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July 30, 2012

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

RECEIVED

10:08 am, Aug 03, 2012

Alameda County
Environmental Health

Subject: Quarterly Summary Report, Second Quarter 2012

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

Dear Mr. Nowell;

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

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

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Sincerely,

PACIFIC CONVENIENCE & FUEL

LIZ BERMUDEZ
Senior Paralegal
Division, Unit, or Group

Attachment

Quarterly Summary Report, Second Quarter 2012

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

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

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

GeoTracker Global ID No. T0600101476

Antea Group Project No. I42705191

July 30, 2012

Prepared for:
Mr. Keith Nowell
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Services Agency
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Table of Contents

1.0	INTRODUCTION	1
1.1	Work Performed [Second Quarter 2012]	1
1.2	Work Proposed [Third Quarter 2012]	1
2.1	Regulatory Correspondence.....	2
2.2	Remedial Activities	2
2.3	Groundwater Monitoring.....	2
2.3.1	Groundwater Flow Gradient and Directional Trends	3
2.3.2	Groundwater Quality Data	3
2.2.3	Groundwater Contaminant Trends.....	4
2.3.4	Waste Disposal Summary	5
2.3.5	Quality Assurance / Quality Control	5
3.0	CONCLUSIONS AND RECOMMENDATIONS	5
4.0	REMARKS	7

Figures

Figure 1	Site Location Map
Figure 2	Site Plan
Figure 3	Groundwater Elevation Contour Map – June 11, 2012
Figure 4	Dissolved Phase TPHg Isoconcentration Map – June 11 and 12, 2012
Figure 5	Dissolved Phase Benzene Isoconcentration Map – June 11 and 12, 2012
Figure 6	Dissolved Phase MTBE Isoconcentration Map – June 11 and 12, 2012
Figure 7	Dissolved Phase DRO Isoconcentration Map – June 11 and 12, 2012
Figure 8	Historical Groundwater Flow Directions

Tables

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

Appendices

Appendix A	Previous Investigation and Site History Summary
Appendix B	Blaine Tech Services Groundwater Sampling Procedures
Appendix C	Blaine Tech Services Groundwater Sampling Field Data Sheets
Appendix D	Certified Laboratory Analytical Report and Data Validation Form



1.0 INTRODUCTION

Antea™ Group is pleased to submit this *Quarterly Summary Report, Second Quarter 2012*, for the referenced site in Oakland, California (**Figure 1**). The subject site is an operating 76 station located on the southwestern corner of Hegenberger Road and Edgewater Drive in Oakland, California. Station facilities include three underground storage tanks (USTs), two dispenser islands, a station building, and a carwash. A total of fourteen groundwater monitoring wells are located at or near the site (**Figures 1 and 2**). Please refer to **Appendix A** for additional site information and for the history of environmental investigations and remedial actions.

This report summarizes the data obtained from the recent groundwater monitoring and sampling event conducted on June 11 and 12, 2012. Included herein are site figures, groundwater contaminant data tables, and a discussion of trends. This report has received a technical review by Mr. Dennis Dettloff, California Professional Geologist No. 7480.

1.1 Work Performed [Second Quarter 2012]

1. Antea Group submitted the *Quarterly Summary Report, First Quarter 2011*, dated April 23, 2012 to the Alameda County Health Care Services Agency (ACHCSA).
2. Antea Group submitted the *ISCO Pilot Test Work Plan*, dated May 15, 2012 to the ACHCSA.
3. Blaine Tech Services, Inc. (Blaine Tech) conducted the second quarter 2012 groundwater monitoring and sampling event on June 11 and 12, 2012.

1.2 Work Proposed [Third Quarter 2012]

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

2.0 CURRENT PROJECT STATUS

Current phase of project:	Quarterly Groundwater Monitoring
Local Oversight Program (LOP) – Lead agency for cleanup oversight:	Alameda County Health Care Services Agency Case No. RO0000219
Secondary agency(s):	San Francisco Bay Regional Water Quality Control Board
Monitoring well gauging schedule:	Quarterly: MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17
Monitoring well sampling schedule:	Quarterly: MW-6, MW-10, MW-11, MW-12, MW-12A, and MW-13

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

2.1 Regulatory Correspondence

No regulatory correspondence were sent to or received from the ACHCSA during the second quarter 2012.

2.2 Remedial Activities

No remedial activities took place during the second quarter 2012.

2.3 Groundwater Monitoring

During the second quarter 2012 groundwater monitoring and sampling event, fourteen wells were gauged, purged, and sampled by Blaine Tech per standard sampling protocol (**Appendix B**). Copies of Blaine Tech's field data sheets are presented as **Appendix C**. The recent gauging and sampling data are summarized below and in **Table 2**. Historical gauging and sampling data are summarized in **Tables 3, 3a, 3b, and 3c**.

Well gauging and sampling date:	June 11 and 12, 2012
Wells gauged:	MW-3, MW-6 through MW-12, MW-12A, and MW-13 through MW-17
Wells sampled:	MW-3, MW-6 through MW-12, MW-12A, and MW-13 through 17
Purge method:	3 well casing volumes via electric, submersible pump
Sample collection method:	Disposable bailers
Groundwater parameters measured (Attachment C):	Temperature, pH, Conductivity, Dissolved Oxygen (DO), Oxidation Reduction Potential (ORP), and Turbidity
Wells with measurable LNAPL:	None
Current depth to water range (ft BTOC):	Min: 1.75 (MW-9) Max: 5.73 (MW-13)
Current groundwater elevation range (ft):	Min: 5.35 (MW-13) Max: 9.19 (MW-9)
Change in water depths from previous event	0.03 foot increase

(average change for all gauged wells):	
Groundwater flow direction and gradient in foot per foot (ft/ft):	Southeast at 0.05 ft/ft

2.3.1 Groundwater Flow Gradient and Directional Trends

The second quarter 2012 groundwater monitoring and sampling event was performed by Blaine Tech on June 11 and 12, 2012. The average groundwater elevation decreased 0.03 feet from the March 2012 event. Depth to groundwater in the site monitoring wells ranged from 1.75 feet (MW-9) to 5.73 feet (MW-13) BTOC during the current event. The groundwater flow direction and gradient were interpreted to be to the southeast at 0.05 ft/ft during the current event which is consistent with the historical groundwater flow direction and gradient (**Table 4**).

2.3.2 Groundwater Quality Data

Groundwater samples collected during the second quarter 2012 were submitted with chain-of-custody (COC) documentation to Pace Analytical Services, Inc. (Pace), a state of California Environmental Laboratory Accreditation Program (ELAP) certified laboratory (Certification No. 01153CA). The complete analytical report and Antea Group's laboratory data validation checklist is presented as **Appendix D**. Groundwater samples were analyzed for one or more of the following:

- Total petroleum hydrocarbons as gasoline (TPHg) by CA LUFT Method;
- Diesel Range Organics (DRO) [silica gel treated] by Environmental Protection Agency (EPA) Method 8015B;
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX), methyl tertiary-butyl ether (MTBE), tertiary-butyl alcohol (TBA), and ethanol by EPA Method 8260;
- Iron by EPA Method 6010;
- Sulfate by EPA Method 300.0;
- Nitrogen, Nitrate and Nitrogen, NO₂ plus NO₃ by EPA Method 353.2; and
- Nitrite as N by SM 4500-NO₂.

Groundwater analytical results are presented in **Table 2** (current) and **Tables 3, 3a, 3b, and 3c** (historical). The following ranges of contaminant concentrations were reported in the specified site well's groundwater samples collected on June 11 and 12, 2012. Only the reported contaminants are listed in the table below.

Constituents	Number of Reported Samples Above LRL of the Samples Collected	Minimum Reported Concentration, in µg/L (Sample ID)	Maximum Reported Concentration, in µg/L (Sample ID)
TPHg	8 of 14	74.3* (MW-15)	33,400 (MW-6)
DRO	6 of 14	48.1 (MW-16)	47,100 (MW-6)
Benzene	5 of 14	0.79 (MW-10)	2,340 (MW-17)

Toluene	4 of 14	14.0 (MW-14)	123 (MW-17)
Ethylbenzene	4 of 14	24.1 (MW-12)	1,580 (MW-14)
Total Xylenes	4 of 14	68.8 (MW-12)	3,110 (MW-6)
MTBE	9 of 14	0.72 (MW-10)	1,100 (MW-16)
TBA	11 of 14	8.3 (MW-8)	448 (MW-12)
Iron	14 of 14	264 (MW-7)	44,300 (MW-17)
Nitrate as N	3 of 14	88.8 (MW-11)	4,250 (MW-12A)
Nitrite as N	5 of 14	19 (MW-13)	67 (MW-7)
Nitrogen, NO ₂ plus NO ₃	4 of 14	93.5 (MW-11)	4,260 (MW-12A)
Sulfate	13 of 14	1,110 (MW-6)	2,570,000 (MW-8)

Explanations:

µg/L = Micrograms per liter

LRL = Laboratory reporting limit

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

2.2.3 Groundwater Contaminant Trends

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



2.3.4 Waste Disposal Summary

Approximately 159 gallons of waste water were generated during well purging/sampling and equipment cleaning during the second 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.

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 June 2012 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 – eleven qualifiers*
Are the data valid for their intended purpose?	Yes, the data are valid

- *1n – Sample may be biased high due to matrix interference.
 - *2n – The TPHg result for this sample did not match the pattern of the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample.
 - *D3 – Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
 - *M0 – Matrix spike recovery and/or matrix spike duplicate recovery outside laboratory control limits.
 - *M1 – Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
 - *P4 – Sample field preservation does not meet EPA or method recommendations for this analysis.
 - *P8 – Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below reporting limits.
 - *R1 – RPD value was outside control limits.
 - *S3 – Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
 - *S5 – Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).
 - *T4 – Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard.
- Based on a review of the laboratory’s analytical report, including their QA/QC procedures and those implemented by Antea Group, we conclude that the laboratory data obtained during this groundwater sampling event are valid for their intended purpose.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Antea Group recommends that all monitoring wells MW-3 and MW-6 through MW-17 be purged and sampled on a semi-annual basis.

Based on the data from the recent site investigation and groundwater monitoring at this site, the petroleum hydrocarbon and fuel oxygenate impact to the groundwater previously reported in monitoring well MW-12A was

due to drilling activities during the installation of this monitoring well. The data indicates that the groundwater monitored by this well at 30 feet to 34 feet bgs is not impacted at actionable concentrations and; therefore, Antea Group recommends that this monitoring well be destroyed.

4.0 REMARKS

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

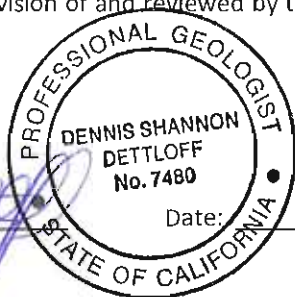
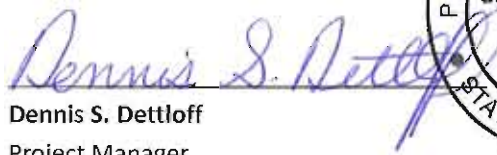
Prepared by:



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

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

Licensed Approver:



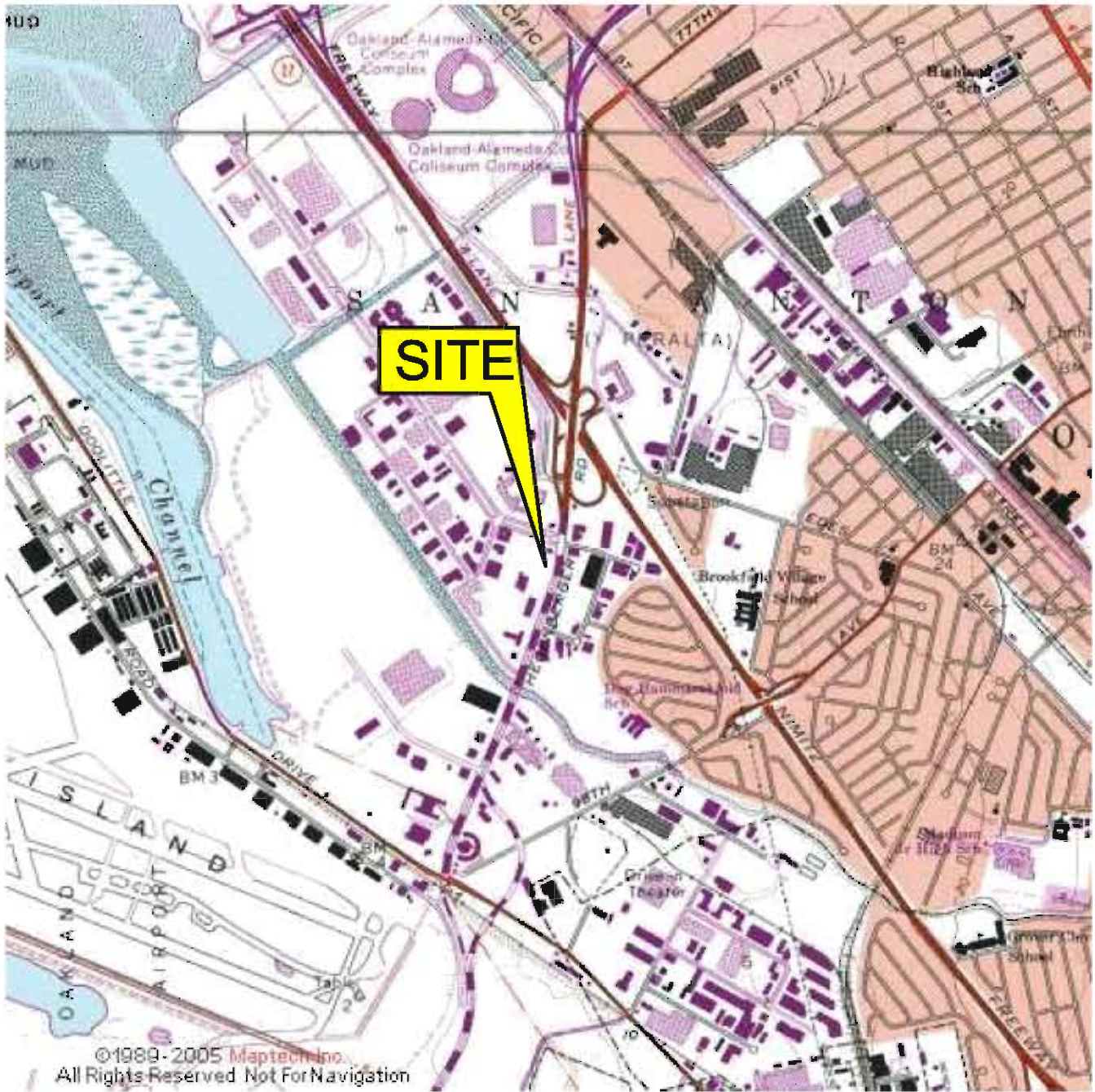
Date: 7/30/12

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

cc: GeoTracker (upload)

Figures

- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 Groundwater Elevation Contour Map – June 11, 2012
- Figure 4 Dissolved Phase TPHg Isoconcentration Map – June 11 and 12, 2012
- Figure 5 Dissolved Phase Benzene Isoconcentration Map – June 11 and 12, 2012
- Figure 6 Dissolved Phase MTBE Isoconcentration Map – June 11 and 12, 2012
- Figure 7 Dissolved Phase DRO Isoconcentration Map – June 11 and 12, 2012
- 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



EDGEWATER DR.

LEGEND

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

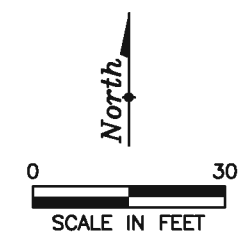
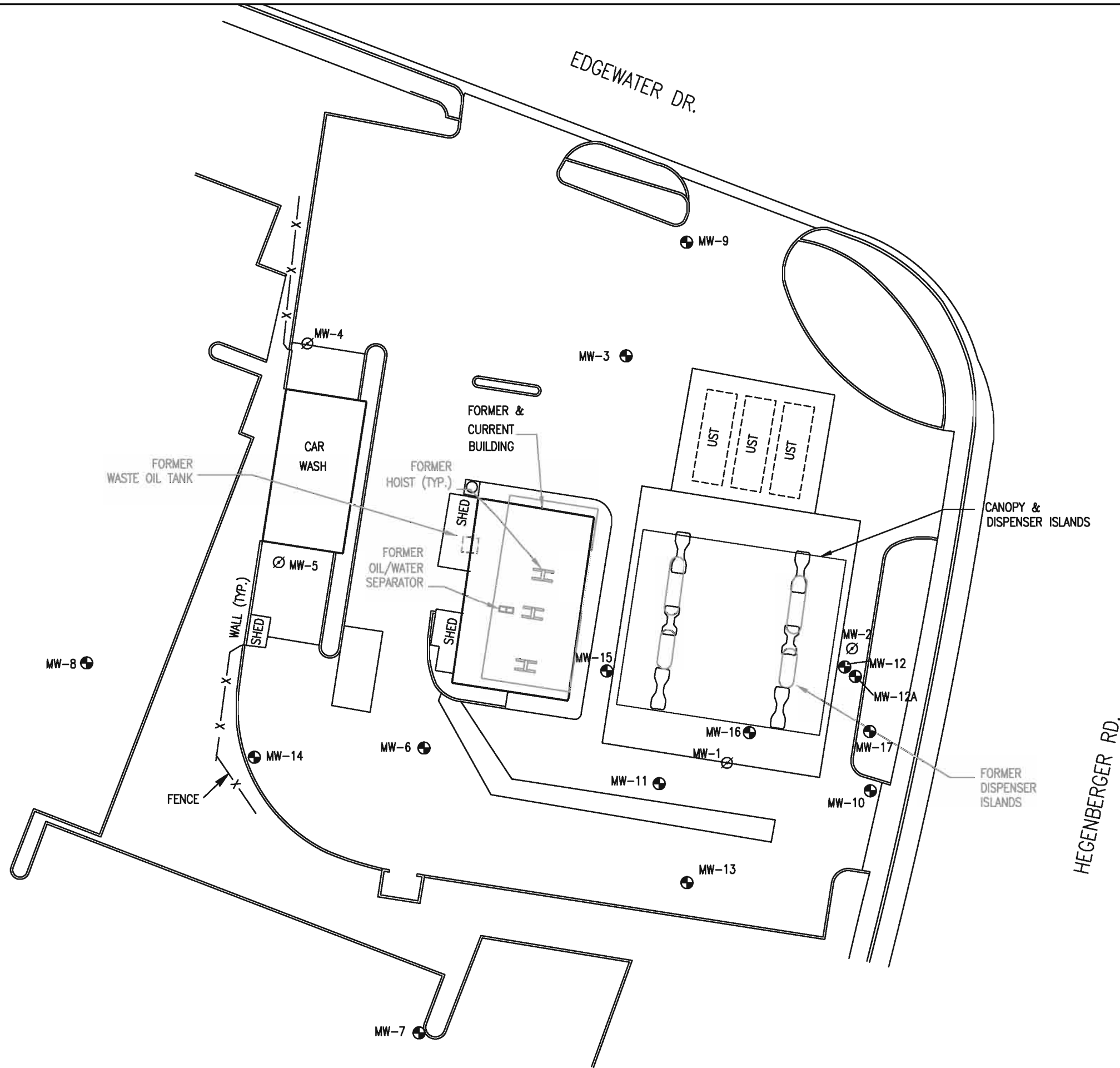



FIGURE 2
SITE PLAN

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

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

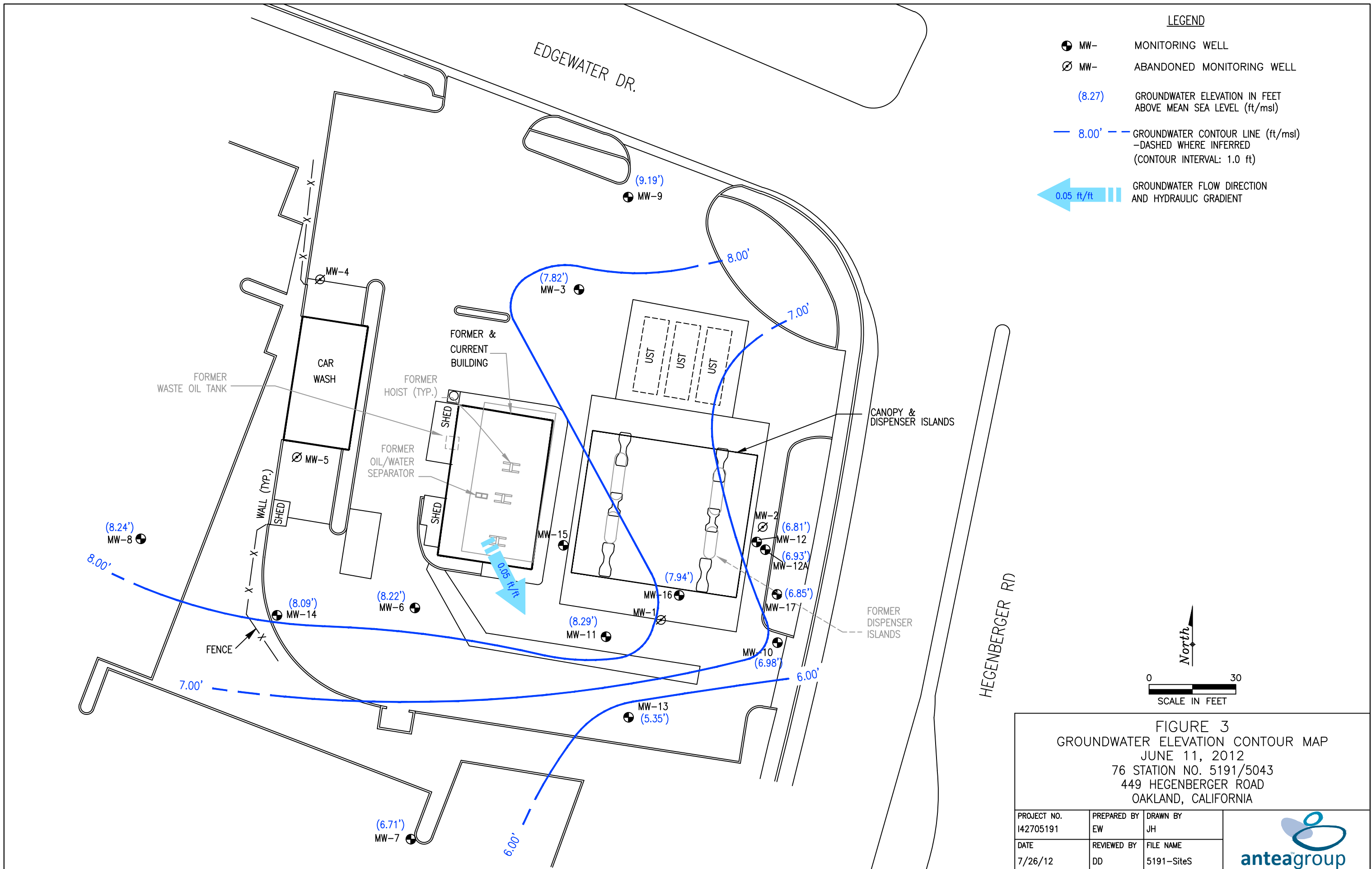
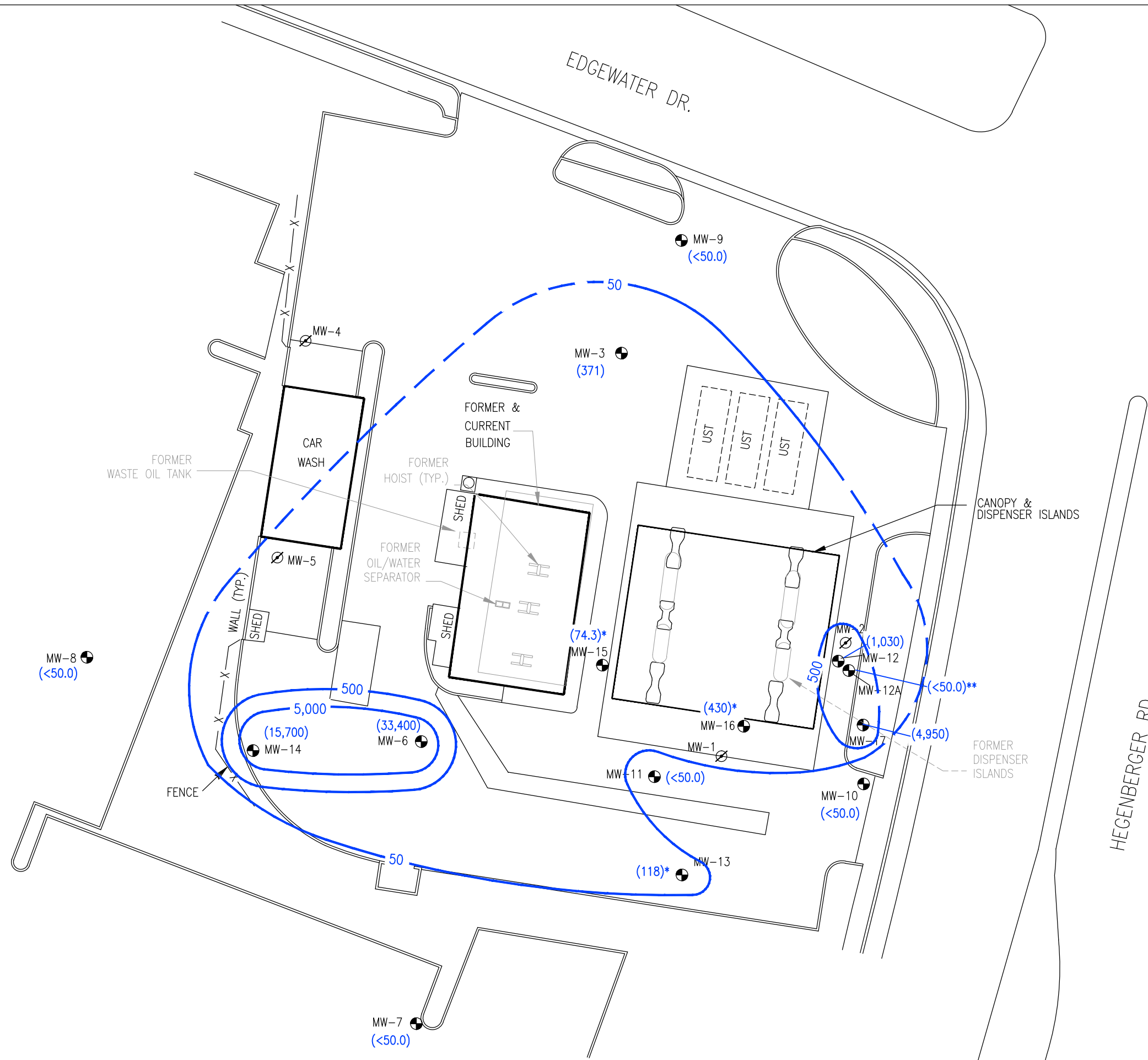


FIGURE 3
 GROUNDWATER ELEVATION CONTOUR MAP
 JUNE 11, 2012
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

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





LEGEND

- MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (33,400) DISSOLVED PHASE TPHg ISOCONCENTRATION (µg/L)
- 5,000 — DISSOLVED PHASE TPHg ISOCONTOUR (µg/L)
-DASHED WHERE INFERRED

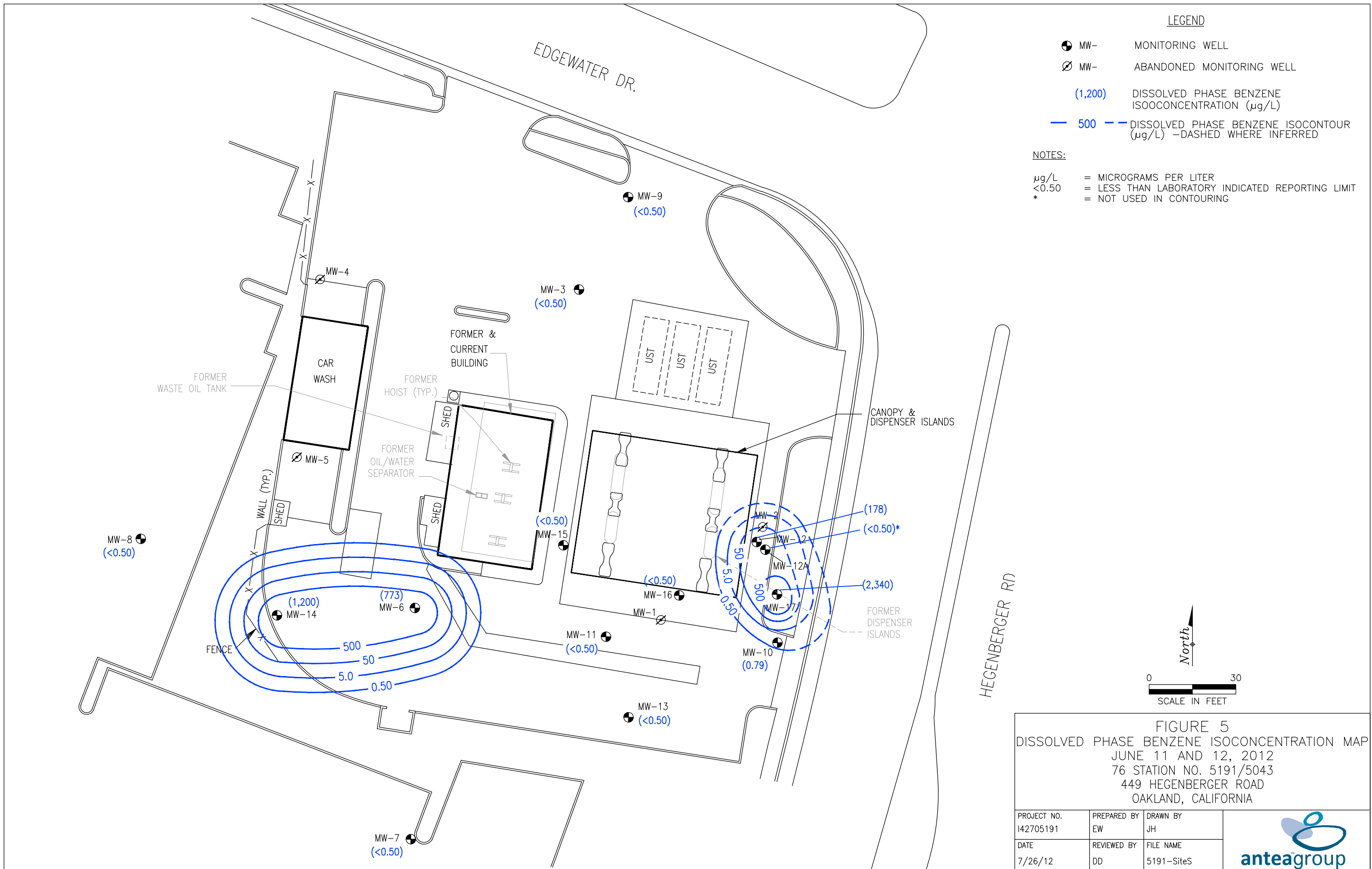
NOTES:

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

FIGURE 4
 DISSOLVED PHASE TPHg ISOCONCENTRATION MAP
 JUNE 11 AND 12, 2012
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. I42705191	PREPARED BY EW	DRAWN BY JH
DATE 7/26/12	REVIEWED BY DD	FILE NAME 5191-SiteS





LEGEND

- MW- MONITORING WELL
- ⊘ MW- ABANDONED MONITORING WELL
- (1,200) DISSOLVED PHASE BENZENE ISOCONCENTRATION (µg/L)
- 500 — DISSOLVED PHASE BENZENE ISOCONTOUR (µg/L) -DASHED WHERE INFERRED

