8/10</u>



CO. ELT Groundwater Sampling Form

Site Address:	449 Hegenberger Rd Oakland		
Project No:	2705191	Field Technician:	B. Paul II
Field Point:	MW-8	Date:	12/08/10
Depth to Water (DTW) (ft bgs):	2.82	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	14.66	Water Column Height (ft):	11.84

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailor <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailor w/ BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>11.84</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>2.0</u>
Casing Volume (gal): <u>2.0</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>6.0</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: Start Time: 0939 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				<u>-89</u>		<u>0.84</u>		
<u>0842</u>	<u>13.8</u>	<u>6.72</u>	<u>1236</u>	—	—	—	<u>2.0</u>	
<u>0844</u>	<u>17.6</u>	<u>6.15</u>	<u>10.90ms</u>	—	—	—	<u>4.0</u>	
<u>0847</u>	<u>18.3</u>	<u>6.20</u>	<u>11.20ms</u>	—	—	—	<u>6.0</u>	<u>10.38</u>
<u>1345</u>								
Post-Purge				<u>-100</u>		<u>0.63</u>		
Did Well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				Total Purge volume (gal):	<u>6.0</u>			

Other Comments: 807 @ : 5.18 ODOR
DTW: 3.13

Sample Info:

Sample ID:	MW-8-20101231	Sample Date and Time:	12/8/10 @ 1345
Selected Analysis:	SEE COC		

Signature: B. Paul Date: 12/8/10



COI - ELT Groundwater Sampling Form

Site Address:	449 Hegenberg Rd Oakland		
Project No:	2705191	Field Technician:	B. Pell
Field Point:	MW-9	Date:	12/08/10
Depth to Water (DTW) (ft bgs):	1.77	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.55	Water Column Height (ft):	10.78

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailor <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailor w/ BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>10.78</u> X Conversion Factor (gal/ft): <u>0.17</u> = Casing Volume (gal): <u>1.8</u> Casing Volume (gal): <u>1.8</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>5.4</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:		Start Time: 0921	Stop Time: 0927					
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				-50		0.26		
0923	19.9	6.95	7659	—	—	—	1.8	
0925	19.8	6.97	2738	—	—	—	3.0	
0927	20.1	6.89	2956	—	—	—	5.4	11.12
Post-Purge				-120		0.85		
Did Well dewater? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Total Purge volume (gal): 5.4						

Other Comments: 8070 @: 3.92
DTW: 5.15 (2nd)

Sample Info:	
Sample ID: MW-9-20101231	Sample Date and Time: 12/8/10 @ 1415
Selected Analysis: SEE COC	
Signature: <u>B. Pell</u>	Date: 12/8/10



COMPLET Groundwater Sampling Form

Site Address:	449 Hegenberger Rd Oakland		
Project No:	2705191	Field Technician:	B. Paul II
Field Point:	MW-10	Date:	12/08/10
Depth to Water (DTW) (ft bgs):	3.63	Well Diameter (in):	2 @ 8" 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	12.01	Water Column Height (ft):	8.98

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailor <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailor w/ BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): 8.98	X Conversion Factor (gal/ft): ^{0.17} 0.66	= Casing Volume (gal): ^{1.5} 13.5
Casing Volume (gal): 13.5	X Specified Volumes: 3	= Calculated Purge (gal): 40.5
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	Start Time: 0952	Stop Time: 0956						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				-108		0.45		
0954	18.6	6.99	2626	—	—	—	1.5	
0955	19.3	7.07	2799	—	—	—	3.0	
0956	19.2	7.13	2613	—	—	—	4.5	
Post-Purge				-86		0.21		

Did Well dewater? Yes No Total Purge volume (gal): 4.5

Other Comments: 8070 @ : 5.42 MS/MSD
DTW: 3.65

Sample Info:	
Sample ID: MW-10-20101231	Sample Date and Time: 12/8/10 @ 1005
Selected Analysis: SEE COC	
Signature: <u>B. Paul</u>	Date: 12/8/10

DELTA Consultants, 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



COF - LT Groundwater Sampling Form

Site Address:	449 Hegenberger Rd Oakland		
Project No:	2705191	Field Technician:	B. Paul II
Field Point:	MW-11	Date:	12/08/10
Depth to Water (DTW) (ft bgs):	1.90	Well Diameter (in):	2 @ 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	19.51	Water Column Height (ft):	17.61

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailor</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailor</u> / <u>W/BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>17.61</u>	X Conversion Factor (gal/ft): <u>0.66</u>	= Casing Volume (gal): <u>11.6</u>
Casing Volume (gal): <u>11.6</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>34.8</u>

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

Purge:		Start Time:	Stop Time:					
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				<u>-51</u>		<u>0.28</u>		
<u>1036</u>	<u>19.7</u>	<u>7.29</u>	<u>1287</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>11.6</u>	
<u>1040</u>	<u>20.6</u>	<u>7.47</u>	<u>1195</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>23.2</u>	
<u>1045</u>	<u>21.0</u>	<u>7.46</u>	<u>1179</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>34.8</u>	
Post-Purge				<u>-56</u>		<u>0.28</u>		
Did Well dewater? Yes <input type="radio"/> No <input checked="" type="radio"/>		Total Purge volume (gal): <u>34.8</u>						

Other Comments: 8070 @: 5.42
DTW: 3.71

Sample Info:	
Sample ID:	MW-11 - 20101231
Sample Date and Time:	12/8/10 @ 1055
Selected Analysis:	SEE COC
Signature:	<u>B. Paul</u>
Date:	<u>12/8/10</u>



CO₂ ELT Groundwater Sampling Form

Site Address:	449 Hegenberger Rd Oakland		
Project No:	2705191	Field Technician:	B Paul II
Field Point:	MW-12	Date:	12/08/10
Depth to Water (DTW) (ft bgs):	3.92	Well Diameter (in):	2 (4) 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	19.40	Water Column Height (ft):	15.48

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer w/ BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>15.48</u>	X Conversion Factor (gal/ft): <u>0.66</u>	= Casing Volume (gal): <u>10.2</u>
Casing Volume (gal): <u>10.2</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>30.6</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	Start Time: <u>1300</u>	Stop Time: <u>1309</u>						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				<u>40</u>		<u>3.05</u>		
<u>1303</u>	<u>18.6</u>	<u>6.33</u>	<u>27.34 mS</u>	—	—	—	<u>10.2</u>	
<u>1306</u>	<u>18.8</u>	<u>6.41</u>	<u>27.43 mS</u>	—	—	—	<u>20.4</u>	
<u>1309</u>	<u>19.1</u>	<u>6.50</u>	<u>27.90 mS</u>	—	—	—	<u>30.6</u>	<u>14.07</u>
Post-Purge				<u>11</u>		<u>0.98</u>		
Did Well dewater?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Total Purge volume (gal): <u>30.6</u>					

