ALAMEDA MARINA

November 4, 2009

Project 14740.000

Mr. Steven Plunkett
Environmental Health Services
Alameda County
Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Soil and Groundwater Investigation Report of Former UST #4 Area
Pacific Shops, Inc.
1815 Clement Avenue
Alameda, California
Fuel Leak Case No. RO0002951

Dear Mr. Plunkett:

Enclosed please find the *Soil and Groundwater Investigation Report of Former UST #4 Area* for Fuel Leak Case No. RO0002951. This report was prepared by AMEC Geomatrix, Inc., (AMEC) on behalf of Pacific Shops, Inc.

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

Sincerely yours,

Sean Svendsen

Enclosure: Soil and Groundwater Investigation Report of Former UST #4 Area

Pacific Shops, Inc. • 1815 Clement Avenue • Alameda, California 94501-1376
PHONE: 510.521.1133 • FAX: 510.521.1185 • EMAIL: info@alamedamarina.net • www.alamedamarina.net

SOIL AND GROUNDWATER INVESTIGATION
OF FORMER UST #4 AREA

PACIFIC SHOPS, INC.
1815 CLEMENT AVENUE
ALAMEDA, CALIFORNIA

Prepared for:
Pacific Shops, Inc.

Prepared by:
AMEC Geomatrix, Inc.

November 2009

Project 14740.000

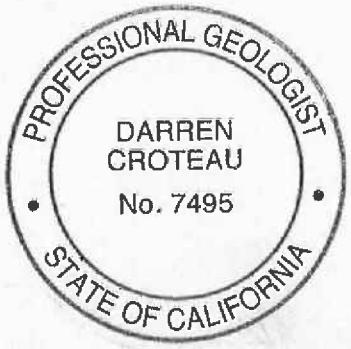
AMEC Geomatrix

SOIL AND GROUNDWATER INVESTIGATION REPORT OF FORMER UST #4 AREA
Pacific Shops, Inc.
1815 Clement Avenue
Alameda, California

November 4, 2009
Project 14740.000

This soil and groundwater investigation report was prepared by AMEC Geomatrix, Inc. under the professional supervision of Darren Croteau. The findings, recommendations, specifications and/or professional opinions presented in this report were prepared in accordance with generally accepted professional geologic practice, and within the scope of the project. There is no other warranty, either express or implied.

Darren Croteau, P.G.
Senior Geologist



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SOIL AND GROUNDWATER INVESTIGATION REPORT OF FORMER UST #4 AREA

Pacific Shops, Inc.
1815 Clement Avenue
Alameda, California

1.0 INTRODUCTION

AMEC Geomatrix, Inc. (AMEC) prepared this *Soil and Groundwater Investigation Report of Former UST#4 Area* on behalf of Pacific Shops, Inc. (Pacific Shops) for the property located at 1815 Clement Avenue in Alameda, California (designated herein as the site; Figure 1).

As described in this report, only very low concentrations of diesel range organics were detected in two soil samples. None of the target analytes were detected in any other soil samples or in the three groundwater samples collected. Based on the results of this investigation, on behalf of Pacific Shops, AMEC requests no further action for this case.

AMEC conducted the soil and groundwater investigation in accordance with the Work Plan for Investigation of Former UST #4 Area (work plan) (AMEC, 2009). Alameda County Environmental Health (ACEH) generally concurred with the work plan in their letter dated September 11, 2009 (Appendix A) and requested that, in addition to the work proposed in the work plan, soil borings be completed to at least 15 feet below ground surface (bgs) and a minimum of two soil samples be collected and analyzed from each boring, one soil sample collected at the capillary fringe and one soil sample collected from the total depth of the soil boring.

ACEH also requested that soil samples be analyzed at changes in lithology and from intervals where obvious odor, staining, or elevated photoionization detector (PID) reading are encountered. In addition, ACEH requested that methyl tertiary butyl ether (MTBE) be added to the sample analyses. This report describes an investigation to assess the extent of petroleum hydrocarbon compounds in soil and groundwater in the vicinity of former underground storage tanks (UST) #4 and #2 (Figure 2).

2.0 BACKGROUND

In March 2007, Treadwell and Rollo of San Francisco, California oversaw the removal of three USTs (designated as UST#2, UST#3, and UST#4; Figure 2) from the site. The USTs were removed by Technology, Engineering, and Construction, Inc. of South San Francisco,

California (Treadwell and Rollo, 2007). ACEH personnel observed the removal and sampling activities associated with the USTs.

Following removal of the three USTs, soil samples were collected from each UST excavation and a grab groundwater sample was collected from the UST#4 excavation. The grab groundwater sample from the UST#4 excavation appeared to be a combination of groundwater that infiltrated into the excavation and decontamination water generated by cleaning of the removed UST over the tank pit by the contractor [*Removal of Underground Storage Tanks*, Pacific Shops Site, Page 12 (Treadwell and Rollo, 2007)]. Anecdotal information from a site contact, present during the excavation activities, also indicated that rain was falling and some of the rainwater may have entered the UST excavation prior to sampling. The grab groundwater sample collected from the UST#4 excavation contained petroleum hydrocarbons quantified as diesel, kerosene, and bunker oil. This grab groundwater sample was determined to not be representative of groundwater conditions and a second sample was collected approximately 7-days later, following purging of water from the excavation and allowing groundwater to recharge (Treadwell and Rollo, 2007). No petroleum hydrocarbons were detected in the second grab groundwater sample. Soil and groundwater data tables prepared by Treadwell and Rollo are included as Appendix B.

Following submittal of the May 16, 2007 report entitled *Removal of Underground Storage Tanks, Pacific Shops Site* (Treadwell and Rollo, 2007) to ACEH, Mr. Steven Plunkett of ACEH issued a letter to Mr. Sean Svendsen of Pacific Shops dated July 9, 2007. This letter cited the petroleum hydrocarbon concentrations from the first UST#4 excavation pit grab groundwater sample and requested additional soil and groundwater sampling. The soil and groundwater investigation presented fulfills ACEH's request.

3.0 FIELD AND LABORATORY METHODS

Three soil borings were advanced at the site. The soil boring locations are shown on Figure 2. The field and laboratory methods for this investigation are presented below.

3.1 FIELD METHODS

Prior to conducting the field work, AMEC obtained a soil boring permit from Alameda County Public Works Agency. A copy of the permit is included as Appendix C. Additionally, AMEC marked the proposed boring locations with white paint, contacted Underground Service Alert, and contracted with a private utility locator to clear boring locations for underground utilities.

3.1.1 Soil Borings

The soil borings were advanced using Geoprobe ™ dual-tube direct-push technology by a licensed drilling contractor under the supervision of AMEC field personnel. Soil borings were advanced at the locations shown on Figure 2 to approximately 15 feet bgs.

A continuous core of soil was collected at each soil boring location for lithologic logging and to collect samples for laboratory analysis. Lithology was described by an AMEC field geologist, under the supervision of an AMEC California Professional Geologist, using the visual-manual procedures of the American Society for Testing and Materials (ASTM) Standard D 2488-09a for guidance, which is based on the Unified Soil Classification System (USCS). Recovered soil was screened for the presence of volatile organic compounds using a PID by placing soil in a resealable bag, agitating the soil, and introducing the PID probe into the headspace area of the bag after several minutes had elapsed. The PID readings were recorded on the litholigic logs prepared for each boring. Lithologic logs are included as Appendix D.

3.1.2 Soil Sampling

As requested by ACEH in their letter dated September 11, 2009, soil borings were completed to at least 15 feet bgs and soil samples were collected at the capillary fringe and the bottom of each boring. Soil samples were also collected at significant changes in lithology. Obvious odor, staining or elevated PID readings were not encountered in the borings. A total of eight soil samples were collected for chemical analysis, three from boring SB-1, three from boring SB-2, and two from boring SB-3.

3.1.3 Groundwater Sampling

Once each soil boring was completed, temporary 1-inch diameter polyvinyl chloride (PVC) casing with a 0.01-inch slotted screen was installed in each boring to facilitate collecting a grab groundwater sample. Prior to collecting the groundwater sample, the casing was purged with a peristaltic pump to remove water with suspended sediment. Once the purged groundwater appeared relatively clear, a sample was collected for laboratory analysis from each of the three borings.

The groundwater samples were placed in laboratory provided glassware and stored in an ice chilled cooler pending transport to the analytical laboratory under chain of custody procedures.

Following completion of sampling, the borings were backfilled from total depth to ground surface with cement bentonite grout using a tremie pipe, under the supervision of an inspector from the Alameda Public Works Agency.

3.1.4 Investigation Derived Waste

Investigation-derived waste, including drill cuttings, purge water, and equipment wash water, was stored at the site in 55-gallon drums pending disposal by Pacific Shops. Investigation-derived waste analytical results are included as Appendix E. No target analytes were detected in the investigation-derived waste samples.