NOTES:

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

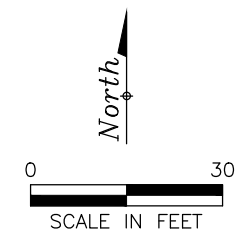
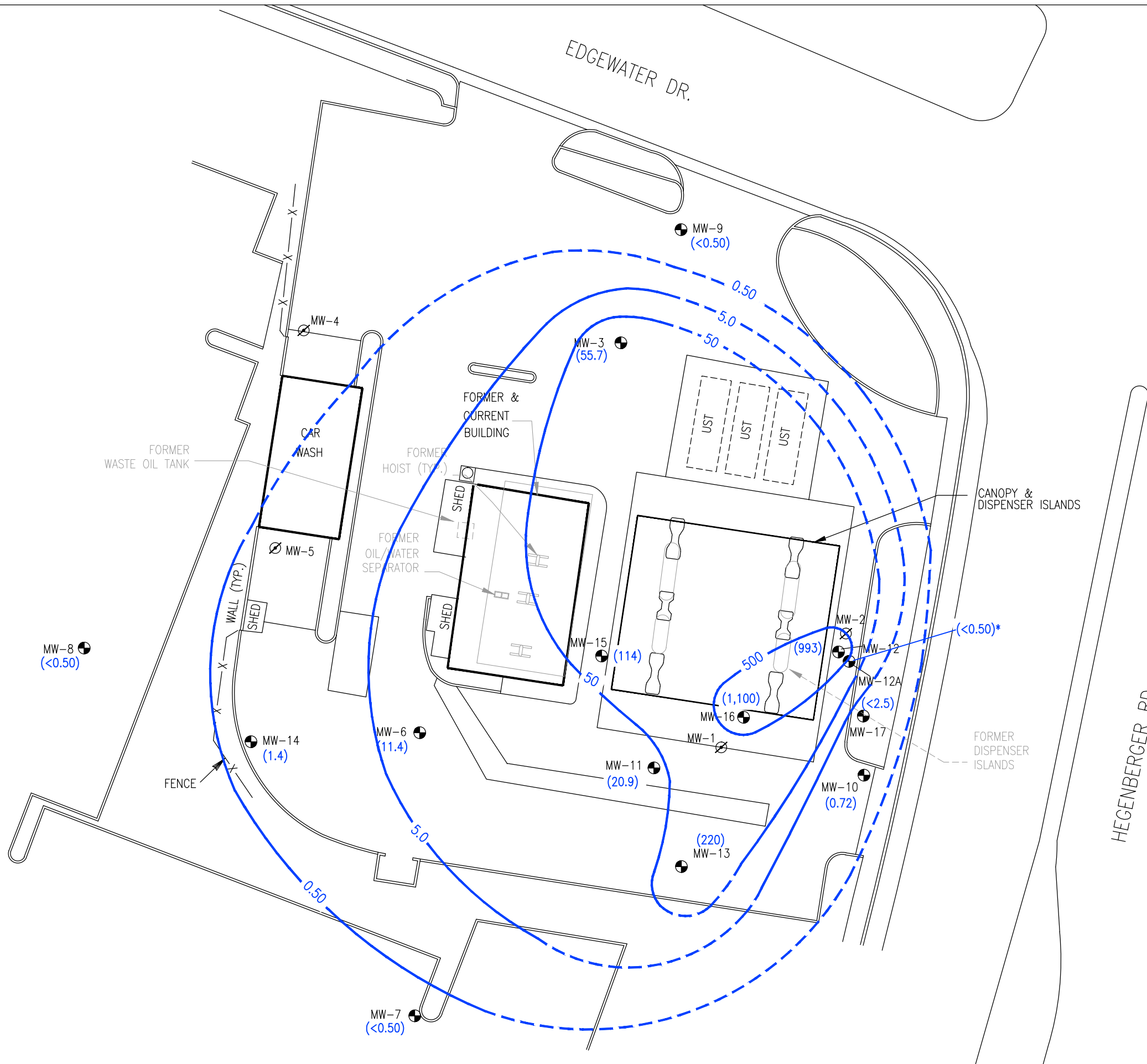


FIGURE 5
 DISSOLVED PHASE BENZENE ISOCONCENTRATION MAP
 JUNE 11 AND 12, 2012
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. I42705191	PREPARED BY EW	DRAWN BY JH
DATE 7/26/12	REVIEWED BY DD	FILE NAME 5191-SiteS





LEGEND

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

NOTES:

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

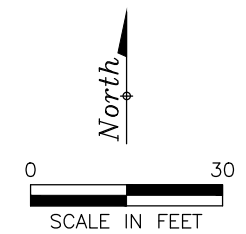
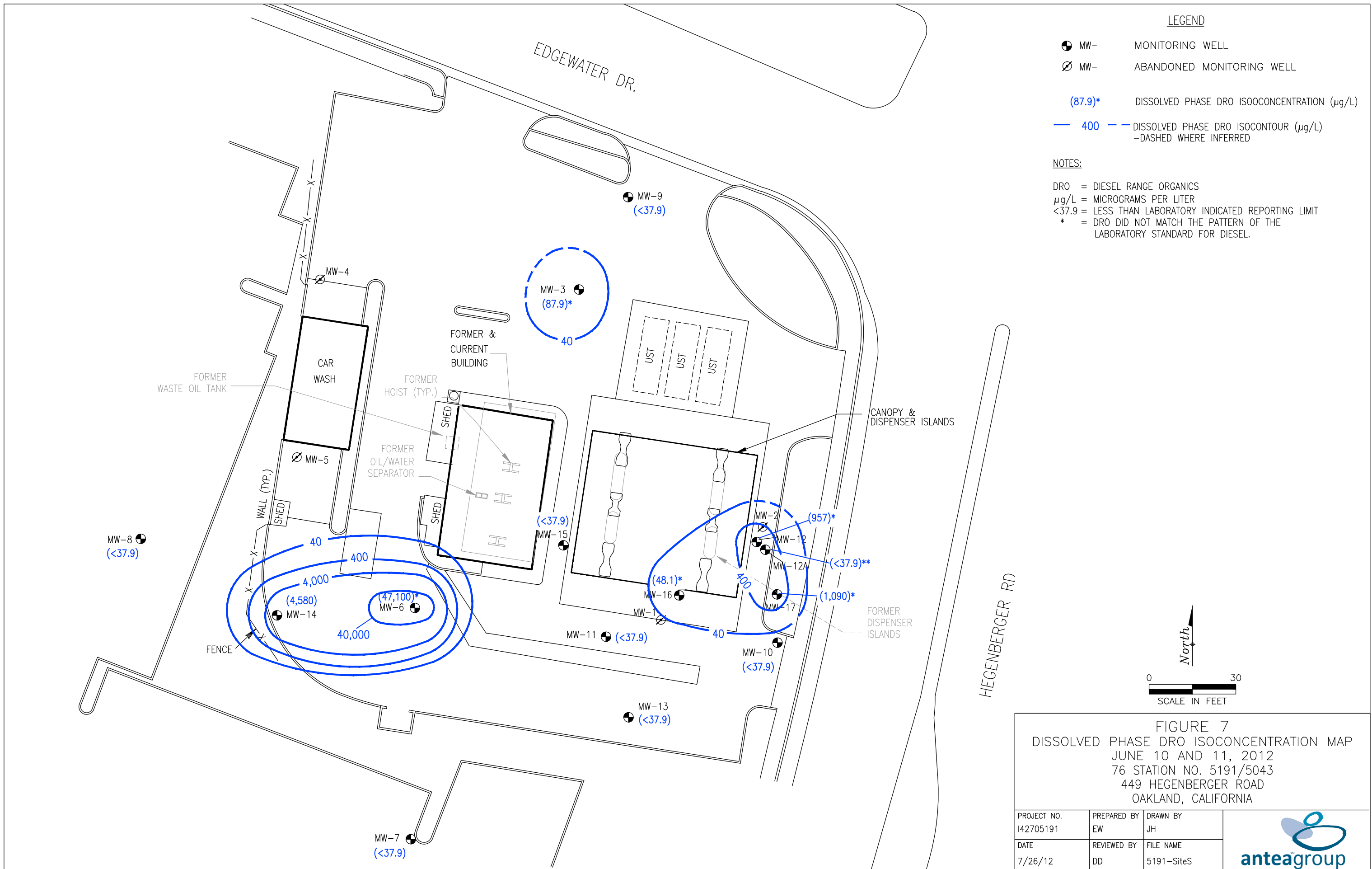


FIGURE 6
 DISSOLVED PHASE MTBE ISOCONCENTRATION MAP
 JUNE 11 AND 12, 2012
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. I42705191	PREPARED BY EW	DRAWN BY JH	
DATE 7/26/12	REVIEWED BY DD	FILE NAME 5191-SiteS	



LEGEND

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

NOTES:

DRO = DIESEL RANGE ORGANICS
 µg/L = MICROGRAMS PER LITER
 <37.9 = LESS THAN LABORATORY INDICATED REPORTING LIMIT
 * = DRO DID NOT MATCH THE PATTERN OF THE LABORATORY STANDARD FOR DIESEL.

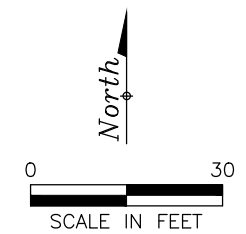


FIGURE 7
 DISSOLVED PHASE DRO ISOCONCENTRATION MAP
 JUNE 10 AND 11, 2012
 76 STATION NO. 5191/5043
 449 HEGENBERGER ROAD
 OAKLAND, CALIFORNIA

PROJECT NO. I42705191	PREPARED BY EW	DRAWN BY JH
DATE 7/26/12	REVIEWED BY DD	FILE NAME 5191-SiteS


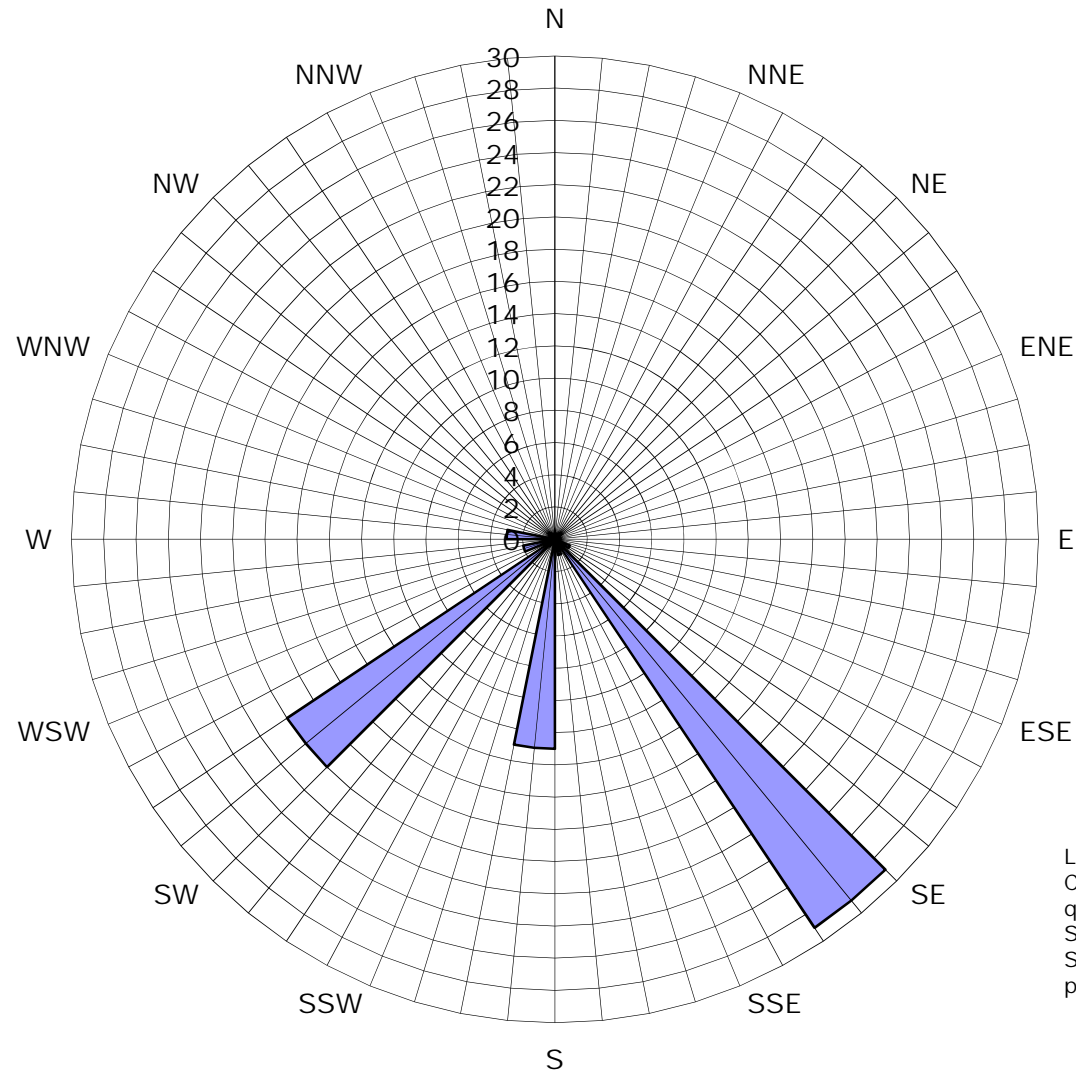


Figure 8
Historical Groundwater Flow Directions
76 Station No. 5191/5043
449 Hegenberger Road
Oakland, California



Legend
Concentric circles represent
quarterly monitoring events
Second Quarter 1992 through
Second Quarter 2012. 69 data
points shown

■ Groundwater Flow Direction

Tables

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Table 3a	Additional Historical Groundwater Analytical Data
Table 3b	Additional Historical Groundwater Analytical Data
Table 3c	Additional Historical Groundwater Analytical Data
Table 4	Historical Groundwater Gradient and Flow Direction Data

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

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

TABLE 2
CURRENT GROUNDWATER GAUGING AND ANALYTICAL DATA
76 Station No. 5191/5043
449 HEGENBERGER RD
OAKLAND, CALIFORNIA



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA													
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	TBA (ug/L)	Ethanol (ug/L)	Iron SW6010 T (ug/L)	Nitrate as N (ug/L)	Nitrite as N SM4500 (ug/L)	Nitrogen, NO2 plus NO3 (ug/L)	Sulfate E300 (ug/L)
MW-3	6/11/2012	10.81	2.99	NP	7.82	87.9 T4	371	<0.50	<0.50	<0.50	<1.5	55.7	77.2	<250	10,900	<50.0	<10	<50.0	<2000
MW-6	6/11/2012	11.55	3.33	NP	8.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	47,100 T4	33,400	773	60.8	840	3,110	11.4	123	<250	1,240	<50.0	<10	<50.0	1,110
MW-7	6/11/2012	11.64	4.93	NP	6.71	<37.9	<50	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<250	264	<50.0	67	111	56,900
MW-8	6/11/2012	11.32	3.08	NP	8.24	<37.9	<50	<0.50	<0.50	<0.50	<1.5	<0.50	8.3	<250	21,000	<50.0	48	<50.0	2,570,000
MW-9	6/11/2012	10.94	1.75	NP	9.19	<37.9	<50	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<250	731	<50.0	<10	<50.0	42,500
MW-10	6/11/2012	10.97	3.99	NP	6.98	<37.9	<50	0.79	<0.50	<0.50	<1.5	0.72	17.2	<250	11,300	1,510	57	1,570	70,100
MW-11	6/11/2012	10.53	2.24	NP	8.29	<37.9	<50	<0.50	<0.50	<0.50	<1.5	20.9	10.4	<250	1,300	88.8	<10	93.5	79,400
MW-12	6/11/2012	11.01	4.20	NP	6.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	957 T4	1,030	178	17.0	24.1	68.8	993	448	<250	497	<50.0	<10	<50.0	2,130,000
MW-12A	6/11/2012	11.29	4.36	NP	6.93	<37.9	<50	<0.50	<0.50	<0.50	<1.5	<0.50	<5.0	<250	859	4,250	<10	4,260	118,000
MW-13	6/11/2012	11.08	5.73	NP	5.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	<37.9	118 1n	<0.50	<0.50	<0.50	<1.5	220	81.7	<250	3,760	<50.0	19	<50.0	131,000
MW-14	6/11/2012	12.00	3.91	NP	8.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	4,580	15,700	1,200	14.0	1,580	3,010	1.4	23.3	<250	1,150	<50.0	<10	<50.0	439,000
MW-15	6/11/2012	11.11	2.84	NP	8.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	<37.9	74.3 1n	<0.50	<0.50	<0.50	<1.5	114	90.9	<250	2,920	<50.0	<10	<50.0	42,100
MW-16	6/11/2012	10.98	3.04	NP	7.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	48.1 T4	430 1n	<0.50	<0.50	<0.50	<1.5	1,100	374	<250	1,730	<50.0	<10	<50.0	19,900
MW-17	6/11/2012	11.52	4.67	NP	6.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	1,090 T4	4,950	2,340	123	153	610	<2.5	411	<1250	44,300	<50.0	39	<50.0	2,520,000

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

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

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



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-3	5/27/1997	7.42	3.45	NP	3.97	--	670	6.5	ND	ND	ND	250	--	--	--	--	--	--	--	--
	6/1/1997	7.42	3.50	NP	3.92	610	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/15/1997	8.04	3.71	NP	4.33	240	240	ND	ND	ND	ND	490	--	--	--	--	--	--	--	--
	10/9/1997	8.04	3.70	NP	4.34	500	270	1.1	ND	2.4	1.4	910	--	--	--	--	--	--	--	--
	1/14/1998	8.04	2.16	NP	5.88	340	310	ND	ND	0.62	0.65	140	--	--	--	--	--	--	--	--
	4/1/1998	8.04	2.20	NP	5.84	320	370	5.7	ND	ND	ND	93	--	--	--	--	--	--	--	--
	7/15/1998	8.04	3.38	NP	4.66	510	460	ND	ND	ND	ND	230	--	--	--	--	--	--	--	--
	10/16/1998	8.04	2.30	NP	5.74	67	330	4.7	ND	ND	ND	60	--	--	--	--	--	--	--	--
	1/25/1999	8.04	2.42	NP	5.62	120	420	1.5	ND	ND	ND	180	--	--	--	--	--	--	--	--
	4/15/1999	8.04	2.16	NP	5.88	170	290	0.54	ND	ND	ND	160	--	--	--	--	--	--	--	--
	7/14/1999	8.04	2.35	NP	5.69	420	290	3.2	ND	ND	ND	160	--	--	--	--	--	--	--	--
	10/21/1999	8.04	2.49	NP	5.55	350	360	0.77	ND	ND	ND	82	--	--	--	--	--	--	--	--
	1/20/2000	8.04	2.38	NP	5.66	2,060	ND	0.81	ND	ND	ND	54	--	--	--	--	--	--	--	--
	4/13/2000	8.04	2.76	NP	5.28	200	250	0.69	ND	ND	ND	91	150	ND	ND	ND	ND	ND	ND	ND
	7/14/2000	8.04	3.26	NP	4.78	423	345	ND	ND	ND	ND	94.7	--	--	--	--	--	--	--	--
	10/26/2000	8.04	3.12	NP	4.92	330	480	6.0	ND	ND	ND	120	--	--	--	--	--	--	--	--
	1/3/2001	8.04	3.65	NP	4.39	287	364	1.59	ND	ND	ND	118	--	--	--	--	--	--	--	--
	4/4/2001	8.04	3.98	NP	4.06	360	417	1.24	ND	ND	0.802	237	--	--	--	--	--	--	--	--
	7/17/2001	8.04	3.12	NP	4.92	270	480	ND	ND	ND	ND	150	--	--	--	--	--	--	--	--
	10/1/2001	8.04	3.25	NP	4.79	270	310	1.0	<0.50	<0.50	<0.50	53	--	--	--	--	--	--	--	--
	1/31/2002	8.04	2.27	NP	5.77	250	250	3.5	<1.0	<1.0	<1.0	110	--	--	--	--	--	--	--	--
	4/18/2002	8.04	3.55	NP	4.49	320	300	<2.0	<2.0	<2.0	<2.0	--	59	--	--	--	--	--	--	--
	7/28/2002	8.04	2.55	NP	5.49	310	500	<0.50	<0.50	<0.50	<1.0	--	130	--	--	--	--	--	--	--
	10/9/2002	8.04	2.47	NP	5.57	700	690	<5	<5	<5	<10	--	120	--	--	--	--	--	--	--
	1/2/2003	8.04	1.70	NP	6.34	210	310	<0.50	<0.50	<0.50	<1.0	--	110	<2.0	<2.0	<2.0	<100	<500	<2.0	<2.0
	4/1/2003	8.04	3.48	NP	4.56	200	250	<1.0	<1.0	<1.0	<2.0	--	210	--	--	--	--	--	--	--
	7/1/2003	8.04	2.65	NP	5.39	380	450	<2.5	<2.5	<2.5	<5.0	--	70	--	--	--	--	<2500	--	--
	10/2/2003	8.04	3.12	NP	4.92	300	<250	<2.5	<2.5	<2.5	<5.0	--	210	--	--	--	--	<2500	--	--
	1/9/2004	8.04	2.39	NP	5.65	200	300	<0.50	0.53	0.53	1.5	--	66	--	--	--	--	<500	--	--
	4/26/2004	8.04	3.11	NP	4.93	160	440	2.5	5.5	2.9	9.4	--	81	--	--	--	--	<50	--	--
	7/22/2004	8.04	2.51	NP	5.53	330	420	<0.5	<0.5	<0.5	<1	--	72	--	--	--	--	<1000	--	--
	10/29/2004	8.04	2.00	NP	6.04	200	460	5.6	15	15	46	--	48	--	--	--	--	<50	--	--
	1/10/2005	8.04	1.52	NP	6.52	250	280	<0.50	0.62	<0.50	2.4	--	64	--	--	--	--	<50	--	--
	6/15/2005	8.04	2.00	NP	6.04	360	460	<0.50	0.70	0.56	1.9	--	110	--	--	--	--	<50	--	--
9/27/2005	8.04	1.90	NP	6.14	<200	210	<0.50	0.60	<0.50	<1.0	--	100	<0.50	<0.50	<0.50	79	<250	--	--	
12/13/2005	8.04	2.35	NP	5.69	230	230	<0.50	<0.50	<0.50	<1.0	--	92	--	--	--	--	<250	--	--	
3/23/2006	8.04	1.84	NP	6.20	260	290	<0.50	<0.50	<0.50	<1.0	--	88	--	--	--	--	<250	--	--	
6/23/2006	8.04	2.26	NP	5.78	330	500	<0.50	<0.50	<0.50	<1.0	--	75	--	--	--	--	<250	--	--	
9/26/2006	8.04	2.08	NP	5.96	260	270	<0.50	<0.50	<0.50	<0.50	--	73	--	--	--	--	<250	--	--	
12/22/2006	8.04	1.88	NP	6.16	250	260	<0.50	<0.50	<0.50	1.2	--	71	--	--	--	--	<250	--	--	
3/30/2007	8.04	2.47	NP	5.57	210	390	<0.50	<0.50	<0.50	<0.50	--	120	--	--	--	--	<250	--	--	
6/28/2007	8.04	2.54	NP	5.50	290	370	<0.50	<0.50	<0.50	<0.50	--	55	--	--	--	--	<250	--	--	
9/25/2007	8.04	2.56	NP	5.48	210	350	<0.50	<0.50	<0.50	<0.50	--	61	--	--	--	--	<250	--	--	
12/28/2007	8.04	2.29	NP	5.75	150	260	<0.50	<0.50	<0.50	<1.0	--	66	--	--	--	--	<250	--	--	
3/22/2008	8.04	3.26	NP	4.78	230	390	<0.50	<0.50	<0.50	<1.0	--	39	--	--	--	--	<250	--	--	
6/23/2008	8.04	2.60	NP	5.44	130	200	<0.50	<0.50	<0.50	<1.0	--	46	--	--	--	--	<250	--	--	
9/19/2008	8.04	3.45	NP	4.59	93	180	<0.50	<0.50	<0.50	<1.0	--	120	--	--	--	--	<250	--	--	
12/31/2008	8.04	2.55	NP	5.49	110	190	<0.50	<0.50	<0.50	<1.0	--	38	--	--	--	--	<250	--	--	
3/27/2009	8.04	2.37	NP	5.67	130	150	<0.50	<0.50	<0.50	<1.0	--	50	--	--	--	--	<250	--	--	
5/28/2009	8.04	3.32	NP	4.72	120	190	<0.50	<0.50	<0.50	<1.0	--	60	--	--	--	--	<250	--	--	

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



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-6	10/21/1999	8.87	4.27	0.12	4.69	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	11/29/1999	8.87	4.18	NP	4.69	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/20/1999	8.87	4.26	0.01	4.62	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH	LPH
	1/20/2000	8.87	4.31	NP	4.56	67,600	130,000	2,900	8,600	2,000	16,000	ND	--	--	--	--	--	--	--	--
	2/26/2000	8.87	3.98	NP	4.89	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/31/2000	8.87	4.14	NP	4.73	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	4/13/2000	8.87	4.04	NP	4.83	8,700	140,000	5,000	14,000	3,600	27,000	7,700	--	--	--	--	--	--	--	--
	5/26/2000	8.87	4.41	NP	4.46	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/17/2000	8.87	4.35	NP	4.52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	7/14/2000	8.87	4.47	NP	4.40	133,000	259,000	7,670	13,700	6,860	40,700	ND	ND	--	--	--	--	--	--	--
	8/24/2000	8.87	3.71	NP	5.16	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/27/2000	8.87	4.33	NP	4.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	10/26/2000	8.87	4.32	NP	4.55	61,000	110,000	7,000	6,200	3,700	12,000	670	43	--	--	--	--	--	--	--
	1/3/2001	8.87	4.52	NP	4.35	929	84,700	3,950	4,130	3,650	11,800	ND	ND	--	--	--	--	--	--	--
	4/4/2001	8.87	4.29	NP	4.58	18,000	69,800	2,060	2,840	3,650	10,900	ND	47.8	ND	ND	ND	ND	ND	ND	ND
	7/17/2001	8.87	4.37	NP	4.50	20,000	100,000	3,200	3,300	3,400	12,000	ND	--	--	--	--	--	--	--	--
	10/1/2001	8.87	4.45	NP	4.42	24,000	110,000	3,200	2,400	4,500	13,000	<1000	--	--	--	--	--	--	--	--
	1/31/2002	8.87	4.03	NP	4.84	11,000	230,000	2,400	1,800	5,400	16,000	<2500	--	--	--	--	--	--	--	--
	4/18/2002	8.87	3.45	NP	5.42	3,500	94,000	6,800	13,000	3,000	19,000	<500	--	--	--	--	--	--	--	--
	7/28/2002	8.87	2.24	NP	6.63	27,000	110,000	530	170	3,200	7,300	--	<100	--	--	--	--	--	--	--
	10/9/2002	8.87	3.53	NP	5.34	170,000	970,000	10,000	39,000	13,000	94,000	--	<2000	--	--	--	--	--	--	--
	1/2/2003	8.87	2.34	NP	6.53	66,000	270,000	6,100	15,000	5,400	37,000	--	<200	--	--	--	--	--	--	--
	4/1/2003	8.87	3.17	NP	5.70	35,000	3,000,000	8,000	39,000	37,000	260,000	--	<2000	--	--	--	--	--	--	--
	7/1/2003	8.87	3.55	NP	5.32	11,000	38,000	2,100	990	2,700	6,500	--	<100	--	--	--	--	<25000	--	--
	10/2/2003	8.87	3.82	NP	5.05	<50	100,000	5,600	6,900	4,700	18,000	--	<800	--	--	--	--	<200000	--	--
	1/9/2004	8.87	2.80	NP	6.07	20,000	170,000	2,800	3,300	4,700	16,000	--	<200	--	--	--	--	<50000	--	--
	4/26/2004	8.87	3.40	NP	5.47	13,000	97,000	5,900	9,000	5,100	23,000	--	<50	--	--	--	--	<5000	--	--
	7/22/2004	8.87	3.54	NP	5.33	33,000	110,000	4,100	5,100	4,000	16,000	--	<200	--	--	--	--	<300000	--	--
	10/29/2004	8.87	3.03	NP	5.84	78,000	100,000	5,200	6,100	4,200	15,000	--	<50	--	--	--	--	<5000	--	--
	1/10/2005	8.87	2.35	NP	6.52	12,000	71,000	1,600	3,700	2,100	9,900	--	<50	--	--	--	--	<5000	--	--
	6/15/2005	8.87	2.47	NP	6.40	16,000	130,000	800	1,800	2,200	9,300	--	<50	--	--	--	--	<5000	--	--
	9/27/2005	8.87	2.55	NP	6.32	2,500	13,000	82	120	430	990	--	0.56	1.8	<0.50	<0.50	--	<10	<250	--
	12/13/2005	8.87	3.28	NP	5.59	18,000	68,000	1,500	1,100	2,200	7,700	--	<50	--	--	--	--	<25000	--	--
	3/23/2006	8.87	2.87	NP	6.00	73,000	41,000	290	140	1,500	2,700	--	<50	--	--	--	--	<25000	--	--
	6/23/2006	8.87	3.15	NP	5.72	35,000	50,000	2,200	1,400	1,900	5,700	--	<12	--	--	--	--	<6200	--	--
	9/26/2006	8.87	3.08	NP	5.79	22,000	130,000	2,200	1,000	2,900	8,800	--	<50	--	--	--	--	<25000	--	--
	12/22/2006	8.87	2.90	NP	5.97	62,000	90,000	940	610	1,900	4,700	--	<50	--	--	--	--	<25000	--	--
	3/30/2007	8.87	3.26	NP	5.61	62,000	210,000	1,100	560	3,400	12,000	--	<10	--	--	--	--	<5000	--	--
	6/28/2007	8.87	3.46	NP	5.41	71,000	67,000	2,200	1,300	2,700	10,000	--	<25	--	--	--	--	<12000	--	--
	9/25/2007	8.87	3.52	NP	5.35	58,000	56,000	2,900	720	2,400	9,000	--	<25	--	--	--	--	<12000	--	--
12/28/2007	8.87	3.27	NP	5.60	18,000	78,000	28,000	2,700	4,000	8,100	--	16,000	--	--	--	--	<12000	--	--	
3/22/2008	8.87	2.48	NP	6.39	68,000	66,000	380	150	1,500	2,400	--	<25	--	--	--	--	<12000	--	--	
6/23/2008	8.87	3.54	NP	5.33	68,000	59,000	1,600	130	1,800	4,100	--	25	--	--	--	--	<12000	--	--	
9/19/2008	8.87	4.06	NP	4.81	180,000	65,000	2,000	230	2,000	4,500	--	<12	--	--	--	--	<6200	--	--	
12/31/2008	8.87	3.45	NP	5.42	68,000	91,000	2,000	320	5,300	13,000	--	<50	--	--	--	--	<25000	--	--	
3/27/2009	8.87	3.09	NP	5.78	170,000	150,000	1,300	240	2,800	7,200	--	<50	--	--	--	--	<25000	--	--	
5/28/2009	8.87	3.49	NP	5.38	78,000	53,000	1,700	200	2,300	5,400	--	<50	--	--	--	--	<25000	--	--	
9/17/2009	8.87	3.64	NP	5.23	250000 T4	77,000	2,100	1,400	2,600	8,500	--	<12	--	--	--	--	<6200	--	--	
12/17/2009	8.87	3.14	NP	5.73	30,300	59,100	1,730	199	2,260	5,460	--	20.3	--	--	--	--	<250	--	--	
3/29/2010	8.87	3.16	NP	5.71	106,000	48,400	1,980	208	3,070	8,070	--	12.1	--	--	--	--	<250	--	--	