Other Comments: 8070 @ : 7.01
DTW: 4.16

Sample Info:	
Sample ID: <u>MW-12_20101231</u>	Sample Date and Time: <u>12/8/10 @ 1455</u>
Selected Analysis: <u>SEE COC</u>	
Signature: <u>B. Pell</u>	Date: <u>12/8/10</u>



CO₂ ELT Groundwater Sampling Form

Site Address:	449 Hegenberger Rd Oakland		
Project No:	2705191	Field Technician:	B. Pell
Field Point:	MW-12A	Date:	12/08/10
Depth to Water (DTW) (ft bgs):	4.00	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	32.77	Water Column Height (ft):	28.77

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailer <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer w/ BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>28.77</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>4.9</u>
Casing Volume (gal): <u>4.9</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>14.7</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge:	Start Time: <u>1236</u>	Stop Time: <u>1242</u>						
Time	Temp (°C)	pH	Conductivity (µS/cm)	ORP (mV)	Turbidity (NTU)	D.O. (mg/L)	Volume Purged (gal)	Water Level (for Low-Flow only)
Pre-Purge				<u>-9</u>		<u>3.90</u>		
<u>1238</u>	<u>18.1</u>	<u>7.34</u>	<u>2798</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>4.9</u>	
<u>1240</u>	<u>18.8</u>	<u>7.16</u>	<u>2845</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>9.8</u>	
<u>1242</u>	<u>19.0</u>	<u>7.13</u>	<u>2962</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>14.7</u>	
Post-Purge				<u>2</u>		<u>3.82</u>		
Did Well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Total Purge volume (gal): <u>14.7</u>							

Other Comments: 8070 @ : 9.75 * strong odor
DTW: 4.06

Sample Info:	
Sample ID: <u>MW-12A-20101231</u>	Sample Date and Time: <u>12/8/10 @ 1245</u>
Selected Analysis: <u>SEE COC</u>	
Signature: <u>B. Pell</u>	Date: <u>12/8/10</u>



COMPLIANT Groundwater Sampling Form

Site Address:	449 Hegenberger Rd Oakland		
Project No:	2705191	Field Technician:	B. Pell
Field Point:	MW-13	Date:	12/08/10
Depth to Water (DTW) (ft bgs):	5.02	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):	—	Thickness of LNAPL (ft):	—
Total Depth of Well (ft bgs):	14.55	Water Column Height (ft):	9.53

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailor <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailor</u> / BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>9.53</u> X Conversion Factor (gal/ft): <u>0.17</u> = Casing Volume (gal): <u>1.6</u> Casing Volume (gal): <u>1.6</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>4.8</u>		
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: _____ Start Time: 11:20 Stop Time: 11:24

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				38 <u>38</u>		<u>0.70</u>		
<u>11:22</u>	<u>17.5</u>	<u>7.35</u>	<u>3878</u>	—	—	—	<u>1.6</u>	
<u>11:23</u>	<u>17.9</u>	<u>7.37</u>	<u>4881</u>	—	—	—	<u>3.2</u>	
<u>11:24</u>	<u>18.3</u>	<u>7.38</u>	<u>4997</u>	—	—	—	<u>4.8</u>	<u>7.40</u>
Post-Purge				<u>-67</u>		<u>0.23</u>		

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

Other Comments: 8070 @: 6.92 FDI-20101231 @ 11:45
DTW: 6.48 *Reaction in VOAs caused Bubbles, used NP VOA

Sample Info:

Sample ID: <u>MW-13-20101231</u>	Sample Date and Time: <u>12/8/10 @ 11:35</u>
Selected Analysis: <u>SEE COC</u>	

Signature: B. Pell Date: 12/8/10



Quarterly Summary Report, Fourth Quarter 2010
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix D

Certified Laboratory Analytical Report and Data Validation Form

December 27, 2010

Dennis Dettloff
ELT_Delta Consultants Sacramen
11050 White Rock Rd. #110
Rancho Cordova, CA 95670

RE: Project: 2705191 449 Hegenberger
Pace Project No.: 255967

Dear Dennis Dettloff:

Enclosed are the analytical results for sample(s) received by the laboratory on December 10, 2010. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC 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 SteMarie

regina.stemarie@pacelabs.com
Project Manager

Enclosures

cc: Tara Bosch, ELT_Delta Consultants Sacramento
Jonathon Fillingame, ELT_Delta Consultants Sacramento
Lia Holden, ELT-Delta Consultants
Dan Keltner, ELT-Delta Consultants
Josh Mahoney, ELT_Delta Consultants San Jose
Tony Perini, ELT_Delta Consultants San Jose
Nicole Persaud, ELT-Delta Consultants
Don Pinkerton, ELT_Delta Consultants Sacramento
David Sowle, Delta Consultants
Doug Umland, ELT_Delta Consultants San Jose

Ed Weyrens, ELT_Delta Consultants San Jose

REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

Washington Certification IDs

940 South Harney Street, Seattle, WA 98108

Alaska CS Certification #: UST-025

Alaska Drinking Water VOC Certification #: WA01230

Alaska Drinking Water Micro Certification #: WA01230

California Certification #: 01153CA

Florida/NELAP Certification #: E87617

Oregon Certification #: WA200007

Washington Certification #: C1229

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SAMPLE ANALYTE COUNT

Project: 2705191 449 Hegenberger
Pace Project No.: 255967

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
255967001	MW-10_20101231	EPA 8015B	DMT	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
255967002	MW-11_20101231	EPA 8015B	DMT	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
255967003	MW-12_20101231	EPA 8015B	DMT	3	PASI-S
		EPA 5030B/8260	LNH	10	PASI-S
		CA LUFT	LNH	2	PASI-S
255967004	MW-12A_20101231	EPA 8015B	DMT	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
255967005	MW-13_20101231	EPA 8015B	DMT	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
255967006	MW-3_20101231	EPA 8015B	DMT	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
255967007	MW-6_20101231	EPA 8015B	AY1, DMT	3	PASI-S
		EPA 5030B/8260	LNH	10	PASI-S
		CA LUFT	LNH	2	PASI-S
255967008	MW-7_20101231	EPA 8015B	DMT	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
255967009	MW-8_20101231	EPA 8015B	DMT	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
255967010	MW-9_20101231	EPA 8015B	DMT	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S
255967011	FD1_20101231	EPA 8015B	DMT	3	PASI-S
		EPA 5030B/8260	LPM	10	PASI-S
		CA LUFT	LPM	2	PASI-S