3.2 LABORATORY ANALYTICAL METHODS

The soil samples and grab groundwater samples were analyzed for MTBE using EPA Method 8260B, diesel range organics and bunker oil range organics using EPA Method 8015B with a silica gel preparation procedure in accordance with EPA Method 3630B.

4.0 SOIL AND GROUNDWATER INVESTIGATION RESULTS

The soil and groundwater analytical results for this investigation are presented below. The laboratory analytical report is included as Appendix F.

4.1 SOIL OBSERVATIONS

Soil encountered during this investigation consisted of clay, clayey sand and silt to the total explored depth of 15 feet bgs. Saturated soil was encountered in every boring between approximately 4 and 6 feet bgs. Obvious odor, staining or elevated PID readings were not encountered in the borings.

4.2 SOIL ANALYTICAL RESULTS

The soil analytical results are presented on Table 1 and on Figure 2. Diesel range organics was only detected in sample SB-1-15.0, collected at a depth of 5 feet bgs, and sample SB-2-5.5, collected at 5.5 feet bgs, at concentrations of 3.0 and 1.0 milligrams per kilogram (mg/kg) respectively. Diesel range organics was not detected in any of the other soil samples and bunker oil range organics and MTBE were not detected in any of the soil samples.

4.3 GROUNDWATER ANALYTICAL RESULTS

The groundwater analytical results are presented on Table 2 and on Figure 2. Diesel range organics, bunker oil range organics and MTBE were not detected in any of the groundwater samples.

4.4 DATA QUALITY

Soil and groundwater data quality was assessed using the National Functional Guidelines for Organic Data Review (USEPA October 1999). All data were determined to be valid and usable.

5.0 NO FURTHER ACTION REQUEST

Based on the results of this investigation, on behalf of Pacific Shops, AMEC requests no further action for this case.

6.0 REFERENCES

AMEC Geomatrix Inc, (AMEC), 2009, Work Plan for Investigation of Former UST Area #4, January 27.

Treadwell and Rollo, 2007, Removal of Underground Storage Tanks, Pacific Shops Site, 1815 Clement Avenue, Alameda, California, May 16.

United States Environmental Protection Agency (U.S. EPA), 1996, Closed-System Purge and Trap and Extraction for Volatile Organics in Soil and Waste Samples. Online reference: http://www.epa.gov/sw-846/pdfs/5035.pdf

U.S. EPA, 1999, Contract Laboratory Program National Functional Guidelines for Organic Data Review (OSWER 9240.1-05A-P PB99-963506, EPA 540/R-99-008; October, 1999).

TABLES

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS[1]

Pacific Shops Inc.
1815 Clement Avenue
Alameda, California

Sample ID	Sample Date	Sample Depth (feet bgs)	Diesel Range Organics (mg/Kg)	Motor Oil Range Organics (mg/kg)	Bunker Oil Range Organics (mg/Kg)	MTBE (µg/Kg)
SB-1-6.0	10/2/2009	6.0	<0.99	<50	<50	<6.0
SB-1-6.5	10/2/2009	6.5	<0.99	<50	<50	<2.7
SB-1-15.0	10/2/2009	15.0	**3.0**	<49	<49	<6.3
SB-2-5.5	10/2/2009	5.5	**1.0**	<50	<50	<5.6
SB-2-8.0	10/2/2009	8.0	<0.99	<50	<50	<6.2
SB-2-15.0	10/2/2009	15.0	<1.0	<50	<50	<12
SB-3-5.5	10/2/2009	5.5	<0.99	<50	<50	<5.4
SB-3-15.0	10/2/2009	15.0	<1.0	<50	<50	<4.3

Notes

1. Samples were collected by AMEC Geomatrix on October 2, 2009 and analyzed by TestAmerica, Inc., of Pleasanton, California using U.S. Environmental Protection Agency Methods 8260B and 8015B.
2. Detected concentrations are shown in **bold.**

Abbreviations

bgs = below ground surface
MTBE = methyl-tert-butyl-ether
mg/Kg = milligrams per kilogram
µg/Kg = micrograms per kilogram
"<" indicates constituent was not detected at a concentration equal to or greater than the laboratory reporting limit shown.

TABLE 2

GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS[1]

Pacific Shops Inc.
1815 Clement Avenue
Alameda, California

Results reported in micrograms per liter (µg/L)

Sample ID	Sample Date	Diesel Range Organics	Motor Oil Range Organics	Bunker Oil Range Organics	MTBE
GW-1-100209	10/2/2009	<51	<300	<510	<0.50
GW-2-100209	10/2/2009	<51	<300	<510	<0.50
GW-3-100209	10/2/2009	<51	<300	<510	<0.50

Notes

1. Samples were collected by AMEC Geomatrix on October 2, 2009 and analyzed by TestAmerica, Inc., of Pleasanton, California using U.S. Environmental Protection Agency Methods 8260B and 8015B.

Abbreviations

MTBE = methyl-tert-butyl-ether
µg/L = micrograms per liter
"<" indicates constituent was not detected at a concentration equal to or greater than the laboratory reporting limit shown.

FIGURES

PARCEL SEVEN

137

139

121

122

SEWER EASEMENT 882-304

Former UST #1

Former UST #2

Former UST #3

Former UST #4

MW-1

MW-2

MW-3

CLEMENT AVENUE

MARIPOSA STREET

UNION STREET

SCHILLER STREET

LAFAYETTE STREET

CHESTNUT STREET

STANFORD STREET

WILLOW STREET

Area of Figure 2

EXPLANATION

- Approximate location of Former UST
- (10) Building Number
- MW-2 Approximate location and identification of monitoring well
- Site boundary

N

0 75 150
FEET

SITE PLAN
Pacific Shops, Inc.
1731-2041 Clement Avenue
Alameda, California

By: DC	Date: 11/03/09	Project No. 14740.000
AMEC Geomatrix		Figure 1

Plot Date: 11/03/09 - 4:31pm Plotted by: stefanie.schur
Drawing Path: S:\14700\14740\14740.000\task_03\09_0114_wp\ Drawing Name: _fig_01.dwg

SOIL RESULTS in mg/Kg				
Sample Name	Diesel Range Organics	Motor Oil Range Organics	Bunker Oil Range Organics	MTBE
SB-1-6.0	<0.99	<50	<50	<0.0060
SB-1-6.5	<0.99	<50	<50	<0.0027
SB-1-15.0	3.0	<49	<49	<0.0063
GROUNDWATER RESULTS in µg/L				
GW-1-100209	<50	<300	<510	<0.50

SOIL RESULTS in mg/Kg				
Sample Name	Diesel Range Organics	Motor Oil Range Organics	Bunker Oil Range Organics	MTBE
SB-2-5.5	1.0	<50	<50	<0.0056
SB-2-8.0	<0.99	<50	<50	<0.0062
SB-2-15.0	<1.0	<50	<50	<0.0120
GROUNDWATER RESULTS in µg/L				
GW-2-100209	<51	<300	<510	<0.50

SOIL RESULTS in mg/Kg				
Sample Name	Diesel Range Organics	Motor Oil Range Organics	Bunker Oil Range Organics	MTBE
SB-3-5.5	<0.99	<50	<50	<0.0054
SB-3-15.0	<1.0	<50	<50	<0.0043
GROUNDWATER RESULTS in µg/L				
GW-2-100209	<51	<300	<510	<0.50

2019 Clement

2013 Clement

2007 Clement

SB-1

SB-2

SB-3

Former UST #4

Former UST #2

Former UST #3

EXPLANATION

- Soil boring location
- Approximate location of Former UST
- 4 Building number
- Site boundary

mg/kg = milligrams per kilogram
µg/L = micrograms per liter
MTBE = methyl tertiary butyl ether

N

0 25 50
FEET

BASEMAP MODIFIED FROM

CLEMENT AVENUE

STANFORD STREET

SOIL BORING LOCATIONS AND SOIL AND GROUNDWATER CHEMICAL ANALYTICAL RESULTS
Pacific Shops, Inc.
1731-2041 Clement Avenue
Alameda, California

By: DC	Date: 11/04/09	Project No. 14740.000
AMEC Geomatrix		Figure 2

Plot Date: 11/04/09 - 3:40pm, Plotted by: stefanie.schur
Drawing Path: S:\14700\14740\14740.000\task_03\09_0114_wp\, Drawing Name: _fig_02.dwg

APPENDIX A

Alameda County Environmental Health Letter Dated September 11, 2009

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
ALEX BRISCOE, Acting Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

September 11, 2009

Mr. Sean Svendson
Pacific Shops Inc.
1801 Clement Avenue
Alameda, CA 94501

Subject: Fuel Leak Case No. RO0002951 (Geotracker ID #T0619711981), Pacific Shops Inc, 1815 Clement Avenue, Alameda, CA 64501

Dear Mr. Svendson:

Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site including the report entitled, "Work Plan for Investigation of Former UST #4 Area" dated January 26, 2009 and prepared on your behalf by AMEC Geomatrix (AMEC). ACEH generally concurs with the scope of work as proposed in the work plan, provided the technical comments discussed below are implemented prior to the start of work.