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



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA															
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	
MW-6	6/30/2010	11.55	3.50	NP	8.05	170,000	78,700	2,130	281	2,860	8,400	--	5.8	--	--	--	--	<250	--	--	
	7/6/2010	11.55	3.49	NP	8.06	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/20/2010	11.55	3.75	NP	7.80	18,800	64,500	2,300	170	2,770	6,260	--	19.3	--	--	--	--	<250	--	--	
	12/8/2010	11.55	8.42	NP	3.13	28,700	78,400	1,300	1,680	3,490	20,600	--	11.3	--	--	--	--	<250	--	--	
	3/14/2011	11.55	3.40	NP	8.15	93,000	44,600	912	338	728	3,670	--	16.3	--	--	--	134	<250	--	--	
	6/2/2011	11.55	2.76	NP	8.79	33,700 T4	56,200	780	262	651	3,890	--	6.7	--	--	--	81.0	<250	--	--	
	9/7/2011	11.55	2.83	NP	8.72	6,780 T4	16,600	16	11	90	339	--	<0.50	--	--	--	--	<250	--	--	
	12/5/2011	11.55	3.56	NP	7.99	20,200 T4	64,600	646	95	924	4,050	--	14.9	--	--	--	--	<250	--	--	
	3/6/2012	11.55	3.43	NP	8.12	14,800 T4	55,000	1,020	131	1,320	4,730	--	18.5	--	--	--	316	<1250	--	--	
	6/11/2012	11.55	3.33	NP	8.22	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/12/2012	--	--	--	--	47,100 T4	33,400	773	60.8	840	3,110	--	11.4	--	--	--	123	<250	--	--		
MW-7	5/27/1997	8.83	4.50	NP	4.33	--	68	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	6/1/1997	8.83	4.54	NP	4.29	69	--	--	--	--	--	--	--	--	--	--	--	--	--		
	7/15/1997	8.83	4.70	NP	4.13	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	10/9/1997	8.83	4.30	NP	4.53	190	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	1/14/1998	8.83	2.88	NP	5.95	65	ND	ND	ND	ND	ND	36	--	--	--	--	--	--	--		
	4/1/1998	8.83	3.13	NP	5.70	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	7/15/1998	8.83	4.45	NP	4.38	74	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	10/16/1998	8.83	3.45	NP	5.38	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	1/25/1999	8.83	3.22	NP	5.61	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	4/15/1999	8.83	3.11	NP	5.72	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	7/14/1999	8.83	3.34	NP	5.49	69	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	10/21/1999	8.83	3.43	NP	5.40	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	1/20/2000	8.83	3.29	NP	5.54	ND	ND	ND	ND	ND	ND	4.2	--	--	--	--	--	--	--		
	4/13/2000	8.83	3.39	NP	5.44	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	7/14/2000	8.83	4.42	NP	4.41	68.0	ND	ND	ND	ND	ND	7.83	--	--	--	--	--	--	--		
	7/17/2001	8.83	5.06	NP	3.77	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--		
	10/1/2001	8.83	4.98	NP	3.85	<51	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	--	--	--	--		
	1/31/2002	8.83	3.88	NP	4.95	90	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--		
	4/18/2002	8.83	4.03	NP	4.80	78	<50	<0.50	<0.50	<0.50	<0.50	5.7	--	--	--	--	--	--	--		
	7/28/2002	8.83	3.59	NP	5.24	<50	<50	<0.50	<0.50	<0.50	<1.0	--	3.9	--	--	--	--	--	--		
	10/9/2002	8.83	4.53	NP	4.30	<96	<50	<0.50	<0.50	<0.50	<1.0	--	3.9	--	--	--	--	--	--		
	1/3/2003	8.83	3.36	NP	5.47	78	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--		
	4/1/2003	8.83	3.94	NP	4.89	67	71	<0.50	<0.50	0.71	<1.0	--	3.4	--	--	--	--	--	--		
	7/1/2003	8.83	4.60	NP	4.23	68	64	<0.50	<0.50	0.77	2.0	--	35	--	--	--	--	<500	--		
	10/2/2003	8.83	5.46	NP	3.37	82	<50	<0.50	<0.50	<0.50	<1.0	--	4.9	--	--	--	--	<500	--		
	1/9/2004	8.83	3.55	NP	5.28	75	54	<0.50	<0.50	<0.50	<1.0	--	2.4	--	--	--	--	<500	--		
	4/26/2004	8.83	4.49	NP	4.34	<50	<50	<0.50	<0.50	<0.50	1.5	--	2.3	--	--	--	--	<50	--		
	7/22/2004	8.83	4.93	NP	3.90	<200	82	0.90	2.0	3.5	9.9	--	1.4	--	--	--	--	<1000	--		
	10/29/2004	8.83	3.71	NP	5.12	54	210	0.67	1.6	1.7	5.8	--	<0.50	--	--	--	--	<50	--		
	1/10/2005	8.83	2.77	NP	6.06	<50	74	0.51	2.2	1.7	7.0	--	<0.50	--	--	--	--	<50	--		
	6/15/2005	8.83	3.40	NP	5.43	<50	<50	<0.50	<0.50	<0.50	<1.0	--	0.88	--	--	--	--	<50	--		
	9/27/2005	8.83	3.44	NP	5.39	<200	<50	0.59	1.2	<0.50	<1.0	--	0.96	<0.50	<0.50	<0.50	<10	<250	--		
	12/13/2005	8.83	3.98	NP	4.85	<200	<50	<0.50	<0.50	<0.50	<1.0	--	0.65	--	--	--	--	<250	--		
	3/23/2006	8.83	3.37	NP	5.46	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--		
	6/23/2006	8.83	5.25	NP	3.58	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--		
	9/26/2006	8.83	4.13	NP	4.70	<50	<50	<0.50	<0.50	<0.50	<0.50	--	0.77	--	--	--	--	<250	--		
12/22/2006	8.83	3.63	NP	5.20	630	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--			
3/30/2007	8.83	4.31	NP	4.52	94	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--			
6/28/2007	8.83	4.62	NP	4.21	<50	<50	<0.50	<0.50	<0.50	<0.50	--	0.54	--	--	--	--	<250	--			
9/25/2007	8.83	4.65	NP	4.18	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--			
12/28/2007	8.83	3.99	NP	4.84	75	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--			
3/22/2008	8.83	4.08	NP	4.75	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--			

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



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA															
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	
MW-7	6/23/2008	8.83	4.10	NP	4.73	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	9/19/2008	8.83	4.86	NP	3.97	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	12/31/2008	8.83	4.17	NP	4.66	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	3/27/2009	8.83	4.00	NP	4.83	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	5/28/2009	8.83	4.71	NP	4.12	<50	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
	9/17/2009	8.83	4.87	NP	3.96	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/29/2010	8.83	WI	WI	WI	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/30/2010	11.64	4.45	NP	7.19	66.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	
	7/6/2010	11.64	4.63	NP	7.01	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	11.64	4.85	NP	6.79	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/8/2010	11.64	3.99	NP	7.65	57.7	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	
	3/14/2011	11.64	3.81	NP	7.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/2/2011	11.64	3.90	NP	7.74	63.0 T4	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--	
	9/7/2011	11.64	3.72	NP	7.92	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12/5/2011	11.64	4.60	NP	7.04	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--		
3/6/2012	11.64	4.54	NP	7.10	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/11/2012	11.64	4.93	NP	6.71	<37.9	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--		
MW-8	5/27/1997	8.52	3.42	NP	5.10	--	310	0.88	0.67	15	70	ND	--	--	--	--	--	--	--	--	
	6/1/1997	8.52	3.46	NP	5.06	320	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	7/15/1997	8.52	3.49	NP	5.03	ND	ND	ND	ND	2.7	3.8	ND	--	--	--	--	--	--	--	--	
	10/9/1997	8.52	3.73	NP	4.79	390	590	1.4	ND	32	4.1	ND	--	--	--	--	--	--	--	--	
	1/14/1998	8.52	1.92	NP	6.60	230	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	4/1/1998	8.52	2.38	NP	6.14	510	ND	ND	ND	ND	ND	4.7	--	--	--	--	--	--	--	--	
	7/15/1998	8.52	3.53	NP	4.99	140	ND	ND	ND	0.56	1.1	ND	--	--	--	--	--	--	--	--	
	10/16/1998	8.52	3.04	NP	5.48	170	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	1/25/1999	8.52	2.92	NP	5.60	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	4/15/1999	8.52	2.40	NP	6.12	91	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	7/14/1999	8.52	3.03	NP	5.49	120	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	10/21/1999	8.52	3.11	NP	5.41	110	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	1/20/2000	8.52	3.06	NP	5.46	583	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	4/13/2000	8.52	2.84	NP	5.68	80	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	7/14/2000	8.52	3.39	NP	5.13	113	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	7/17/2001	8.52	3.46	NP	5.06	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--	--	
	10/1/2001	8.52	3.51	NP	5.01	<50	<50	<0.50	<0.50	<0.50	<0.50	<5.0	--	--	--	--	--	--	--	--	
	1/31/2002	8.52	2.75	NP	5.77	260	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--	
	4/18/2002	8.52	2.98	NP	5.54	160	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--	--	--	--	--	--	--	--	
	7/28/2002	8.52	2.41	NP	6.11	140	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	
	10/9/2002	8.52	2.09	NP	6.43	120	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	
	1/2/2003	8.52	1.98	NP	6.54	210	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	
	4/1/2003	8.52	2.66	NP	5.86	220	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--	
	7/1/2003	8.52	3.08	NP	5.44	170	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--	
	10/2/2003	8.52	3.89	NP	4.63	350	540	3.9	15	29	80	--	<2.0	--	--	--	--	<500	--	--	
	1/9/2004	8.52	2.38	NP	6.14	180	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--	
	4/26/2004	8.52	2.89	NP	5.63	100	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--	
	7/22/2004	8.52	3.25	NP	5.27	250	<50	<0.5	<0.5	<0.5	<1	--	<0.5	--	--	--	--	<1000	--	--	
	10/29/2004	8.52	3.06	NP	5.46	120	<50	<0.50	<0.50	0.82	2.5	--	<0.50	--	--	--	--	<50	--	--	
	1/10/2005	8.52	1.92	NP	6.60	140	58	<0.50	0.61	1.2	4.0	--	<0.50	--	--	--	--	<50	--	--	
6/15/2005	8.52	2.22	NP	6.30	140	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--		
9/27/2005	8.52	2.43	NP	6.09	<200	<50	<0.50	<0.50	1.2	<1.0	--	<0.50	<0.50	<0.50	<0.50	<10	<250	--	--		
12/13/2005	8.52	2.89	NP	5.63	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--		
3/23/2006	8.52	2.12	NP	6.40	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--		
6/23/2006	8.52	2.65	NP	5.87	<230	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--		

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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)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-10	1/14/1998	8.62	2.66	NP	5.96	--	59	9.5	0.85	1.2	1.7	4.5	--	--	--	--	--	--	--	--
	4/1/1998	8.62	3.45	NP	5.17	62	230	66	1.7	12	17	6.4	--	--	--	--	--	--	--	--
	7/15/1998	8.62	4.21	NP	4.41	78	290	98	45	21	38	21	--	--	--	--	--	--	--	--
	10/16/1998	8.62	4.11	NP	4.51	ND	160	44	0.96	2.5	10	17	--	--	--	--	--	--	--	--
	1/25/1999	8.62	3.26	NP	5.36	ND	140	27	ND	2.8	6.8	23	--	--	--	--	--	--	--	--
	4/15/1999	8.62	3.63	NP	4.99	ND	120	18	ND	1.8	5.1	14	--	--	--	--	--	--	--	--
	7/14/1999	8.62	3.89	NP	4.73	180	280	55	3.2	11	31	6.1	--	--	--	--	--	--	--	--
	10/21/1999	8.62	4.09	NP	4.53	96	140	22	0.59	1.7	7.7	5.3	--	--	--	--	--	--	--	--
	1/20/2000	8.62	3.92	NP	4.70	252	ND	0.73	0.86	ND	ND	5.2	--	--	--	--	--	--	--	--
	4/13/2000	8.62	3.85	NP	4.77	69	67	54	ND	2.6	ND	3.8	--	--	--	--	--	--	--	--
	7/14/2000	8.62	4.18	NP	4.44	149	ND	0.547	ND	ND	ND	ND	--	--	--	--	--	--	--	--
	10/26/2000	8.62	3.96	NP	4.66	83	ND	3.3	ND	0.83	1.5	ND	--	--	--	--	--	--	--	--
	1/3/2001	8.62	4.14	NP	4.48	126	52.7	5.15	ND	0.823	1.57	ND	--	--	--	--	--	--	--	--
	4/4/2001	8.62	3.88	NP	4.74	75	129	28.1	1.67	4.97	10.1	ND	--	--	--	--	--	--	--	--
	7/17/2001	8.62	4.08	NP	4.54	ND	ND	4.1	ND	1.0	1.8	ND	--	--	--	--	--	--	--	--
	10/1/2001	8.62	4.22	NP	4.40	100	140	30	0.51	4.0	12	<5.0	--	--	--	--	--	--	--	--
	1/31/2002	8.62	3.68	NP	4.94	170	110	16	<0.50	2.3	5.6	<2.5	--	--	--	--	--	--	--	--
	4/18/2002	8.62	4.01	NP	4.61	130	<50	11	<0.50	1.4	4.5	<2.5	--	--	--	--	--	--	--	--
	7/28/2002	8.62	4.11	NP	4.51	58	67	15	<0.50	0.94	7.3	--	<2.0	--	--	--	--	--	--	--
	10/9/2002	8.62	3.97	NP	4.65	<94	<50	0.67	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	1/2/2003	8.62	3.03	NP	5.59	64	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	4/1/2003	8.62	3.83	NP	4.79	76	<50	11	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	--	--	--
	7/1/2003	8.62	4.13	NP	4.49	87	<50	<0.50	<0.50	<0.50	<1.0	--	<2.0	--	--	--	--	<500	--	--
	10/2/2003	8.62	4.05	NP	4.57	160	77	9.9	0.78	2.3	4.9	--	<2.0	--	--	--	--	<500	--	--
	1/9/2004	8.62	3.40	NP	5.22	74	53	1.2	<0.50	0.70	1.6	--	<2.0	--	--	--	--	<500	--	--
	4/26/2004	8.62	3.89	NP	4.73	<50	<50	2.8	1.3	1.0	2.9	--	<0.50	--	--	--	--	<50	--	--
	7/22/2004	8.62	3.73	NP	4.89	<200	<50	<0.5	<0.5	<0.5	<1	--	<0.5	--	--	--	--	<1000	--	--
	10/29/2004	8.62	3.41	NP	5.21	<50	100	2.0	1.2	1.1	3.6	--	<0.50	--	--	--	--	<50	--	--
	1/10/2005	8.62	2.68	NP	5.94	94	84	7.8	2.7	2.2	8.9	--	<0.50	--	--	--	--	<50	--	--
	6/15/2005	8.62	4.63	NP	3.99	62	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<50	--	--
	9/27/2005	8.62	3.96	NP	4.66	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	<0.50	<0.50	<0.50	<10	<250	--	--
	12/13/2005	8.62	3.75	NP	4.87	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	3/23/2006	8.62	3.13	NP	5.49	<200	50	13	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	6/23/2006	8.62	3.90	NP	4.72	<200	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--
	9/26/2006	8.62	3.66	NP	4.96	<50	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--
12/22/2006	8.62	3.56	NP	5.06	81	<50	<0.50	<0.50	<0.50	1.8	--	<0.50	--	--	--	--	<250	--	--	
3/30/2007	8.62	3.93	NP	4.69	82	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--	
6/28/2007	8.62	4.03	NP	4.59	57	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--	
9/25/2007	8.62	3.91	NP	4.71	82	<50	<0.50	<0.50	<0.50	<0.50	--	<0.50	--	--	--	--	<250	--	--	
12/28/2007	8.62	3.64	NP	4.98	62	<50	2.1	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
3/22/2008	8.62	4.00	NP	4.62	<50	64	13	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
6/23/2008	8.62	3.90	NP	4.72	<50	94	30	0.53	3.4	3.5	--	<0.50	--	--	--	--	<250	--	--	
9/19/2008	8.62	3.85	NP	4.77	<50	130	15	1.7	5.7	11	--	<0.50	--	--	--	--	<250	--	--	
12/31/2008	8.62	3.69	NP	4.93	<50	82	11	<0.50	0.81	1.7	--	<0.50	--	--	--	--	<250	--	--	
3/27/2009	8.62	3.75	NP	4.87	730	210	28	1.4	1.2	3.9	--	<0.50	--	--	--	--	<250	--	--	
5/28/2009	8.62	3.66	NP	4.96	<50	<50	0.91	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
9/17/2009	8.62	3.85	NP	4.77	65	<50	<0.50	<0.50	<0.50	<1.0	--	<0.50	--	--	--	--	<250	--	--	
12/17/2009	8.62	3.00	NP	5.62	57.7	<50.0	1.2	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	
3/29/2010	8.62	3.81	NP	4.81	82.2	<50.0	0.77	<0.50	<0.50	3.4	--	<0.50	--	--	--	--	<250	--	--	
6/30/2010	10.97	3.90	NP	7.07	53.4	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--	

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



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA														
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)
MW-10	7/6/2010	10.97	3.73	NP	7.24	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	9/20/2010	10.97	3.85	NP	7.12	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	12/8/2010	10.97	3.63	NP	7.34	<50.0	<50.0	1.8	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/14/2011	10.97	3.46	NP	7.51	63.3	<50.0	1.1	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	6/2/2011	10.97	3.92	NP	7.05	<50.0	58.7	4.8	4.2	0.96	5.1	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	10.97	4.06	NP	6.91	<50.0	<50.0	4.1	<0.50	0.66	2.4	--	<0.50	--	--	--	--	<250	--	--
	12/5/2011	10.97	3.82	NP	7.15	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/6/2012	10.97	3.74	NP	7.23	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	58.7	<250	--	--
6/11/2012	10.97	3.99	NP	6.98	<37.9	<50.0	0.79	<0.50	<0.50	<1.5	--	0.72	--	--	--	17.2	--	--	--	
MW-11	7/6/2010	10.53	2.44	NP	8.09	226	99.2	<0.50	<0.50	<0.50	<1.5	--	165	<0.50	<0.50	<0.50	174	<250	<1.0	<1.0
	9/20/2010	10.53	2.80	NP	7.73	<50.0	76.4 1n	<0.50	<0.50	<0.50	<1.5	--	82.7	--	--	--	--	<250	--	--
	12/8/2010	10.53	1.90	NP	8.63	52.7	<50.0	<0.50	<0.50	<0.50	<1.5	--	59.1	--	--	--	--	<250	--	--
	3/14/2011	10.53	1.89	NP	8.64	67.8	<50.0	<0.50	<0.50	<0.50	<1.5	--	44.0	--	--	--	<5.0	<250	--	--
	6/2/2011	10.53	1.75	NP	8.78	69.0 T4	<50.0	<0.50	0.61	<0.50	<1.5	--	24.9	--	--	--	7.1	<250	--	--
	9/7/2011	10.53	1.56	NP	8.97	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	3.8	--	--	--	--	<250	--	--
	12/5/2011	10.53	2.05	NP	8.48	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	26.4	--	--	--	--	<250	--	--
	3/6/2012	10.53	2.31	NP	8.22	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	35.3	--	--	--	5.7	<250	--	--
6/11/2012	10.53	2.24	NP	8.29	<37.9	<50.0	<0.50	<0.50	<0.50	<1.5	--	20.9	--	--	--	10.4	<250	--	--	
MW-12	7/6/2010	11.01	4.00	NP	7.01	990	20,300	1,030	955	311	2,450	--	1,650	<0.50	<0.50	1.0	1430	<250	<1.0	<1.0
	9/20/2010	11.01	4.18	NP	6.83	5,220	73,700	6,020	6,390	2,970	18,300	--	894	--	--	--	--	<250	--	--
	12/8/2010	11.01	3.92	NP	7.09	428	3,350	249	117	90	558	--	1,470	--	--	--	--	<2500	--	--
	3/14/2011	11.01	3.70	NP	7.31	283	2,420	287	81	49	243	--	1,020	--	--	--	69.6	<250	--	--
	6/2/2011	11.01	4.40	NP	6.61	1,330 T4	12,200	688	71	225	619	--	824	--	--	--	110	<250	--	--
	9/7/2011	11.01	4.37	NP	6.64	1,270 T4	7,900	920	25	187	267	--	896	--	--	--	--	<2500	--	--
	12/5/2011	11.01	4.32	NP	6.69	286 T4	2,240	296	38	38.0	122	--	1,040	--	--	--	--	<250	--	--
	3/6/2012	11.01	4.01	NP	7.00	272 T4	1,260	193	23	29	81	--	835	--	--	--	78.4	<250	--	--
6/11/2012	11.01	4.20	NP	6.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/12/2012	--	--	--	--	957 T4	1,030	178	17.0	24.1	68.8	--	993	--	--	--	448	<250	--	--	
MW-12A	7/6/2010	11.29	4.22	NP	7.07	89.3	664	18.3M0	0.78	2.3	50.2M0	--	14.3M0	<0.50	<0.50	<0.50	11.9M0	<250	<1.0	<1.0
	9/20/2010	11.29	4.39	NP	6.90	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	8.5	--	--	--	--	<250	--	--
	12/8/2010	11.29	4.00	NP	7.29	76.4	<50.0	<0.50	<0.50	<0.50	<1.5	--	9.4	--	--	--	--	<250	--	--
	3/14/2011	11.29	3.81	NP	7.48	61.5	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	6/2/2011	11.29	4.20	NP	7.09	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
	9/7/2011	11.29	4.42	NP	6.87	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	0.74	--	--	--	--	<250	--	--
	12/5/2011	11.29	4.30	NP	6.99	<50.0	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	--	<250	--	--
	3/6/2012	11.29	4.32	NP	6.97	52.0 T4	<50.0	<0.50	<0.50	<0.50	<1.5	--	<0.50	--	--	--	<5.0	<250	--	--
6/11/2012	11.29	4.36	NP	6.93	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
MW-13	7/6/2010	11.08	4.26	NP	6.82	469	122	<0.50	<0.50	<0.50	<1.5	--	217	<0.50	<0.50	<0.50	199	<250	<1.0	<1.0
	9/20/2010	11.08	4.81	NP	6.27	<50.0	250 1n	<0.50	<0.50	<0.50	<1.5	--	272	--	--	--	--	<250	--	--
	12/8/2010	11.08	5.02	NP	6.06	97.0	177 1n	<0.50	<0.50	<0.50	<1.5	--	390	--	--	--	--	<250	--	--
	3/14/2011	11.08	4.32	NP	6.76	162	127	<0.50	<0.50	<0.50	<1.5	--	241	--	--	--	125	<250	--	--
	6/2/2011	11.08	3.98	NP	7.10	89.9 T4	260 1n	<0.50	<0.50	<0.50	<1.5	--	228	--	--	--	44.7	<250	--	--
	9/7/2011	11.08	5.74	NP	5.34	<50.0	167	<0.50	<0.50	<0.50	<1.5	--	207	--	--	--	--	<250	--	--
	12/5/2011	11.08	5.00	NP	6.08	<50.0	166 1n	<0.50	<0.50	<0.50	<1.5	--	215	--	--	--	--	<250	--	--
	3/6/2012	11.08	5.37	NP	5.71	<50.0	63.9 1n	<0.50	<0.50	<0.50	<1.5	--	110	--	--	--	38.5	<250	--	--
6/11/2012	11.08	5.73	NP	5.35	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/12/2012	--	--	--	--	<37.9	118 1n	<0.50	<0.50	<0.50	<1.5	--	220	--	--	--	81.7	<250	--	--	

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



Well I.D.	Date	GROUNDWATER GAUGING DATA				GROUNDWATER ANALYTICAL DATA															
		TOC Elevation (ft)	Depth to Water (ft)	LNAPL Thickness (ft)	Water Elevation* (ft)	DRO (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (SW8021B) (ug/L)	MTBE (SW8260B) (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	Ethanol (ug/L)	1,2-Dibromoethane (EDB) (ug/L)	1,2-Dichloroethane (ug/L)	
MW-14	6/2/2011	12.00	3.58	NP	8.42	4,180 T4	51,600	2,750	68	1,790	13,400	--	1.9	--	--	--	27.2	<250	--	--	
	9/7/2011	12.00	3.02	NP	8.98	2,970 T4	42,600	1,050	28	2,990	7,300	--	<25.0	--	--	--	--	<12500	--	--	
	12/5/2011	12.00	4.05	NP	7.95	3,980 T4	14,000	709	9	1,420	2,530	--	0.97	--	--	--	--	<250	--	--	
	3/6/2012	12.00	3.94	NP	8.06	3,640 T4	16,600	959	15.0	2,330	3,830	--	<2.5	--	--	--	28.1	<1250	--	--	
	6/11/2012	12.00	3.91	NP	8.09	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	4,580	15,700	1,200	14.0	1,580	3,010	--	1.4	--	--	--	23.3	<250	--	--	
MW-15	6/2/2011	11.11	2.50	NP	8.61	124 T4	357	<0.50	<0.50	<0.50	<1.5	--	15.2	--	--	--	6.4	<250	--	--	
	9/7/2011	11.11	2.54	NP	8.57	<50.0	412	6.2	<0.50	42.8	<1.5	--	128	--	--	--	--	<250	--	--	
	12/5/2011	11.11	2.70	NP	8.41	50.5 T4	201	6.6	<0.50	0.93	<1.5	--	142	--	--	--	--	<250	--	--	
	3/6/2012	11.11	2.69	NP	8.42	56.2 T4	<50.0	<0.50	<0.50	<0.50	<1.5	--	106	--	--	--	101	<250	--	--	
	6/11/2012	11.11	2.84	NP	8.27	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/12/2012	--	--	--	--	<37.9	74.3 1n	<0.50	<0.50	<0.50	<1.5	--	114	--	--	--	90.9	<250	--	--	
MW-16	6/2/2011	10.98	3.00	NP	7.98	509 T4	1,420 1n	79.4	<0.50	4.2	<1.5	--	1,200	--	--	--	257	<250	--	--	
	9/7/2011	10.98	2.65	NP	8.33	90.0 T4	934	<0.50	<0.50	<0.50	<1.5	--	1,240	--	--	--	--	<250	--	--	
	12/5/2011	10.98	3.18	NP	7.80	196 T4	948 1n	<0.50	<0.50	<0.50	<1.5	--	1,320	--	--	--	--	<250	--	--	
	3/6/2012	10.98	2.91	NP	8.07	204 T4	392 1n	<0.50	<0.50	<0.50	<1.5	--	1,090	--	--	--	134	<250	--	--	
	6/11/2012	10.98	3.04	NP	7.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/12/2012	--	--	--	--	48.1 T4	430 1n	<0.50	<0.50	<0.50	<1.5	--	1,100	--	--	--	374	<250	--	--	
MW-17	6/2/2011	11.52	5.78	NP	5.74	687 T4	9,130	2,530	960	35	907	--	0.74	--	--	--	366	<250	--	--	
	9/7/2011	11.52	4.56	NP	6.96	1,900 T4	47,200	9,620	5,510	1,210	4,510	--	<25.0	--	--	--	--	<12500	--	--	
	12/5/2011	11.52	4.70	NP	6.82	1,790 T4	17,300	4,720	511	238	747	--	<2.5	--	--	--	--	<1250	--	--	
	3/6/2012	11.52	4.64	NP	6.88	1,530 T4	1,580	2,090	24	39	166	--	1.1	--	--	--	481	<250	--	--	
	6/11/2012	11.52	4.67	NP	6.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/12/2012	--	--	--	--	1,090 T4	4,950	2,340	123	153	610	--	<2.5	--	--	--	411	<1250	--	--	

Gauging Notes:
 TOC - Top of Casing
 ft - Feet
 NP - LNAPL not present
 LNAPL - Light non-aqueous phase liquid
 * - Corrected for LNAPL if present (assumes LNAPL specific gravity = 0.75)
 NG - Not gauged
 WD - Well Destroyed
 WI - Well Inaccessible
 WO - Well Obstruction
 NSVD - Not surveyed
 -- - No information available

Analytical Notes:
 -- - No information available
 < - Below the laboratory's indicated 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
 DRO- diesel range organics
 TPHg- Total Petroleum hydrocarbons as gasoline
 MTBE- Methyl tertiary-butyl ether
 DIPE- Di-isopropyl ether
 ETBE- Ethyl tertiary-butyl ether
 TAME- Tertiary-amyl methyl ether
 TBA- Tertiary-butyl alcohol
Bold - Above the laboratory's indicated reporting limit
 1n - The TPHg result for this sample did not match the laboratory standard for gasoline. This is likely due to the presence of MTBE in the sample.
 T4- Result reported for the hydrocarbons within the method-specific range that do not match pattern of laboratory standard.