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

Sample: MW-10_20101231		Lab ID: 255967001	Collected: 12/08/10 10:05	Received: 12/10/10 08:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	ND ug/L		50.0	1	12/14/10 12:35	12/15/10 14:28		
o-Terphenyl (S) SG	79 %		51-147	1	12/14/10 12:35	12/15/10 14:28	84-15-1	
n-Octacosane (S) SG	85 %		50-150	1	12/14/10 12:35	12/15/10 14:28	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	1.8 ug/L		0.50	1		12/16/10 19:34	71-43-2	
Ethanol	ND ug/L		250	1		12/16/10 19:34	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/16/10 19:34	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		12/16/10 19:34	1634-04-4	
Toluene	ND ug/L		0.50	1		12/16/10 19:34	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/16/10 19:34	1330-20-7	
4-Bromofluorobenzene (S)	89 %		80-120	1		12/16/10 19:34	460-00-4	
Dibromofluoromethane (S)	103 %		80-122	1		12/16/10 19:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	107 %		80-124	1		12/16/10 19:34	17060-07-0	
Toluene-d8 (S)	89 %		80-123	1		12/16/10 19:34	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		12/16/10 19:34		
4-Bromofluorobenzene (S)	89 %		82-116	1		12/16/10 19:34	460-00-4	

Sample: MW-11_20101231		Lab ID: 255967002	Collected: 12/08/10 10:55	Received: 12/10/10 08:35	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	52.7 ug/L		50.0	1	12/14/10 12:35	12/15/10 15:18		
o-Terphenyl (S) SG	84 %		51-147	1	12/14/10 12:35	12/15/10 15:18	84-15-1	
n-Octacosane (S) SG	92 %		50-150	1	12/14/10 12:35	12/15/10 15:18	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/17/10 18:20	71-43-2	
Ethanol	ND ug/L		250	1		12/17/10 18:20	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/17/10 18:20	100-41-4	
Methyl-tert-butyl ether	59.1 ug/L		0.50	1		12/17/10 18:20	1634-04-4	
Toluene	ND ug/L		0.50	1		12/17/10 18:20	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/17/10 18:20	1330-20-7	
4-Bromofluorobenzene (S)	86 %		80-120	1		12/17/10 18:20	460-00-4	
Dibromofluoromethane (S)	106 %		80-122	1		12/17/10 18:20	1868-53-7	
1,2-Dichloroethane-d4 (S)	105 %		80-124	1		12/17/10 18:20	17060-07-0	
Toluene-d8 (S)	88 %		80-123	1		12/17/10 18:20	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		12/17/10 18:20		
4-Bromofluorobenzene (S)	86 %		82-116	1		12/17/10 18:20	460-00-4	

Date: 12/27/2010 01:34 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

Sample: MW-12_20101231		Lab ID: 255967003		Collected: 12/08/10 14:55		Received: 12/10/10 08:35		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	428	ug/L	50.0	1	12/14/10 12:35	12/15/10 15:34			
o-Terphenyl (S) SG	81	%	51-147	1	12/14/10 12:35	12/15/10 15:34	84-15-1		
n-Octacosane (S) SG	88	%	50-150	1	12/14/10 12:35	12/15/10 15:34	630-02-4		
8260 MSV									
Analytical Method: EPA 5030B/8260									
Benzene	249	ug/L	5.0	10		12/21/10 20:12	71-43-2		
Ethanol	ND	ug/L	2500	10		12/21/10 20:12	64-17-5	1n	
Ethylbenzene	89.8	ug/L	5.0	10		12/21/10 20:12	100-41-4		
Methyl-tert-butyl ether	1470	ug/L	5.0	10		12/21/10 20:12	1634-04-4		
Toluene	117	ug/L	5.0	10		12/21/10 20:12	108-88-3		
Xylene (Total)	558	ug/L	15.0	10		12/21/10 20:12	1330-20-7		
4-Bromofluorobenzene (S)	99	%	80-120	10		12/21/10 20:12	460-00-4		
Dibromofluoromethane (S)	94	%	80-122	10		12/21/10 20:12	1868-53-7		
1,2-Dichloroethane-d4 (S)	95	%	80-124	10		12/21/10 20:12	17060-07-0		
Toluene-d8 (S)	92	%	80-123	10		12/21/10 20:12	2037-26-5		
CA LUFT MSV GRO									
Analytical Method: CA LUFT									
TPH-Gasoline (C05-C12)	3350	ug/L	500	10		12/21/10 20:12			
4-Bromofluorobenzene (S)	99	%	82-116	10		12/21/10 20:12	460-00-4		

Sample: MW-12A_20101231		Lab ID: 255967004		Collected: 12/08/10 12:45		Received: 12/10/10 08:35		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	76.4	ug/L	50.0	1	12/14/10 12:35	12/15/10 15:51			
o-Terphenyl (S) SG	81	%	51-147	1	12/14/10 12:35	12/15/10 15:51	84-15-1		
n-Octacosane (S) SG	85	%	50-150	1	12/14/10 12:35	12/15/10 15:51	630-02-4		
8260 MSV									
Analytical Method: EPA 5030B/8260									
Benzene	ND	ug/L	0.50	1		12/17/10 17:55	71-43-2		
Ethanol	ND	ug/L	250	1		12/17/10 17:55	64-17-5		
Ethylbenzene	ND	ug/L	0.50	1		12/17/10 17:55	100-41-4		
Methyl-tert-butyl ether	9.4	ug/L	0.50	1		12/17/10 17:55	1634-04-4		
Toluene	ND	ug/L	0.50	1		12/17/10 17:55	108-88-3		
Xylene (Total)	ND	ug/L	1.5	1		12/17/10 17:55	1330-20-7		
4-Bromofluorobenzene (S)	86	%	80-120	1		12/17/10 17:55	460-00-4		
Dibromofluoromethane (S)	106	%	80-122	1		12/17/10 17:55	1868-53-7		
1,2-Dichloroethane-d4 (S)	104	%	80-124	1		12/17/10 17:55	17060-07-0		
Toluene-d8 (S)	90	%	80-123	1		12/17/10 17:55	2037-26-5		
CA LUFT MSV GRO									
Analytical Method: CA LUFT									
TPH-Gasoline (C05-C12)	ND	ug/L	50.0	1		12/17/10 17:55			
4-Bromofluorobenzene (S)	86	%	82-116	1		12/17/10 17:55	460-00-4		