We request that you perform the proposed work, and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to steven.plunkett@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **Soil Boring Installation and Location**. ACEH generally concurs with the proposed soil boring locations, and that soil boring shall be completed to a depth of at least 15 feet below ground surface and a minimum of two soil samples will be analyzed from each boring, one soil sample collected at the capillary fringe and one soil sample collected from the total depth of the soil boring. In addition, soil samples should be analyzed at changes in lithology and from intervals where obvious odor, staining or elevated PID readings are encountered. ACEH generally concurs with the proposed soil sample analysis. Please present the result from the investigation in the report requested below.

2. **Grab Groundwater Sampling**. AMEC proposes to collect grab-groundwater samples from each of the soil borings using silica gel cleanup and filtering groundwater with a 7 micron glass filter. ACEH concurs with the use of silica gel cleanup for groundwater samples, but we do not concur with the recommendation to filter groundwater prior to the collection of groundwater samples. Althuogh field filtering may remove suspended sediment in groundwater, currently there are no certified or accepted regulatory methods for field filtering TPH. ACEH generally concurs with the proposed groundwater sample analysis with the addition of MTBE as an analyses, this analysis was not performed during the removal of UST #4. Please present the results for the investigation in the report requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Steven Plunkett), according to the following schedule:

- **November 6, 2009 –** Soil and Groundwater Investigation

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 383-1767 or send me an electronic mail message at steven.plunkett@acgov.org.

Sincerely,

Digitally signed by Steven Plunkett
DN: cn=Steven Plunkett, o=Alameda County Environmental Health, ou, email=steven.plunkett@acgov.org, c=US
Date: 2009.09.11 11:29:20 -07'00'

Steven Plunkett
Hazardous Materials Specialist

cc: Darren Croteau
AMEC Geomatrix
2101 Webster Street, 12th Floor
Oakland, CA 94612

Donna Drogos, Steven Plunkett, File

APPENDIX B

Soil and Groundwater Analytical Data Tables Prepared by Treadwell and Rollo

Table 1
UST Removal Soil Sample Analytical Results
Pacific Shops
1815 Clement Avenue
Alameda, CA

UST Area	Sample Name	Sample Date	Sample Depth (feet)	Location of Sample	TPH As Gasoline C_6-C_{12} mg/kg	TPH As Kerosene C_9-C_{18} mg/kg	TPH As Diesel C_{10}-C_{23} mg/kg	TPH As Bunker Oil C_{18+} mg/kg	Benzene mg/kg	Toluene mg/kg	Ethylbenzene mg/kg	Total Xylenes mg/kg	Cadmium mg/kg	Chromium mg/kg	Lead mg/kg	STLC Lead mg/L	Nickel mg/kg	Zinc mg/kg	PCBs mg/kg	Other Oxygenates[1] mg/kg
				Analytical Method	8260B	8015M[2]	8015M[2]	8015M[2]	8260B	8260B	8260B	8260B	6010	6010	6010	6010	6010	6010	8010	8260
UST #2																				
	UST2-1-4'	3/7/2007	4.0	East Sidewall	--	ND<1.0	ND<1.0	ND<5.0	--	--	--	--	--	--	--	--	--	--	ND<0.025	--
	UST2-2-4'	3/7/2007	4.0	West Sidewall	--	170	260, c, g	400	--	--	--	--	--	--	--	--	--	--	ND<0.12	--
	UST2-3-7'	3/7/2007	7.0	Bottom	--	320	330, l/m	430	--	--	--	--	--	--	--	--	--	--	ND<0.12	--
	UST2-4-12'	3/29/2007	12	Bottom after over-excavation	--	--	ND<2.0	ND<0.2	ND<0.005	ND<0.005	ND<0.005	ND<0.015	--	--	--	--	--	--	ND<0.1	ND
	UST2-5-7'	3/29/2007	7.0	West Sidewall after over-excavation	--	--	ND<2.0	ND<0.2	ND<0.005	ND<0.005	ND<0.005	ND<0.015	--	--	--	--	--	--	ND<0.1	ND
UST #3																				
	UST3-1-4'	3/7/2007	4.0	North Sidewall	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--
	UST3-2-5'	3/7/2007	5.0	Bottom	ND<1.0	ND<1.0	ND<1.0	ND<5.0	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--
UST #4																				
	UST4-1-5'	3/7/2007	5.0	Bottom	--	ND<1.0	1.5, c	ND<5.0	--	--	--	--	--	--	--	--	--	--	--	--
	UST4-2-4'	3/7/2007	4.0	North Sidewall	--	4.0	5.4, m	9.1	--	--	--	--	--	--	--	--	--	--	--	--
Stockpile Samples																				
UST #2	Stock-1-1-1-2	3/7/2007	0.5	Stockpile 1 (composite)	--	2,900	2,900, l/m	3,100	--	--	--	--	ND<1.5	44	82	3.7	19	110	ND<0.025	--
UST #2	Stock-1-3-1-4	3/7/2007	0.5	Stockpile 1 (composite)	--	110	150, l/m	240	--	--	--	--	--	--	--	--	--	--	--	--
UST #3 & UST #4	Stock-2-3-2-4	3/7/2007	0.5	Stockpile 2 (composite)	ND<1.0	3.4	24, g, b	210	ND<0.005	ND<0.005	ND<0.005	ND<0.005	--	--	--	--	--	--	--	--

Notes
TPH - Total petroleum hydrocarbons
PCBs - Polychlorinated Biphenyls
C_6-C_{12} - Carbon Range C_6 to C_{12}
C_9-C_{18} - Carbon Rance C_9 to C_{18}
C_{18}-C_{23} - Carbon Range C_{18} to C_{23}
C_{18} - Above Carbon Range C_{18}
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
1-Other Oxygenates include: 1,2-Dibromoethane (EDB), 1,2-Dichloroethane (EDC), Ethanol, Ethyl tert-butyl ether (ETBE), Isopropyl ether (DIPE), Methyl tert-butyl ether (MTBE), t-Butyl alcohol (t-Butanol), tert-Amyl methyl ether (TAME)
2-using silica gel cleanup
feet - feet below ground surface
-- not analyzed
ND<1.0 - not detected above laboratory reporting limit
removed through over-excavation

Laboratory Qualifiers
b - diesel range compounds are significant; no recognizable pattern
c - aged diesel? is significant
g - oil range compounds are significant
l - bunker oil
m - fuel oil

Table 2
UST Removal Groundwater Analytical Results
Pacific Shops
1815 Clement Avenue
Alameda, CA
All results reported in micrograms per liter (µg/L)

					TPH as Gasoline C_6-C_{12}	TPH as Kerosene C_9-C_{18}	TPH as Diesel C_{10}-C_{23}	TPH as Bunker Oil C_{18+}	PCBs µg/L
				Analytical Method	8260B	8015M[1]	8015M[1]	8015M[1]	8010
UST Area	Sample Name	Sample Date	Sample Depth (feet)	Location of Sample					
UST #4	UST4-GW	3/7/2007	5.0	Water in Excavation	--	**28,000**	**33,000, a, g, i**	**37,000**	--
UST #4	UST4-GW2	3/14/2007	5.0	Water in Excavation	--	ND<50	ND<50	ND<250	--
UST #2	UST2-W	3/22/2007	7.0	Water in Excavation	--	--	**250, a/m**	**390**	ND<0.5

Notes
TPH - Total petroleum hydrocarbons
PCBs - Polychlorinated Biphenyls
µg/L - micrograms per liter
C_6-C_{12} - Carbon Range C_6 to C_{12}
C_9-C_{18} - Carbon Rance C_9 to C_{18}
C_{10}-C_{23} - Carbon Range C_{10} to C_{23}
C_{18} - Above Carbon Range C_{18}
1-using silica gel cleanup
feet - feet below ground surface

-- not analyzed
ND<50 - not detected above laboratory reporting limit

Laboratory Qualifiers
a - unmodified or weakly modified diesel is significant
g - oil range compounds are significant
i - liquid sample that contains greater than ~1 vol. % sediment
m - fuel oil

APPENDIX C

Soil Boring Permit

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 09/22/2009 By jamesy

Permit Numbers: W2009-0866
Permits Valid from 10/02/2009 to 10/02/2009

Application Id: 1253575232453
City of Project Site: Alameda
Site Location: 1815 Clement Ave
Project Start Date: 10/02/2009
Completion Date: 10/02/2009

Assigned Inspector: Contact John Shouldice at (510) 670-5424 or johns@acpwa.org

Applicant: AMEC Geomatrix - Tiffany Klitzke
2101 Webster Street, Oakland, CA 94612
Phone: 510-663-4144

Property Owner: Sean Svendsen
1815 Clement Avenue, Alameda, CA 94501
Phone: --

Client: ** same as Property Owner **

Contact: Tiffany Klitzke
Phone: 510-663-4144
Cell: 831-227-5144

Total Due: $265.00
Receipt Number: WR2009-0347 **Total Amount Paid:** $265.00
Payer Name : Tiffany R Klitzke Paid By: VISA **PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 3 Boreholes
Driller: RSI Inc - Lic #: 802334 - Method: DP **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2009-0866	09/22/2009	12/31/2009	3	1.13 in.	15.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Applicant shall contact John Shouldice for an inspection time at 510-670-5424 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

4. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

5. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

6. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

APPENDIX D

Lithologic Logs

PROJECT: PACIFIC SHOPS INC. Alameda, California		**Boring Log Explanation**	
BORING LOCATION:		ELEVATION AND DATUM:	
DRILLING CONTRACTOR:		DATE STARTED:	DATE FINISHED:
DRILLING METHOD:		TOTAL DEPTH (ft.):	MEASURING POINT:
DRILLING EQUIPMENT:		DEPTH TO WATER (ft.)	FIRST / COMPL.
SAMPLING METHOD:		LOGGED BY:	
HAMMER WEIGHT:	DROP:	RESPONSIBLE PROFESSIONAL:	REG. NO.