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



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																			
		Acetone (ug/L)	Alkalinity, Bicarbonate (mg/L)	Alkalinity, Hydroxide (CaCO) (mg/L)	Alkalinity, Total A2320B (mg/L)	Alkalinity, Total as CaCO3 (mg/L)	Antimony SW6010 D (ug/L)	Arsenic SW6010 D (ug/L)	Barium SW6010 D (ug/L)	Beryllium SW6010 D (ug/L)	Biochemical Oxygen Demand (ug/L)	Bromate (mg/L)	Bromide (mg/L)	Cadmium SW6010 D (ug/L)	Chemical Oxygen Demand (ug/L)	Chloride (ug/L)	Chromium (ug/L)	Chromium, Hexavalent (ug/L)	Cobalt SW6010 D (ug/L)	Coliform, Total (MPN/100ML)	E. Coli (MPN/100ML)
MW-6	3/14/2011	18.4	--	--	--	--	<60.0	22.7	216	<5.0	32,200	--	--	<5.0	173,000	204,000	--	--	<50.0	--	--
	6/2/2011	<5.0	828	<1	828	<1	<60.0	22.0	191	<5.0	45,100	<0.005	2.1	<5.0	121,000	149,000	4.3	<2	<50.0	42000	<100
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-9	3/14/2011	<5.0	--	--	--	--	<60.0	<20.0	<100	<5.0	7,160	--	--	<5.0	11,500	34,700	--	--	<50.0	--	--
	6/2/2011	<5.0	226	<1	226	<1	<60.0	<20.0	<100	<5.0	4,170	<0.005	2	<5.0	15,100	32,400	2.4	<0.2	<50.0	2	<1
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MW-12	3/14/2011	<5.0	--	--	--	--	<60.0	<20.0	<100	<5.0	<2000	--	--	<5.0	80,100	8,240,000	--	--	<50.0	--	--
	6/2/2011	<5.0	905	<1	905	<1	<60.0	<20.0	<100	<5.0	7,240	<0.05	33	<5.0	191,000	7,260,000	3.3	<2	<50.0	210	<1
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/12/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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

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



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																				
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Manganese SW6010 D (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum SW6010 D (ug/L)	Nickel SW6010 D (ug/L)	Nitrate as N (ug/L)	Nitrite as N E353/E351 (ug/L)	Nitrite as N SM4500 (ug/L)	Nitrogen, Ammonia (mg/L)	Nitrogen, NO2 plus NO3 (ug/L)	Nitrogen, Total Kjeldahl (mg/L)	Oil and Grease (ug/L)	Salinity (mg/L)	Selenium SW6010 D (ug/L)	
MW-8	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/11/2012	--	--	21,000	--	--	--	--	--	--	--	--	<50.0	--	48	--	<50.0	--	--	--	--	
MW-9	12/17/2009	--	--	2270	--	--	--	--	--	--	--	--	<50.0	<50.0	--	--	<50.0	--	--	--	--	
	3/29/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/30/2010	--	3,210	8,820	--	--	--	--	--	--	--	--	<50.0	--	14.9	--	<50.0	--	--	--	--	
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/20/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	1,560	157	1,400	<10.0	148	<0.20	419	<20.0	<40.0	<50.0	--	<10.0	--	<50.0	--	--	--	<10.0	
	6/2/2011	240	--	1,260	1,060	200	<10.0	91.5	<0.20	673	<20.0	<40.0	<50.0	--	<10.0	0.86	<50.0	0.6	--	405	<10.0	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/11/2012	--	--	731	--	--	--	--	--	--	--	--	--	<50.0	--	<10.0	--	<50.0	--	--	--	--	
MW-10	9/17/2009	--	--	9,800	--	--	--	--	--	--	--	--	12	--	--	--	--	--	--	--	--	
	12/17/2009	--	--	3,410	--	--	--	--	--	--	--	--	1,970	60.3	--	--	2,030	--	--	--	--	
	3/29/2010	--	365	2,410	--	--	--	--	--	--	--	--	1,960	--	18.7	--	1,970	--	--	--	--	
	6/30/2010	--	216	1,860	--	--	--	--	--	--	--	--	2,120	--	68.1	--	2,190	--	--	--	--	
	7/6/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	9/20/2010	--	280	3,080	--	--	--	--	--	--	--	--	2,690	--	68.2	--	2,750	--	--	--	--	
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	2,620	--	--	--	--	--	--	--	--	--	--	--	--	2,350	--	--	--	--	
	6/2/2011	--	--	9,870	--	--	--	--	--	--	--	--	1,290	--	49.3	--	1,340	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/11/2012	--	--	11,300	--	--	--	--	--	--	--	--	1,510	--	57	--	1,570	--	--	--	--	--	
MW-11	7/6/2010	--	<100	3,510	--	--	--	--	--	--	--	<50.0	--	31.0	--	66.9	--	--	--	--	--	
	9/20/2010	--	<100	1,690	--	--	--	--	--	--	--	167	--	<10.0	--	172	--	--	--	--	--	
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	756	--	--	--	--	--	--	--	--	--	--	--	--	<50.0	--	--	--	--	
	6/2/2011	--	--	1,040	--	--	--	--	--	--	--	--	110	--	<10.0	--	115	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/11/2012	--	--	1,300	--	--	--	--	--	--	--	--	88.8	--	<10.0	--	93.5	--	--	--	--	--	
MW-12	7/6/2010	--	<100	30,200	--	--	--	--	--	--	--	<50.0	--	60.5	--	<50.0	--	--	--	--	--	
	9/20/2010	--	552	3,890	--	--	--	--	--	--	--	72.3	--	<10.0	--	75.2	--	--	--	--	--	
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	793	593	200	<10.0	12,400	<0.20	114	<20.0	151	<50.0	--	60.6	--	54.4	--	--	--	<10.0	
	6/2/2011	1,100	--	9,340	8,740	600	<10.0	12,800	<0.20	287	<20.0	119	<50.0	--	<10.0	0.14	58.0	0.91	--	15,600	<10.0	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/12/2012	--	--	497	--	--	--	--	--	--	--	--	<50.0	--	<10	--	<50.0	--	--	--	--		
MW-12A	7/6/2010	--	716	57,300	--	--	--	--	--	--	--	3,680	--	164	--	3,840	--	--	--	--	--	
	9/20/2010	--	<100	523	--	--	--	--	--	--	--	4,680	--	10.2	--	4,690	--	--	--	--	--	
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	523	--	--	--	--	--	--	--	--	--	--	--	--	4,790	--	--	--	--	
	6/2/2011	--	--	754	--	--	--	--	--	--	--	4,710	--	<10.0	--	4,720	--	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
6/11/2012	--	--	859	--	--	--	--	--	--	--	--	4,250	--	<10.0	--	4,260	--	--	--	--	--	

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



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA																				
		Inorganic Carbon (mg/L)	Iron SW6010 D (ug/L)	Iron SW6010 T (ug/L)	Iron, Ferric (ug/L)	Iron, Ferrous A3500D (ug/L)	Lead SW6010 D (ug/L)	Manganese SW6010 D (ug/L)	Mercury (ug/L)	Methane (ug/L)	Molybdenum SW6010 D (ug/L)	Nickel SW6010 D (ug/L)	Nitrate as N (ug/L)	Nitrite as N E353/E351 (ug/L)	Nitrite as N SM4500 (ug/L)	Nitrogen, Ammonia (mg/L)	Nitrogen, NO2 plus NO3 (ug/L)	Nitrogen, Total Kjeldahl (mg/L)	Oil and Grease (ug/L)	Salinity (mg/L)	Selenium SW6010 D (ug/L)	
MW-13	7/6/2010	--	116	92,600	--	--	--	--	--	--	--	--	<50.0	--	64.9	--	70.4	--	--	--	--	
	9/20/2010	--	279	59,500	--	--	--	--	--	--	--	--	<50.0	--	<10.0	--	<50.0	--	--	--	--	
	12/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/14/2011	--	--	44,600	--	--	--	--	--	--	--	--	--	--	--	--	<50.0	--	--	--	--	
	6/2/2011	--	--	36,700	--	--	--	--	--	--	--	--	71.5	--	14.5	--	86.0	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
6/12/2012	--	--	3,760	--	--	--	--	--	--	--	--	--	<50.0	--	19	--	<50.0	--	--	--	--	
MW-14	6/2/2011	--	--	47,500	--	--	--	--	--	--	--	--	<50.0	--	10.4	--	50.1	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/12/2012	--	--	1,150	--	--	--	--	--	--	--	--	--	<50.0	--	<10	--	<50.0	--	--	--	--
MW-15	6/2/2011	--	--	11,700	--	--	--	--	--	--	--	--	890	--	38.0	--	928	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/12/2012	--	--	2,920	--	--	--	--	--	--	--	--	--	<50.0	--	<10	--	<50.0	--	--	--	--
MW-16	6/2/2011	--	--	34,200	--	--	--	--	--	--	--	--	<50.0	--	<10.0	--	<50.0	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/12/2012	--	--	1,730	--	--	--	--	--	--	--	--	--	<50.0	--	<10	--	<50.0	--	--	--	--
MW-17	6/2/2011	--	--	109,000	--	--	--	--	--	--	--	--	<50.0	--	29.7	--	<50.0	--	--	--	--	
	9/7/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	12/5/2011	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	3/6/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/11/2012	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
	6/12/2012	--	--	44,300	--	--	--	--	--	--	--	--	--	<50.0	--	39	--	<50.0	--	--	--	--

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

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



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA						
		Silver SW6010 D (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium SW6010 D (ug/L)	Total Organic Carbon (mg/L)	Vanadium SW6010 D (ug/L)	Zinc SW6010 D (ug/L)
MW-3	12/17/2009	--	--	<0.5	--	--	--	--
	3/29/2010	--	--	--	--	--	--	--
	6/30/2010	--	<5000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--
	6/2/2011	--	<5000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	<2000	--	--	--	--	--
MW-6	9/17/2009	--	<1.0	<0.0010	--	--	--	--
	12/17/2009	--	--	<0.5	--	--	--	--
	3/29/2010	--	<1000	--	--	--	--	--
	6/30/2010	--	<5000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--
	9/20/2010	--	<1000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	<10.0	35,400	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	38,900	--	<20.0	41	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--
	6/12/2012	--	1,110	--	--	--	--	--
MW-7	6/30/2010	--	191,000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--
	6/2/2011	--	48,900	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	56,900	--	--	--	--	--
MW-8	6/30/2010	--	2,360,000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	--	--	--	--	--	--
	6/2/2011	--	2,830,000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	2,570,000	--	--	--	--	--

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



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA						
		Silver SW6010 D (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium SW6010 D (ug/L)	Total Organic Carbon (mg/L)	Vanadium SW6010 D (ug/L)	Zinc SW6010 D (ug/L)
MW-9	12/17/2009	--	--	11	--	--	--	--
	3/29/2010	--	--	--	--	--	--	--
	6/30/2010	--	19,000	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--
	9/20/2010	--	--	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	<10.0	8,980	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	18,600	--	<20.0	4.7	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	42,500	--	--	--	--	--
MW-10	9/17/2009	--	84	0.084	--	--	--	--
	12/17/2009	--	--	86	--	--	--	--
	3/29/2010	--	73,600	--	--	--	--	--
	6/30/2010	--	70,800	--	--	--	--	--
	7/6/2010	--	--	--	--	--	--	--
	9/20/2010	--	82,000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	68,600	--	--	--	--	--
	6/2/2011	--	71,700	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
6/11/2012	--	70,100	--	--	--	--	--	
MW-11	7/6/2010	--	82,100	--	--	--	--	--
	9/20/2010	--	58,300	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	59,900	--	--	--	--	--
	6/2/2011	--	62,900	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	6/11/2012	--	79,400	--	--	--	--	--
MW-12	7/6/2010	--	3,030,000	--	--	--	--	--
	9/20/2010	--	1,970,000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	<10.0	2,500,000	--	<20.0	--	<50.0	<40.0
	6/2/2011	<10.0	2,330,000	--	<20.0	9.1	<50.0	<40.0
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--
6/12/2012	--	2,130,000	--	--	--	--	--	

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



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA						
		Silver SW6010 D (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium SW6010 D (ug/L)	Total Organic Carbon (mg/L)	Vanadium SW6010 D (ug/L)	Zinc SW6010 D (ug/L)
MW-12A	7/6/2010	--	100,000	--	--	--	--	--
	9/20/2010	--	82,500	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	81,000	--	--	--	--	--
	6/2/2011	--	101,000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	118,000	--	--	--	--	--
MW-13	7/6/2010	--	450,000	--	--	--	--	--
	9/20/2010	--	241,000	--	--	--	--	--
	12/8/2010	--	--	--	--	--	--	--
	3/14/2011	--	375,000	--	--	--	--	--
	6/2/2011	--	188,000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--
	6/12/2012	--	131,000	--	--	--	--	--
MW-14	6/2/2011	--	56,300	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--
	6/12/2012	--	439,000	--	--	--	--	--
MW-15	6/2/2011	--	62,700	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--
	6/12/2012	--	42,100	--	--	--	--	--
MW-16	6/2/2011	--	8,740	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--
	6/12/2012	--	19,900	--	--	--	--	--

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



Well I.D.	Date	GROUNDWATER ANALYTICAL DATA						
		Silver SW6010 D (ug/L)	Sulfate E300 (ug/L)	Sulfate E300.1 (mg/L)	Thallium SW6010 D (ug/L)	Total Organic Carbon (mg/L)	Vanadium SW6010 D (ug/L)	Zinc SW6010 D (ug/L)
MW-17	6/2/2011	--	3,920,000	--	--	--	--	--
	9/7/2011	--	--	--	--	--	--	--
	12/5/2011	--	--	--	--	--	--	--
	3/6/2012	--	--	--	--	--	--	--
	6/11/2012	--	--	--	--	--	--	--
	6/12/2012	--	2,520,000	--	--	--	--	--

Analytical Notes:

- - No information available
- < - Below the laboratory's indicated reporting limit
- mg/L - milligrams per liter
- NS - Well not sampled.
- ug/L - micrograms/liter
- Bold** - Above the laboratory's indicated reporting limit

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

Site	Monitoring Date	Groundwater Gradient (feet per foot)	Groundwater Flow Direction																
			N	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW	W	WNW	NW	NNW	
	04/22/92		0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	08/31/92	0.05	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
	11/30/92	0.04	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	
	02/07/94		0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	11/14/94	0.03	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
	02/21/95	0.08	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	05/18/95	0.07	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	07/26/96	0.02	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	10/28/96	0.02	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	01/29/97	0.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	04/15/97	0.01	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	07/15/97	0.10	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	10/09/97	0.10	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	01/14/98	0.02	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	04/01/98	0.05	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	07/15/98	0.04	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	09/30/98	0.05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	01/25/99	0.05	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	04/15/99	0.04	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	10/21/99	0.03	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	07/14/99	0.04	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	04/13/00	0.050	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	07/14/00	0.033	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	10/26/00	0.060	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	01/03/01	0.070	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	07/17/01	0.040	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	10/01/01	0.030	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	01/31/02	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	07/28/02	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	10/09/02	0.016	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	01/02/03	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	04/01/03	0.008	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	07/29/09	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	10/02/03	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	01/09/04	0.010	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	04/26/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	07/22/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	10/29/04	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	01/10/05	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	06/15/05	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	09/27/05	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	12/13/05	0.005	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	03/23/06	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	06/23/06	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	09/26/06	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	12/22/06	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	03/30/07	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	09/25/07	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	12/28/07	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	06/28/07	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	03/22/08	0.020	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	06/23/08	0.010	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
	09/19/08	0.006	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	12/31/08	0.005	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	03/27/09	0.006	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	05/28/09	0.008	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	09/17/09	0.010	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	
	12/17/09	0.008	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
	03/29/10	0.010	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	06/30/10	0.009	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	09/20/10	0.007	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
	12/08/10	0.018	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	03/14/11	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	06/02/11	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	09/07/11	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	12/05/11	0.020	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
	03/06/12	0.010	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
	06/11/12	0.050	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
		0.025 Average	0	0	0	0	0	1	29	1	13	0	20	2	3	0	0	0	

Explanation

NA = Not available
Number of Events = 67

Quarterly Summary Report, Second Quarter 2012
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix A

Previous Investigation and Site History Summary

PREVIOUS INVESTIGATION AND SITE HISTORY SUMMARY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SENSITIVE RECEPTORS

April 24, 2006, TRC completed a sensitive receptor survey for the site. According to the Department of Water Resources (DWR) records, three water supply wells are located within one-half mile of the site. The closest well is an irrigation well, reported to be, approximately 1,080 feet southeast of the site. In addition, two surface water bodies were observed within a one-half mile radius of the site. San Leandro Creek is located approximately 1,400 feet southwest of the site and flows into the San Leandro Bay. Elmhurst Creek is located approximately 2,220 feet north of the site and also flows into the San Leandro Bay.

Current Consultant: **Antea Group**

Quarterly Summary Report, Second Quarter 2012
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix B

Blaine Tech Services Groundwater Sampling Procedures

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

SAMPLING PROCEDURES OVERVIEW

SAFETY

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

INSPECTION AND GAUGING

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

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

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

EVACUATION

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

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

PARAMETER STABILIZATION

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

than once per case volume).

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

DEWATERED WELLS

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

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

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

PURGEWATER CONTAINMENT

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

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

SAMPLE COLLECTION DEVICES

All samples are collected using disposable bailers.

SAMPLE CONTAINERS

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

TRIP BLANKS

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

DUPLICATES

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

SAMPLE STORAGE

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

DOCUMENTATION CONVENTIONS

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

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

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

DECONTAMINATION

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

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

and bailers.

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

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

DISSOLVED OXYGEN READINGS

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

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

OXYIDATON REDUCTION POTENTIAL READINGS

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

Quarterly Summary Report, Second Quarter 2012
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix C

Blaine Tech Services Groundwater Sampling Field Data Sheets

Well-Head Inspection & Well Gauging Form

Antea Group Project No: 2705191 Site Address: 449 Hegenberger Rd., Oakland, CA
 Field Technician: Gregory Roberts, Blaine Tech Services Date: 6/11/2012 Weather: Clear, calm
(Print Full Name & Company*)

Well Condition

Sample Order	Field Point	Bolts	Seal	Lid Secure	Lock	Expanding Cap	Water in Well Box	Well Casing Dia.	Time Gauged	Depth to Water (Feet)	Depth to Bottom (Feet)	Depth to LNAPL (Feet)	LNAPL Thickness (Feet)	Comments
5	MW-3	G	P	P	G	G	Y	2	0903	2.99	14.01			-water bailed
12	MW-6	G	G	G	G	G	Y	2	1000	3.33	12.73			
2	MW-7	G	G	G	G	G	N	2	0840	4.93	13.03			
1	MW-8	G	G	G	G	G	N	2	0837	3.08	14.78			
4	MW-9	P	P	P	G	G	Y	2	0858	1.75	12.65			-water bailed
7	MW-10	G	G	G	G	G	N	2	0920	3.99	12.71			
6	MW-11	G	G	G	G	G	N	4	0913	2.24	19.63			
11	MW-12	G	G	G	G	G	N	4	0953	4.20	19.54			
3	MW-12A	G	G	G	G	G	Y	2	0850	4.36	32.69			
8	MW-13	G	G	G	G	G	N	2	0926	5.73	14.60			
13	MW-14	G	G	G	G	G	N	2	1005	3.91	12.84			
9	MW-15	G	G	G	G	G	N	2	0936	2.84	12.78			
10	MW-16	G	G	G	G	G	N	2	0947	3.04	12.75			
14	MW-17	G	G	G	G	G	N	2	1010	4.67	12.74			

Notes: MW-9 = 1/3 tabs broken off; MW-3 = 1/2 tabs stripped

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

CIRCLE ONE: YES or NO



*Form provided by Antea Group

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

Groundwater Sampling Form

Site Address:	449 Hegenberger Rd., Oakland, CA		
Project No:	2705191	Field Technician:	Gregory Roberts
Field Point:	MW-3	Date:	6/11/2012
Depth to Water (DTW) (ft bgs):	2.99	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	14.01	Water Column Height (ft):	11.02

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</u> w/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>11.02</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>1.9</u>
Casing Volume (gal): <u>1.9</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>5.7</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: 1312 Stop Time: 1317

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				—		—		
1313	23.82	6.68	6154	-129.7	22	0.91	1.0	
1314	24.33	6.64	3302	-122.4	97	1.42	2.0	
1315	24.14	6.49	2880	-118.0	56	1.40	3.0	
1316	24.27	6.49	2913	-125.4	19	1.85	4.0	
1317	23.28	6.44	3010	-122.4	16	2.30	5.0	
1317		well	dewatered				5.3	11.57
1545	22.06	6.45	2883	-93.9	43	3.53	Grab	
Post-Purge				—		—		

Did Well dewater? Yes No Total Purge volume (gal): 5.3

Other Comments: 80% - 5.19 * Purged through flow cell
DTW - 8.76 (> 2hrs)

Sample Info: Sample ID: MW-3-2012.0630 Sample Date and Time: 6/11/2012 @ 1545
Selected Analysis: see COL

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

Signature: [Signature] Date: 6/11/2012



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

Groundwater Sampling Form

Site Address:	449 Hegenberger Rd., Oakland, CA		
Project No:	2705191	Field Technician:	Gregory Roberts
Field Point:	MW-6	Date:	6/12/2012
Depth to Water (DTW) (ft bgs):	3.33	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	12.73	Water Column Height (ft):	9.40

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailer <u>Electric Submersible Peristaltic Pump</u> Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer w/ BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>9.40</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 = radius² * 0.163

Purge:	Start Time: <u>0838</u>	Stop Time: <u>0843</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				—		—		
0839	19.34	6.32	25810	0.1	38	2.80	1.0	
0840	19.31	6.78	8427	-88.7	29	2.28	2.0	
0841	20.37	6.79	2922	-120.3	18	0.94	3.0	
0842	21.12	6.84	2751	-128.4	12	0.91	4.0	
0843		well dewatered					4.5	11.04
1100	20.93	6.90	2539	2.5	23	3.18	Grab	
Post-Purge				—		—		

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

Other Comments: 80% - 5.21 * Purged through Flow cell * Collected FDI-20120630 @ 1105
 DTW - 6.72 (>2hrs)

Sample Info:	
Sample ID: MW-6-20120630	Sample Date and Time: 6/12/2012 @ 1100
Selected Analysis: See COL	

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

Signature: Date: 6/12/2012

Groundwater Sampling Form

Site Address:	449 Hegenberger Rd., Oakland, CA		
Project No:	2705191	Field Technician:	Gregory Roberts
Field Point:	MW-7	Date:	6/11/2012
Depth to Water (DTW) (ft bgs):	4.93	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	13.03	Water Column Height (ft):	8.10

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>8.10</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>1.4</u>
Casing Volume (gal): <u>1.4</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>4.2</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: Start Time: 11:36 Stop Time: 11:51

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				—		—		
1137	21.88	6.48	14074	-79.0	41	1.01	0.75	
1138	22.73	6.52	12770	-66.4	119	3.19	1.5	
1139	22.43	6.68	2773	-45.3	24	1.78	2.25	
1140	22.86	6.62	1712	-34.0	10	1.21	3.0	
1141	well dewatered						3.3	11.30
1455	24.66	6.62	497	47.5	11	5.65	Grab	
Post-Purge				—		—		

Did Well dewater? Yes No Total Purge volume (gal): 3.3

Other Comments: 80% - 6.55 * Purged through flow cell
DTW - 7.54 (>2hrs)

Sample Info:

Sample ID:	MW-7-20120630	Sample Date and Time:	6/11/2012 @ 1455
Selected Analysis:	See COL		

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

Signature: [Signature] Date: 6/11/2012



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

Groundwater Sampling Form

Site Address:	449 Hegenberger Rd., Oakland, CA		
Project No:	2705191	Field Technician:	Gregory Roberts
Field Point:	MW-8	Date:	6/11/2012
Depth to Water (DTW) (ft bgs):	3.08	Well Diameter (in):	3 4 6 8
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	14.78	Water Column Height (ft):	11.70

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>11.70</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: 1102 Stop Time: 1111

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				—		—		
1103	26.36	7.01	2872	-189.0	1000	2.26	1.0	
1104	24.31	6.51	11200	-99.6	356	7.78	2.0	
1105	22.78	6.30	10238	-91.6	63	9.26	3.0	
1106	23.52	6.28	10358	-95.2	31	9.40	4.0	
1107	23.15	6.27	10507	-96.5	18	8.57	5.0	
1108	23.55	6.27	10649	-98.9	14	7.72	6.0	
1109	21.18	6.27	10901	-101.4	22	6.57	7.0	
1110	21.19	6.28	10989	-99.0	34	5.53	8.0	
Post-Purge				—		—		

Did Well dewater? Yes No Total Purge volume (gal): 9.5

Other Comments: 80% - 5.42 * Purged through Flow cell
DTW - 3.21

Sample Info:

Sample ID: <u>MW-8-20120630</u>	Sample Date and Time: <u>6/11/2012 @ 1430</u>
Selected Analysis: <u>See COL</u>	

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

Signature: [Signature] Date: 6/11/2012



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

Groundwater Sampling Form

Site Address:	449 Hegenberger Rd., Oakland, CA		
Project No:	2705191	Field Technician:	Gregory Roberts
Field Point:	MW-8	Date:	6/11/2012
Depth to Water (DTW) (ft bgs):	3.08	Well Diameter (in):	② 4 6 8
Depth to LNAPL (ft bgs):		Thickness of LNAPL (ft):	
Total Depth of Well (ft bgs):	14.78	Water Column Height (ft):	11.70

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>11.70</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:	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				—		—		
			1111	21.27	6.31	12016	-94.2	50	2.22	9.0	
			1111	well dewatered						9.5	12.35
			Post-Purge				—		—		

Did Well dewater? Yes No Total Purge volume (gal): 9.5

Other Comments: 80% - 5.42 * Purged through flow cell
DTW - 3.21

Sample Info:

Sample ID: MW-8-20120630 Sample Date and Time: 6/11/2012 @ 1430

Selected Analysis: See COL

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

Signature: [Signature] Date: 6/11/2012



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

Groundwater Sampling Form

Site Address: <u>449 Hegenberger Rd., Oakland, CA</u>	
Project No: <u>2705191</u>	Field Technician: <u>Gregory Roberts</u>
Field Point: <u>MW-9</u>	Date: <u>6/11/2012</u>
Depth to Water (DTW) (ft bgs): <u>1.75</u>	Well Diameter (in): <u>2 4 6 8</u>
Depth to LNAPL (ft bgs):	Thickness of LNAPL (ft):
Total Depth of Well (ft bgs): <u>12.65</u>	Water Column Height (ft): <u>10.90</u>

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer w/ BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>10.90</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: 1230 Stop Time: 1236

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				—		—		
1231	21.84	6.72	3578	-13.2	26	0.67	1.0	
1232	23.09	6.69	5422	-102.0	370	1.29	2.0	
1233	22.84	6.57	1499	-107.6	39	0.82	3.0	
1234	23.77	6.63	1585	-115.0	15	0.85	4.0	
1235	22.92	6.58	3477	-116.4	11	1.44	5.0	
1236	<u>well dewatered</u>						5.5	10.85
1520	25.97	6.50	430	24.1	6	3.02	Grab	
Post-Purge				—		—		

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

Other Comments: 80% - 3.93 * Purged through Flow Cell
DTW - 1.10

Sample Info:

Sample ID: <u>MW-9_20120630</u>	Sample Date and Time: <u>6/11/2012 @ 1520</u>
Selected Analysis: <u>see COL</u>	

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

Signature: [Signature] Date: 6/11/2012

Antea Group
 Antea™ Group, 1-800-477-7411

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

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

Groundwater Sampling Form

Site Address:	449 Hegenberger Rd., Oakland, CA		
Project No:	2705191	Field Technician:	Gregory Roberts
Field Point:	MW-10	Date:	6/11/2012
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):	12.71	Water Column Height (ft):	8.72

Purging Info and Calculations:

Purge Method: Low-Flow 3 casing volumes Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer w/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>8.72</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: 1400 Stop Time: 1900

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				—		—		
1401	23.22	7.18	1166	-65.8	4	0.84	0.75	
1402	24.67	7.08	2198	-57.3	3	3.33	1.5	
1403	22.91	6.91	2813	-40.6	23	1.16	2.25	
1404	21.78	6.84	2562	-31.4	10	0.80	3.0	
1405	21.28	6.77	2343	-30.6	18	0.77	3.75	
1406	21.13	6.73	2265	-33.0	31	0.76	4.5	5.00
Post-Purge				—		—		

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

Other Comments: 80% - 5.73 * Purged through flow cell
DTW - 5.00

Sample Info:

Sample ID:	MW-10-20120630	Sample Date and Time:	6/11/2012 @ 1410
Selected Analysis:	See COL		

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Signature: [Signature] Date: 6/11/2012



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

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

Groundwater Sampling Form

Site Address: <u>449 Hegenberger Rd., Oakland, CA</u>	
Project No: <u>2705191</u>	Field Technician: <u>Gregory Roberts</u>
Field Point: <u>MW-11</u>	Date: <u>6/11/2012</u>
Depth to Water (DTW) (ft bgs): <u>2.24</u>	Well Diameter (in): <u>2 (4) 6 8</u>
Depth to LNAPL (ft bgs):	Thickness of LNAPL (ft):
Total Depth of Well (ft bgs): <u>19.63</u>	Water Column Height (ft): <u>17.39</u>

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer w/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>17.39</u>	X Conversion Factor (gal/ft): <u>0.66</u>	= Casing Volume (gal): <u>11.5</u>
Casing Volume (gal): <u>11.5</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>34.5</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: 1327 Stop Time: 1339

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>1329</u>	<u>20.53</u>	<u>6.92</u>	<u>1137</u>	<u>-84.8</u>	<u>31</u>	<u>0.72</u>	<u>5.75</u>	
<u>1331</u>	<u>21.03</u>	<u>6.76</u>	<u>1158</u>	<u>-63.5</u>	<u>12</u>	<u>0.64</u>	<u>11.5</u>	
<u>1333</u>	<u>21.19</u>	<u>6.81</u>	<u>1161</u>	<u>-57.6</u>	<u>7</u>	<u>0.59</u>	<u>17.25</u>	
<u>1335</u>	<u>21.24</u>	<u>6.86</u>	<u>1161</u>	<u>-53.9</u>	<u>4</u>	<u>0.57</u>	<u>23.0</u>	
<u>1337</u>	<u>21.28</u>	<u>6.89</u>	<u>1158</u>	<u>-51.1</u>	<u>4</u>	<u>0.58</u>	<u>28.75</u>	
<u>1339</u>	<u>21.31</u>	<u>6.91</u>	<u>1155</u>	<u>-49.3</u>	<u>4</u>	<u>0.57</u>	<u>34.5</u>	<u>4.44</u>
Post-Purge				—		—		

Did Well dewater? Yes No Total Purge volume (gal): 34.5

Other Comments: 80% - 5.72 * Purged through Flow Cell
DTW - 4.44

Sample Info:

Sample ID: <u>MW-11-20120630</u>	Sample Date and Time: <u>6/11/2012 @ 1345</u>
Selected Analysis: <u>See COL</u>	

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Signature: [Signature] Date: 6/11/2012

Groundwater Sampling Form

Site Address: <u>449 Hegenberger Rd., Oakland, CA</u>	
Project No: <u>2705191</u>	Field Technician: <u>Gregory Roberts</u>
Field Point: <u>MW-12</u>	Date: <u>6/12/2012</u>
Depth to Water (DTW) (ft bgs): <u>4.20</u>	Well Diameter (in): <u>2 ④ 6 8</u>
Depth to LNAPL (ft bgs):	Thickness of LNAPL (ft):
Total Depth of Well (ft bgs): <u>19.54</u>	Water Column Height (ft): <u>15.34</u>

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>15.34</u> X Conversion Factor (gal/ft): <u>0.66</u> = Casing Volume (gal): <u>10.1</u> Casing Volume (gal): <u>10.1</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>30.3</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: 0819 Stop Time: 0832

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				—		—		
0821	18.73	6.40	22925	-29.5	48	1.22	5.25	
0823	19.01	6.57	21522	-90.0	16	1.25	10.5	
0825	19.35	6.61	22116	-86.2	24	1.44	15.75	
0827	19.01	6.39	24277	-52.1	14	1.76	21.0	
0829	19.05	6.34	24904	-39.9	11	1.98	26.25	
0831	19.16	6.32	25284	-30.3	9	2.09	31.5	
0832		Well dewatered					33.0	17.38
Post-Purge				—		—		

Did Well dewater? Yes No Total Purge volume (gal): 33.0

Other Comments: 80% - 7.27 * Purged through flow cell
DTW - 5.07

Sample Info:

Sample ID: <u>MW-12-20120630</u>	Sample Date and Time: <u>6/12/2012 @ 1040</u>
Selected Analysis: <u>See COL</u>	

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Signature: [Signature] Date: 6/12/2012



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

Groundwater Sampling Form

Site Address: <u>449 Hegenberger Rd., Oakland, CA</u>	
Project No: <u>2705191</u>	Field Technician: <u>Gregory Roberts</u>
Field Point: <u>MW-12A</u>	Date: <u>6/11/2012</u>
Depth to Water (DTW) (ft bgs): <u>4.36</u>	Well Diameter (in): <u>② 4 6 8</u>
Depth to LNAPL (ft bgs):	Thickness of LNAPL (ft):
Total Depth of Well (ft bgs): <u>32.69</u>	Water Column Height (ft): <u>28.33</u>

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>28.33</u> X Conversion Factor (gal/ft): <u>0.17</u> = Casing Volume (gal): <u>4.8</u> Casing Volume (gal): <u>4.8</u> X Specified Volumes: <u>3</u> = Calculated Purge (gal): <u>14.4</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: 1151 Stop Time: 1200