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

Sample: MW-13_20101231		Lab ID: 255967005		Collected: 12/08/10 11:35	Received: 12/10/10 08:35	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	97.0 ug/L		50.0	1	12/14/10 12:35	12/15/10 16:08		
o-Terphenyl (S) SG	82 %		51-147	1	12/14/10 12:35	12/15/10 16:08	84-15-1	
n-Octacosane (S) SG	86 %		50-150	1	12/14/10 12:35	12/15/10 16:08	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/17/10 18:45	71-43-2	H1
Ethanol	ND ug/L		250	1		12/17/10 18:45	64-17-5	H1
Ethylbenzene	ND ug/L		0.50	1		12/17/10 18:45	100-41-4	H1
Methyl-tert-butyl ether	390 ug/L		0.50	1		12/17/10 18:45	1634-04-4	H1
Toluene	ND ug/L		0.50	1		12/17/10 18:45	108-88-3	H1
Xylene (Total)	ND ug/L		1.5	1		12/17/10 18:45	1330-20-7	H1
4-Bromofluorobenzene (S)	87 %		80-120	1		12/17/10 18:45	460-00-4	p2
Dibromofluoromethane (S)	109 %		80-122	1		12/17/10 18:45	1868-53-7	
1,2-Dichloroethane-d4 (S)	111 %		80-124	1		12/17/10 18:45	17060-07-0	
Toluene-d8 (S)	84 %		80-123	1		12/17/10 18:45	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	177 ug/L		50.0	1		12/17/10 18:45		2n,H1,p2
4-Bromofluorobenzene (S)	87 %		82-116	1		12/17/10 18:45	460-00-4	

Sample: MW-3_20101231		Lab ID: 255967006		Collected: 12/08/10 14:30	Received: 12/10/10 08:35	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	137 ug/L		50.0	1	12/14/10 12:35	12/15/10 16:57		
o-Terphenyl (S) SG	71 %		51-147	1	12/14/10 12:35	12/15/10 16:57	84-15-1	
n-Octacosane (S) SG	88 %		50-150	1	12/14/10 12:35	12/15/10 16:57	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/17/10 17:30	71-43-2	
Ethanol	ND ug/L		250	1		12/17/10 17:30	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/17/10 17:30	100-41-4	
Methyl-tert-butyl ether	58.8 ug/L		0.50	1		12/17/10 17:30	1634-04-4	
Toluene	ND ug/L		0.50	1		12/17/10 17:30	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/17/10 17:30	1330-20-7	
4-Bromofluorobenzene (S)	88 %		80-120	1		12/17/10 17:30	460-00-4	
Dibromofluoromethane (S)	107 %		80-122	1		12/17/10 17:30	1868-53-7	
1,2-Dichloroethane-d4 (S)	110 %		80-124	1		12/17/10 17:30	17060-07-0	
Toluene-d8 (S)	86 %		80-123	1		12/17/10 17:30	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	306 ug/L		50.0	1		12/17/10 17:30		
4-Bromofluorobenzene (S)	88 %		82-116	1		12/17/10 17:30	460-00-4	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

Sample: MW-6_20101231		Lab ID: 255967007	Collected: 12/08/10 15:25	Received: 12/10/10 08:35	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	28700 ug/L		500	10	12/14/10 12:35	12/17/10 06:27		
o-Terphenyl (S) SG	0 %		51-147	10	12/14/10 12:35	12/17/10 06:27	84-15-1	S4
n-Octacosane (S) SG	83 %		50-150	1	12/14/10 12:35	12/15/10 17:14	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	1300 ug/L		25.0	50		12/21/10 20:32	71-43-2	
Ethanol	ND ug/L		250	1		12/21/10 21:53	64-17-5	
Ethylbenzene	3490 ug/L		25.0	50		12/21/10 20:32	100-41-4	
Methyl-tert-butyl ether	11.3 ug/L		0.50	1		12/21/10 21:53	1634-04-4	
Toluene	1680 ug/L		25.0	50		12/21/10 20:32	108-88-3	
Xylene (Total)	20600 ug/L		75.0	50		12/21/10 20:32	1330-20-7	
4-Bromofluorobenzene (S)	114 %		80-120	1		12/21/10 21:53	460-00-4	
Dibromofluoromethane (S)	93 %		80-122	1		12/21/10 21:53	1868-53-7	
1,2-Dichloroethane-d4 (S)	96 %		80-124	1		12/21/10 21:53	17060-07-0	
Toluene-d8 (S)	101 %		80-123	1		12/21/10 21:53	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	78400 ug/L		2500	50		12/21/10 20:32		
4-Bromofluorobenzene (S)	93 %		82-116	50		12/21/10 20:32	460-00-4	

Sample: MW-7_20101231		Lab ID: 255967008	Collected: 12/08/10 14:00	Received: 12/10/10 08:35	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	57.7 ug/L		50.0	1	12/14/10 12:35	12/15/10 17:30		
o-Terphenyl (S) SG	67 %		51-147	1	12/14/10 12:35	12/15/10 17:30	84-15-1	
n-Octacosane (S) SG	83 %		50-150	1	12/14/10 12:35	12/15/10 17:30	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/16/10 19:54	71-43-2	
Ethanol	ND ug/L		250	1		12/16/10 19:54	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/16/10 19:54	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		12/16/10 19:54	1634-04-4	
Toluene	ND ug/L		0.50	1		12/16/10 19:54	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/16/10 19:54	1330-20-7	
4-Bromofluorobenzene (S)	87 %		80-120	1		12/16/10 19:54	460-00-4	
Dibromofluoromethane (S)	106 %		80-122	1		12/16/10 19:54	1868-53-7	
1,2-Dichloroethane-d4 (S)	99 %		80-124	1		12/16/10 19:54	17060-07-0	
Toluene-d8 (S)	88 %		80-123	1		12/16/10 19:54	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		12/16/10 19:54		
4-Bromofluorobenzene (S)	87 %		82-116	1		12/16/10 19:54	460-00-4	

ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

Sample: MW-8_20101231		Lab ID: 255967009	Collected: 12/08/10 13:45	Received: 12/10/10 08:35	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	116 ug/L		50.0	1	12/14/10 12:35	12/15/10 17:47		
o-Terphenyl (S) SG	71 %		51-147	1	12/14/10 12:35	12/15/10 17:47	84-15-1	
n-Octacosane (S) SG	88 %		50-150	1	12/14/10 12:35	12/15/10 17:47	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/16/10 20:14	71-43-2	
Ethanol	ND ug/L		250	1		12/16/10 20:14	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/16/10 20:14	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		12/16/10 20:14	1634-04-4	
Toluene	ND ug/L		0.50	1		12/16/10 20:14	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/16/10 20:14	1330-20-7	
4-Bromofluorobenzene (S)	87 %		80-120	1		12/16/10 20:14	460-00-4	
Dibromofluoromethane (S)	107 %		80-122	1		12/16/10 20:14	1868-53-7	
1,2-Dichloroethane-d4 (S)	105 %		80-124	1		12/16/10 20:14	17060-07-0	
Toluene-d8 (S)	89 %		80-123	1		12/16/10 20:14	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		12/16/10 20:14		
4-Bromofluorobenzene (S)	87 %		82-116	1		12/16/10 20:14	460-00-4	