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/ Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation:	REMARKS
1					**Notes:** 1. Soil described using visual-manual procedures of American Society of Testing and Materials (ASTM) Standard D 2488 for guidance; a Standard based on the Unified Soil Classification System.	
2					2. Soil color described according to Munsell Color Chart.	
3					3. Dashed lines separating soil strata represent inferred boundaries between sampled intervals that may be abrupt or gradual transitions.	
4						
5					4. Solid lines represent approximate boundaries observed within sample intervals.	
6					5. OVM = organic vapor meter, reading in volumetric parts per million (ppm).	
7					6. Odor, if noted is subjective and not necessarily indicative of specific compounds or concentrations.	
8					7. NA = not applicable. 8. ND = no data.	
9					Interval of recovered soil collected with a continuous core sampler.	
10						
11					Interval of no recovery.	
12	SB-1-12.5				Sample collected for chemical analysis and sample identification.	
13						
14						
15						

KEYFORM (REV. 6/2008)

PROJECT: PACIFIC SHOPS INC. Alameda, California	**Log of Boring No. SB-1**
BORING LOCATION: Approx. 8' W, 5' N of SW corner of bldg 6	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: RSI Drilling, Inc.	DATE STARTED: 10/2/09 / DATE FINISHED: 10/2/09
DRILLING METHOD: Direct push	TOTAL DEPTH (ft.): 15.0 / MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6620 DT	DEPTH TO WATER (ft.) FIRST: NA / COMPL.: 7.2
SAMPLING METHOD: Geoprobe DT21 dual-tube sampling system [4' x 1.125"]	LOGGED BY: T. Klitzke
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Croteau / REG. NO.: PG 7495

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation:	REMARKS
0					ASPHALTIC CONCRETE	OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
1					SANDY LEAN CLAY with GRAVEL (CL): very dark brown (7.5YR 2.5/3), moist, 50% fines, 30% fine sand, 20% fine gravel, medium plasticity [FILL]	
2				0.2		Hand augered to 5 feet bgs.
3						
4						
5	SB-1-6.0			0.3 0	contains brick fragments	Grab groundwater sample GW-1-100209 collected through 10 feet of 2-inch OD Sch. 40 PVC screen (0.010-inch slot size) placed in borehole from 5 to 15 feet bgs.
6				0	CLAYEY SAND (SC): greenish black (5GY 2.5/1), wet, 80% fine to medium sand, 20% low plasticity fines	
7	SB-1 6.5				SANDY LEAN CLAY (CL): dark grayish brown (10YR 4/2), moist, 70% fines, 30% fine to medium sand, medium plasticity	
8				0.1		
9						
10				0		
11				0	mottled with dark yellowish brown (10YR 3/6)	
12						
13				0.1 0		Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.
14	SB-1-15.0			0	POORLY-GRADED SAND with CLAY (SP-SC): olive brown (2.5Y 4/3), moist, 90% medium sand, 10% low plasticity fines	
15				0.1 0	Bottom of boring at 15.0 feet	

OAKBOREV (REV. 6/2008)

PROJECT: PACIFIC SHOPS INC. Alameda, California	**Log of Boring No. SB-2**
BORING LOCATION: Approx. 14' S, 11' W of SE corner of bldg 6	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: RSI Drilling, Inc.	DATE STARTED: 10/2/09 / DATE FINISHED: 10/2/09
DRILLING METHOD: Direct push	TOTAL DEPTH (ft.): 15.0 / MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6620 DT	DEPTH TO WATER (ft.) FIRST: NA / COMPL.: 5.1
SAMPLING METHOD: Geoprobe DT21 dual-tube sampling system [4' x 1.125"]	LOGGED BY: T. Klitzke
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Croteau / REG. NO.: PG 7495

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation:	REMARKS
0					ASPHALTIC CONCRETE	OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
1				0.1	SANDY LEAN CLAY with GRAVEL (CL): very dark brown (7.5YR 2.5/3), moist, 50% fines, 30% fine to medium sand, 20% fine gravel, medium plasticity	
2				0.2		Hand augered to 5 feet bgs.
3						
4						
5	SB-2-5.5			0.7 1	CLAYEY SAND (SC): greenish black (5GY 2.5/1), wet, 80% fine to medium sand, 20% low plasticity fines	Grab groundwater sample GW-2-100209 collected through 10 feet of 2-inch OD Sch. 40 PVC screen (0.010-inch slot size) placed in borehole from 5 to 15 feet bgs.
6				0.3		
7						
8	SB-2-8.0			0.7	SANDY LEAN CLAY (CL): very dark greenish gray (5GY 3/1), mottled with dark yellowish brown (10YR 3/6), moist, 70% fines, 30% fine to medium sand, medium plasticity	
9						
10				0.1		
11				0.1	POORLY-GRADED SAND (SP): dark yellowish brown (10YR 4/6)	
12				0.2	light brownish gray (2.5Y 6/2)	
13				0.3	POORLY-GRADED SAND with CLAY (SP-SC): dark yellowish brown (10YR 4/6), moist, 90% medium sand, 10% low plasticity fines	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.
14	SB-2-15.0			0.1		
15					Bottom of boring at 15.0 feet	

OAKBOREV (REV. 6/2008)

PROJECT: PACIFIC SHOPS INC. Alameda, California	**Log of Boring No. SB-3**
BORING LOCATION: Approx. 24' E, 15' N of the SE corner of bldg 8	ELEVATION AND DATUM: Not surveyed; datum is ground surface
DRILLING CONTRACTOR: RSI Drilling, Inc.	DATE STARTED: 10/2/09 / DATE FINISHED: 10/2/09
DRILLING METHOD: Direct push	TOTAL DEPTH (ft.): 15.0 / MEASURING POINT: Ground surface
DRILLING EQUIPMENT: Geoprobe 6620 DT	DEPTH TO WATER (ft.) FIRST: NA / COMPL.: 5.7
SAMPLING METHOD: Geoprobe DT21 dual-tube sampling system [4' x 1.125"]	LOGGED BY: T. Klitzke
HAMMER WEIGHT: NA / DROP: NA	RESPONSIBLE PROFESSIONAL: D. Croteau / REG. NO. PG 7495

DEPTH (feet)	SAMPLES: Sample No.	SAMPLES: Sample	SAMPLES: Blows/Foot	OVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. density, structure, cementation, react. w/HCl, geo. inter. Surface Elevation:	REMARKS
0					ASPHALTIC CONCRETE	OVM = MiniRAE 2000 PID calibrated with 100 ppm isobutylene standard.
1					LEAN CLAY (CL): very dark greenish gray (5GY 3/1), moist, 95% fines, 5% fine to medium sand, medium plasticity	
2				0.5		Hand augered to 5 feet bgs.
3						
4						
5	SB-3-5.5			0.5	CLAYEY SAND (SC): greenish black (5GY 2.5/1), wet, 80% fine to medium sand, 20% low plasticity fines	Grab groundwater sample GW-3-100209 collected through 10 feet of 2-inch OD Sch. 40 PVC screen (0.010-inch slot size) placed in borehole from 5 to 15 feet bgs.
6				0.4	yellowish brown (10YR 5/4), moist	
7				0.3		
8				0		
9						
10				0.1		
11						
12				1.8	mottled with dark yellowish brown (10YR 4/6)	
13					SANDY LEAN CLAY (CL)	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.
14	SB-3-15.0			0.9 0.4	POORLY-GRADED SAND with CLAY (SP-SC): olive brown (2.5Y 4/3), moist, 90% medium sand, 10% low plasticity fines	
15					Bottom of boring at 15.0 feet	

OAKBOREV (REV. 6/2008)

APPENDIX E

Laboratory Analytical Report – Investigation Derived Waste

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 720-23004-1

Job Description: Pacific Shops Inc

For:
AMEC Geomatrix Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

Attention: Ms. Tiffany Klitzke

Approved for release.
Afsaneh Salimpour
Project Manager I
10/13/2009 1:00 PM

Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com
10/13/2009

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.