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>1153</u>	<u>20.50</u>	<u>6.70</u>	<u>3362</u>	<u>-27.3</u>	<u>71000</u>	<u>1.40</u>	<u>2.5</u>	
<u>1154</u>	<u>19.82</u>	<u>6.64</u>	<u>3933</u>	<u>-16.8</u>	<u>772</u>	<u>0.61</u>	<u>5.0</u>	
<u>1155</u>	<u>19.76</u>	<u>6.61</u>	<u>3784</u>	<u>-13.6</u>	<u>316</u>	<u>0.53</u>	<u>7.5</u>	
<u>1156</u>	<u>19.76</u>	<u>6.60</u>	<u>3738</u>	<u>-12.8</u>	<u>100</u>	<u>0.47</u>	<u>10.0</u>	
<u>1157</u>	<u>19.76</u>	<u>6.60</u>	<u>3691</u>	<u>-13.0</u>	<u>58</u>	<u>0.44</u>	<u>12.5</u>	
<u>1158</u>	<u>19.77</u>	<u>6.61</u>	<u>3646</u>	<u>-13.6</u>	<u>39</u>	<u>0.41</u>	<u>15.0</u>	
<u>1159</u>	<u>19.77</u>	<u>6.62</u>	<u>3603</u>	<u>-14.4</u>	<u>31</u>	<u>0.39</u>	<u>17.5</u>	
<u>1200</u>	<u>19.78</u>	<u>6.63</u>	<u>3588</u>	<u>-15.2</u>	<u>27</u>	<u>0.40</u>	<u>20.0</u>	<u>4.58</u>
Post-Purge				—		—		

Did Well dewater? Yes No Total Purge volume (gal): 20.0

Other Comments: 80% - 10.03 * Purged through Flow cell
DTW - 4.58 * Collected ms/msd

Sample Info:

Sample ID: <u>MW-12A-20120630</u>	Sample Date and Time: <u>6/11/2012 @ 12:10</u>
Selected Analysis: <u>See COL</u>	

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Signature: [Signature] Date: 6/11/2012



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

Groundwater Sampling Form

Site Address: <u>449 Hegenberger Rd., Oakland, CA</u>	
Project No: <u>2705191</u>	Field Technician: <u>Gregory Roberts</u>
Field Point: <u>MW-13</u>	Date: <u>6/12/2012</u>
Depth to Water (DTW) (ft bgs): <u>5.73</u>	Well Diameter (in): <u>② 4 6 8</u>
Depth to LNAPL (ft bgs):	Thickness of LNAPL (ft):
Total Depth of Well (ft bgs): <u>14.60</u>	Water Column Height (ft): <u>8.87</u>

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer w/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>8.87</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: 0727 Stop Time: 0735

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>0728</u>	<u>19.86</u>	<u>6.70</u>	<u>1988</u>	<u>-119.4</u>	<u>5</u>	<u>1.14</u>	<u>0.75</u>	
<u>0729</u>	<u>18.75</u>	<u>6.96</u>	<u>3294</u>	<u>-118.8</u>	<u>15</u>	<u>1.24</u>	<u>1.5</u>	
<u>0730</u>	<u>18.61</u>	<u>7.21</u>	<u>4416</u>	<u>-156.7</u>	<u>300</u>	<u>1.01</u>	<u>2.25</u>	
<u>0731</u>	<u>19.07</u>	<u>7.17</u>	<u>3718</u>	<u>-146.8</u>	<u>115</u>	<u>0.91</u>	<u>3.0</u>	
<u>0732</u>	<u>19.47</u>	<u>7.15</u>	<u>3718</u>	<u>-146.2</u>	<u>70</u>	<u>0.90</u>	<u>3.75</u>	
<u>0733</u>	<u>19.57</u>	<u>7.16</u>	<u>3926</u>	<u>-148.3</u>	<u>44</u>	<u>0.90</u>	<u>4.5</u>	
<u>0734</u>	<u>19.53</u>	<u>7.14</u>	<u>4447</u>	<u>-147.3</u>	<u>40</u>	<u>0.96</u>	<u>5.25</u>	
<u>0735</u>	<u>19.43</u>	<u>7.10</u>	<u>4859</u>	<u>-144.4</u>	<u>37</u>	<u>1.06</u>	<u>6.0</u>	<u>8.41</u>
Post-Purge				—		—		

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

Other Comments: 80% - 7.50 * Purged through Flow cell
DTW - 5.03

Sample Info:

Sample ID: <u>MW-13-2012.0630</u>	Sample Date and Time: <u>6/12/2012 @ 0935</u>
Selected Analysis: <u>See COL</u>	

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Signature: [Signature] Date: 6/12/2012

Groundwater Sampling Form

Site Address: <u>449 Hezenberger Rd., Oakland, CA</u>	
Project No: <u>2705191</u>	Field Technician: <u>Gregory Roberts</u>
Field Point: <u>MW-14</u>	Date: <u>6/12/2012</u>
Depth to Water (DTW) (ft bgs): <u>3.91</u>	Well Diameter (in): <u>② 4 6 8</u>
Depth to LNAPL (ft bgs):	Thickness of LNAPL (ft):
Total Depth of Well (ft bgs): <u>12.84</u>	Water Column Height (ft): <u>8.93</u>

Purging Info and Calculations:

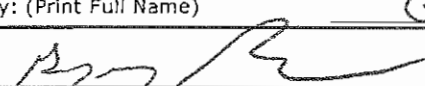
Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer</u> w/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>8.93</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>0851</u>	Stop Time: <u>0857</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>0852</u>	<u>20.06</u>	<u>6.81</u>	<u>3483</u>	<u>-114.9</u>	<u>13</u>	<u>0.97</u>	<u>0.75</u>	
<u>0853</u>	<u>19.73</u>	<u>6.95</u>	<u>4591</u>	<u>-122.5</u>	<u>23</u>	<u>2.10</u>	<u>1.5</u>	
<u>0854</u>	<u>18.97</u>	<u>7.02</u>	<u>16715</u>	<u>-134.6</u>	<u>734</u>	<u>1.05</u>	<u>2.25</u>	
<u>0855</u>	<u>18.94</u>	<u>6.93</u>	<u>8735</u>	<u>-107.8</u>	<u>133</u>	<u>1.02</u>	<u>3.0</u>	
<u>0856</u>	<u>19.44</u>	<u>6.80</u>	<u>8103</u>	<u>-92.5</u>	<u>109</u>	<u>0.82</u>	<u>3.75</u>	
<u>0857</u>	<u>19.41</u>	<u>6.92</u>	<u>9486</u>	<u>-113.6</u>	<u>96</u>	<u>0.80</u>	<u>4.5</u>	
<u>0857</u>		<u>well dewatered</u>					<u>4.7</u>	<u>12.03</u>
Post-Purge				—		—		
Did Well dewater? <u>Yes</u> No		Total Purge volume (gal): <u>4.7</u>						

Other Comments: 80% - 5.70 * Purged through flow cell
DTW - 6.73 (>2hrs)

Sample Info:	
Sample ID: <u>MW-14-20120630</u>	Sample Date and Time: <u>6/12/2012 @ 1125</u>
Selected Analysis: <u>See COL</u>	

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Signature:  Date: 6/12/2012



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

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

Groundwater Sampling Form

Site Address: <u>449 Hegenberger Rd., Oakland, CA</u>	
Project No: <u>2705191</u>	Field Technician: <u>Gregory Roberts</u>
Field Point: <u>MW-15</u>	Date: <u>6/12/2012</u>
Depth to Water (DTW) (ft bgs): <u>2.84</u>	Well Diameter (in): <u>6 4 6 8</u>
Depth to LNAPL (ft bgs):	Thickness of LNAPL (ft):
Total Depth of Well (ft bgs): <u>12.78</u>	Water Column Height (ft): <u>9.94</u>

Purging Info and Calculations:

Purge Method: Low-Flow <u>3 casing volumes</u> Other: _____	Purge Equipment: Disposable Bailer Electric Submersible Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: Disposable Bailer w/ BED Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>9.94</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>1.7</u>
Casing Volume (gal): <u>1.7</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>5.1</u>

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

Purge: Start Time: 0749 Stop Time: 0955

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>0750</u>	<u>18.75</u>	<u>7.07</u>	<u>5716</u>	<u>-116.0</u>	<u>36</u>	<u>1.02</u>	<u>1.0</u>	
<u>0751</u>	<u>18.36</u>	<u>6.95</u>	<u>5081</u>	<u>-91.0</u>	<u>360</u>	<u>2.32</u>	<u>2.0</u>	
<u>0752</u>	<u>19.44</u>	<u>6.26</u>	<u>1553</u>	<u>-61.7</u>	<u>38</u>	<u>2.38</u>	<u>3.0</u>	
<u>0753</u>	<u>19.88</u>	<u>6.31</u>	<u>1579</u>	<u>-73.3</u>	<u>37</u>	<u>3.83</u>	<u>4.0</u>	
<u>0754</u>	<u>19.91</u>	<u>6.43</u>	<u>2079</u>	<u>-78.0</u>	<u>46</u>	<u>4.53</u>	<u>5.0</u>	
<u>0755</u>	<u>well dewatered</u>						<u>5.5</u>	<u>10.85</u>
<u>0955</u>	<u>19.38</u>	<u>7.04</u>	<u>4750</u>	<u>-43.7</u>	<u>855</u>	<u>3.42</u>	<u>Grab</u>	
Post-Purge				—		—		

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

Other Comments: 80% - 4.83 * Purged through flow cell
DTW - 9.40 (>2hrs)

Sample Info:

Sample ID: <u>MW-15_20120630</u>	Sample Date and Time: <u>6/12/2012 @ 0955</u>
Selected Analysis: <u>see COL</u>	

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

Signature: [Signature] Date: 6/12/2012



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

Groundwater Sampling Form

Site Address: <u>449 Hegenberger Rd., Oakland, CA</u>	
Project No: <u>2705191</u>	Field Technician: <u>Gregory Roberts</u>
Field Point: <u>MW-16</u>	Date: <u>6/12/2012</u>
Depth to Water (DTW) (ft bgs): <u>3.04</u>	Well Diameter (in): <u>② 4 6 8</u>
Depth to LNAPL (ft bgs):	Thickness of LNAPL (ft):
Total Depth of Well (ft bgs): <u>12.75</u>	Water Column Height (ft): <u>9.71</u>

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> Peristaltic Pump Bladder Pump Other: _____	Sample Collection Method: <u>Disposable Bailer w/ BED</u> Extraction Port Dedicated Tubing Disposable Tubing Other: _____
Water Column Height (ft): <u>9.71</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 = radius² * 0.163

Purge:	Start Time: <u>0804</u>	Stop Time: <u>0812</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>0805</u>	<u>19.29</u>	<u>6.71</u>	<u>4054</u>	<u>-73.8</u>	<u>53</u>	<u>1.26</u>	<u>1.0</u>	
			<u>0806</u>	<u>19.16</u>	<u>6.72</u>	<u>3604</u>	<u>-72.4</u>	<u>71000</u>	<u>2.88</u>	<u>2.0</u>	
			<u>0807</u>	<u>21.07</u>	<u>6.69</u>	<u>3263</u>	<u>-60.1</u>	<u>282</u>	<u>1.48</u>	<u>3.0</u>	
			<u>0808</u>	<u>22.65</u>	<u>6.81</u>	<u>3240</u>	<u>-55.2</u>	<u>75</u>	<u>1.78</u>	<u>4.0</u>	
			<u>0809</u>	<u>22.85</u>	<u>6.86</u>	<u>3287</u>	<u>-64.5</u>	<u>61</u>	<u>1.95</u>	<u>5.0</u>	
			<u>0810</u>	<u>22.80</u>	<u>6.89</u>	<u>3417</u>	<u>-71.7</u>	<u>78</u>	<u>2.00</u>	<u>6.0</u>	
			<u>0811</u>	<u>22.56</u>	<u>6.91</u>	<u>3542</u>	<u>-84.3</u>	<u>67</u>	<u>2.00</u>	<u>7.0</u>	
			<u>0812</u>	<u>22.26</u>	<u>6.92</u>	<u>3578</u>	<u>-85.9</u>	<u>69</u>	<u>1.99</u>	<u>8.0</u>	<u>10.98</u>
Post-Purge											

Did Well dewater? Yes No Total Purge volume (gal): 8.0

Other Comments: 80% - 4.98 * Purged through flow cell
DTW - 8.09 (>2hrs)

Sample Info:	
Sample ID: <u>MW-16-20120630</u>	Sample Date and Time: <u>6/12/2012 @ 1020</u>
Selected Analysis: <u>See COL</u>	

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

Signature: [Signature] Date: 6/12/2012



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

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

Groundwater Sampling Form

Site Address: <u>449 Hegenberger Rd., Oakland, CA</u>	
Project No: <u>2705191</u>	Field Technician: <u>Gregory Roberts</u>
Field Point: <u>MW-17</u>	Date: <u>6/12/2012</u>
Depth to Water (DTW) (ft bgs): <u>4.67</u>	Well Diameter (in): <u>② 4 6 8</u>
Depth to LNAPL (ft bgs):	Thickness of LNAPL (ft):
Total Depth of Well (ft bgs): <u>12.74</u>	Water Column Height (ft): <u>8.07</u>

Purging Info and Calculations:

Purge Method: <u>Low-Flow</u> <u>3 casing volumes</u> Other: _____	Purge Equipment: <u>Disposable Bailer</u> <u>Electric Submersible</u> <u>Peristaltic Pump</u> <u>Bladder Pump</u> Other: _____	Sample Collection Method: <u>Disposable Bailer w/ BED</u> <u>Extraction Port</u> <u>Dedicated Tubing</u> <u>Disposable Tubing</u> Other: _____
Water Column Height (ft): <u>8.07</u>	X Conversion Factor (gal/ft): <u>0.17</u>	= Casing Volume (gal): <u>1.4</u>
Casing Volume (gal): <u>1.4</u>	X Specified Volumes: <u>3</u>	= Calculated Purge (gal): <u>4.2</u>
Conversion Factors (gal/ft): 2" = 0.17 4" = 0.66 6" = 1.5 8" = 2.6 Other = radius ² * 0.163		

Purge: Start Time: 0907 Stop Time: 0913

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>0908</u>	<u>18.98</u>	<u>7.08</u>	<u>15867</u>	<u>-133.9</u>	<u>62</u>	<u>0.99</u>	<u>0.25</u>	
<u>0909</u>	<u>18.75</u>	<u>7.03</u>	<u>18218</u>	<u>-128.0</u>	<u>57</u>	<u>1.72</u>	<u>1.5</u>	
<u>0910</u>	<u>18.92</u>	<u>6.49</u>	<u>36001</u>	<u>-117.2</u>	<u>262</u>	<u>1.04</u>	<u>2.25</u>	
<u>0911</u>	<u>18.97</u>	<u>6.76</u>	<u>26561</u>	<u>-156.4</u>	<u>60</u>	<u>0.86</u>	<u>3.0</u>	
<u>0912</u>	<u>19.11</u>	<u>6.77</u>	<u>26705</u>	<u>-154.3</u>	<u>49</u>	<u>0.90</u>	<u>3.75</u>	
<u>0913</u>	<u>19.18</u>	<u>6.71</u>	<u>29691</u>	<u>-159.2</u>	<u>49</u>	<u>1.06</u>	<u>4.5</u>	
<u>0913</u>		<u>well dewatered</u>					<u>4.7</u>	<u>11.89</u>
Post-Purge				—		—		

Did Well dewater? Yes No Total Purge volume (gal): 4.7

Other Comments: 80% - 6.28 * Purged through flow cell
DTW - 10.12 (>2hrs)

Sample Info:

Sample ID: <u>MW-17-20120630</u>	Sample Date and Time: <u>6/12/2012 @ 1140</u>
Selected Analysis: <u>see COL</u>	

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

Signature: [Signature] Date: 6/12/2012



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

COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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



2Q12 GW Event

Required Lab Information: Lab Name: Pace-Seattle		Required Project Information: Site ID #: 2705191 Task: WG_Q_201206		Required Invoice Information: Send Invoice to: Tara Bosch	
Address: 940 S. Harney Street Seattle WA 98108		AnteaGrp proj#		Address: 11050 White Rock Road, Suite 110	
Lab PM: Regina Ste. Marie		City: Oakland State: CA 94621		Turn around time (days) 10	
Phone/Fax: P: 206-957-2433 F: 206-767-5063		Site Address: 449 Hegenberger		City/State: Rancho Cordova CA 95670 Phone #: 1-800-477-7411	
Lab PM email: Regina.SteMarie@pacelabs.com		AG PM Name: Dennis Dettloff		QC level Required: Standard Special Mark one	
Applicable Lab Quote #:		AG PM Email: dennis.dettloff@anteagroup.com		Reimbursement project? Non-reimbursement project? Y Mark one	
		Send EDD to: copeltdata@intelligentehs.com		NJ Reduced Deliverable Package?	
		CC Hardcopy report to:		MA MCP Cert? CT RCP Cert? Mark One	
		CC Hardcopy report to:		Lab Project ID (lab use)	

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / .)	Samples IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX GROUND WATER: WG SURFACE WATER: WS WASTE WATER: WW WATER DC: WD SLUDGE: SL SLUDGE: SS FRIGATE: FW OTHER: OT ANIMAL TISSUE: TA WATER: W SURFACE WATER: WS WATER DC: WD SLUDGE: SL FRIGATE: FW OTHER: OT ANIMAL TISSUE: TA	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Requested Analyses	Comments/Lab Sample I.D.			
										Preservatives														
										Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	3005Sulphide	3453 Nitrate			8010Iron Total	8015TPH Diesel W/Sludge	9280 GC/MS GPC
1	MW-10_20120630			WG	G	6/11/12	1410	11	N	X	X	X	X					X	X	X	X	X	X	
2	MW-11_20120630			WG	G	6/11/12	1345	11	N	X	X	X	X					X	X	X	X	X	X	
3	MW-12_20120630			WG														X	X	X	X	X	X	
4	MW-12A_20120630			WG	G	6/11/12	1210	16	N	X	X	X	X					X	X	X	X	X	X	
5	MW-13_20120630			WG														X	X	X	X	X	X	
6	MW-14_20120630			WG														X	X	X	X	X	X	
7	MW-15_20120630			WG														X	X	X	X	X	X	
8	MW-16_20120630			WG														X	X	X	X	X	X	
9	MW-17_20120630			WG														X	X	X	X	X	X	
10	MW-6_20120630			WG														X	X	X	X	X	X	
11	ED1_20120630			W																		X	X	
12	MW-3_20120630			WG	G	6/11/12	1545	11	N	X	X	X	X					X	X	X	X	X	X	
13	MW-7_20120630			WG	G	6/11/12	1455	11	N	X	X	X	X					X	X	X	X	X	X	
14	MW-8_20120630			WG	G	6/11/12	1430	11	N	X	X	X	X					X	X	X	X	X	X	
15	MW-9_20120630			WG	G	6/11/12	1520	11	N	X	X	X	X					X	X	X	X	X	X	

Additional Comments/Special Instructions: Global ID: T0600101476	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions						
	<i>[Signature]</i>		6/11/12	1730	<i>[Signature]</i> (Sample Lost)		6/11/12	1730	Y/N	Y/N	Y/N	Y/N			
									Y/N	Y/N	Y/N	Y/N			
									Y/N	Y/N	Y/N	Y/N			
SHIPPING METHOD (mark as appropriate)					SAMPLER NAME AND SIGNATURE							Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
UPS COURIER FEDEX					PRINT Name of SAMPLER: <i>Gregory Roberts</i>										
US MAIL					SIGNATURE of SAMPLER: <i>[Signature]</i> DATE Signed: 6/11/12 Time: 1615										



COP ELT CHAIN-OF-CUSTODY / Analytical Request Document

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

2Q12 GW Event

Required Lab Information:		Required Project Information:			Required Invoice Information:					
Lab Name: Pace-Seattle		Site ID #: 2705191	Task: WG_Q_201206	Send Invoice to: Tara Bosch		Address: 11050 White Rock Road, Suite 110			Turn around time (days): 10	
Address: 940 S. Harney Street Seattle WA 98108		AnteaGrp proj#		Address: 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 94621		Reimbursement project?		Non-reimbursement project? <input checked="" type="checkbox"/>		Mark one NJ Reduced Deliverable Package?		
Phone/Fax: P: 206-957-2433 F: 206-767-5063		AG PM Name: Dennis Dettloff		Send EDD to: copeltdata@intelligentehs.com			MA MCP Cert?		CT RCP Cert? Mark One	
Lab PM email: Regina.SteMarie@pacelabs.com		Phone/Fax: P: 1-800-477-7411 F: 916-638-8385		CC Hardcopy report to			Lab Project ID (lab use)			
Applicable Lab Quote #:		AG PM Email: dennis.dettloff@anteagroup.com		CC Hardcopy report to			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										Comments/Lab Sample I.D.							
		MATRIX	MARIX							Unpreserved	H ₂ SO ₄	HNO ₃	HCl	HOAc	Na ₂ S ₂ O ₃	Methanol	Other	3005 sulfate	3093.2 Nitrate		601 Nitrite	801 Nitrate	8209 ECOWIS W/SR12	8209 ECOWIS GPO	8209 ECOWIS TBA	8209 ECOWIS TBA	
1	MW-10_20120630			WG															X	X	X	X	X	X	X		
2	MW-11_20120630			WG																X	X	X	X	X	X	X	
3	MW-12_20120630			WG	G	6/12/12	1040	11	N	X	X	X	X						X	X	X	X	X	X	X		
4	MW-12A_20120630			WG																X	X	X	X	X	X	X	
5	MW-13_20120630			WG	G	6/12/12	0935	11	N	X	X	X	X						X	X	X	X	X	X	X		
6	MW-14_20120630			WG	G	6/12/12	1125	11	N	X	X	X	X						X	X	X	X	X	X	X		
7	MW-15_20120630			WG	G	6/12/12	0955	11	N	X	X	X	X						X	X	X	X	X	X	X		
8	MW-16_20120630			WG	G	6/12/12	1020	11	N	X	X	X	X						X	X	X	X	X	X	X		
9	MW-17_20120630			WG	G	6/12/12	1140	11	N	X	X	X	X						X	X	X	X	X	X	X		
10	MW-6_20120630			WG	G	6/12/12	1100	11	N	X	X	X	X						X	X	X	X	X	X	X		
11	FD1_20120630			W	G	6/12/12	1105	6	N				X										X	X	X		
12	MW-3_20120630			WG																X	X	X	X	X	X	X	
13	MW-7_20120630			WG																X	X	X	X	X	X	X	
14	MW-8_20120630			WG																X	X	X	X	X	X	X	
15	MW-9_20120630			WG																X	X	X	X	X	X	X	

Additional Comments/Special Instructions: Global ID: T0600101476	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	Sample Receipt Conditions		
	<i>[Signature]</i>	6/12/12	1330	<i>[Signature]</i>	6/12/12	1330	Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
							Y/N	Y/N	Y/N
SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE			Temp in °C	Samples on ice?	Sample intact?	Trip Blank?	
UPS COURIER FEDEX	PRINT Name of SAMPLER: <i>Gregory Roberts</i>								
US MAIL	SIGNATURE OF SAMPLER: <i>[Signature]</i>		DATE Signed: 6/17/12	Time: 12:15					



2Q12 GW Event

Required Lab Information:		Required Project Information:		Required Invoice Information:			
Lab Name: Pace-Seattle	Site ID #: 2705191	Task: WG_Q_201206	Send Invoice to: Tara Bosch	Address: 11050 White Rock Road, Suite 110		Turn around time (days) 10	
Address: 940 S. Harney Street Seattle WA 98108		AnteaGrp proj#: 449 Hogenberger		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 94621	Reimbursement project? Non-reimbursement project? Y	Mark one		NJ Reduced Deliverable Package?	
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Dennis Dettloff		Send EDD to: copeitdata@intelligentehs.com		MA MCP Cert? CT RCP Cert? Mark One		
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P: 1-800-477-7411 F: 916-638-8385		CC Hardcopy report to		Lab Project ID (lab use)		
Applicable Lab Quote #:	AG PM Email: dennis.dettloff@anteagroup.com		CC Hardcopy report to		Requested Analyses		

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / -) Samples IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX DRINKING WATER GROUND WATER WASTE WATER FREE PRODUCT SOL OIL WPE MISCELL AIR SLEAVE SOIL GAS	MATRIX	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Comments/Lab Sample I.D.					
									Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O8	Methanol	Other	2003 Metals	3032 Nitrate		8010 Iron Total	8015 PPHDI/Lead/Tin/Silica	8200 GONMS CRD	8200a/MS/As/TBA	8200 Ethanol
1	MW-10_20120630		WG															X	X	X	X	X	X	
2	MW-11_20120630		WG															X	X	X	X	X	X	
3	MW-12_20120630		WG	G	6/12/12	1040	11	N	X	X	X	X					X	X	X	X	X	X		
4	MW-12A_20120630		WG															X	X	X	X	X	X	
5	MW-13_20120630		WG	G	6/12/12	0935	11	N	X	X	X	X					X	X	X	X	X	X		
6	MW-14_20120630		WG	G	6/12/12	1125	11	N	X	X	X	X					X	X	X	X	X	X		
7	MW-15_20120630		WG	G	6/12/12	0955	11	N	X	X	X	X					X	X	X	X	X	X		
8	MW-16_20120630		WG	G	6/12/12	1020	11	N	X	X	X	X					X	X	X	X	X	X		
9	MW-17_20120630		WG	G	6/12/12	1140	11	N	X	X	X	X					X	X	X	X	X	X		
10	MW-6_20120630		WG	G	6/12/12	1100	11	N	X	X	X	X					X	X	X	X	X	X		
11	FD1_20120630		W	G	6/12/12	1105	6	N					X							X	X	X		
12	MW-3_20120630		WG														X	X	X	X	X	X		
13	MW-7_20120630		WG														X	X	X	X	X	X		
14	MW-8_20120630		WG														X	X	X	X	X	X		
15	MW-9_20120630		WG														X	X	X	X	X	X		

Additional Comments/Special Instructions: Global ID: T0600101476	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions						
	<i>[Signature]</i>		6/12/12	1330	<i>[Signature]</i> (sample used)		6/12/12	1330	Y/N	Y/N	Y/N				
									Y/N	Y/N	Y/N				
									Y/N	Y/N	Y/N				
SHIPPING METHOD: (mark as appropriate)					SAMPLER NAME AND SIGNATURE							Temp in °C	Samples on ice?	Sample intact?	Trip Blank?
UPS COURIER FEDEX		PRINT Name of SAMPLER:		<i>Gregory Roberts</i>											
US MAIL		SIGNATURE of SAMPLER:		<i>[Signature]</i>		DATE Signed	6/12/12	Time:	1215						



2Q12 GW Event

Required Lab Information:		Required Project Information:			Required Invoice Information:		
Lab Name: Pace-Seattle	Site ID #: 2705191	Task: WG_Q_201206	Send Invoice to: Tara Bosch	Address: 11050 White Rock Road, Suite 110			Turn around time (days) 10
Address: 940 S. Hamey Street Seattle WA 98108		AnteaGrp proj#: 449 Hegenberger	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411	QC level Required: Standard		Special: <input type="checkbox"/> Mark one
Lab PM: Regina Ste. Marie	City: Oakland	State: CA 94621	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input checked="" type="checkbox"/>	Mark one		NJ Reduced Deliverable Package? <input type="checkbox"/>
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Dennis Dettloff	Send EDD to: copeltdata@intelligentehs.com		MA MCP Cert? <input type="checkbox"/>		CT RCP Cert? <input type="checkbox"/>	Mark One <input type="checkbox"/>
Lab PM email: Regina.SteMarie@pacelabs.com	Phone/Fax: P: 1-800-477-7411 F: 916-638-6385	CC Hardcopy report to <input type="checkbox"/>		Lab Project ID (lab use)			
Applicable Lab Quote #: _____	AG PM Email: dennis.dettloff@anteagroup.com	CC Hardcopy report to <input type="checkbox"/>		Requested Analyses			

ITEM #	SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Samples IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX DRINKING WATER WP WATER W GROUND WATER WG SURFACE WATER WS WASTE WATER WW WASTE OIL WO FREE PRODUCT LF SLUDGE S SOIL SO RINSEATE SR WH OIL OL OTHER OT WASTE SW ANIMAL TISSUE TA AMBIENT AIR AA SWEAT SE SEA GAS SG	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	FIELD FILTERED? (Y/N)	Preservatives										Requested Analyses	Comments/Lab Sample I.D.					
									Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₅	Methanol	Other	3000 sulfate	3532 nitrate			60100 ion total	80157P-Halogen TBW/Br	8260 CC/MS GTR	8260/8260/8260 BA	8260/8260/8260 BA
1	MW-10_20120630		WG															X	X	X	X	X	X	X	
2	MW-11_20120630		WG															X	X	X	X	X	X	X	
3	MW-12_20120630		WG	G	6/12/12	1040	11	N	X	X	X	X					X	X	X	X	X	X	X		
4	MW-12A_20120630		WG															X	X	X	X	X	X	X	
5	MW-13_20120630		WG	G	6/12/12	0935	11	N	X	X	X	X					X	X	X	X	X	X	X		
6	MW-14_20120630		WG	G	6/12/12	1125	11	N	X	X	X	X					X	X	X	X	X	X	X		
7	MW-15_20120630		WG	G	6/12/12	0955	11	N	X	X	X	X					X	X	X	X	X	X	X		
8	MW-16_20120630		WG	G	6/12/12	1020	11	N	X	X	X	X					X	X	X	X	X	X	X		
9	MW-17_20120630		WG	G	6/12/12	1140	11	N	X	X	X	X					X	X	X	X	X	X	X		
10	MW-6_20120630		WG	G	6/12/12	1100	11	N	X	X	X	X					X	X	X	X	X	X	X		
11	FD1_20120630		W	G	6/12/12	1105	6	N				X										X	X		
12	MW-3_20120630		WG															X	X	X	X	X	X	X	
13	MW-7_20120630		WG															X	X	X	X	X	X	X	
14	MW-8_20120630		WG															X	X	X	X	X	X	X	
15	MW-9_20120630		WG															X	X	X	X	X	X	X	

Additional Comments/Special Instructions: Global ID: T0600101476	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions						
	<i>[Signature]</i>		6/12/12	1330	<i>[Signature]</i> (sample cust)		6/12/12	1330		Y/N	Y/N	Y/N			
										Y/N	Y/N	Y/N			
										Y/N	Y/N	Y/N			
SHIPPING METHOD (mark as appropriate)		SAMPLER NAME AND SIGNATURE													
UPS COURIER FEDEX		PRINT Name of SAMPLER:		<i>Gregory Robert</i>								Temp in °C	Samples on Ice?	Sample intact?	Trip Blank?
US MAIL		SIGNATURE of SAMPLER:		<i>[Signature]</i>		DATE Signed	6/12/12		Time:	1215					

Quarterly Summary Report, Second Quarter 2012
76 Station No. 5191/5043
Oakland, CA
Antea Group Project No. I42705191



Appendix D

Certified Laboratory Analytical Report and Data Validation Form

Is the Data Set Valid?

(circle)

Yes / No

Preservation Temperature

(if Known): 4.9 °C

Antea™ Group Laboratory Data Validation Sheet

Project/Client: 76 Station No. 5191 / COP-ELT

Project #: I42705191

Date of Validation: 7/16/12 Date of Analysis: 6/13 to 6/25

Sample Date: 6/11/12 Completed By: ETW

Signature: [Signature]

Circle
or
Highlight

Yes / No

(below)

Analytical Lab Used and Report # (if any): PAce #: 2512539

1. Were the analyses the ones requested?
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?
5. Were Laboratory blanks performed, if so, were they non-detect?
6. Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m³, etc.)
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?
8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approximately 80-120%, depending on the analyte)?
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?
11. Were Relative Percent Difference values within the acceptable range (i.e. ±25%)?

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

Yes / No

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

#11. R1 RPD value was outside control limits MS/MSD 118704 118705 Nitrite as N
 Other Qualifiers:
 D3 - sample was diluted
 S3 - surrogate recovery exceeded lab control limits
 T9 - result reported for hydrocarbons within the method-specific range do not match the pattern of the lab standard



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

June 26, 2012

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

RE: Project: 2705191
Pace Project No.: 2512539

Dear Dennis Dettloff:

Enclosed are the analytical results for sample(s) received by the laboratory on June 12, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Karen Jang

karen.jang@pacelabs.com
Project Manager

Enclosures

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



REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, Inc..