Sample: MW-9_20101231		Lab ID: 255967010	Collected: 12/08/10 14:15	Received: 12/10/10 08:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	ND ug/L		50.0	1	12/14/10 12:35	12/15/10 18:03		
o-Terphenyl (S) SG	63 %		51-147	1	12/14/10 12:35	12/15/10 18:03	84-15-1	
n-Octacosane (S) SG	77 %		50-150	1	12/14/10 12:35	12/15/10 18:03	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		12/16/10 20:35	71-43-2	
Ethanol	ND ug/L		250	1		12/16/10 20:35	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		12/16/10 20:35	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		12/16/10 20:35	1634-04-4	
Toluene	ND ug/L		0.50	1		12/16/10 20:35	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		12/16/10 20:35	1330-20-7	
4-Bromofluorobenzene (S)	86 %		80-120	1		12/16/10 20:35	460-00-4	
Dibromofluoromethane (S)	102 %		80-122	1		12/16/10 20:35	1868-53-7	
1,2-Dichloroethane-d4 (S)	103 %		80-124	1		12/16/10 20:35	17060-07-0	
Toluene-d8 (S)	87 %		80-123	1		12/16/10 20:35	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		12/16/10 20:35		
4-Bromofluorobenzene (S)	86 %		82-116	1		12/16/10 20:35	460-00-4	

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ANALYTICAL RESULTS

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

Sample: FD1_20101231	Lab ID: 255967011	Collected: 12/08/10 11:45	Received: 12/10/10 08:35	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	61.8	ug/L	50.0	1	12/14/10 12:35	12/15/10 18:20		
o-Terphenyl (S) SG	72	%	51-147	1	12/14/10 12:35	12/15/10 18:20	84-15-1	
n-Octacosane (S) SG	86	%	50-150	1	12/14/10 12:35	12/15/10 18:20	630-02-4	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND	ug/L	0.50	1		12/18/10 10:10	71-43-2	H1
Ethanol	ND	ug/L	250	1		12/18/10 10:10	64-17-5	H1
Ethylbenzene	ND	ug/L	0.50	1		12/18/10 10:10	100-41-4	H1
Methyl-tert-butyl ether	378	ug/L	0.50	1		12/18/10 10:10	1634-04-4	H1
Toluene	ND	ug/L	0.50	1		12/18/10 10:10	108-88-3	H1
Xylene (Total)	ND	ug/L	1.5	1		12/18/10 10:10	1330-20-7	H1
4-Bromofluorobenzene (S)	90	%	80-120	1		12/18/10 10:10	460-00-4	p2
Dibromofluoromethane (S)	106	%	80-122	1		12/18/10 10:10	1868-53-7	
1,2-Dichloroethane-d4 (S)	108	%	80-124	1		12/18/10 10:10	17060-07-0	
Toluene-d8 (S)	87	%	80-123	1		12/18/10 10:10	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	154	ug/L	50.0	1		12/18/10 10:10		2n,H1,p2
4-Bromofluorobenzene (S)	90	%	82-116	1		12/18/10 10:10	460-00-4	

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

QC Batch: OEXT/3091 Analysis Method: EPA 8015B
 QC Batch Method: EPA 3510 Modified Analysis Description: 8015B CA DRO Silica Gel
 Associated Lab Samples: 255967001, 255967002, 255967003, 255967004, 255967005, 255967006, 255967007, 255967008, 255967009, 255967010, 255967011

METHOD BLANK: 52156 Matrix: Water
 Associated Lab Samples: 255967001, 255967002, 255967003, 255967004, 255967005, 255967006, 255967007, 255967008, 255967009, 255967010, 255967011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	ND	50.0	12/15/10 13:55	
n-Octacosane (S) SG	%	81	50-150	12/15/10 13:55	
o-Terphenyl (S) SG	%	68	51-147	12/15/10 13:55	

LABORATORY CONTROL SAMPLE: 52157

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	3120	2360	76	51-147	
n-Octacosane (S) SG	%			84	50-150	
o-Terphenyl (S) SG	%			84	51-147	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52158 52159

Parameter	Units	255967001 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	2190	2200	69	69	51-147	.2	
n-Octacosane (S) SG	%						89	85	50-150		
o-Terphenyl (S) SG	%						86	81	51-147		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 255967

QC Batch: MSV/3612 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 255967001, 255967008, 255967009, 255967010

METHOD BLANK: 52422 Matrix: Water
Associated Lab Samples: 255967001, 255967008, 255967009, 255967010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	12/16/10 14:29	
Ethanol	ug/L	ND	250	12/16/10 14:29	
Ethylbenzene	ug/L	ND	0.50	12/16/10 14:29	
Methyl-tert-butyl ether	ug/L	ND	0.50	12/16/10 14:29	
Toluene	ug/L	ND	0.50	12/16/10 14:29	
Xylene (Total)	ug/L	ND	1.5	12/16/10 14:29	
1,2-Dichloroethane-d4 (S)	%	102	80-124	12/16/10 14:29	
4-Bromofluorobenzene (S)	%	84	80-120	12/16/10 14:29	
Dibromofluoromethane (S)	%	102	80-122	12/16/10 14:29	
Toluene-d8 (S)	%	91	80-123	12/16/10 14:29	

LABORATORY CONTROL SAMPLE: 52423

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	17.1	85	76-127	
Ethanol	ug/L	400	485	121	31-182	
Ethylbenzene	ug/L	20	17.0	85	72-125	
Methyl-tert-butyl ether	ug/L	20	19.6	98	58-145	
Toluene	ug/L	20	15.4	77	69-125	
Xylene (Total)	ug/L	60	51.4	86	74-124	
1,2-Dichloroethane-d4 (S)	%			100	80-124	
4-Bromofluorobenzene (S)	%			89	80-120	
Dibromofluoromethane (S)	%			104	80-122	
Toluene-d8 (S)	%			90	80-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52424 52425

Parameter	Units	256060001 Result	MS	MSD	MS	MSD	MS	MSD	% Rec Limits	RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
Benzene	ug/L	ND	20	20	24.1	23.4	120	117	75-124	3	
Ethanol	ug/L	ND	400	400	593	580	148	145	36-177	2	
Ethylbenzene	ug/L	ND	20	20	24.3	23.4	122	117	76-124	4	
Methyl-tert-butyl ether	ug/L	1.5	20	20	26.4	25.9	124	122	72-130	2	
Toluene	ug/L	ND	20	20	22.6	21.4	113	107	75-124	5	
Xylene (Total)	ug/L	ND	60	60	74.9	71.2	125	118	76-123	5 M1	
1,2-Dichloroethane-d4 (S)	%						100	100	80-124		
4-Bromofluorobenzene (S)	%						87	88	80-120		
Dibromofluoromethane (S)	%						104	108	80-122		
Toluene-d8 (S)	%						92	93	80-123		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