A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica Laboratories, Inc.
TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566
Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

EXECUTIVE SUMMARY - Detections

Client: AMEC Geomatrix Inc. Job Number: 720-23004-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method

No Detections

METHOD SUMMARY

Client: AMEC Geomatrix Inc. Job Number: 720-23004-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL SF	SW846 8260B/CA_LUFTMS	
Purge and Trap	TAL SF		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL SF	SW846 8015B	
Liquid-Liquid Extraction (Separatory Funnel)	TAL SF		SW846 3510C SGC

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: AMEC Geomatrix Inc. Job Number: 720-23004-1

Method	Analyst	Analyst ID
SW846 8260B/CA_LUFTMS	Ali, Badri	BA
SW846 8015B	Hayashi, Derek	DH

SAMPLE SUMMARY

Client: AMEC Geomatrix Inc. Job Number: 720-23004-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-23004-1	IDW-100209	Water	10/02/2009 1225	10/02/2009 1711

Client: AMEC Geomatrix Inc. Job Number: 720-23004-1

Client Sample ID: **IDW-100209**

Lab Sample ID: 720-23004-1 Date Sampled: 10/02/2009 1225
Client Matrix: Water Date Received: 10/02/2009 1711

8260B/CA_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-59288		Instrument ID:	SAT 3900C
Preparation:	5030B			Lab File ID:	e:\data\200910\10090
Dilution:	1.0			Initial Weight/Volume:	40 mL
Date Analyzed:	10/09/2009 1512			Final Weight/Volume:	40 mL
Date Prepared:	10/09/2009 1512				

Analyte	Result (ug/L)	Qualifier	RL
MTBE	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	101		70 - 130
1,2-Dichloroethane-d4 (Surr)	102		67 - 130

Client: AMEC Geomatrix Inc. Job Number: 720-23004-1

Client Sample ID: **IDW-100209**

Lab Sample ID: 720-23004-1 Date Sampled: 10/02/2009 1225
Client Matrix: Water Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59054	Instrument ID: CHDRO5
Preparation:	3510C SGC	Prep Batch: 720-59002	Initial Weight/Volume: 980 mL
Dilution:	1.0		Final Weight/Volume: 5 mL
Date Analyzed:	10/07/2009 1722		Injection Volume: 1 uL
Date Prepared:	10/06/2009 1357		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	ND		51
Motor Oil Range Organics [C24-C36]	ND		310
Bunker Range Organics (C9-C36)	ND		510

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	80		31 - 150

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

Client: AMEC Geomatrix Inc. Job Number: 720-23004-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-59288					
LCS 720-59288/2	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCSD 720-59288/1	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
MB 720-59288/3	Method Blank	T	Water	8260B/CA_LUFT	
720-23004-1	IDW-100209	T	Water	8260B/CA_LUFT	

Report Basis
T = Total

GC Semi VOA					
Prep Batch: 720-59002					
LCS 720-59002/2-A	Lab Control Sample	A	Water	3510C SGC	
LCSD 720-59002/3-A	Lab Control Sample Duplicate	A	Water	3510C SGC	
MB 720-59002/1-A	Method Blank	A	Water	3510C SGC	
720-23004-1	IDW-100209	A	Water	3510C SGC	
Analysis Batch:720-59054					
MB 720-59002/1-A	Method Blank	A	Water	8015B	720-59002
720-23004-1	IDW-100209	A	Water	8015B	720-59002
Analysis Batch:720-59055					
LCS 720-59002/2-A	Lab Control Sample	A	Water	8015B	720-59002
LCSD 720-59002/3-A	Lab Control Sample Duplicate	A	Water	8015B	720-59002

Report Basis
A = Silica Gel Cleanup

Client: AMEC Geomatrix Inc. Job Number: 720-23004-1

Method Blank - Batch: 720-59288

Method: 8260B/CA_LUFTMS
Preparation: 5030B

Lab Sample ID: MB 720-59288/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/09/2009 1244
Date Prepared: 10/09/2009 1244

Analysis Batch: 720-59288
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900C
Lab File ID: e:\data\200910\100909\mb-wa
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
MTBE	ND		0.50

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	94	70 - 130
1,2-Dichloroethane-d4 (Surr)	94	67 - 130

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-59288

Method: 8260B/CA_LUFTMS
Preparation: 5030B

LCS Lab Sample ID: LCS 720-59288/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/09/2009 1356
Date Prepared: 10/09/2009 1356

Analysis Batch: 720-59288
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900C
Lab File ID: e:\data\200910\100909\ls-wa-
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-59288/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/09/2009 1421
Date Prepared: 10/09/2009 1421

Analysis Batch: 720-59288
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900C
Lab File ID: e:\data\200910\100909\ld-wa-9
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
MTBE	90	93	64 - 130	3	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	97	95	70 - 130
1,2-Dichloroethane-d4 (Surr)	92	85	67 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: AMEC Geomatrix Inc. Job Number: 720-23004-1

Method Blank - Batch: 720-59002

Method: 8015B
Preparation: 3510C SGC
Silica Gel Cleanup

Lab Sample ID:	MB 720-59002/1-A	Analysis Batch:	720-59054	Instrument ID:	HP DRO5
Client Matrix:	Water	Prep Batch:	720-59002	Lab File ID:	5a1007018.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	10/07/2009 1535			Final Weight/Volume:	5 mL
Date Prepared:	10/06/2009 1357			Injection Volume:	1 uL
				Column ID:	PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	ND		50
Motor Oil Range Organics [C24-C36]	ND		300
Bunker Range Organics (C9-C36)	ND		500

Surrogate	% Rec	Acceptance Limits
Capric Acid (Surr)	0	0 - 5
p-Terphenyl	90	31 - 150

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-59002

Method: 8015B
Preparation: 3510C SGC
Silica Gel Cleanup

LCS Lab Sample ID:	LCS 720-59002/2-A	Analysis Batch:	720-59055	Instrument ID:	HP DRO5
Client Matrix:	Water	Prep Batch:	720-59002	Lab File ID:	5b1007008.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	10/07/2009 1027			Final Weight/Volume:	5 mL
Date Prepared:	10/06/2009 1357			Injection Volume:	1 uL
				Column ID:	PRIMARY

LCSD Lab Sample ID:	LCSD 720-59002/3-A	Analysis Batch:	720-59055	Instrument ID:	HP DRO5
Client Matrix:	Water	Prep Batch:	720-59002	Lab File ID:	5b1007009.d
Dilution:	1.0	Units:	ug/L	Initial Weight/Volume:	1000 mL
Date Analyzed:	10/07/2009 1054			Final Weight/Volume:	5 mL
Date Prepared:	10/06/2009 1357			Injection Volume:	1 uL
				Column ID:	PRIMARY

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Diesel Range Organics [C10-C28]	78	86	32 - 119	9	35		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
p-Terphenyl	94	93	31 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

CHAIN-OF-CUSTODY RECORD

720-23004

1194416699

PROJECT NAME: Pacific Shops Inc.			DATE: 10-2-09 PAGE 1 OF 1
PROJECT NUMBER: 14740.000	LABORATORY NAME: TestAmerica - SF	CLIENT INFORMATION:	REPORTING REQUIREMENTS:
RESULTS TO: tiffany.klitzke@amec.com	LABORATORY ADDRESS:		
TURNAROUND TIME: Standard	Pleasanton, CA		
SAMPLE SHIPMENT METHOD: Courier	LABORATORY CONTACT: Afsaneh S.		GEOTRACKER REQUIRED (YES) NO
SAMPLERS (SIGNATURE):	LABORATORY PHONE NUMBER: 925-484-1919		SITE SPECIFIC GLOBAL ID NO. T0619711981

DATE	TIME	SAMPLE NUMBER	ANALYSES: Diesel and Bunker Oil by 8015	Silica Gel 3630B	MTBE by 8260	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
10/2/09	1225	IDW-100209	X	X	X	40 mL VOA	W	N	HCl	Y	N	3	(1)
						1 L AMBER	W	N	HCl	Y	N	2	

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE:	10/2/09	1530	SIGNATURE:	10/02/09	1711
PRINTED NAME: Tiffany Klitzke			PRINTED NAME:		
COMPANY: AMEC Geomatrix			COMPANY:		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		
SIGNATURE:			SIGNATURE:		
PRINTED NAME:			PRINTED NAME:		
COMPANY:			COMPANY:		

TOTAL NUMBER OF CONTAINERS: 5

SAMPLING COMMENTS: (1) SAMPLE CONTAINS A SMALL AMOUNT OF ALCONOX - MAY FOAM

7.5°/1.7°

amec

10/13/2009

Login Sample Receipt Check List

Client: AMEC Geomatrix Inc.