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

CERTIFICATIONS

Project: 2705191
Pace Project No.: 2512539

Washington Certification IDs

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

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

REPORT OF LABORATORY ANALYSIS

Page 2 of 23

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SAMPLE ANALYTE COUNT

Project: 2705191
Pace Project No.: 2512539

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2512539001	MW-10_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512539002	MW-11_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512539003	MW-12A_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512539004	MW-3_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512539005	MW-7_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512539006	MW-8_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S

REPORT OF LABORATORY ANALYSIS

SAMPLE ANALYTE COUNT

Project: 2705191
Pace Project No.: 2512539

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512539007	MW-9_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S

REPORT OF LABORATORY ANALYSIS



HITS ONLY

Project: 2705191
 Pace Project No.: 2512539

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2512539001	MW-10_20120630					
EPA 6010	Iron	11300	ug/L	100	06/14/12 09:26	
EPA 5030B/8260	Benzene	0.79	ug/L	0.50	06/14/12 14:21	
EPA 5030B/8260	tert-Butyl Alcohol	17.2	ug/L	5.0	06/14/12 14:21	
EPA 5030B/8260	Methyl-tert-butyl ether	0.72	ug/L	0.50	06/14/12 14:21	
EPA 300.0	Sulfate	70100	ug/L	5000	06/21/12 14:46	
EPA 353.2	Nitrogen, Nitrate	1510	ug/L	50.0	06/25/12 13:32	
EPA 353.2	Nitrogen, NO2 plus NO3	1570	ug/L	50.0	06/25/12 13:32	
SM 4500-NO2 B	Nitrite as N	0.057	mg/L	0.010	06/13/12 12:00	
2512539002	MW-11_20120630					
EPA 6010	Iron	1300	ug/L	100	06/14/12 09:29	
EPA 5030B/8260	tert-Butyl Alcohol	10.4	ug/L	5.0	06/14/12 14:40	
EPA 5030B/8260	Methyl-tert-butyl ether	20.9	ug/L	0.50	06/14/12 14:40	
EPA 300.0	Sulfate	79400	ug/L	10000	06/19/12 18:28	
EPA 353.2	Nitrogen, Nitrate	88.8	ug/L	50.0	06/25/12 13:34	
EPA 353.2	Nitrogen, NO2 plus NO3	93.5	ug/L	50.0	06/25/12 13:34	
2512539003	MW-12A_20120630					
EPA 6010	Iron	859	ug/L	100	06/14/12 09:33	
EPA 300.0	Sulfate	118000	ug/L	10000	06/22/12 01:15	
EPA 353.2	Nitrogen, NO2 plus NO3	4260	ug/L	100	06/25/12 14:17	
EPA 353.2	Nitrogen, Nitrate	4250	ug/L	100	06/25/12 14:17	
2512539004	MW-3_20120630					
EPA 8015B	TPH-DRO (C10-C24) SG	87.9	ug/L	37.9	06/18/12 21:17	T4
EPA 6010	Iron	10900	ug/L	100	06/14/12 09:44	
EPA 5030B/8260	tert-Butyl Alcohol	77.2	ug/L	5.0	06/14/12 15:16	
EPA 5030B/8260	Methyl-tert-butyl ether	55.7	ug/L	0.50	06/14/12 15:16	
CA LUFT	TPH-Gasoline (C05-C12)	371	ug/L	50.0	06/14/12 15:16	
2512539005	MW-7_20120630					
EPA 6010	Iron	264	ug/L	100	06/14/12 09:48	
EPA 300.0	Sulfate	56900	ug/L	5000	06/21/12 15:47	
EPA 353.2	Nitrogen, NO2 plus NO3	111	ug/L	50.0	06/25/12 13:41	
SM 4500-NO2 B	Nitrite as N	0.067	mg/L	0.010	06/13/12 12:00	
2512539006	MW-8_20120630					
EPA 6010	Iron	21000	ug/L	100	06/14/12 09:51	
EPA 5030B/8260	tert-Butyl Alcohol	8.3	ug/L	5.0	06/14/12 15:52	
EPA 300.0	Sulfate	2570000	ug/L	200000	06/21/12 16:02	
SM 4500-NO2 B	Nitrite as N	0.048	mg/L	0.010	06/13/12 12:00	
2512539007	MW-9_20120630					
EPA 6010	Iron	731	ug/L	100	06/14/12 09:55	
EPA 300.0	Sulfate	42500	ug/L	10000	06/19/12 20:46	

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512539

Sample:	Lab ID:	Collected:	Received:	Matrix:				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW-10_20120630	Lab ID: 2512539001	Collected: 06/11/12 14:10	Received: 06/12/12 09:35	Matrix: Water				
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	ND ug/L		37.9	1	06/18/12 09:40	06/18/12 19:49		
Surrogates								
o-Terphenyl (S) SG	79 %		46-125	1	06/18/12 09:40	06/18/12 19:49	84-15-1	
n-Octacosane (S) SG	80 %		57-128	1	06/18/12 09:40	06/18/12 19:49	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	11300 ug/L		100	1	06/13/12 10:00	06/14/12 09:26	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	0.79 ug/L		0.50	1		06/14/12 14:21	71-43-2	
tert-Butyl Alcohol	17.2 ug/L		5.0	1		06/14/12 14:21	75-65-0	
Ethanol	ND ug/L		250	1		06/14/12 14:21	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		06/14/12 14:21	100-41-4	
Methyl-tert-butyl ether	0.72 ug/L		0.50	1		06/14/12 14:21	1634-04-4	
Toluene	ND ug/L		0.50	1		06/14/12 14:21	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		06/14/12 14:21	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	96 %		79-121	1		06/14/12 14:21	460-00-4	
Dibromofluoromethane (S)	103 %		81-119	1		06/14/12 14:21	1868-53-7	
1,2-Dichloroethane-d4 (S)	106 %		72-127	1		06/14/12 14:21	17060-07-0	
Toluene-d8 (S)	95 %		77-120	1		06/14/12 14:21	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		06/14/12 14:21		
Surrogates								
4-Bromofluorobenzene (S)	96 %		76-121	1		06/14/12 14:21	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	70100 ug/L		5000	5		06/21/12 14:46	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	1510 ug/L		50.0	1		06/25/12 13:32		
Nitrogen, NO2 plus NO3	1570 ug/L		50.0	1		06/25/12 13:32		
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B							
Nitrite as N	0.057 mg/L		0.010	1		06/13/12 12:00	14797-65-0	

Sample:	Lab ID:	Collected:	Received:	Matrix:				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW-11_20120630	Lab ID: 2512539002	Collected: 06/11/12 13:45	Received: 06/12/12 09:35	Matrix: Water				
8015B CA TPH DRO SG	Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified							
TPH-DRO (C10-C24) SG	ND ug/L		37.9	1	06/18/12 09:40	06/18/12 20:07		
Surrogates								
o-Terphenyl (S) SG	91 %		46-125	1	06/18/12 09:40	06/18/12 20:07	84-15-1	

ANALYTICAL RESULTS

Project: 2705191
Pace Project No.: 2512539

Sample: MW-11_20120630	Lab ID: 2512539002	Collected: 06/11/12 13:45	Received: 06/12/12 09:35	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							
Surrogates								
n-Octacosane (S) SG	93 %		57-128	1	06/18/12 09:40	06/18/12 20:07	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	1300 ug/L		100	1	06/13/12 10:00	06/14/12 09:29	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND ug/L		0.50	1		06/14/12 14:40	71-43-2	
tert-Butyl Alcohol	10.4 ug/L		5.0	1		06/14/12 14:40	75-65-0	
Ethanol	ND ug/L		250	1		06/14/12 14:40	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		06/14/12 14:40	100-41-4	
Methyl-tert-butyl ether	20.9 ug/L		0.50	1		06/14/12 14:40	1634-04-4	
Toluene	ND ug/L		0.50	1		06/14/12 14:40	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		06/14/12 14:40	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	96 %		79-121	1		06/14/12 14:40	460-00-4	
Dibromofluoromethane (S)	102 %		81-119	1		06/14/12 14:40	1868-53-7	
1,2-Dichloroethane-d4 (S)	104 %		72-127	1		06/14/12 14:40	17060-07-0	
Toluene-d8 (S)	97 %		77-120	1		06/14/12 14:40	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		06/14/12 14:40		
Surrogates								
4-Bromofluorobenzene (S)	96 %		76-121	1		06/14/12 14:40	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	79400 ug/L		10000	10		06/19/12 18:28	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	88.8 ug/L		50.0	1		06/25/12 13:34		
Nitrogen, NO2 plus NO3	93.5 ug/L		50.0	1		06/25/12 13:34		
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B							
Nitrite as N	ND mg/L		0.010	1		06/13/12 12:00	14797-65-0	

Sample: MW-12A_20120630	Lab ID: 2512539003	Collected: 06/11/12 12:10	Received: 06/12/12 09:35	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		37.9	1	06/18/12 09:40	06/18/12 20:24		
Surrogates								
o-Terphenyl (S) SG	82 %		46-125	1	06/18/12 09:40	06/18/12 20:24	84-15-1	
n-Octacosane (S) SG	84 %		57-128	1	06/18/12 09:40	06/18/12 20:24	630-02-4	

ANALYTICAL RESULTS

Project: 2705191
Pace Project No.: 2512539

Sample: MW-12A_20120630		Lab ID: 2512539003	Collected: 06/11/12 12:10	Received: 06/12/12 09:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	859 ug/L		100	1	06/13/12 10:00	06/14/12 09:33	7439-89-6	
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	ND ug/L		0.50	1		06/14/12 14:58	71-43-2	
tert-Butyl Alcohol	ND ug/L		5.0	1		06/14/12 14:58	75-65-0	
Ethanol	ND ug/L		250	1		06/14/12 14:58	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		06/14/12 14:58	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		06/14/12 14:58	1634-04-4	
Toluene	ND ug/L		0.50	1		06/14/12 14:58	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		06/14/12 14:58	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	94 %		79-121	1		06/14/12 14:58	460-00-4	
Dibromofluoromethane (S)	122 %		81-119	1		06/14/12 14:58	1868-53-7	S3
1,2-Dichloroethane-d4 (S)	117 %		72-127	1		06/14/12 14:58	17060-07-0	
Toluene-d8 (S)	96 %		77-120	1		06/14/12 14:58	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		06/14/12 14:58		
Surrogates								
4-Bromofluorobenzene (S)	94 %		76-121	1		06/14/12 14:58	460-00-4	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Sulfate	118000 ug/L		10000	10		06/22/12 01:15	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, NO2 plus NO3	4260 ug/L		100	2		06/25/12 14:17		
Nitrogen, Nitrate	4250 ug/L		100	2		06/25/12 14:17		
SM4500NO2-B, Nitrite, unpres		Analytical Method: SM 4500-NO2 B						
Nitrite as N	ND mg/L		0.010	1		06/13/12 12:00	14797-65-0	

Sample: MW-3_20120630		Lab ID: 2512539004	Collected: 06/11/12 15:45	Received: 06/12/12 09:35	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	87.9 ug/L		37.9	1	06/18/12 09:40	06/18/12 21:17		T4
Surrogates								
o-Terphenyl (S) SG	77 %		46-125	1	06/18/12 09:40	06/18/12 21:17	84-15-1	
n-Octacosane (S) SG	81 %		57-128	1	06/18/12 09:40	06/18/12 21:17	630-02-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	10900 ug/L		100	1	06/13/12 10:00	06/14/12 09:44	7439-89-6	



ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512539

Sample: MW-3_20120630	Lab ID: 2512539004	Collected: 06/11/12 15:45	Received: 06/12/12 09:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV								
Analytical Method: EPA 5030B/8260								
Benzene	ND ug/L		0.50	1		06/14/12 15:16	71-43-2	
tert-Butyl Alcohol	77.2 ug/L		5.0	1		06/14/12 15:16	75-65-0	
Ethanol	ND ug/L		250	1		06/14/12 15:16	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		06/14/12 15:16	100-41-4	
Methyl-tert-butyl ether	55.7 ug/L		0.50	1		06/14/12 15:16	1634-04-4	
Toluene	ND ug/L		0.50	1		06/14/12 15:16	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		06/14/12 15:16	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	88 %		79-121	1		06/14/12 15:16	460-00-4	
Dibromofluoromethane (S)	102 %		81-119	1		06/14/12 15:16	1868-53-7	
1,2-Dichloroethane-d4 (S)	104 %		72-127	1		06/14/12 15:16	17060-07-0	
Toluene-d8 (S)	96 %		77-120	1		06/14/12 15:16	2037-26-5	
CA LUFT MSV GRO								
Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	371 ug/L		50.0	1		06/14/12 15:16		
Surrogates								
4-Bromofluorobenzene (S)	88 %		76-121	1		06/14/12 15:16	460-00-4	
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0								
Sulfate	ND ug/L		2000	2		06/21/12 15:32	14808-79-8	D3
353.2 Nitrogen, NO2/NO3 pres.								
Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND ug/L		50.0	1		06/25/12 13:40		
Nitrogen, NO2 plus NO3	ND ug/L		50.0	1		06/25/12 13:40		
SM4500NO2-B, Nitrite, unpres								
Analytical Method: SM 4500-NO2 B								
Nitrite as N	ND mg/L		0.010	1		06/13/12 12:00	14797-65-0	

Sample: MW-7_20120630	Lab ID: 2512539005	Collected: 06/11/12 14:55	Received: 06/12/12 09:35	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		37.9	1	06/18/12 09:40	06/18/12 21:34		
Surrogates								
o-Terphenyl (S) SG	89 %		46-125	1	06/18/12 09:40	06/18/12 21:34	84-15-1	
n-Octacosane (S) SG	92 %		57-128	1	06/18/12 09:40	06/18/12 21:34	630-02-4	
6010 MET ICP								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	264 ug/L		100	1	06/13/12 10:00	06/14/12 09:48	7439-89-6	
8260 MSV								
Analytical Method: EPA 5030B/8260								
Benzene	ND ug/L		0.50	1		06/14/12 15:34	71-43-2	
tert-Butyl Alcohol	ND ug/L		5.0	1		06/14/12 15:34	75-65-0	
Ethanol	ND ug/L		250	1		06/14/12 15:34	64-17-5	

Date: 06/26/2012 03:56 PM

REPORT OF LABORATORY ANALYSIS

Page 9 of 23

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ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512539

Sample:	Lab ID:	Collected:	Received:	Matrix:				
MW-7_20120630	2512539005	06/11/12 14:55	06/12/12 09:35	Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 5030B/8260								
Ethylbenzene	ND ug/L		0.50	1		06/14/12 15:34	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		06/14/12 15:34	1634-04-4	
Toluene	ND ug/L		0.50	1		06/14/12 15:34	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		06/14/12 15:34	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	94 %		79-121	1		06/14/12 15:34	460-00-4	
Dibromofluoromethane (S)	129 %		81-119	1		06/14/12 15:34	1868-53-7	S3
1,2-Dichloroethane-d4 (S)	108 %		72-127	1		06/14/12 15:34	17060-07-0	
Toluene-d8 (S)	96 %		77-120	1		06/14/12 15:34	2037-26-5	
CA LUFT MSV GRO Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		06/14/12 15:34		
Surrogates								
4-Bromofluorobenzene (S)	94 %		76-121	1		06/14/12 15:34	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0								
Sulfate	56900 ug/L		5000	5		06/21/12 15:47	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND ug/L		50.0	1		06/25/12 13:41		
Nitrogen, NO2 plus NO3	111 ug/L		50.0	1		06/25/12 13:41		
SM4500NO2-B, Nitrite, unpres Analytical Method: SM 4500-NO2 B								
Nitrite as N	0.067 mg/L		0.010	1		06/13/12 12:00	14797-65-0	

Sample:	Lab ID:	Collected:	Received:	Matrix:				
MW-8_20120630	2512539006	06/11/12 14:30	06/12/12 09:35	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		37.9	1	06/18/12 09:40	06/18/12 22:26		
Surrogates								
o-Terphenyl (S) SG	88 %		46-125	1	06/18/12 09:40	06/18/12 22:26	84-15-1	
n-Octacosane (S) SG	90 %		57-128	1	06/18/12 09:40	06/18/12 22:26	630-02-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	21000 ug/L		100	1	06/13/12 10:00	06/14/12 09:51	7439-89-6	
8260 MSV Analytical Method: EPA 5030B/8260								
Benzene	ND ug/L		0.50	1		06/14/12 15:52	71-43-2	
tert-Butyl Alcohol	8.3 ug/L		5.0	1		06/14/12 15:52	75-65-0	
Ethanol	ND ug/L		250	1		06/14/12 15:52	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		06/14/12 15:52	100-41-4	
Methyl-tert-butyl ether	ND ug/L		0.50	1		06/14/12 15:52	1634-04-4	
Toluene	ND ug/L		0.50	1		06/14/12 15:52	108-88-3	

Date: 06/26/2012 03:56 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512539

Sample: MW-8_20120630	Lab ID: 2512539006	Collected: 06/11/12 14:30	Received: 06/12/12 09:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Xylene (Total)	ND	ug/L	1.5	1		06/14/12 15:52	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	93 %		79-121	1		06/14/12 15:52	460-00-4	
Dibromofluoromethane (S)	105 %		81-119	1		06/14/12 15:52	1868-53-7	
1,2-Dichloroethane-d4 (S)	108 %		72-127	1		06/14/12 15:52	17060-07-0	
Toluene-d8 (S)	95 %		77-120	1		06/14/12 15:52	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND	ug/L	50.0	1		06/14/12 15:52		
Surrogates								
4-Bromofluorobenzene (S)	93 %		76-121	1		06/14/12 15:52	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	2570000	ug/L	200000	200		06/21/12 16:02	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND	ug/L	50.0	1		06/25/12 13:43		
Nitrogen, NO2 plus NO3	ND	ug/L	50.0	1		06/25/12 13:43		
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B							
Nitrite as N	0.048	mg/L	0.010	1		06/13/12 12:00	14797-65-0	

Sample: MW-9_20120630	Lab ID: 2512539007	Collected: 06/11/12 15:20	Received: 06/12/12 09:35	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	37.9	1	06/18/12 09:40	06/18/12 22:43		
Surrogates								
o-Terphenyl (S) SG	87 %		46-125	1	06/18/12 09:40	06/18/12 22:43	84-15-1	
n-Octacosane (S) SG	91 %		57-128	1	06/18/12 09:40	06/18/12 22:43	630-02-4	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010							
Iron	731	ug/L	100	1	06/13/12 10:00	06/14/12 09:55	7439-89-6	
8260 MSV	Analytical Method: EPA 5030B/8260							
Benzene	ND	ug/L	0.50	1		06/14/12 16:11	71-43-2	
tert-Butyl Alcohol	ND	ug/L	5.0	1		06/14/12 16:11	75-65-0	
Ethanol	ND	ug/L	250	1		06/14/12 16:11	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		06/14/12 16:11	100-41-4	
Methyl-tert-butyl ether	ND	ug/L	0.50	1		06/14/12 16:11	1634-04-4	
Toluene	ND	ug/L	0.50	1		06/14/12 16:11	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		06/14/12 16:11	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	94 %		79-121	1		06/14/12 16:11	460-00-4	

Date: 06/26/2012 03:56 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512539

Sample: MW-9_20120630	Lab ID: 2512539007	Collected: 06/11/12 15:20	Received: 06/12/12 09:35	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 5030B/8260							
Surrogates								
Dibromofluoromethane (S)	129 %		81-119	1		06/14/12 16:11	1868-53-7	S3
1,2-Dichloroethane-d4 (S)	124 %		72-127	1		06/14/12 16:11	17060-07-0	
Toluene-d8 (S)	96 %		77-120	1		06/14/12 16:11	2037-26-5	
CA LUFT MSV GRO	Analytical Method: CA LUFT							
TPH-Gasoline (C05-C12)	ND ug/L		50.0	1		06/14/12 16:11		
Surrogates								
4-Bromofluorobenzene (S)	94 %		76-121	1		06/14/12 16:11	460-00-4	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0							
Sulfate	42500 ug/L		10000	10		06/19/12 20:46	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.	Analytical Method: EPA 353.2							
Nitrogen, Nitrate	ND ug/L		50.0	1		06/25/12 13:49		
Nitrogen, NO2 plus NO3	ND ug/L		50.0	1		06/25/12 13:49		
SM4500NO2-B, Nitrite, unpres	Analytical Method: SM 4500-NO2 B							
Nitrite as N	ND mg/L		0.010	1		06/13/12 12:00	14797-65-0	

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512539

QC Batch: MPRP/3089 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

METHOD BLANK: 118763 Matrix: Water
Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	ND	100	06/14/12 09:01	

LABORATORY CONTROL SAMPLE: 118764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	9780	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 118765 118766

Parameter	Units	2512539003		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	Result	MSD Result	% Rec	% Rec				
Iron	ug/L	859	10000	10000	10500	10100	96	92	75-125	4		



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512539

QC Batch: MSV/7205 Analysis Method: EPA 5030B/8260
 QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
 Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

METHOD BLANK: 119028 Matrix: Water
 Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	06/14/12 14:03	
Ethanol	ug/L	ND	250	06/14/12 14:03	
Ethylbenzene	ug/L	ND	0.50	06/14/12 14:03	
Methyl-tert-butyl ether	ug/L	ND	0.50	06/14/12 14:03	
tert-Butyl Alcohol	ug/L	ND	5.0	06/14/12 14:03	
Toluene	ug/L	ND	0.50	06/14/12 14:03	
Xylene (Total)	ug/L	ND	1.5	06/14/12 14:03	
1,2-Dichloroethane-d4 (S)	%	106	72-127	06/14/12 14:03	
4-Bromofluorobenzene (S)	%	96	79-121	06/14/12 14:03	
Dibromofluoromethane (S)	%	103	81-119	06/14/12 14:03	
Toluene-d8 (S)	%	95	77-120	06/14/12 14:03	

LABORATORY CONTROL SAMPLE: 119029

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	16.9	85	66-123	
Ethanol	ug/L	800	923	115	40-160	
Ethylbenzene	ug/L	20	21.3	107	67-122	
Methyl-tert-butyl ether	ug/L	20	23.9	120	65-138	
tert-Butyl Alcohol	ug/L	100	115	115	57-153	
Toluene	ug/L	20	18.4	92	64-118	
Xylene (Total)	ug/L	60	67.8	113	68-122	
1,2-Dichloroethane-d4 (S)	%			104	72-127	
4-Bromofluorobenzene (S)	%			86	79-121	
Dibromofluoromethane (S)	%			106	81-119	
Toluene-d8 (S)	%			97	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119030 119031

Parameter	Units	2512539003		119031		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result					
Benzene	ug/L	ND	20	20	21.6	18.0	108	90	63-138	18
Ethanol	ug/L	ND	800	800	974	1090	122	136	40-160	11
Ethylbenzene	ug/L	ND	20	20	23.2	23.1	116	115	65-135	.5
Methyl-tert-butyl ether	ug/L	ND	20	20	28.5	28.7	141	142	59-143	.5
tert-Butyl Alcohol	ug/L	ND	100	100	137	155	136	154	46-156	12
Toluene	ug/L	ND	20	20	21.5	20.1	107	100	64-128	7
Xylene (Total)	ug/L	ND	60	60	74.0	73.6	123	123	65-133	.5
1,2-Dichloroethane-d4 (S)	%						107	96	72-127	
4-Bromofluorobenzene (S)	%						82	89	79-121	

Date: 06/26/2012 03:56 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512539

Parameter	Units	119030		119031		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		2512539003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result					
Dibromofluoromethane (S)	%					117	88	81-119		
Toluene-d8 (S)	%					99	94	77-120		



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512539

QC Batch: MSV7206 Analysis Method: CA LUFT
 QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
 Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

METHOD BLANK: 119033 Matrix: Water
 Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	06/14/12 13:45	
4-Bromofluorobenzene (S)	%	94	76-121	06/14/12 13:45	

LABORATORY CONTROL SAMPLE: 119034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	400	80	57-139	
4-Bromofluorobenzene (S)	%			93	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119035 119036

Parameter	Units	2512539003 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	448	413	86	79	40-150	8	
4-Bromofluorobenzene (S)	%						91	92	76-121		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119749 119750

Parameter	Units	2512566004 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	386	387	74	74	40-150	.1	
4-Bromofluorobenzene (S)	%						92	93	76-121		



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512539

QC Batch: OEXT/5658 Analysis Method: EPA 8015B
 QC Batch Method: EPA 3510 Modified Analysis Description: 8015B CADRO Silica Gel
 Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

METHOD BLANK: 119372 Matrix: Water
 Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	ND	40.0	06/18/12 19:14	
n-Octacosane (S) SG	%	82	57-128	06/18/12 19:14	
o-Terphenyl (S) SG	%	84	46-125	06/18/12 19:14	

LABORATORY CONTROL SAMPLE: 119373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	2000	1800	90	50-110	
n-Octacosane (S) SG	%			95	57-128	
o-Terphenyl (S) SG	%			95	46-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119374 119375

Parameter	Units	2512539003		119375		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
TPH-DRO (C10-C24) SG	ug/L	ND	1900	1900	1700	1540	89	80	39-110	10
n-Octacosane (S) SG	%						92	85	57-128	
o-Terphenyl (S) SG	%						92	83	46-125	

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512539

QC Batch: WETA/2625 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

METHOD BLANK: 119504 Matrix: Water
Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	ug/L	ND	1000	06/19/12 16:10	

LABORATORY CONTROL SAMPLE: 119505

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	15000	14900	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119506 119507

Parameter	Units	2512538002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Sulfate	ug/L	13.2 mg/L	15000	15000	29200	28100	107	99	90-110	4	

MATRIX SPIKE SAMPLE: 119508

Parameter	Units	2512539003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	118000	150000	260000	95	90-110	



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512539

QC Batch: WETA/2623 Analysis Method: EPA 353.2
 QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
 Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

METHOD BLANK: 119381 Matrix: Water
 Associated Lab Samples: 2512539001, 2512539002, 2512539003, 2512539004, 2512539005, 2512539006, 2512539007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	ND	50.0	06/25/12 13:28	

LABORATORY CONTROL SAMPLE: 119382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	1000	918	92	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119383 119384

Parameter	Units	2512539003		MSD		MS		% Rec		RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits		
Nitrogen, NO2 plus NO3	ug/L	4260	2000	2000	6310	6320	103	103	90-110	.2	

MATRIX SPIKE SAMPLE: 119385

Parameter	Units	2512555004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	ND	1000	1060	104	90-110	

QUALIFIERS

Project: 2705191
Pace Project No.: 2512539

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel Clean-Up

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-S Pace Analytical Services - Seattle

ANALYTE QUALIFIERS

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

R1 RPD value was outside control limits.

S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

T4 Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191
 Pace Project No.: 2512539

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2512539001	MW-10_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512539002	MW-11_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512539003	MW-12A_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512539004	MW-3_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512539005	MW-7_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512539006	MW-8_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512539007	MW-9_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512539001	MW-10_20120630	EPA 3010	MPRP/3089	EPA 6010	ICP/2875
2512539002	MW-11_20120630	EPA 3010	MPRP/3089	EPA 6010	ICP/2875
2512539003	MW-12A_20120630	EPA 3010	MPRP/3089	EPA 6010	ICP/2875
2512539004	MW-3_20120630	EPA 3010	MPRP/3089	EPA 6010	ICP/2875
2512539005	MW-7_20120630	EPA 3010	MPRP/3089	EPA 6010	ICP/2875
2512539006	MW-8_20120630	EPA 3010	MPRP/3089	EPA 6010	ICP/2875
2512539007	MW-9_20120630	EPA 3010	MPRP/3089	EPA 6010	ICP/2875
2512539001	MW-10_20120630	EPA 5030B/8260	MSV/7205		
2512539002	MW-11_20120630	EPA 5030B/8260	MSV/7205		
2512539003	MW-12A_20120630	EPA 5030B/8260	MSV/7205		
2512539004	MW-3_20120630	EPA 5030B/8260	MSV/7205		
2512539005	MW-7_20120630	EPA 5030B/8260	MSV/7205		
2512539006	MW-8_20120630	EPA 5030B/8260	MSV/7205		
2512539007	MW-9_20120630	EPA 5030B/8260	MSV/7205		
2512539001	MW-10_20120630	CA LUFT	MSV/7206		
2512539002	MW-11_20120630	CA LUFT	MSV/7206		
2512539003	MW-12A_20120630	CA LUFT	MSV/7206		
2512539004	MW-3_20120630	CA LUFT	MSV/7206		
2512539005	MW-7_20120630	CA LUFT	MSV/7206		
2512539006	MW-8_20120630	CA LUFT	MSV/7206		
2512539007	MW-9_20120630	CA LUFT	MSV/7206		
2512539001	MW-10_20120630	EPA 300.0	WETA/2625		
2512539002	MW-11_20120630	EPA 300.0	WETA/2625		
2512539003	MW-12A_20120630	EPA 300.0	WETA/2625		
2512539004	MW-3_20120630	EPA 300.0	WETA/2625		
2512539005	MW-7_20120630	EPA 300.0	WETA/2625		
2512539006	MW-8_20120630	EPA 300.0	WETA/2625		
2512539007	MW-9_20120630	EPA 300.0	WETA/2625		
2512539001	MW-10_20120630	EPA 353.2	WETA/2623		
2512539002	MW-11_20120630	EPA 353.2	WETA/2623		
2512539003	MW-12A_20120630	EPA 353.2	WETA/2623		
2512539004	MW-3_20120630	EPA 353.2	WETA/2623		
2512539005	MW-7_20120630	EPA 353.2	WETA/2623		
2512539006	MW-8_20120630	EPA 353.2	WETA/2623		
2512539007	MW-9_20120630	EPA 353.2	WETA/2623		
2512539001	MW-10_20120630	SM 4500-NO2 B	WETA/2611		
2512539002	MW-11_20120630	SM 4500-NO2 B	WETA/2611		
2512539003	MW-12A_20120630	SM 4500-NO2 B	WETA/2611		
2512539004	MW-3_20120630	SM 4500-NO2 B	WETA/2611		

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191
Pace Project No.: 2512539

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2512539005	MW-7_20120630	SM 4500-NO2 B	WETA/2611		
2512539006	MW-8_20120630	SM 4500-NO2 B	WETA/2611		
2512539007	MW-9_20120630	SM 4500-NO2 B	WETA/2611		

Sample Container Count

CLIENT: COP Antea

2512539

Trip Blank(s) Provided?

Y / N

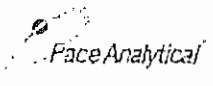


COC PAGE 9 of 1

COC ID# _____

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

AG1H	1 liter HCL amber glass	BP2S	500mL H2SO4 plastic	JGFU	4 oz amber glass soil jar
AG1U	1liter unpreserved amber glass	BP2U	500mL unpreserved plastic	WGKU	8 oz clear glass soil jar
AG2S	500mL H2SO4 amber glass	BP2Z	500mL NaOH, Zn Ac	WGFU	4 oz clear glass soil jar
AG2U	500mL unpreserved amber glass	BP3C	250mL NaOH plastic	WG2U	2 oz clear glass soil jar
AG3S	250mL H2SO4 amber glass	BP3N	250mL HNO3 plastic	JGFM	4 oz amber glass soil jar with MeOH
BG1H	1 liter HCL clear glass	BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass	BP3U	250mL unpreserved plastic	VG9W	40mL clear vial pre-weighted with DI water
BP1N	1 liter HNO3 plastic	DG9B	40mL Na Bisulfate clear vial	VSG	Headspace septa vial
BP1S	1 liter H2SO4 plastic	DG9H	40mL HCL amber vial	VG9H	40mL HCL clear vial
BP1U	1 liter unpreserved plastic	DG9M	40mL MeOH clear vial	WGFU	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac	DG9T	40mL Na Thio amber vial	VG9T	40mL Na Thio. clear vial
BP2N	500mL HNO3 plastic	DG9U	40mL unpreserved amber vial	ZPLC	Ziploc Bag
BP2O	500mL NaOH plastic		Wipe/Swab	U	Summa Can



Sample Condition Upon Receipt

Client Name: Antea Corp Project # 2512539

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 8738 8211 6115; 6104; 6126

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 54-10173192 or 220099 Type of Ice: Wet Blue None Samples on Ice, cooling process has begun

Cooler Temperature 4.9, 4.4, 4.3 Biological Tissue is Frozen: Yes No _____ Date and Initials of person examining contents: 6/12/12 by

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

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Karen Janga Date: 06/12/12

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)

Is the Data Set Valid?