QC Batch: MSV/3619 Analysis Method: EPA 5030B/8260
 QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
 Associated Lab Samples: 255967002, 255967004, 255967005, 255967006

METHOD BLANK: 52574 Matrix: Water

Associated Lab Samples: 255967002, 255967004, 255967005, 255967006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	12/17/10 12:56	
Ethanol	ug/L	ND	250	12/17/10 12:56	
Ethylbenzene	ug/L	ND	0.50	12/17/10 12:56	
Methyl-tert-butyl ether	ug/L	ND	0.50	12/17/10 12:56	
Toluene	ug/L	ND	0.50	12/17/10 12:56	
Xylene (Total)	ug/L	ND	1.5	12/17/10 12:56	
1,2-Dichloroethane-d4 (S)	%	102	80-124	12/17/10 12:56	
4-Bromofluorobenzene (S)	%	87	80-120	12/17/10 12:56	
Dibromofluoromethane (S)	%	107	80-122	12/17/10 12:56	
Toluene-d8 (S)	%	90	80-123	12/17/10 12:56	

LABORATORY CONTROL SAMPLE: 52575

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	21.1	106	76-127	
Ethanol	ug/L	400	505	126	31-182	
Ethylbenzene	ug/L	20	20.7	104	72-125	
Methyl-tert-butyl ether	ug/L	20	22.8	114	58-145	
Toluene	ug/L	20	18.5	93	69-125	
Xylene (Total)	ug/L	60	64.0	107	74-124	
1,2-Dichloroethane-d4 (S)	%			101	80-124	
4-Bromofluorobenzene (S)	%			89	80-120	
Dibromofluoromethane (S)	%			108	80-122	
Toluene-d8 (S)	%			90	80-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52576 52577

Parameter	Units	256000004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Ethanol	ug/L	ND	400	400	533	590	133	148	36-177	10	
Ethylbenzene	ug/L	14.2	20	20	36.4	34.3	111	101	76-124	6	
Methyl-tert-butyl ether	ug/L	65.7	20	20	79.6	75.5	70	49	72-130	5	M1
Toluene	ug/L	4.0	20	20	24.6	23.2	103	96	75-124	6	
Xylene (Total)	ug/L	4.8	60	60	76.0	72.7	119	113	76-123	4	
1,2-Dichloroethane-d4 (S)	%						103	102	80-124		
4-Bromofluorobenzene (S)	%						87	85	80-120		
Dibromofluoromethane (S)	%						108	108	80-122		
Toluene-d8 (S)	%						88	92	80-123		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger
Pace Project No.: 255967

QC Batch: MSV/3623 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 255967011

METHOD BLANK: 52607 Matrix: Water
Associated Lab Samples: 255967011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	12/18/10 03:00	
Ethanol	ug/L	ND	250	12/18/10 03:00	
Ethylbenzene	ug/L	ND	0.50	12/18/10 03:00	
Methyl-tert-butyl ether	ug/L	ND	0.50	12/18/10 03:00	
Toluene	ug/L	ND	0.50	12/18/10 03:00	
Xylene (Total)	ug/L	ND	1.5	12/18/10 03:00	
1,2-Dichloroethane-d4 (S)	%	102	80-124	12/18/10 03:00	
4-Bromofluorobenzene (S)	%	88	80-120	12/18/10 03:00	
Dibromofluoromethane (S)	%	102	80-122	12/18/10 03:00	
Toluene-d8 (S)	%	88	80-123	12/18/10 03:00	

LABORATORY CONTROL SAMPLE: 52608

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.8	99	76-127	
Ethanol	ug/L	400	448	112	31-182	
Ethylbenzene	ug/L	20	19.7	99	72-125	
Methyl-tert-butyl ether	ug/L	20	21.3	107	58-145	
Toluene	ug/L	20	18.0	90	69-125	
Xylene (Total)	ug/L	60	60.1	100	74-124	
1,2-Dichloroethane-d4 (S)	%			99	80-124	
4-Bromofluorobenzene (S)	%			84	80-120	
Dibromofluoromethane (S)	%			105	80-122	
Toluene-d8 (S)	%			91	80-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52868 52869

Parameter	Units	256000008 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
			Spike Conc.	Spike Conc.							
Benzene	ug/L	ND	20	20	19.5	21.9	97	110	75-124	12	
Ethanol	ug/L	ND	400	400	452	553	113	138	36-177	20	
Ethylbenzene	ug/L	ND	20	20	19.8	21.6	99	108	76-124	9	
Methyl-tert-butyl ether	ug/L	2.6	20	20	22.8	25.5	101	114	72-130	11	
Toluene	ug/L	ND	20	20	17.6	19.3	88	97	75-124	10	
Xylene (Total)	ug/L	ND	60	60	60.1	65.5	100	109	76-123	9	
1,2-Dichloroethane-d4 (S)	%						99	101	80-124		
4-Bromofluorobenzene (S)	%						85	84	80-120		
Dibromofluoromethane (S)	%						106	104	80-122		
Toluene-d8 (S)	%						91	89	80-123		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

QC Batch: MSV/3637 Analysis Method: EPA 5030B/8260
 QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
 Associated Lab Samples: 255967003, 255967007

METHOD BLANK: 52909 Matrix: Water

Associated Lab Samples: 255967003, 255967007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	12/21/10 13:47	
Ethanol	ug/L	ND	250	12/21/10 13:47	
Ethylbenzene	ug/L	ND	0.50	12/21/10 13:47	
Methyl-tert-butyl ether	ug/L	ND	0.50	12/21/10 13:47	
Toluene	ug/L	ND	0.50	12/21/10 13:47	
Xylene (Total)	ug/L	ND	1.5	12/21/10 13:47	
1,2-Dichloroethane-d4 (S)	%	95	80-124	12/21/10 13:47	
4-Bromofluorobenzene (S)	%	97	80-120	12/21/10 13:47	
Dibromofluoromethane (S)	%	95	80-122	12/21/10 13:47	
Toluene-d8 (S)	%	92	80-123	12/21/10 13:47	

LABORATORY CONTROL SAMPLE: 52910

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	21.4	107	76-127	
Ethanol	ug/L	400	464	116	31-182	
Ethylbenzene	ug/L	20	22.0	110	72-125	
Methyl-tert-butyl ether	ug/L	20	24.2	121	58-145	
Toluene	ug/L	20	20.4	102	69-125	
Xylene (Total)	ug/L	60	64.1	107	74-124	
1,2-Dichloroethane-d4 (S)	%			95	80-124	
4-Bromofluorobenzene (S)	%			96	80-120	
Dibromofluoromethane (S)	%			95	80-122	
Toluene-d8 (S)	%			94	80-123	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52911 52912