Job Number: 720-23004-1

Login Number: 23004

List Source: TestAmerica San Francisco

Creator: Mullen, Joan

List Number: 1

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	

APPENDIX F

Laboratory Analytical Report – Soil and Groundwater Investigation Data

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

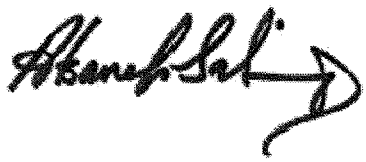
ANALYTICAL REPORT

Job Number: 720-23001-1

Job Description: Pacific Shops Inc

For:
AMEC Geomatrix Inc.
2101 Webster Street, 12th Floor
Oakland, CA 94612

Attention: Ms. Tiffany Klitzke



Approved for release.
Afsaneh Salimpour
Project Manager I
10/13/2009 12:53 PM

Afsaneh Salimpour
Project Manager I
afsaneh.salimpour@testamericainc.com
10/13/2009

CA ELAP Certification # 2496
The Chain(s) of Custody are included and are an integral part of this report.

A trip blank is required to be provided for volatile analyses. If trip blank results are not included in the report, either the trip blank was not submitted or requested to be analyzed.

TestAmerica Laboratories, Inc.
TestAmerica San Francisco 1220 Quarry Lane, Pleasanton, CA 94566
Tel (925) 484-1919 Fax (925) 600-3002 www.testamericainc.com

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

GC/MS VOA
Method(s) 8260B: Surrogate recovery for the following sample(s) was outside the upper control limit: SB-1-15.0 (720-23001-3), SB-1-6.0 (720-23001-1), SB-2-5.5 (720-23001-5), SB-2-8.0 (720-23001-6), SB-3-5.5 (720-23001-8). Surrogate 1,2-Dichloroethane-d4 was out high. This sample did not contain any target analytes; Re-extraction and/or re-analysis was performed and confirmed.

No other analytical or quality issues were noted.

GC Semi VOA
Method(s) 8015B: Concentrations reported represent individual or discrete peaks: 23001-3

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

EXECUTIVE SUMMARY - Detections

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
720-23001-3	**SB-1-15.0**				
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		3.0	0.99	mg/Kg	8015B
720-23001-5	**SB-2-5.5**				
Silica Gel Cleanup					
Diesel Range Organics [C10-C28]		1.0	0.99	mg/Kg	8015B

METHOD SUMMARY

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds (GC/MS)	TAL SF	SW846 8260B	
Closed System Purge and Trap	TAL SF		SW846 5035
Diesel Range Organics (DRO) (GC)	TAL SF	SW846 8015B	
Ultrasonic Extraction	TAL SF		SW846 3550B
Matrix: Water			
Volatile Organic Compounds by GC/MS	TAL SF	SW846 8260B/CA_LUFTMS	
Purge and Trap	TAL SF		SW846 5030B
Diesel Range Organics (DRO) (GC)	TAL SF	SW846 8015B	
Liquid-Liquid Extraction (Separatory Funnel)	TAL SF		SW846 3510C SGC

Lab References:

TAL SF = TestAmerica San Francisco

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Method	Analyst	Analyst ID
SW846 8260B	Nguyen, Thuy M	TMN
SW846 8260B/CA_LUFTMS	Zhao, June	JZ
SW846 8015B	Hayashi, Derek	DH

SAMPLE SUMMARY

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
720-23001-1	SB-1-6.0	Solid	10/02/2009 0844	10/02/2009 1711
720-23001-2	SB-1-6.5	Solid	10/02/2009 0909	10/02/2009 1711
720-23001-3	SB-1-15.0	Solid	10/02/2009 0829	10/02/2009 1711
720-23001-4	SB-2-15.0	Solid	10/02/2009 0951	10/02/2009 1711
720-23001-5	SB-2-5.5	Solid	10/02/2009 0945	10/02/2009 1711
720-23001-6	SB-2-8.0	Solid	10/02/2009 1009	10/02/2009 1711
720-23001-7	SB-3-15.0	Solid	10/02/2009 1052	10/02/2009 1711
720-23001-8	SB-3-5.5	Solid	10/02/2009 1100	10/02/2009 1711
720-23001-9	GW-1-100209	Water	10/02/2009 1130	10/02/2009 1711
720-23001-10	GW-2-100209	Water	10/02/2009 1146	10/02/2009 1711
720-23001-11	GW-3-100209	Water	10/02/2009 1200	10/02/2009 1711
720-23001-12	TB-100209	Water	10/02/2009 1500	10/02/2009 1711

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **SB-1-6.0**

Lab Sample ID: 720-23001-1
Client Matrix: Solid

Date Sampled: 10/02/2009 0844
Date Received: 10/02/2009 1711

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59330		Instrument ID:	HP12
Preparation:	5035	Prep Batch: 720-59381		Lab File ID:	10120910.D
Dilution:	1.0			Initial Weight/Volume:	4.16 g
Date Analyzed:	10/12/2009 1444			Final Weight/Volume:	10 mL
Date Prepared:	10/12/2009 0800				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
MTBE		ND		6.0

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	88		52 - 130
1,2-Dichloroethane-d4 (Surr)	134	X	67 - 132
Toluene-d8 (Surr)	100		58 - 130

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **SB-1-6.5**

Lab Sample ID: 720-23001-2
Client Matrix: Solid

Date Sampled: 10/02/2009 0909
Date Received: 10/02/2009 1711

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59330		Instrument ID:	HP12
Preparation:	5035	Prep Batch: 720-59381		Lab File ID:	10120911.D
Dilution:	1.0			Initial Weight/Volume:	9.13 g
Date Analyzed:	10/12/2009 1517			Final Weight/Volume:	10 mL
Date Prepared:	10/12/2009 0800				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
MTBE		ND		2.7

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	94		52 - 130
1,2-Dichloroethane-d4 (Surr)	118		67 - 132
Toluene-d8 (Surr)	100		58 - 130

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **SB-1-15.0**

Lab Sample ID: 720-23001-3
Client Matrix: Solid

Date Sampled: 10/02/2009 0829
Date Received: 10/02/2009 1711

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59330		Instrument ID:	HP12
Preparation:	5035	Prep Batch: 720-59381		Lab File ID:	10120912.D
Dilution:	1.0			Initial Weight/Volume:	3.95 g
Date Analyzed:	10/12/2009 1549			Final Weight/Volume:	10 mL
Date Prepared:	10/12/2009 0800				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
MTBE		ND		6.3

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	103		52 - 130
1,2-Dichloroethane-d4 (Surr)	134	X	67 - 132
Toluene-d8 (Surr)	101		58 - 130

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Client Sample ID: **SB-2-15.0**

Lab Sample ID: 720-23001-4 Date Sampled: 10/02/2009 0951
Client Matrix: Solid Date Received: 10/02/2009 1711

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59330		Instrument ID:	HP12
Preparation:	5035	Prep Batch: 720-59381		Lab File ID:	10120907.D
Dilution:	1.0			Initial Weight/Volume:	2.11 g
Date Analyzed:	10/12/2009 1307			Final Weight/Volume:	10 mL
Date Prepared:	10/12/2009 0800				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
MTBE		ND		12

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	103		52 - 130
1,2-Dichloroethane-d4 (Surr)	126		67 - 132
Toluene-d8 (Surr)	101		58 - 130

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **SB-2-5.5**

Lab Sample ID: 720-23001-5
Client Matrix: Solid

Date Sampled: 10/02/2009 0945
Date Received: 10/02/2009 1711

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59330		Instrument ID:	HP12
Preparation:	5035	Prep Batch: 720-59381		Lab File ID:	10120913.D
Dilution:	1.0			Initial Weight/Volume:	4.48 g
Date Analyzed:	10/12/2009 1621			Final Weight/Volume:	10 mL
Date Prepared:	10/12/2009 0800				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
MTBE		ND		5.6

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	102		52 - 130
1,2-Dichloroethane-d4 (Surr)	136	X	67 - 132
Toluene-d8 (Surr)	100		58 - 130

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **SB-2-8.0**

Lab Sample ID: 720-23001-6
Client Matrix: Solid

Date Sampled: 10/02/2009 1009
Date Received: 10/02/2009 1711

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59330		Instrument ID:	HP12
Preparation:	5035	Prep Batch: 720-59381		Lab File ID:	10120914.D
Dilution:	1.0			Initial Weight/Volume:	4.01 g
Date Analyzed:	10/12/2009 1654			Final Weight/Volume:	10 mL
Date Prepared:	10/12/2009 0800				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
MTBE		ND		6.2

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	104		52 - 130
1,2-Dichloroethane-d4 (Surr)	141	X	67 - 132
Toluene-d8 (Surr)	99		58 - 130