(circle)

Yes / No

Preservation Temperature

(if known): 5.4 °C

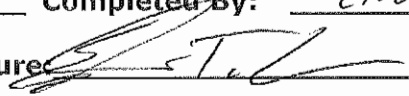
Antea™ Group Laboratory Data Validation Sheet

Project/Client: 76 ~~888~~ Station No. 5191 / COP-ELT

Project #: I42705191

Date of Validation: 7/16/12 **Date of Analysis:** 6/13 to 6/25

Sample Date: 6/12/12 **Completed By:** ETW

Signature: 

Circle
or
Highlight

Yes / No

(below)

Analytical Lab Used and Report # (if any): PACE#: 2512555

1. Were the analyses the ones requested?
2. Do the sample number(s) on the chain-of-custody (COC) match the one(s) that appear on the laboratory data sheet?
3. Were samples prepared (extracted, filtered, etc.) within EPA holding times?
4. Once prepared/extracted, were the samples analyzed within the EPA holding times?
5. Were Laboratory blanks performed, if so, were they non-detect?
6. Are the units correct? (i.e., soil samples in mg/kg or ug/g, water samples mg/L, ug/L, and air samples in volume mg/m³, etc.)
7. Were appropriate Matrix Spike (MS) and Matrix Spike Duplicate (MSD) samples included in the laboratory batch sample?
8. In lieu of MS/ MSD, were surrogate spike (SS) or surrogate spike duplicate (SSD) samples included in the laboratory batch samples?
9. Were MS/ MSD (or SS/SSD) within the acceptable range of % recovery (i.e., approximately 80-120%, depending on the analyte)?
10. Were MS/MSD (or SS/SSD) values used to calculate Relative Percent Difference (RPD)?
11. Were Relative Percent Difference values within the acceptable range (i.e. ±25%)?

- Yes / No
- Yes / No
- Yes / No
- Yes / No
- Yes / No
- Yes / No
- Yes / No
- Yes / No
- Yes / No
- Yes / No

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

5. Lab blanks were performed but was detected in the Nitrite as N sample. (P8)

9. MS/MSD outside control limits Nitrite as N (MO & MI) other Qualifiers In, 2n, DS, PY, SS, TY



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

June 27, 2012

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

RE: Project: 2705191
Pace Project No.: 2512555

Dear Dennis Dettloff:

Enclosed are the analytical results for sample(s) received by the laboratory on June 13, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Samples MW-14 and MW-17 were received neutral at pH of 7 for Nitrate/Nitrite and total iron. H₂SO₄ was added for Nitrate/Nitrite and HNO₃ was added for total iron to these two samples upon arrival. Client was notified on 06/13/2012.

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

Sincerely,

Karen Jang

karen.jang@pacelabs.com
Project Manager

Enclosures

cc: Tara Bosch, Antea USA
Jonathon Fillingame, Antea USA
Lia Holden, Antea USA
Dan Keltner, Antea USA
Josh Mahoney, Antea USA

Tony Perini, Antea USA
Nicole Persaud, Antea USA
Don Pinkerton, Antea USA
Doug Umland, Antea USA
Ed Weyrens, Antea USA



REPORT OF LABORATORY ANALYSIS

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

CERTIFICATIONS

Project: 2705191
Pace Project No.: 2512555

Washington Certification IDs

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

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

REPORT OF LABORATORY ANALYSIS

Page 2 of 33

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SAMPLE ANALYTE COUNT

Project: 2705191
 Pace Project No.: 2512555

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2512555001	MW-12_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512555002	MW-13_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	RAB	1	PASI-S
2512555003	MW-14_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512555004	MW-15_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512555005	MW-16_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512555006	MW-17_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S

REPORT OF LABORATORY ANALYSIS



SAMPLE ANALYTE COUNT

Project: 2705191
 Pace Project No.: 2512555

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	RAB	1	PASI-S
2512555007	MW-6_20120630	EPA 8015B	AY1	3	PASI-S
		EPA 6010	BGA	1	PASI-S
		EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S
		EPA 300.0	CMS	1	PASI-S
		EPA 353.2	CMS	2	PASI-S
		SM 4500-NO2 B	KMT	1	PASI-S
2512555008	FD1_20120630	EPA 5030B/8260	LPM	11	PASI-S
		CA LUFT	LPM	2	PASI-S

REPORT OF LABORATORY ANALYSIS

HITS ONLY

Project: 2705191
Pace Project No.: 2512555

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2512555001	MW-12_20120630					
EPA 8015B	TPH-DRO (C10-C24) SG	957 ug/L		37.9	06/18/12 23:01	T4
EPA 6010	Iron	497 ug/L		400	06/19/12 10:44	D3
EPA 5030B/8260	Benzene	178 ug/L		0.50	06/14/12 19:19	
EPA 5030B/8260	tert-Butyl Alcohol	448 ug/L		5.0	06/14/12 19:19	
EPA 5030B/8260	Ethylbenzene	24.1 ug/L		0.50	06/14/12 19:19	
EPA 5030B/8260	Methyl-tert-butyl ether	993 ug/L		5.0	06/18/12 15:30	
EPA 5030B/8260	Toluene	17.0 ug/L		0.50	06/14/12 19:19	
EPA 5030B/8260	Xylene (Total)	68.8 ug/L		1.5	06/14/12 19:19	
CA LUFT	TPH-Gasoline (C05-C12)	1030 ug/L		50.0	06/14/12 19:19	
EPA 300.0	Sulfate	2130000 ug/L		200000	06/21/12 17:07	
2512555002	MW-13_20120630					
EPA 6010	Iron	3760 ug/L		1000	06/19/12 10:55	D3
EPA 5030B/8260	tert-Butyl Alcohol	81.7 ug/L		5.0	06/14/12 19:01	
EPA 5030B/8260	Methyl-tert-butyl ether	220 ug/L		2.5	06/14/12 18:42	
CA LUFT	TPH-Gasoline (C05-C12)	118 ug/L		50.0	06/14/12 19:01	2n
EPA 300.0	Sulfate	131000 ug/L		20000	06/21/12 17:22	
SM 4500-NO2 B	Nitrite as N	0.019 mg/L		0.010	06/14/12 09:15	
2512555003	MW-14_20120630					
EPA 8015B	TPH-DRO (C10-C24) SG	4580 ug/L		37.7	06/19/12 18:12	
EPA 6010	Iron	1150 ug/L		500	06/19/12 10:58	D3
EPA 5030B/8260	Benzene	1200 ug/L		5.0	06/18/12 16:50	
EPA 5030B/8260	tert-Butyl Alcohol	23.3 ug/L		5.0	06/14/12 19:38	
EPA 5030B/8260	Ethylbenzene	1580 ug/L		5.0	06/18/12 16:50	
EPA 5030B/8260	Methyl-tert-butyl ether	1.4 ug/L		0.50	06/14/12 19:38	
EPA 5030B/8260	Toluene	14.0 ug/L		0.50	06/14/12 19:38	
EPA 5030B/8260	Xylene (Total)	3010 ug/L		15.0	06/18/12 16:50	
CA LUFT	TPH-Gasoline (C05-C12)	15700 ug/L		500	06/18/12 16:50	
EPA 300.0	Sulfate	439000 ug/L		50000	06/21/12 17:37	
2512555004	MW-15_20120630					
EPA 6010	Iron	2920 ug/L		500	06/19/12 11:02	D3
EPA 5030B/8260	tert-Butyl Alcohol	90.9 ug/L		5.0	06/14/12 16:29	
EPA 5030B/8260	Methyl-tert-butyl ether	114 ug/L		0.50	06/14/12 16:29	
CA LUFT	TPH-Gasoline (C05-C12)	74.3 ug/L		50.0	06/14/12 16:29	2n
EPA 300.0	Sulfate	42100 ug/L		5000	06/21/12 17:53	
2512555005	MW-16_20120630					
EPA 8015B	TPH-DRO (C10-C24) SG	48.1 ug/L		37.9	06/19/12 01:35	T4
EPA 6010	Iron	1730 ug/L		500	06/19/12 11:06	D3
EPA 5030B/8260	tert-Butyl Alcohol	374 ug/L		5.0	06/20/12 10:42	
EPA 5030B/8260	Methyl-tert-butyl ether	1100 ug/L		5.0	06/18/12 15:50	
CA LUFT	TPH-Gasoline (C05-C12)	430 ug/L		50.0	06/20/12 10:42	2n
EPA 300.0	Sulfate	19900 ug/L		2000	06/21/12 18:08	
2512555006	MW-17_20120630					
EPA 8015B	TPH-DRO (C10-C24) SG	1090 ug/L		37.9	06/19/12 01:53	T4
EPA 6010	Iron	44300 ug/L		500	06/19/12 11:21	D3

REPORT OF LABORATORY ANALYSIS

HITS ONLY

Project: 2705191
Pace Project No.: 2512555

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2512555006	MW-17_20120630					
EPA 5030B/8260	Benzene	2340	ug/L	12.5	06/18/12 17:10	
EPA 5030B/8260	tert-Butyl Alcohol	411	ug/L	25.0	06/18/12 19:20	
EPA 5030B/8260	Ethylbenzene	153	ug/L	2.5	06/18/12 19:20	
EPA 5030B/8260	Toluene	123	ug/L	2.5	06/18/12 19:20	
EPA 5030B/8260	Xylene (Total)	610	ug/L	7.5	06/18/12 19:20	
CA LUFT	TPH-Gasoline (C05-C12)	4950	ug/L	250	06/14/12 20:16	
EPA 300.0	Sulfate	2520000	ug/L	200000	06/21/12 18:23	
SM 4500-NO2 B	Nitrite as N	0.039	mg/L	0.010	06/14/12 09:15	1n
2512555007	MW-6_20120630					
EPA 8015B	TPH-DRO (C10-C24) SG	47100	ug/L	379	06/19/12 00:44	T4
EPA 6010	Iron	1240	ug/L	500	06/19/12 11:24	D3
EPA 5030B/8260	Benzene	773	ug/L	5.0	06/18/12 16:10	
EPA 5030B/8260	tert-Butyl Alcohol	123	ug/L	5.0	06/14/12 20:34	
EPA 5030B/8260	Ethylbenzene	840	ug/L	5.0	06/18/12 16:10	
EPA 5030B/8260	Methyl-tert-butyl ether	11.4	ug/L	0.50	06/14/12 20:34	
EPA 5030B/8260	Toluene	60.8	ug/L	0.50	06/14/12 20:34	
EPA 5030B/8260	Xylene (Total)	3110	ug/L	15.0	06/18/12 16:10	
CA LUFT	TPH-Gasoline (C05-C12)	33400	ug/L	500	06/19/12 07:24	
EPA 300.0	Sulfate	1110	ug/L	1000	06/21/12 18:38	
2512555008	FD1_20120630					
EPA 5030B/8260	Benzene	818	ug/L	5.0	06/18/12 16:30	
EPA 5030B/8260	tert-Butyl Alcohol	134	ug/L	5.0	06/14/12 20:53	
EPA 5030B/8260	Ethylbenzene	862	ug/L	5.0	06/18/12 16:30	
EPA 5030B/8260	Methyl-tert-butyl ether	12.4	ug/L	0.50	06/14/12 20:53	
EPA 5030B/8260	Toluene	80.5	ug/L	0.50	06/14/12 20:53	
EPA 5030B/8260	Xylene (Total)	3130	ug/L	15.0	06/18/12 16:30	
CA LUFT	TPH-Gasoline (C05-C12)	27400	ug/L	500	06/19/12 07:44	

REPORT OF LABORATORY ANALYSIS



ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512555

Sample:	Lab ID:	Collected:	Received:	Matrix:				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW-12_20120630	Lab ID: 2512555001	06/12/12 10:40	06/13/12 10:00	Water				
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	957 ug/L		37.9	1	06/18/12 09:40	06/18/12 23:01		T4
Surrogates								
o-Terphenyl (S) SG	87 %		46-125	1	06/18/12 09:40	06/18/12 23:01	84-15-1	
n-Octacosane (S) SG	90 %		57-128	1	06/18/12 09:40	06/18/12 23:01	630-02-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	497 ug/L		400	4	06/14/12 11:25	06/19/12 10:44	7439-89-6	D3
8260 MSV Analytical Method: EPA 5030B/8260								
Benzene	178 ug/L		0.50	1		06/14/12 19:19	71-43-2	
tert-Butyl Alcohol	448 ug/L		5.0	1		06/14/12 19:19	75-65-0	
Ethanol	ND ug/L		250	1		06/14/12 19:19	64-17-5	
Ethylbenzene	24.1 ug/L		0.50	1		06/14/12 19:19	100-41-4	
Methyl-tert-butyl ether	993 ug/L		5.0	10		06/18/12 15:30	1634-04-4	
Toluene	17.0 ug/L		0.50	1		06/14/12 19:19	108-88-3	
Xylene (Total)	68.8 ug/L		1.5	1		06/14/12 19:19	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	87 %		79-121	1		06/14/12 19:19	460-00-4	
Dibromofluoromethane (S)	113 %		81-119	1		06/14/12 19:19	1868-53-7	
1,2-Dichloroethane-d4 (S)	111 %		72-127	1		06/14/12 19:19	17060-07-0	
Toluene-d8 (S)	94 %		77-120	1		06/14/12 19:19	2037-26-5	
CA LUFT MSV GRO Analytical Method: CALUFT								
TPH-Gasoline (C05-C12)	1030 ug/L		50.0	1		06/14/12 19:19		
Surrogates								
4-Bromofluorobenzene (S)	87 %		76-121	1		06/14/12 19:19	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0								
Sulfate	2130000 ug/L		200000	200		06/21/12 17:07	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND ug/L		50.0	1		06/25/12 13:50		
Nitrogen, NO2 plus NO3	ND ug/L		50.0	1		06/25/12 13:50		
SM4500NO2-B, Nitrite, unpres Analytical Method: SM 4500-NO2 B								
Nitrite as N	ND mg/L		0.010	1		06/13/12 16:54	14797-65-0	

Sample:	Lab ID:	Collected:	Received:	Matrix:				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW-13_20120630	Lab ID: 2512555002	06/12/12 09:35	06/13/12 10:00	Water				
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	ND ug/L		37.9	1	06/18/12 09:40	06/18/12 23:18		
Surrogates								
o-Terphenyl (S) SG	77 %		46-125	1	06/18/12 09:40	06/18/12 23:18	84-15-1	

Date: 06/27/2012 08:41 AM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512555

Sample:	Lab ID:	Collected:	Received:	Matrix:				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW-13_20120630	Lab ID: 2512555002	06/12/12 09:35	06/13/12 10:00	Water				
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
Surrogates								
n-Octacosane (S) SG	80 %		57-128	1	06/18/12 09:40	06/18/12 23:18	630-02-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	3760 ug/L		1000	10	06/14/12 11:25	06/19/12 10:55	7439-89-6	D3
8260 MSV Analytical Method: EPA 5030B/8260								
Benzene	ND ug/L		0.50	1		06/14/12 19:01	71-43-2	
tert-Butyl Alcohol	81.7 ug/L		5.0	1		06/14/12 19:01	75-65-0	
Ethanol	ND ug/L		250	1		06/14/12 19:01	64-17-5	
Ethylbenzene	ND ug/L		0.50	1		06/14/12 19:01	100-41-4	
Methyl-tert-butyl ether	220 ug/L		2.5	5		06/14/12 18:42	1634-04-4	
Toluene	ND ug/L		0.50	1		06/14/12 19:01	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		06/14/12 19:01	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	94 %		79-121	1		06/14/12 19:01	460-00-4	
Dibromofluoromethane (S)	101 %		81-119	1		06/14/12 19:01	1868-53-7	
1,2-Dichloroethane-d4 (S)	105 %		72-127	1		06/14/12 19:01	17060-07-0	
Toluene-d8 (S)	95 %		77-120	1		06/14/12 19:01	2037-26-5	
CA LUFT MSV GRO Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	118 ug/L		50.0	1		06/14/12 19:01		2n
Surrogates								
4-Bromofluorobenzene (S)	94 %		76-121	1		06/14/12 19:01	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0								
Sulfate	131000 ug/L		20000	20		06/21/12 17:22	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND ug/L		50.0	1		06/25/12 13:52		
Nitrogen, NO2 plus NO3	ND ug/L		50.0	1		06/25/12 13:52		
SM4500NO2-B, Nitrite, unpres Analytical Method: SM 4500-NO2 B								
Nitrite as N	0.019 mg/L		0.010	1		06/14/12 09:15	14797-65-0	

Sample:	Lab ID:	Collected:	Received:	Matrix:				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
Sample: MW-14_20120630	Lab ID: 2512555003	06/12/12 11:25	06/13/12 10:00	Water				
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	4580 ug/L		37.7	1	06/19/12 13:30	06/19/12 18:12		
Surrogates								
o-Terphenyl (S) SG	96 %		46-125	1	06/19/12 13:30	06/19/12 18:12	84-15-1	
n-Octacosane (S) SG	101 %		57-128	1	06/19/12 13:30	06/19/12 18:12	630-02-4	



ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512555

Sample: MW-14_20120630		Lab ID: 2512555003	Collected: 06/12/12 11:25	Received: 06/13/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	1150	ug/L	500	5	06/14/12 11:25	06/19/12 10:58	7439-89-6	D3
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	1200	ug/L	5.0	10		06/18/12 16:50	71-43-2	
tert-Butyl Alcohol	23.3	ug/L	5.0	1		06/14/12 19:38	75-65-0	
Ethanol	ND	ug/L	250	1		06/14/12 19:38	64-17-5	
Ethylbenzene	1580	ug/L	5.0	10		06/18/12 16:50	100-41-4	
Methyl-tert-butyl ether	1.4	ug/L	0.50	1		06/14/12 19:38	1634-04-4	
Toluene	14.0	ug/L	0.50	1		06/14/12 19:38	108-88-3	
Xylene (Total)	3010	ug/L	15.0	10		06/18/12 16:50	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	75 %		79-121	1		06/14/12 19:38	460-00-4	S5
Dibromofluoromethane (S)	115 %		81-119	1		06/14/12 19:38	1868-53-7	
1,2-Dichloroethane-d4 (S)	144 %		72-127	1		06/14/12 19:38	17060-07-0	S5
Toluene-d8 (S)	89 %		77-120	1		06/14/12 19:38	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	15700	ug/L	500	10		06/18/12 16:50		
Surrogates								
4-Bromofluorobenzene (S)	91 %		76-121	10		06/18/12 16:50	460-00-4	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Sulfate	439000	ug/L	50000	50		06/21/12 17:37	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, Nitrate	ND	ug/L	50.0	1		06/25/12 13:53		
Nitrogen, NO2 plus NO3	ND	ug/L	50.0	1		06/25/12 13:53		P4
SM4500NO2-B, Nitrite, unpres		Analytical Method: SM 4500-NO2 B						
Nitrite as N	ND	mg/L	0.010	1		06/13/12 16:54	14797-65-0	

Sample: MW-15_20120630		Lab ID: 2512555004	Collected: 06/12/12 09:55	Received: 06/13/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG		Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified						
TPH-DRO (C10-C24) SG	ND	ug/L	37.9	1	06/18/12 09:40	06/18/12 23:52		
Surrogates								
o-Terphenyl (S) SG	82 %		46-125	1	06/18/12 09:40	06/18/12 23:52	84-15-1	
n-Octacosane (S) SG	84 %		57-128	1	06/18/12 09:40	06/18/12 23:52	630-02-4	
6010 MET ICP		Analytical Method: EPA 6010 Preparation Method: EPA 3010						
Iron	2920	ug/L	500	5	06/14/12 11:25	06/19/12 11:02	7439-89-6	D3



ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512555

Sample: MW-15_20120630	Lab ID: 2512555004	Collected: 06/12/12 09:55	Received: 06/13/12 10:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV								
Analytical Method: EPA 5030B/8260								
Benzene	ND	ug/L	0.50	1		06/14/12 16:29	71-43-2	
tert-Butyl Alcohol	90.9	ug/L	5.0	1		06/14/12 16:29	75-65-0	
Ethanol	ND	ug/L	250	1		06/14/12 16:29	64-17-5	
Ethylbenzene	ND	ug/L	0.50	1		06/14/12 16:29	100-41-4	
Methyl-tert-butyl ether	114	ug/L	0.50	1		06/14/12 16:29	1634-04-4	
Toluene	ND	ug/L	0.50	1		06/14/12 16:29	108-88-3	
Xylene (Total)	ND	ug/L	1.5	1		06/14/12 16:29	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	93	%	79-121	1		06/14/12 16:29	460-00-4	
Dibromofluoromethane (S)	95	%	81-119	1		06/14/12 16:29	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	72-127	1		06/14/12 16:29	17060-07-0	
Toluene-d8 (S)	95	%	77-120	1		06/14/12 16:29	2037-26-5	
CA LUFT MSV GRO								
Analytical Method: CALUFT								
TPH-Gasoline (C05-C12)	74.3	ug/L	50.0	1		06/14/12 16:29		2n
Surrogates								
4-Bromofluorobenzene (S)	93	%	76-121	1		06/14/12 16:29	460-00-4	
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0								
Sulfate	42100	ug/L	5000	5		06/21/12 17:53	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.								
Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	ug/L	50.0	1		06/25/12 13:55		
Nitrogen, NO2 plus NO3	ND	ug/L	50.0	1		06/25/12 13:55		
SM4500NO2-B, Nitrite, unpres								
Analytical Method: SM 4500-NO2 B								
Nitrite as N	ND	mg/L	0.010	1		06/13/12 16:54	14797-65-0	

Sample: MW-16_20120630	Lab ID: 2512555005	Collected: 06/12/12 10:20	Received: 06/13/12 10:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG								
Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	48.1	ug/L	37.9	1	06/18/12 09:40	06/19/12 01:35		T4
Surrogates								
o-Terphenyl (S) SG	81	%	46-125	1	06/18/12 09:40	06/19/12 01:35	84-15-1	
n-Octacosane (S) SG	82	%	57-128	1	06/18/12 09:40	06/19/12 01:35	630-02-4	
6010 MET ICP								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	1730	ug/L	500	5	06/14/12 11:25	06/19/12 11:06	7439-89-6	D3
8260 MSV								
Analytical Method: EPA 5030B/8260								
Benzene	ND	ug/L	0.50	1		06/20/12 10:42	71-43-2	
tert-Butyl Alcohol	374	ug/L	5.0	1		06/20/12 10:42	75-65-0	
Ethanol	ND	ug/L	250	1		06/20/12 10:42	64-17-5	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512555

Sample: MW-16_20120630	Lab ID: 2512555005	Collected: 06/12/12 10:20	Received: 06/13/12 10:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV								
Analytical Method: EPA 5030B/8260								
Ethylbenzene	ND ug/L		0.50	1		06/20/12 10:42	100-41-4	
Methyl-tert-butyl ether	1100 ug/L		5.0	10		06/18/12 15:50	1634-04-4	
Toluene	ND ug/L		0.50	1		06/20/12 10:42	108-88-3	
Xylene (Total)	ND ug/L		1.5	1		06/20/12 10:42	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	94 %		79-121	1		06/20/12 10:42	460-00-4	
Dibromofluoromethane (S)	99 %		81-119	1		06/20/12 10:42	1868-53-7	
1,2-Dichloroethane-d4 (S)	96 %		72-127	1		06/20/12 10:42	17060-07-0	
Toluene-d8 (S)	96 %		77-120	1		06/20/12 10:42	2037-26-5	
CA LUFT MSV GRO								
Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	430 ug/L		50.0	1		06/20/12 10:42		2n
Surrogates								
4-Bromofluorobenzene (S)	94 %		76-121	1		06/20/12 10:42	460-00-4	
300.0 IC Anions 28 Days								
Analytical Method: EPA 300.0								
Sulfate	19900 ug/L		2000	2		06/21/12 18:08	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.								
Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND ug/L		50.0	1		06/25/12 13:58		
Nitrogen, NO2 plus NO3	ND ug/L		50.0	1		06/25/12 13:58		
SM4500NO2-B, Nitrite, unpres								
Analytical Method: SM 4500-NO2 B								
Nitrite as N	ND mg/L		0.010	1		06/13/12 16:54	14797-65-0	

Sample: MW-17_20120630	Lab ID: 2512555006	Collected: 06/12/12 11:40	Received: 06/13/12 10:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG								
Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	1090 ug/L		37.9	1	06/18/12 09:40	06/19/12 01:53		T4
Surrogates								
o-Terphenyl (S) SG	88 %		46-125	1	06/18/12 09:40	06/19/12 01:53	84-15-1	
n-Octacosane (S) SG	90 %		57-128	1	06/18/12 09:40	06/19/12 01:53	630-02-4	
6010 MET ICP								
Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	44300 ug/L		500	5	06/14/12 11:25	06/19/12 11:21	7439-89-6	D3
8260 MSV								
Analytical Method: EPA 5030B/8260								
Benzene	2340 ug/L		12.5	25		06/18/12 17:10	71-43-2	
tert-Butyl Alcohol	411 ug/L		25.0	5		06/18/12 19:20	75-65-0	
Ethanol	ND ug/L		1250	5		06/18/12 19:20	64-17-5	
Ethylbenzene	153 ug/L		2.5	5		06/18/12 19:20	100-41-4	
Methyl-tert-butyl ether	ND ug/L		2.5	5		06/18/12 19:20	1634-04-4	
Toluene	123 ug/L		2.5	5		06/18/12 19:20	108-88-3	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512555

Sample: MW-17_20120630	Lab ID: 2512555006	Collected: 06/12/12 11:40	Received: 06/13/12 10:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 5030B/8260								
Xylene (Total)	610	ug/L	7.5	5		06/18/12 19:20	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	92	%	79-121	5		06/18/12 19:20	460-00-4	
Dibromofluoromethane (S)	104	%	81-119	5		06/18/12 19:20	1868-53-7	
1,2-Dichloroethane-d4 (S)	104	%	72-127	5		06/18/12 19:20	17060-07-0	
Toluene-d8 (S)	93	%	77-120	5		06/18/12 19:20	2037-26-5	
CA LUFT MSV GRO Analytical Method: CA LUFT								
TPH-Gasoline (C05-C12)	4950	ug/L	250	5		06/14/12 20:16		
Surrogates								
4-Bromofluorobenzene (S)	89	%	76-121	5		06/14/12 20:16	460-00-4	
300.0 IC Anions 28 Days Analytical Method: EPA 300.0								
Sulfate	2520000	ug/L	200000	200		06/21/12 18:23	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres. Analytical Method: EPA 353.2								
Nitrogen, Nitrate	ND	ug/L	50.0	1		06/25/12 13:59		
Nitrogen, NO2 plus NO3	ND	ug/L	50.0	1		06/25/12 13:59		
SM4500NO2-B, Nitrite, unpres Analytical Method: SM 4500-NO2 B								
Nitrite as N	0.039	mg/L	0.010	1		06/14/12 09:15	14797-65-0	1n

Sample: MW-6_20120630	Lab ID: 2512555007	Collected: 06/12/12 11:00	Received: 06/13/12 10:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8015B CA TPH DRO SG Analytical Method: EPA 8015B Preparation Method: EPA 3510 Modified								
TPH-DRO (C10-C24) SG	47100	ug/L	379	10	06/18/12 09:40	06/19/12 00:44		T4
Surrogates								
o-Terphenyl (S) SG	77	%	46-125	10	06/18/12 09:40	06/19/12 00:44	84-15-1	
n-Octacosane (S) SG	81	%	57-128	10	06/18/12 09:40	06/19/12 00:44	630-02-4	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010								
Iron	1240	ug/L	500	5	06/14/12 11:25	06/19/12 11:24	7439-89-6	D3
8260 MSV Analytical Method: EPA 5030B/8260								
Benzene	773	ug/L	5.0	10		06/18/12 16:10	71-43-2	
tert-Butyl Alcohol	123	ug/L	5.0	1		06/14/12 20:34	75-65-0	
Ethanol	ND	ug/L	250	1		06/14/12 20:34	64-17-5	
Ethylbenzene	840	ug/L	5.0	10		06/18/12 16:10	100-41-4	
Methyl-tert-butyl ether	11.4	ug/L	0.50	1		06/14/12 20:34	1634-04-4	
Toluene	60.8	ug/L	0.50	1		06/14/12 20:34	108-88-3	
Xylene (Total)	3110	ug/L	15.0	10		06/18/12 16:10	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	88	%	79-121	1		06/14/12 20:34	460-00-4	

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REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 2705191
 Pace Project No.: 2512555

Sample: MW-6_20120630	Lab ID: 2512555007	Collected: 06/12/12 11:00	Received: 06/13/12 10:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260						
Surrogates								
Dibromofluoromethane (S)	105 %		81-119	1		06/14/12 20:34	1868-53-7	
1,2-Dichloroethane-d4 (S)	100 %		72-127	1		06/14/12 20:34	17060-07-0	
Toluene-d8 (S)	92 %		77-120	1		06/14/12 20:34	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	33400 ug/L		500	10		06/19/12 07:24		
Surrogates								
4-Bromofluorobenzene (S)	85 %		76-121	10		06/19/12 07:24	460-00-4	
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0						
Sulfate	1110 ug/L		1000	1		06/21/12 18:38	14808-79-8	
353.2 Nitrogen, NO2/NO3 pres.		Analytical Method: EPA 353.2						
Nitrogen, Nitrate	ND ug/L		50.0	1		06/25/12 14:01		
Nitrogen, NO2 plus NO3	ND ug/L		50.0	1		06/25/12 14:01		P4
SM4500NO2-B, Nitrite, unpres		Analytical Method: SM 4500-NO2 B						
Nitrite as N	ND mg/L		0.010	1		06/13/12 16:54	14797-65-0	

Sample: FD1_20120630	Lab ID: 2512555008	Collected: 06/12/12 11:05	Received: 06/13/12 10:00	Matrix: Water				
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 5030B/8260						
Benzene	818 ug/L		5.0	10		06/18/12 16:30	71-43-2	
tert-Butyl Alcohol	134 ug/L		5.0	1		06/14/12 20:53	75-65-0	
Ethanol	ND ug/L		250	1		06/14/12 20:53	64-17-5	
Ethylbenzene	862 ug/L		5.0	10		06/18/12 16:30	100-41-4	
Methyl-tert-butyl ether	12.4 ug/L		0.50	1		06/14/12 20:53	1634-04-4	
Toluene	80.5 ug/L		0.50	1		06/14/12 20:53	108-88-3	
Xylene (Total)	3130 ug/L		15.0	10		06/18/12 16:30	1330-20-7	
Surrogates								
4-Bromofluorobenzene (S)	89 %		79-121	1		06/14/12 20:53	460-00-4	
Dibromofluoromethane (S)	95 %		81-119	1		06/14/12 20:53	1868-53-7	
1,2-Dichloroethane-d4 (S)	97 %		72-127	1		06/14/12 20:53	17060-07-0	
Toluene-d8 (S)	115 %		77-120	1		06/14/12 20:53	2037-26-5	
CA LUFT MSV GRO		Analytical Method: CA LUFT						
TPH-Gasoline (C05-C12)	27400 ug/L		500	10		06/19/12 07:44		
Surrogates								
4-Bromofluorobenzene (S)	86 %		76-121	10		06/19/12 07:44	460-00-4	