Parameter	Units	256036018 Result	MS	MSD	MS	MSD	MS	MSD	% Rec Limits	RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
Benzene	ug/L	ND	20	20	25.9	26.6	129	133	75-124	3	M1
Ethanol	ug/L	ND	400	400	557	536	139	134	36-177	4	
Ethylbenzene	ug/L	ND	20	20	26.3	26.5	132	132	76-124	.6	M1
Methyl-tert-butyl ether	ug/L	ND	20	20	26.3	27.3	131	136	72-130	4	M1
Toluene	ug/L	ND	20	20	24.7	24.8	123	124	75-124	.4	
Xylene (Total)	ug/L	ND	60	60	76.1	77.5	127	129	76-123	2	M1
1,2-Dichloroethane-d4 (S)	%						93	93	80-124		
4-Bromofluorobenzene (S)	%						97	96	80-120		
Dibromofluoromethane (S)	%						95	98	80-122		
Toluene-d8 (S)	%						93	93	80-123		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

QC Batch: MSV/3611 Analysis Method: CA LUFT
 QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
 Associated Lab Samples: 255967001, 255967008, 255967009, 255967010

METHOD BLANK: 52410 Matrix: Water

Associated Lab Samples: 255967001, 255967008, 255967009, 255967010

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	12/16/10 14:29	
4-Bromofluorobenzene (S)	%	84	82-116	12/16/10 14:29	

LABORATORY CONTROL SAMPLE: 52411

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	429	86	60-140	
4-Bromofluorobenzene (S)	%			86	82-116	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52550 52551

Parameter	Units	255957005 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	441	435	84	83	60-140	1	
4-Bromofluorobenzene (S)	%						86	87	82-116		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

QC Batch: MSV/3613 Analysis Method: CA LUFT
 QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
 Associated Lab Samples: 255967002, 255967004, 255967005, 255967006

METHOD BLANK: 52468 Matrix: Water

Associated Lab Samples: 255967002, 255967004, 255967005, 255967006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	12/17/10 12:56	
4-Bromofluorobenzene (S)	%	87	82-116	12/17/10 12:56	

LABORATORY CONTROL SAMPLE: 52469

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	433	87	60-140	
4-Bromofluorobenzene (S)	%			87	82-116	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52578 52579

Parameter	Units	256000007 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	464	434	86	81	60-140	6	
4-Bromofluorobenzene (S)	%						86	86	82-116		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

QC Batch: MSV/3622 Analysis Method: CA LUFT
 QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
 Associated Lab Samples: 255967011

METHOD BLANK: 52605 Matrix: Water

Associated Lab Samples: 255967011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	12/18/10 03:00	
4-Bromofluorobenzene (S)	%	88	82-116	12/18/10 03:00	

LABORATORY CONTROL SAMPLE: 52606

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	404	81	60-140	
4-Bromofluorobenzene (S)	%			85	82-116	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 52866 52867

Parameter	Units	256000009 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	390	381	75	74	60-140	2	
4-Bromofluorobenzene (S)	%						86	85	82-116		

QUALITY CONTROL DATA

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

QC Batch: MSV/3635 Analysis Method: CA LUFT
 QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
 Associated Lab Samples: 255967003, 255967007

METHOD BLANK: 52900 Matrix: Water

Associated Lab Samples: 255967003, 255967007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	12/21/10 13:47	
4-Bromofluorobenzene (S)	%	97	82-116	12/21/10 13:47	

LABORATORY CONTROL SAMPLE: 52901

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	428	86	60-140	
4-Bromofluorobenzene (S)	%			96	82-116	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 53029 53030

Parameter	Units	256036018 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	495	481	96	93	60-140	3	
4-Bromofluorobenzene (S)	%						96	97	82-116		

QUALIFIERS

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

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 NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

LABORATORIES

PASI-S Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

- | | |
|----|---|
| 1n | Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference. This resulted in a higher reporting limit for Ethanol. |
| 2n | The GRO result for this sample did not match the pattern of the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample. |
| H1 | Analysis conducted outside the EPA method holding time. |
| M1 | Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery. |
| S4 | Surrogate recovery not evaluated against control limits due to sample dilution. |
| p2 | Post-analysis pH measurement indicates pH > 2. |

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191 449 Hegenberger

Pace Project No.: 255967

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
255967001	MW-10_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967002	MW-11_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967003	MW-12_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967004	MW-12A_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967005	MW-13_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967006	MW-3_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967007	MW-6_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967008	MW-7_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967009	MW-8_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967010	MW-9_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967011	FD1_20101231	EPA 3510 Modified	OEXT/3091	EPA 8015B	GCSV/2145
255967001	MW-10_20101231	EPA 5030B/8260	MSV/3612		
255967002	MW-11_20101231	EPA 5030B/8260	MSV/3619		
255967003	MW-12_20101231	EPA 5030B/8260	MSV/3637		
255967004	MW-12A_20101231	EPA 5030B/8260	MSV/3619		
255967005	MW-13_20101231	EPA 5030B/8260	MSV/3619		
255967006	MW-3_20101231	EPA 5030B/8260	MSV/3619		
255967007	MW-6_20101231	EPA 5030B/8260	MSV/3637		
255967008	MW-7_20101231	EPA 5030B/8260	MSV/3612		
255967009	MW-8_20101231	EPA 5030B/8260	MSV/3612		
255967010	MW-9_20101231	EPA 5030B/8260	MSV/3612		
255967011	FD1_20101231	EPA 5030B/8260	MSV/3623		
255967001	MW-10_20101231	CA LUFT	MSV/3611		
255967002	MW-11_20101231	CA LUFT	MSV/3613		
255967003	MW-12_20101231	CA LUFT	MSV/3635		
255967004	MW-12A_20101231	CA LUFT	MSV/3613		
255967005	MW-13_20101231	CA LUFT	MSV/3613		
255967006	MW-3_20101231	CA LUFT	MSV/3613		
255967007	MW-6_20101231	CA LUFT	MSV/3635		
255967008	MW-7_20101231	CA LUFT	MSV/3611		
255967009	MW-8_20101231	CA LUFT	MSV/3611		
255967010	MW-9_20101231	CA LUFT	MSV/3611		
255967011	FD1_20101231	CA LUFT	MSV/3622		