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Client Sample ID: **SB-3-15.0**

Lab Sample ID: 720-23001-7 Date Sampled: 10/02/2009 1052
Client Matrix: Solid Date Received: 10/02/2009 1711

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59330		Instrument ID:	HP12
Preparation:	5035	Prep Batch: 720-59381		Lab File ID:	10120908.D
Dilution:	1.0			Initial Weight/Volume:	5.82 g
Date Analyzed:	10/12/2009 1339			Final Weight/Volume:	10 mL
Date Prepared:	10/12/2009 0800				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
MTBE		ND		4.3

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	102		52 - 130
1,2-Dichloroethane-d4 (Surr)	128		67 - 132
Toluene-d8 (Surr)	101		58 - 130

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Client Sample ID: **SB-3-5.5**

Lab Sample ID: 720-23001-8 Date Sampled: 10/02/2009 1100
Client Matrix: Solid Date Received: 10/02/2009 1711

8260B Volatile Organic Compounds (GC/MS)

Method:	8260B	Analysis Batch: 720-59330		Instrument ID:	HP12
Preparation:	5035	Prep Batch: 720-59381		Lab File ID:	10120909.D
Dilution:	1.0			Initial Weight/Volume:	4.63 g
Date Analyzed:	10/12/2009 1412			Final Weight/Volume:	10 mL
Date Prepared:	10/12/2009 0800				

Analyte	DryWt Corrected: N	Result (ug/Kg)	Qualifier	RL
MTBE		ND		5.4

Surrogate	%Rec	Qualifier	Acceptance Limits
4-Bromofluorobenzene	100		52 - 130
1,2-Dichloroethane-d4 (Surr)	137	X	67 - 132
Toluene-d8 (Surr)	101		58 - 130

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **GW-1-100209**

Lab Sample ID: 720-23001-9
Client Matrix: Water

Date Sampled: 10/02/2009 1130
Date Received: 10/02/2009 1711

8260B/CA_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-59217	Instrument ID: SAT 3900C
Preparation:	5030B		Lab File ID: e:\data\200910\10060
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	10/07/2009 0225		Final Weight/Volume: 40 mL
Date Prepared:	10/07/2009 0225		

Analyte	Result (ug/L)	Qualifier	RL
MTBE	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	96		70 - 130
1,2-Dichloroethane-d4 (Surr)	98		67 - 130

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Client Sample ID: **GW-2-100209**

Lab Sample ID: 720-23001-10 Date Sampled: 10/02/2009 1146
Client Matrix: Water Date Received: 10/02/2009 1711

8260B/CA_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-59217	Instrument ID: SAT 3900C
Preparation:	5030B		Lab File ID: e:\data\200910\10060
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	10/07/2009 0249		Final Weight/Volume: 40 mL
Date Prepared:	10/07/2009 0249		

Analyte	Result (ug/L)	Qualifier	RL
MTBE	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	97		70 - 130
1,2-Dichloroethane-d4 (Surr)	102		67 - 130

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **GW-3-100209**

Lab Sample ID: 720-23001-11
Client Matrix: Water

Date Sampled: 10/02/2009 1200
Date Received: 10/02/2009 1711

8260B/CA_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-59217	Instrument ID: SAT 3900C
Preparation:	5030B		Lab File ID: e:\data\200910\10060
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	10/07/2009 0314		Final Weight/Volume: 40 mL
Date Prepared:	10/07/2009 0314		

Analyte	Result (ug/L)	Qualifier	RL
MTBE	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	94		70 - 130
1,2-Dichloroethane-d4 (Surr)	86		67 - 130

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Client Sample ID: **TB-100209**

Lab Sample ID: 720-23001-12 Date Sampled: 10/02/2009 1500
Client Matrix: Water Date Received: 10/02/2009 1711

8260B/CA_LUFTMS Volatile Organic Compounds by GC/MS

Method:	8260B/CA_LUFTMS	Analysis Batch: 720-59217	Instrument ID: SAT 3900C
Preparation:	5030B		Lab File ID: e:\data\200910\10060
Dilution:	1.0		Initial Weight/Volume: 40 mL
Date Analyzed:	10/06/2009 2129		Final Weight/Volume: 40 mL
Date Prepared:	10/06/2009 2129		

Analyte	Result (ug/L)	Qualifier	RL
MTBE	ND		0.50

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	99		70 - 130
1,2-Dichloroethane-d4 (Surr)	78		67 - 130

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **SB-1-6.0**

Lab Sample ID: 720-23001-1
Client Matrix: Solid

Date Sampled: 10/02/2009 0844
Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59175		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-59111		Initial Weight/Volume:	30.18 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	10/08/2009 1554			Injection Volume:	1 uL
Date Prepared:	10/07/2009 1426			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		0.99
Motor Oil Range Organics [C24-C36]		ND		50
Bunker Range Organics (C9-C36)		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	83		46 - 115

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Client Sample ID: **SB-1-6.5**

Lab Sample ID: 720-23001-2 Date Sampled: 10/02/2009 0909
Client Matrix: Solid Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59175		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-59111		Initial Weight/Volume:	30.29 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	10/08/2009 1659			Injection Volume:	1 uL
Date Prepared:	10/07/2009 1426			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		0.99
Motor Oil Range Organics [C24-C36]		ND		50
Bunker Range Organics (C9-C36)		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	84		46 - 115

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **SB-1-15.0**

Lab Sample ID: 720-23001-3
Client Matrix: Solid

Date Sampled: 10/02/2009 0829
Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59175		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-59111		Initial Weight/Volume:	30.32 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	10/08/2009 1721			Injection Volume:	1 uL
Date Prepared:	10/07/2009 1426			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		3.0		0.99
Motor Oil Range Organics [C24-C36]		ND		49
Bunker Range Organics (C9-C36)		ND		49

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	89		46 - 115

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Client Sample ID: **SB-2-15.0**

Lab Sample ID: 720-23001-4 Date Sampled: 10/02/2009 0951
Client Matrix: Solid Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59175		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-59111		Initial Weight/Volume:	30.10 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	10/08/2009 1742			Injection Volume:	1 uL
Date Prepared:	10/07/2009 1426			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		1.0
Motor Oil Range Organics [C24-C36]		ND		50
Bunker Range Organics (C9-C36)		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	86		46 - 115

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **SB-2-5.5**

Lab Sample ID: 720-23001-5
Client Matrix: Solid

Date Sampled: 10/02/2009 0945
Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59175		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-59111		Initial Weight/Volume:	30.30 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	10/08/2009 1804			Injection Volume:	1 uL
Date Prepared:	10/07/2009 1426			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		1.0		0.99
Motor Oil Range Organics [C24-C36]		ND		50
Bunker Range Organics (C9-C36)		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	81		46 - 115

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Client Sample ID: **SB-2-8.0**

Lab Sample ID: 720-23001-6 Date Sampled: 10/02/2009 1009
Client Matrix: Solid Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59175		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-59111		Initial Weight/Volume:	30.19 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	10/08/2009 1826			Injection Volume:	1 uL
Date Prepared:	10/07/2009 1426			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		0.99
Motor Oil Range Organics [C24-C36]		ND		50
Bunker Range Organics (C9-C36)		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	77		46 - 115

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **SB-3-15.0**

Lab Sample ID: 720-23001-7
Client Matrix: Solid

Date Sampled: 10/02/2009 1052
Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59175		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-59111		Initial Weight/Volume:	30.03 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	10/08/2009 2036			Injection Volume:	1 uL
Date Prepared:	10/07/2009 1426			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		1.0
Motor Oil Range Organics [C24-C36]		ND		50
Bunker Range Organics (C9-C36)		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	85		46 - 115

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **SB-3-5.5**

Lab Sample ID: 720-23001-8
Client Matrix: Solid

Date Sampled: 10/02/2009 1100
Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59175		Instrument ID:	CHDRO6
Preparation:	3550B	Prep Batch: 720-59111		Initial Weight/Volume:	30.19 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	10/08/2009 2058			Injection Volume:	1 uL
Date Prepared:	10/07/2009 1426			Result Type:	PRIMARY

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		ND		0.99
Motor Oil Range Organics [C24-C36]		ND		50
Bunker Range Organics (C9-C36)		ND		50

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	79		46 - 115

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **GW-1-100209**

Lab Sample ID: 720-23001-9
Client Matrix: Water

Date Sampled: 10/02/2009 1130
Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59054		Instrument ID:	CHDRO5
Preparation:	3510C SGC	Prep Batch: 720-59002		Initial Weight/Volume:	990 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	10/07/2009 1601			Injection Volume:	1 uL
Date Prepared:	10/06/2009 1357			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	ND		51
Motor Oil Range Organics [C24-C36]	ND		300
Bunker Range Organics (C9-C36)	ND		510

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	78		31 - 150

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Client Sample ID: **GW-2-100209**