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512555

QC Batch: MPRP/3094 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 2512555001, 2512555002, 2512555003, 2512555004, 2512555005, 2512555006, 2512555007

METHOD BLANK: 118958 Matrix: Water
Associated Lab Samples: 2512555001, 2512555002, 2512555003, 2512555004, 2512555005, 2512555006, 2512555007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Iron	ug/L	ND	100	06/19/12 10:36	

LABORATORY CONTROL SAMPLE: 118959

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Iron	ug/L	10000	9670	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 118960 118961

Parameter	Units	2512555001		MS		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
Iron	ug/L	497	10000	10000	10700	10500	102	100	75-125	2				

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512555

QC Batch: MSV7205 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 2512555001, 2512555002, 2512555003, 2512555004, 2512555007, 2512555008

METHOD BLANK: 119028 Matrix: Water
Associated Lab Samples: 2512555001, 2512555002, 2512555003, 2512555004, 2512555007, 2512555008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	06/14/12 14:03	
Ethanol	ug/L	ND	250	06/14/12 14:03	
Ethylbenzene	ug/L	ND	0.50	06/14/12 14:03	
Methyl-tert-butyl ether	ug/L	ND	0.50	06/14/12 14:03	
tert-Butyl Alcohol	ug/L	ND	5.0	06/14/12 14:03	
Toluene	ug/L	ND	0.50	06/14/12 14:03	
Xylene (Total)	ug/L	ND	1.5	06/14/12 14:03	
1,2-Dichloroethane-d4 (S)	%	106	72-127	06/14/12 14:03	
4-Bromofluorobenzene (S)	%	96	79-121	06/14/12 14:03	
Dibromofluoromethane (S)	%	103	81-119	06/14/12 14:03	
Toluene-d8 (S)	%	95	77-120	06/14/12 14:03	

LABORATORY CONTROL SAMPLE: 119029

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	16.9	85	66-123	
Ethanol	ug/L	800	923	115	40-160	
Ethylbenzene	ug/L	20	21.3	107	67-122	
Methyl-tert-butyl ether	ug/L	20	23.9	120	65-138	
tert-Butyl Alcohol	ug/L	100	115	115	57-153	
Toluene	ug/L	20	18.4	92	64-118	
Xylene (Total)	ug/L	60	67.8	113	68-122	
1,2-Dichloroethane-d4 (S)	%			104	72-127	
4-Bromofluorobenzene (S)	%			86	79-121	
Dibromofluoromethane (S)	%			106	81-119	
Toluene-d8 (S)	%			97	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119030 119031

Parameter	Units	2512539003		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Conc.	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec			
Benzene	ug/L	ND	20	20	21.6	18.0	108	90	63-138	18		
Ethanol	ug/L	ND	800	800	974	1090	122	136	40-160	11		
Ethylbenzene	ug/L	ND	20	20	23.2	23.1	116	115	65-135	.5		
Methyl-tert-butyl ether	ug/L	ND	20	20	28.5	28.7	141	142	59-143	.5		
tert-Butyl Alcohol	ug/L	ND	100	100	137	155	136	154	46-156	12		
Toluene	ug/L	ND	20	20	21.5	20.1	107	100	64-128	7		
Xylene (Total)	ug/L	ND	60	60	74.0	73.6	123	123	65-133	.5		
1,2-Dichloroethane-d4 (S)	%						107	96	72-127			
4-Bromofluorobenzene (S)	%						82	89	79-121			

Date: 06/27/2012 08:41 AM

REPORT OF LABORATORY ANALYSIS

Page 15 of 33

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QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512555

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:		119030		119031								
Parameter	Units	2512539003	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Qual
		Result	Spike	Spike	Result	Result	% Rec	% Rec				
Dibromofluoromethane (S)	%						117	88		81-119		
Toluene-d8 (S)	%						99	94		77-120		



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512555

QC Batch: MSV/7217 Analysis Method: EPA 5030B/8260
 QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
 Associated Lab Samples: 2512555006

METHOD BLANK: 119362 Matrix: Water
 Associated Lab Samples: 2512555006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	06/18/12 10:17	
Ethanol	ug/L	ND	250	06/18/12 10:17	
Ethylbenzene	ug/L	ND	0.50	06/18/12 10:17	
Methyl-tert-butyl ether	ug/L	ND	0.50	06/18/12 10:17	
tert-Butyl Alcohol	ug/L	ND	5.0	06/18/12 10:17	
Toluene	ug/L	ND	0.50	06/18/12 10:17	
Xylene (Total)	ug/L	ND	1.5	06/18/12 10:17	
1,2-Dichloroethane-d4 (S)	%	97	72-127	06/18/12 10:17	
4-Bromofluorobenzene (S)	%	97	79-121	06/18/12 10:17	
Dibromofluoromethane (S)	%	100	81-119	06/18/12 10:17	
Toluene-d8 (S)	%	95	77-120	06/18/12 10:17	

LABORATORY CONTROL SAMPLE: 119363

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	18.0	90	66-123	
Ethanol	ug/L	800	859	107	40-160	
Ethylbenzene	ug/L	20	21.4	107	67-122	
Methyl-tert-butyl ether	ug/L	20	22.3	111	65-138	
tert-Butyl Alcohol	ug/L	100	103	103	57-153	
Toluene	ug/L	20	19.1	96	64-118	
Xylene (Total)	ug/L	60	67.2	112	68-122	
1,2-Dichloroethane-d4 (S)	%			96	72-127	
4-Bromofluorobenzene (S)	%			92	79-121	
Dibromofluoromethane (S)	%			101	81-119	
Toluene-d8 (S)	%			94	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119800 119801

Parameter	Units	2512560012		MS		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	Conc.	Spike Conc.	Conc.	Result	Result	% Rec	% Rec					
Benzene	ug/L	ND	20	20	17.8	18.4	89	92	63-138	3				
Ethanol	ug/L	ND	800	800	737	867	92	108	40-160	16				
Ethylbenzene	ug/L	ND	20	20	21.5	22.3	107	111	65-135	4				
Methyl-tert-butyl ether	ug/L	ND	20	20	20.9	21.9	104	109	59-143	5				
tert-Butyl Alcohol	ug/L	5.5	100	100	107	118	102	113	46-156	10				
Toluene	ug/L	ND	20	20	18.8	19.5	94	97	64-128	4				
Xylene (Total)	ug/L	ND	60	60	67.0	69.2	112	115	65-133	3				
1,2-Dichloroethane-d4 (S)	%						95	94	72-127					
4-Bromofluorobenzene (S)	%						92	93	79-121					

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QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512555

Parameter	Units	119800		119801		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		2512560012 Result	MS Spike Conc.	MSD Spike Conc.	MS Result					
Dibromofluoromethane (S)	%					100	100	81-119		
Toluene-d8 (S)	%					95	95	77-120		

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512555

QC Batch: MSV/7237 Analysis Method: EPA 5030B/8260
QC Batch Method: EPA 5030B/8260 Analysis Description: 8260 MSV Water 10 mL Purge
Associated Lab Samples: 2512555005

METHOD BLANK: 119678 Matrix: Water
Associated Lab Samples: 2512555005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	0.50	06/20/12 10:23	
Ethanol	ug/L	ND	250	06/20/12 10:23	
Ethylbenzene	ug/L	ND	0.50	06/20/12 10:23	
Methyl-tert-butyl ether	ug/L	ND	0.50	06/20/12 10:23	
tert-Butyl Alcohol	ug/L	ND	5.0	06/20/12 10:23	
Toluene	ug/L	ND	0.50	06/20/12 10:23	
Xylene (Total)	ug/L	ND	1.5	06/20/12 10:23	
1,2-Dichloroethane-d4 (S)	%	104	72-127	06/20/12 10:23	
4-Bromofluorobenzene (S)	%	94	79-121	06/20/12 10:23	
Dibromofluoromethane (S)	%	105	81-119	06/20/12 10:23	
Toluene-d8 (S)	%	94	77-120	06/20/12 10:23	

LABORATORY CONTROL SAMPLE: 119679

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	16.6	83	66-123	
Ethanol	ug/L	800	797	100	40-160	
Ethylbenzene	ug/L	20	19.8	99	67-122	
Methyl-tert-butyl ether	ug/L	20	22.1	111	65-138	
tert-Butyl Alcohol	ug/L	100	106	106	57-153	
Toluene	ug/L	20	17.7	88	64-118	
Xylene (Total)	ug/L	60	63.0	105	68-122	
1,2-Dichloroethane-d4 (S)	%			107	72-127	
4-Bromofluorobenzene (S)	%			87	79-121	
Dibromofluoromethane (S)	%			107	81-119	
Toluene-d8 (S)	%			95	77-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119681 119682

Parameter	Units	2512620003		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
Benzene	ug/L	ND	20	20	19.3	19.7	97	98	63-138	2		
Ethanol	ug/L	ND	800	800	756	743	95	93	40-160	2		
Ethylbenzene	ug/L	ND	20	20	23.3	23.4	116	117	65-135	.5		
Methyl-tert-butyl ether	ug/L	ND	20	20	22.1	22.1	110	110	59-143	.07		
tert-Butyl Alcohol	ug/L	ND	100	100	101	102	98	99	46-156	1		
Toluene	ug/L	ND	20	20	20.4	20.7	101	102	64-128	1		
Xylene (Total)	ug/L	ND	60	60	74.0	73.9	123	123	65-133	.2		
1,2-Dichloroethane-d4 (S)	%						100	104	72-127			
4-Bromofluorobenzene (S)	%						86	86	79-121			

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REPORT OF LABORATORY ANALYSIS

Page 19 of 33

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QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512555

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119681											119682		
Parameter	Units	2512620003 Result	MS	MSD	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual		
			Spike Conc.	Spike Conc.									
Dibromofluoromethane (S)	%						107	107	81-119				
Toluene-d8 (S)	%						97	96	77-120				

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119683											119684		
Parameter	Units	2512621002 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	18.7	19.5	93	97	63-138	4			
Ethanol	ug/L	ND	800	800	690	710	86	89	40-160	3			
Ethylbenzene	ug/L	ND	20	20	22.0	22.7	110	114	65-135	3			
Methyl-tert-butyl ether	ug/L	ND	20	20	20.0	20.7	100	104	59-143	4			
tert-Butyl Alcohol	ug/L	ND	100	100	86.4	91.3	86	91	46-156	5			
Toluene	ug/L	ND	20	20	19.4	19.6	96	98	64-128	1			
Xylene (Total)	ug/L	ND	60	60	70.1	71.4	117	119	65-133	2			
1,2-Dichloroethane-d4 (S)	%						100	105	72-127				
4-Bromofluorobenzene (S)	%						86	86	79-121				
Dibromofluoromethane (S)	%						108	106	81-119				
Toluene-d8 (S)	%						95	97	77-120				



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512555

QC Batch: MSV7206 Analysis Method: CALUFT
 QC Batch Method: CA LUFT Analysis Description: CALUFT MSV GRO
 Associated Lab Samples: 2512555001, 2512555002, 2512555004, 2512555006

METHOD BLANK: 119033 Matrix: Water
 Associated Lab Samples: 2512555001, 2512555002, 2512555004, 2512555006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	06/14/12 13:45	
4-Bromofluorobenzene (S)	%	94	76-121	06/14/12 13:45	

LABORATORY CONTROL SAMPLE: 119034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	400	80	57-139	
4-Bromofluorobenzene (S)	%			93	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119035 119036

Parameter	Units	2512539003 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	448	413	86	79	40-150	8	
4-Bromofluorobenzene (S)	%						91	92	76-121		

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119749 119750

Parameter	Units	2512566004 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	386	387	74	74	40-150	.1	
4-Bromofluorobenzene (S)	%						92	93	76-121		



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512555

QC Batch: MSV7228 Analysis Method: CA LUFT
 QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
 Associated Lab Samples: 2512555003

METHOD BLANK: 119549 Matrix: Water
 Associated Lab Samples: 2512555003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	06/18/12 09:59	
4-Bromofluorobenzene (S)	%	96	76-121	06/18/12 09:59	

LABORATORY CONTROL SAMPLE: 119550

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	551	110	57-139	
4-Bromofluorobenzene (S)	%			95	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119798 119799

Parameter	Units	2512639001 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	1420	500	500	2000	2030	116	123	40-150	2	
4-Bromofluorobenzene (S)	%						94	93	76-121		



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512555

QC Batch: MSV/7229 Analysis Method: CA LUFT
 QC Batch Method: CA LUFT Analysis Description: CA LUFT MSV GRO
 Associated Lab Samples: 2512555007, 2512555008

METHOD BLANK: 119568 Matrix: Water
 Associated Lab Samples: 2512555007, 2512555008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	06/19/12 00:19	
4-Bromofluorobenzene (S)	%	95	76-121	06/19/12 00:19	

LABORATORY CONTROL SAMPLE: 119569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	475	95	57-139	
4-Bromofluorobenzene (S)	%			92	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119570 119571

Parameter	Units	2512555007		119571		MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result					
TPH-Gasoline (C05-C12)	ug/L	33400	5000	38500	39500	102	123	40-150	3	
4-Bromofluorobenzene (S)	%					87	88	76-121		



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512555

QC Batch: MSV/7239 Analysis Method: CALUFT
 QC Batch Method: CALUFT Analysis Description: CALUFT MSV GRO
 Associated Lab Samples: 2512555005

METHOD BLANK: 119699 Matrix: Water
 Associated Lab Samples: 2512555005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	ND	50.0	06/20/12 10:05	
4-Bromofluorobenzene (S)	%	94	76-121	06/20/12 10:05	

LABORATORY CONTROL SAMPLE: 119700

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-Gasoline (C05-C12)	ug/L	500	384	77	57-139	
4-Bromofluorobenzene (S)	%			93	76-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119803 119804

Parameter	Units	2512640001		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
TPH-Gasoline (C05-C12)	ug/L	ND	500	500	392	392	76	76	40-150	.2		
4-Bromofluorobenzene (S)	%						91	92	76-121			

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512555

QC Batch: OEXT/5658 Analysis Method: EPA 8015B
QC Batch Method: EPA 3510 Modified Analysis Description: 8015B CADRO Silica Gel
Associated Lab Samples: 2512555001, 2512555002, 2512555004, 2512555005, 2512555006, 2512555007

METHOD BLANK: 119372 Matrix: Water
Associated Lab Samples: 2512555001, 2512555002, 2512555004, 2512555005, 2512555006, 2512555007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	ND	40.0	06/18/12 19:14	
n-Octacosane (S) SG	%	82	57-128	06/18/12 19:14	
o-Terphenyl (S) SG	%	84	46-125	06/18/12 19:14	

LABORATORY CONTROL SAMPLE: 119373

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	2000	1800	90	50-110	
n-Octacosane (S) SG	%			95	57-128	
o-Terphenyl (S) SG	%			95	46-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119374 119375

Parameter	Units	2512539003 Result	MS		MSD		MS		MSD		% Rec Limits	RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
TPH-DRO (C10-C24) SG	ug/L	ND	1900	1900	1700	1540	89	80	39-110	10			
n-Octacosane (S) SG	%						92	85	57-128				
o-Terphenyl (S) SG	%						92	83	46-125				



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512555

QC Batch: OEXT/5672 Analysis Method: EPA 8015B
 QC Batch Method: EPA 3510 Modified Analysis Description: 8015B CADRO Silica Gel
 Associated Lab Samples: 2512555003

METHOD BLANK: 119763 Matrix: Water
 Associated Lab Samples: 2512555003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	ND	40.0	06/19/12 17:37	
n-Octacosane (S) SG	%	93	57-128	06/19/12 17:37	
o-Terphenyl (S) SG	%	88	46-125	06/19/12 17:37	

LABORATORY CONTROL SAMPLE: 119764

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH-DRO (C10-C24) SG	ug/L	2000	1920	96	50-110	
n-Octacosane (S) SG	%			98	57-128	
o-Terphenyl (S) SG	%			95	46-125	

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512555

QC Batch: WETA/2625 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2512555001, 2512555002, 2512555003, 2512555004, 2512555005, 2512555006, 2512555007

METHOD BLANK: 119504 Matrix: Water
Associated Lab Samples: 2512555001, 2512555002, 2512555003, 2512555004, 2512555005, 2512555006, 2512555007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Sulfate	ug/L	ND	1000	06/19/12 16:10	

LABORATORY CONTROL SAMPLE: 119505

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	15000	14900	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119506 119507

Parameter	Units	2512538002		119506		119507		% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec			
Sulfate	ug/L	13.2 mg/L	15000	15000	29200	28100	107	99	90-110	4

MATRIX SPIKE SAMPLE: 119508

Parameter	Units	2512539003 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Sulfate	ug/L	118000	150000	260000	95	90-110	



QUALITY CONTROL DATA

Project: 2705191
 Pace Project No.: 2512555

QC Batch: WETA/2623 Analysis Method: EPA 353.2
 QC Batch Method: EPA 353.2 Analysis Description: 353.2 Nitrate + Nitrite, preserved
 Associated Lab Samples: 2512555001, 2512555002, 2512555003, 2512555004, 2512555005, 2512555006, 2512555007

METHOD BLANK: 119381 Matrix: Water
 Associated Lab Samples: 2512555001, 2512555002, 2512555003, 2512555004, 2512555005, 2512555006, 2512555007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	ND	50.0	06/25/12 13:28	

LABORATORY CONTROL SAMPLE: 119382

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	1000	918	92	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 119383 119384

Parameter	Units	2512539003		MSD		MS		% Rec		RPD	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits		
Nitrogen, NO2 plus NO3	ug/L	4260	2000	2000	6310	6320	103	103	90-110	.2	

MATRIX SPIKE SAMPLE: 119385

Parameter	Units	2512555004 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, NO2 plus NO3	ug/L	ND	1000	1060	104	90-110	

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512555

QC Batch: WETA/2615 Analysis Method: SM 4500-NO2 B
QC Batch Method: SM 4500-NO2 B Analysis Description: SM4500NO2-B, Nitrite, unpres
Associated Lab Samples: 2512555001, 2512555002, 2512555003, 2512555004, 2512555005, 2512555007

METHOD BLANK: 118888 Matrix: Water
Associated Lab Samples: 2512555001, 2512555002, 2512555003, 2512555004, 2512555005, 2512555007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	0.013	0.010	06/13/12 16:54	P8

LABORATORY CONTROL SAMPLE: 118889

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	.05	0.049	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 118890 118891

Parameter	Units	2512555002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Nitrite as N	mg/L	0.020	.05	.05	0.058	0.055	76	71	90-110	4	M1

QUALITY CONTROL DATA

Project: 2705191
Pace Project No.: 2512555

QC Batch: WETA/2620 Analysis Method: SM 4500-NO2 B
QC Batch Method: SM 4500-NO2 B Analysis Description: SM4500NO2-B, Nitrite, unpres
Associated Lab Samples: 2512555002, 2512555006

METHOD BLANK: 118978 Matrix: Water

Associated Lab Samples: 2512555002, 2512555006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Nitrite as N	mg/L	ND	0.010	06/14/12 09:15	

LABORATORY CONTROL SAMPLE: 118979

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrite as N	mg/L	.05	0.047	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 118980 118981

Parameter	Units	2512555002		MSD		MS		MSD		% Rec Limits	RPD	Qual
		Result	MS Spike Conc.	Spike Conc.	MS Result	MSD Result	% Rec	% Rec				
Nitrite as N	mg/L	0.019	.05	.05	0.054	0.054	71	70	90-110	.9	M0	

QUALIFIERS

Project: 2705191
Pace Project No.: 2512555

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel Clean-Up

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-S Pace Analytical Services - Seattle

BATCH QUALIFIERS

Batch: GCSV/3625

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

1n Sample may be biased high due to matrix interference.
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.
D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
P4 Sample field preservation does not meet EPA or method recommendations for this analysis.
P8 Analyte was detected in the method blank. All associated samples had concentrations of at least ten times greater than the blank or were below the reporting limit.
S5 Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).
T4 Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard.



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191
 Pace Project No.: 2512555

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2512555001	MW-12_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512555002	MW-13_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512555003	MW-14_20120630	EPA 3510 Modified	OEXT/5672	EPA 8015B	GCSV/3625
2512555004	MW-15_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512555005	MW-16_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512555006	MW-17_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512555007	MW-6_20120630	EPA 3510 Modified	OEXT/5658	EPA 8015B	GCSV/3620
2512555001	MW-12_20120630	EPA 3010	MPRP/3094	EPA 6010	ICP/2878
2512555002	MW-13_20120630	EPA 3010	MPRP/3094	EPA 6010	ICP/2878
2512555003	MW-14_20120630	EPA 3010	MPRP/3094	EPA 6010	ICP/2878
2512555004	MW-15_20120630	EPA 3010	MPRP/3094	EPA 6010	ICP/2878
2512555005	MW-16_20120630	EPA 3010	MPRP/3094	EPA 6010	ICP/2878
2512555006	MW-17_20120630	EPA 3010	MPRP/3094	EPA 6010	ICP/2878
2512555007	MW-6_20120630	EPA 3010	MPRP/3094	EPA 6010	ICP/2878
2512555001	MW-12_20120630	EPA 5030B/8260	MSV/7205		
2512555002	MW-13_20120630	EPA 5030B/8260	MSV/7205		
2512555003	MW-14_20120630	EPA 5030B/8260	MSV/7205		
2512555004	MW-15_20120630	EPA 5030B/8260	MSV/7205		
2512555005	MW-16_20120630	EPA 5030B/8260	MSV/7237		
2512555006	MW-17_20120630	EPA 5030B/8260	MSV/7217		
2512555007	MW-6_20120630	EPA 5030B/8260	MSV/7205		
2512555008	FD1_20120630	EPA 5030B/8260	MSV/7205		
2512555001	MW-12_20120630	CA LUFT	MSV/7206		
2512555002	MW-13_20120630	CA LUFT	MSV/7206		
2512555003	MW-14_20120630	CA LUFT	MSV/7228		
2512555004	MW-15_20120630	CA LUFT	MSV/7206		
2512555005	MW-16_20120630	CA LUFT	MSV/7239		
2512555006	MW-17_20120630	CA LUFT	MSV/7206		
2512555007	MW-6_20120630	CA LUFT	MSV/7229		
2512555008	FD1_20120630	CA LUFT	MSV/7229		
2512555001	MW-12_20120630	EPA 300.0	WETA/2625		
2512555002	MW-13_20120630	EPA 300.0	WETA/2625		
2512555003	MW-14_20120630	EPA 300.0	WETA/2625		
2512555004	MW-15_20120630	EPA 300.0	WETA/2625		
2512555005	MW-16_20120630	EPA 300.0	WETA/2625		
2512555006	MW-17_20120630	EPA 300.0	WETA/2625		
2512555007	MW-6_20120630	EPA 300.0	WETA/2625		
2512555001	MW-12_20120630	EPA 353.2	WETA/2623		
2512555002	MW-13_20120630	EPA 353.2	WETA/2623		
2512555003	MW-14_20120630	EPA 353.2	WETA/2623		
2512555004	MW-15_20120630	EPA 353.2	WETA/2623		

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 2705191
Pace Project No.: 2512555

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2512555005	MW-16_20120630	EPA 353.2	WETA/2623		
2512555006	MW-17_20120630	EPA 353.2	WETA/2623		
2512555007	MW-6_20120630	EPA 353.2	WETA/2623		
2512555001	MW-12_20120630	SM 4500-NO2 B	WETA/2615		
2512555002	MW-13_20120630	SM 4500-NO2 B	WETA/2615		
2512555002	MW-13_20120630	SM 4500-NO2 B	WETA/2620		
2512555003	MW-14_20120630	SM 4500-NO2 B	WETA/2615		
2512555004	MW-15_20120630	SM 4500-NO2 B	WETA/2615		
2512555005	MW-16_20120630	SM 4500-NO2 B	WETA/2615		
2512555006	MW-17_20120630	SM 4500-NO2 B	WETA/2620		
2512555007	MW-6_20120630	SM 4500-NO2 B	WETA/2615		



2512555 2Q12 GW Event

Required Lab Information:		Required Project Information:		Required Invoice Information:	
Lab Name: Pace-Seattle	Site ID #: 2705191	Task: WG_Q_201206	Send Invoice to: Tara Bosch	Address: 11050 White Rock Road, Suite 110	
Address: 940 S. Horney Street Seattle WA 98108		Site Address: 449 Hegenburger	City/State: Rancho Cordova CA 95670	Phone #: 1-800-477-7411	Turn around time (days): 10
Lab PM: Regina Ste. Marie	City: Oakland	State: CA 94621	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input checked="" type="checkbox"/>	Mark one
Phone/Fax: P: 206-957-2433 F: 206-767-5063	AG PM Name: Dennis Dettloff	Send EDD to: copen@data@inte@sgontehs.com	MA MCP Cert? <input type="checkbox"/>	CT RCP Cert? <input type="checkbox"/>	Mark One
Lab PM email: Regina.SteMarie@paceinba.com	Phone/Fax: P: 1-800-477-7411 F: 916-638-8385	CC Hardcopy report to:	Lab Project ID (lab use):		
Applicable Lab Quote #:	AG PM Email: dennis.dettloff@anteagroup.com	CC Hardcopy report to:	Requested Analyses		

ITEM #	SAMPLE ID One Character per box (A-Z, 0-9 / -) Samples IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE G=GRAB C=COLUP	SAMPLE DATE	SAMPLE TIME	RF CONTAINERS	FIELD FILTERED? (Y/N)	PRESERVATIVES										Comments/Lab Sample I.D.					
								Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₈	Methanol	Other	3000 Submitt	3003, 2, 3000		6010 (part total)	6015 (TR) (total)	6000 GC/MS TR/ISSA	6000 GC/MS DRO	6000 (MMS) TA
1	MW-10_20120630	WG															X	X	X	X	X	X	
2	MW-11_20120630	WG															X	X	X	X	X	X	
3	MW-12_20120630	WG	G	6/12/12	1040	U	N	X	X	X							X	X	X	X	X	X	
4	MW-12A_20120630	WG															X	X	X	X	X	X	
5	MW-13_20120630	WG	G	6/12/12	0935	U	N	X	X	X							X	X	X	X	X	X	
6	MW-14_20120630	WG	G	6/12/12	1125	U	N	X	X	X							X	X	X	X	X	X	
7	MW-15_20120630	WG	G	6/12/12	0955	U	N	X	X	X							X	X	X	X	X	X	
8	MW-16_20120630	WG	G	6/12/12	1020	U	N	X	X	X							X	X	X	X	X	X	
9	MW-17_20120630	WG	G	6/12/12	1140	U	N	X	X	X							X	X	X	X	X	X	
10	MW-6_20120630	WG	G	6/12/12	1100	U	N	X	X	X							X	X	X	X	X	X	
11	FD1_20120630	W	G	6/12/12	1105	6	N			X											X	X	
12	MW-3_20120630	WG															X	X	X	X	X	X	
13	MW-7_20120630	WG															X	X	X	X	X	X	
14	MW-8_20120630	WG															X	X	X	X	X	X	
15	MW-9_20120630	WG															X	X	X	X	X	X	

Additional Comments/Special Instructions: Global ID: T0600101476	RELINQUISHED BY/AFFILIATION	DATE	TIME	ACCEPTED BY/AFFILIATION	DATE	TIME	Sample Receipt Conditions			
	<i>[Signature]</i>	6/12/12	1330	<i>[Signature]</i> (sample lost)	6/12/12	1330		Y/N	Y/N	Y/N
					6/13/12	1000	5.4	Y/N	Y/N	Y/N
							5.0	Y/N	Y/N	Y/N
SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE					Temp in °C	Samples on Ice?	Sample Intact?	Trip Blank?
UPS COURIER FEDEX	PRINT Name of SAMPLER: <i>Gregory Roberts</i>									
US MAIL	SIGNATURE OF SAMPLER: <i>[Signature]</i> Date/Time: 6/12/12 12:15									

Sample Container Count

CLIENT: COP Antea ELT

2512555



COC PAGE 1 of 1

COC ID# _____

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

Sample Line Item	VG9H	AG1H	AG1U	BP1U	BP2U	BP3U	BP3N	BP3S	WGKU	WGFU	WG2U	DG9M	DG9B	VG9W	VSG	Comments
1	6		2		1		1.0	1.0								
2	↓		↓		↓		↓	↓								
3	↓		↓		↓		7.0	7.0								
4	↓		↓		↓		1.0	1.0								
5	↓		↓		↓		↓	↓								
6	↓		↓		↓		7.0	7.0								
7	↓		↓		↓		1.0	1.0								
8	↓		↓		↓		↓	↓								
9																
10																
11																
12																

AG1H	1 liter HCL amber glass	BP2S	500mL H2SO4 plastic	JGFU	4 oz amber glass soil jar
AG1U	1liter unpreserved amber glass	BP2U	500mL unpreserved plastic	WGKU	8 oz clear glass soil jar
AG2S	500mL H2SO4 amber glass	BP2Z	500mL NaOH, Zn Ac	WGFU	4 oz clear glass soil jar
AG2U	500mL unpreserved amber glass	BP3C	250mL NaOH plastic	WG2U	2 oz clear glass soil jar
AG3S	250mL H2SO4 amber glass	BP3N	250mL HNO3 plastic	JGFM	4 oz amber glass soil jar with MeOH
BG1H	1 liter HCL clear glass	BP3S	250mL H2SO4 plastic	VG9U	40mL unpreserved clear vial
BG1U	1 liter unpreserved glass	BP3U	250mL unpreserved plastic	VG9W	40mL clear vial pre-weighted with DI water
BP1N	1 liter HNO3 plastic	DG9B	40mL Na Bisulfate clear vial	VSG	Headspace septa vial
BP1S	1 liter H2SO4 plastic	DG9H	40mL HCL amber vial	VG9H	40mL HCL clear vial
BP1U	1 liter unpreserved plastic	DG9M	40mL MeOH clear vial	WGFU	4oz wide jar w/hexane wipe
BP1Z	1 liter NaOH, Zn, Ac	DG9T	40mL Na Thio amber vial	VG9T	40mL Na Thio. clear vial
BP2N	500mL HNO3 plastic	DG9U	40mL unpreserved amber vial	ZPLC	Ziploc Bag
BP2O	500mL NaOH plastic	I	Wipe/Swab	U	Summa Can

Sample Condition Upon Receipt

Pace Analytical

Client Name: COP Antica EIT

Project # 2512555

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 8726 53467609, 8989 0625 1290

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

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

Thermometer Used 132013 or 101731962 or 228059 Type of Ice: Wet Blue None Samples on ice, cooling process has begun

Cooler Temperature 5.4 5.0
Temp should be above freezing ± 6°C

Biological Tissue is Frozen: Yes No

Date and initials of person examining contents: 6/13/12

		Comments:
Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>N/A</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Follow Up / Hold Analysis Requested:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	11.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
-Includes date/time/ID/Analysis Matrix:	<u>WT</u>	
All containers needing preservation have been checked.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14. <u>mw-14 initial pH (H2SO4 & HNO3) = 7.0 → 2.5 mL H2SO4/HNO3 added Final pH = 1.0</u>
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	<u>mw-17 initial pH (H2SO4 & HNO3) = 7.0 → 2.5 mL H2SO4/HNO3 added Final pH = 1.0</u>
Exceptions (VOA) conform, TOC, O&G	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Initial when completed <u>10</u> Lot # of added preservative <u>H2SO4: 107596 HNO3: 111122</u>
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blanks Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	17.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Creation Date:		

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

Person Contacted: Dennis Dellhoff Date/Time: 06/13/12 13:30

Comments/ Resolution: _____

Notified Dennis about receiving mw-14 and mw-17 at pH 7.

Project Manager Review: KAREN JAY Date: 06/13/12

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)