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

4Q10 GW EVENT

Required Lab Information:		Required Project Information:			Required Invoice Information:			21789/L1		
Lab Name: Pace-Seattle	Site ID #: 2705191	Task: WG_Q_201012	Send Invoice to: David Sowle		Address: 11050 White Rock Road, Suite 110			Turn around time (days) 10		
Address: 940 S. Harney Street Seattle WA 98108		Delta project # 449 Hegenberger		City/State: Rancho Cordova CA 95670		Phone #: 1-800-477-7411		QC level Required: Standard Special Mark one		
Lab PM: Regina Ste. Marie	City: Oakland	State: CA	CA 94621	Reimbursement project? <input type="checkbox"/>		Non-reimbursement project? <input checked="" type="checkbox"/>		Mark one NJ Reduced Deliverable Package?		
Phone/Fax: P: 206-957-2433 F: 206-767-5063	Delta PM Name: Dennis Dettloff		Send EDD to: copeltdata@intelligentehs.com			MA MCP Cert? <input type="checkbox"/>		CT RCP Cert? <input type="checkbox"/>		Mark One
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P: 916-503-1261 F: 916-638-8385		CC Hardcopy report to			Lab Project ID (lab use)				
Applicable Lab Quote #:	Delta PM Email: ddettloff@deltaenv.com		CC Hardcopy report to			Requested Analyses				

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / .-) Samples IDs MUST BE UNIQUE	Valid Matrix Codes		MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Requested Analyses	Comments/Lab Sample I.D.				
		MATRIX	MATRIX							Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₈	Methanol	Other	8015TPH/Diesel	8280 CCMS GR0			8280gr/AMMB	8280Ethanol		
		DRINKING WATER	WATER																						
1	MW-10_20101231	WG	G	12/8/10	10 05	10	N	X									X	X	X	X					
2	MW-11_20101231	WG	G	12/8/10	10 55	8	N	X									X	X	X	X					** 8015 DRO samples to be silica gel treated **
3	MW-12_20101231	WG	G	12/8/10	14 55	8	N	X									X	X	X	X					
4	MW-12A_20101231	WG	G	12/8/10	12 45	8	N	X									X	X	X	X					Non preserved VOA's
5	MW-13_20101231	WG	G	12/8/10	11 35	8	N	X									X	X	X	X					
6	MW-3_20101231	WG	G	12/8/10	14 30	8	N	X									X	X	X	X					
7	MW-6_20101231	WG	G	12/8/10	15 25	8	N	X									X	X	X	X					
8	MW-7_20101231	WG	G	12/8/10	14 00	8	N	X									X	X	X	X					
9	MW-8_20101231	WG	G	12/8/10	13 45	8	N	X									X	X	X	X					
10	MW-9_20101231	WG	G	12/8/10	14 15	8	N	X									X	X	X	X					
11	FD1_20101231	WG	G	12/8/10	11 45	8	N	X									X	X	X	X					Non preserved VOA's
12																									

Additional Comments/Special Instructions: GLOBAL ID: T0600101476	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions			
	Ben Powell / BTS		12/8/10	1730	Collette Weaver / PACE		12/10/10	0835		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
										<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
										<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE										
UPS COURIER <input checked="" type="checkbox"/> FEDEX <input type="checkbox"/>		Ben Powell										
US MAIL <input type="checkbox"/>		SIGNATURE of SAMPLER:		DATE Signed		TIME		Temp in °C				
		[Signature]		12/8/10		1600		Samples on ice? <input type="checkbox"/>				
								Sample intact? <input type="checkbox"/>				
								Trip Blank? <input type="checkbox"/>				

0.2e, 1.0e



Sample Container Count

255967

CLIENT: Delta



COC PAGE 1 of 1

COC ID# _____

Sample Line Item	VG9H	AG1H	AG1U	BG1H	BP1U	BP2U	BP3U	BP2N	BP2S	WGFU	WGKU	VG9U	AG2U	Comments
1	10											6		
2	6											2		
3	↓													
4	↓													
5												6		unpreserved VOAS
6	6													
7	↓													
8	↓													
9	↓													
10	↓													
11												6	↓	unpreserved VOAS
12														Trip Blank? No

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



Sample Condition Upon Receipt

Client Name: Delta

Project # 255967

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 8697 3354 9217 & 8697 3354 9206

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 401731962 or 226099 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 0.2°C, 1.0°C Biological Tissue is Frozen: Yes No Temp should be above freezing ≤ 6°C

Date and Initials of person examining contents: 12/10/10 CW

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>All the vials for MW-13, 20101231 & FDI-20101231 are unpreserved SHORT HOLD 7 day HOLD</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	9. <u>See above. The vials for MW-6-20101231 are not PACE provided.</u>
-Pace Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>water</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Exceptions: VOA, coliform, TOC, O&G		Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	15.
Trip Blanks Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: RSM

Date: 12/10/10

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

Quarterly Summary Report, Fourth Quarter 2010
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix E

Waste Manifest

NON-HAZARDOUS WASTE MANIFEST

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

NON-HAZARDOUS WASTE GENERATOR	NON-HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. n/a		Manifest Document No. <u>2705914210</u>		2. Page 1 of 1	
	3. Generator's Name and Mailing Address <i>PC&F, Duane Blair 2603 Camino Ramon, Ste. 350 San Ramon, CA 94583</i>				Site # <u>270591</u> <i>449 Hegenberger Rd. Oakland, CA 94621</i>			
	4. Generator's Phone (<i>925</i>) <u>884-0840</u>		6. US EPA ID Number —		A. State Transporter's ID —		B. Transporter 1 Phone <u>310-885-4455</u>	
	5. Transporter 1 Company Name <i>Blaine Tech Services</i>		8. US EPA ID Number —		C. State Transporter's ID —		D. Transporter 2 Phone —	
	7. Transporter 2 Company Name —		10. US EPA ID Number <u>000013572</u>		E. State Facility's ID —		F. Facility's Phone <u>650-364-1024</u>	
	9. Designated Facility Name and Site Address <i>Seaport Environmental 700 Seaport Blvd. Redwood City, CA 94063</i>							
	11. WASTE DESCRIPTION				12. Containers		13. Total Quantity	14. Unit Wt./Vol.
	a. <i>Non hazardous waste liquid groundwater 2/22/11</i>				No. <u>1</u> Type <u>TT</u>		<u>120</u>	<u>G</u>
	b. 							
	c. 							
d. 								
G. Additional Descriptions for Materials Listed Above				H. Handling Codes for Wastes Listed Above				
15. Special Handling Instructions and Additional Information <i>Wear protective equipment while handling Weights and volumes are approximate 24 hr emergency number (310) 885-4455</i>								
<i>Approval Number 570-1049 Direct bill to Blaine Tech Services Blaine Tech PO#, MNO12011-AS1</i>								
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.								
Printed/Typed Name <i>(Delta Consultants)</i> <u>Tara L. Bosch</u> <i>on behalf of PC&F</i>						Signature <i>Tara L. Bosch</i>		Date <u>11/22/10</u>
17. Transporter 1 Acknowledgement of Receipt of Materials						Signature <i>B. P. Pell</i>		Date <u>12/08/10</u>
18. Transporter 2 Acknowledgement of Receipt of Materials						Signature		Date
19. Discrepancy Indication Space						Signature		Date
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.						Signature <i>Josquin D. Amore</i>		Date <u>01/20/11</u>