Lab Sample ID: 720-23001-10 Date Sampled: 10/02/2009 1146
Client Matrix: Water Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59054	Instrument ID: CHDRO5
Preparation:	3510C SGC	Prep Batch: 720-59002	Initial Weight/Volume: 990 mL
Dilution:	1.0		Final Weight/Volume: 5 mL
Date Analyzed:	10/07/2009 1628		Injection Volume: 1 uL
Date Prepared:	10/06/2009 1357		Result Type: PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	ND		51
Motor Oil Range Organics [C24-C36]	ND		300
Bunker Range Organics (C9-C36)	ND		510

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	4		0 - 5
p-Terphenyl	77		31 - 150

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Client Sample ID: **GW-3-100209**

Lab Sample ID: 720-23001-11
Client Matrix: Water

Date Sampled: 10/02/2009 1200
Date Received: 10/02/2009 1711

8015B Diesel Range Organics (DRO) (GC)-Silica Gel Cleanup

Method:	8015B	Analysis Batch: 720-59054		Instrument ID:	CHDRO5
Preparation:	3510C SGC	Prep Batch: 720-59002		Initial Weight/Volume:	990 mL
Dilution:	1.0			Final Weight/Volume:	5 mL
Date Analyzed:	10/07/2009 1655			Injection Volume:	1 uL
Date Prepared:	10/06/2009 1357			Result Type:	PRIMARY

Analyte	Result (ug/L)	Qualifier	RL
Diesel Range Organics [C10-C28]	ND		51
Motor Oil Range Organics [C24-C36]	ND		300
Bunker Range Organics (C9-C36)	ND		510

Surrogate	%Rec	Qualifier	Acceptance Limits
Capric Acid (Surr)	0		0 - 5
p-Terphenyl	79		31 - 150

DATA REPORTING QUALIFIERS

Client: AMEC Geomatrix Inc. Job Number: 720-23001-1

Lab Section	Qualifier	Description
GC/MS VOA		
	X	Surrogate exceeds the control limits

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:720-59217					
LCS 720-59217/2	Lab Control Sample	T	Water	8260B/CA_LUFT	
LCSD 720-59217/1	Lab Control Sample Duplicate	T	Water	8260B/CA_LUFT	
MB 720-59217/3	Method Blank	T	Water	8260B/CA_LUFT	
720-23001-9	GW-1-100209	T	Water	8260B/CA_LUFT	
720-23001-10	GW-2-100209	T	Water	8260B/CA_LUFT	
720-23001-11	GW-3-100209	T	Water	8260B/CA_LUFT	
720-23001-12	TB-100209	T	Water	8260B/CA_LUFT	
720-23004-A-1 MS	Matrix Spike	T	Water	8260B/CA_LUFT	
720-23004-A-1 MSD	Matrix Spike Duplicate	T	Water	8260B/CA_LUFT	
Analysis Batch:720-59330					
LCS 720-59381/1-A	Lab Control Sample	T	Solid	8260B	720-59381
LCSD 720-59381/2-A	Lab Control Sample Duplicate	T	Solid	8260B	720-59381
MB 720-59381/3-A	Method Blank	T	Solid	8260B	720-59381
720-23001-1	SB-1-6.0	T	Solid	8260B	720-59381
720-23001-2	SB-1-6.5	T	Solid	8260B	720-59381
720-23001-3	SB-1-15.0	T	Solid	8260B	720-59381
720-23001-4	SB-2-15.0	T	Solid	8260B	720-59381
720-23001-5	SB-2-5.5	T	Solid	8260B	720-59381
720-23001-6	SB-2-8.0	T	Solid	8260B	720-59381
720-23001-7	SB-3-15.0	T	Solid	8260B	720-59381
720-23001-8	SB-3-5.5	T	Solid	8260B	720-59381
Prep Batch: 720-59381					
LCS 720-59381/1-A	Lab Control Sample	T	Solid	5035	
LCSD 720-59381/2-A	Lab Control Sample Duplicate	T	Solid	5035	
MB 720-59381/3-A	Method Blank	T	Solid	5035	
720-23001-1	SB-1-6.0	T	Solid	5035	
720-23001-2	SB-1-6.5	T	Solid	5035	
720-23001-3	SB-1-15.0	T	Solid	5035	
720-23001-4	SB-2-15.0	T	Solid	5035	
720-23001-5	SB-2-5.5	T	Solid	5035	
720-23001-6	SB-2-8.0	T	Solid	5035	
720-23001-7	SB-3-15.0	T	Solid	5035	
720-23001-8	SB-3-5.5	T	Solid	5035	

Report Basis
T = Total

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 720-59002					
LCS 720-59002/2-A	Lab Control Sample	A	Water	3510C SGC	
LCSD 720-59002/3-A	Lab Control Sample Duplicate	A	Water	3510C SGC	
MB 720-59002/1-A	Method Blank	A	Water	3510C SGC	
720-23001-9	GW-1-100209	A	Water	3510C SGC	
720-23001-10	GW-2-100209	A	Water	3510C SGC	
720-23001-11	GW-3-100209	A	Water	3510C SGC	
Analysis Batch:720-59054					
MB 720-59002/1-A	Method Blank	A	Water	8015B	720-59002
720-23001-9	GW-1-100209	A	Water	8015B	720-59002
720-23001-10	GW-2-100209	A	Water	8015B	720-59002
720-23001-11	GW-3-100209	A	Water	8015B	720-59002
Analysis Batch:720-59055					
LCS 720-59002/2-A	Lab Control Sample	A	Water	8015B	720-59002
LCSD 720-59002/3-A	Lab Control Sample Duplicate	A	Water	8015B	720-59002
Prep Batch: 720-59111					
LCS 720-59111/2-A	Lab Control Sample	A	Solid	3550B	
LCSD 720-59111/3-A	Lab Control Sample Duplicate	A	Solid	3550B	
MB 720-59111/1-A	Method Blank	A	Solid	3550B	
720-23001-1	SB-1-6.0	A	Solid	3550B	
720-23001-1MS	Matrix Spike	A	Solid	3550B	
720-23001-1MSD	Matrix Spike Duplicate	A	Solid	3550B	
720-23001-2	SB-1-6.5	A	Solid	3550B	
720-23001-3	SB-1-15.0	A	Solid	3550B	
720-23001-4	SB-2-15.0	A	Solid	3550B	
720-23001-5	SB-2-5.5	A	Solid	3550B	
720-23001-6	SB-2-8.0	A	Solid	3550B	
720-23001-7	SB-3-15.0	A	Solid	3550B	
720-23001-8	SB-3-5.5	A	Solid	3550B	

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:720-59175					
LCS 720-59111/2-A	Lab Control Sample	A	Solid	8015B	720-59111
LCSD 720-59111/3-A	Lab Control Sample Duplicate	A	Solid	8015B	720-59111
MB 720-59111/1-A	Method Blank	A	Solid	8015B	720-59111
720-23001-1	SB-1-6.0	A	Solid	8015B	720-59111
720-23001-1MS	Matrix Spike	A	Solid	8015B	720-59111
720-23001-1MSD	Matrix Spike Duplicate	A	Solid	8015B	720-59111
720-23001-2	SB-1-6.5	A	Solid	8015B	720-59111
720-23001-3	SB-1-15.0	A	Solid	8015B	720-59111
720-23001-4	SB-2-15.0	A	Solid	8015B	720-59111
720-23001-5	SB-2-5.5	A	Solid	8015B	720-59111
720-23001-6	SB-2-8.0	A	Solid	8015B	720-59111
720-23001-7	SB-3-15.0	A	Solid	8015B	720-59111
720-23001-8	SB-3-5.5	A	Solid	8015B	720-59111

Report Basis

A = Silica Gel Cleanup

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Method Blank - Batch: 720-59381

Method: 8260B
Preparation: 5035

Lab Sample ID: MB 720-59381/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 10/12/2009 1144
Date Prepared: 10/12/2009 0800

Analysis Batch: 720-59330
Prep Batch: 720-59381
Units: ug/Kg

Instrument ID: Chenstation 3
Lab File ID: 10120905.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

Analyte	Result	Qual	RL
MTBE	ND		5.0

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	107	52 - 130
1,2-Dichloroethane-d4 (Surr)	123	67 - 132
Toluene-d8 (Surr)	103	58 - 130

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-59381

Method: 8260B
Preparation: 5035

LCS Lab Sample ID: LCS 720-59381/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 10/12/2009 1216
Date Prepared: 10/12/2009 0800

Analysis Batch: 720-59330
Prep Batch: 720-59381
Units: ug/Kg

Instrument ID: Chenstation 3
Lab File ID: 10120906.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

LCSD Lab Sample ID: LCSD 720-59381/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 10/12/2009 1111
Date Prepared: 10/12/2009 0800

Analysis Batch: 720-59330
Prep Batch: 720-59381
Units: ug/Kg

Instrument ID: Chenstation 3
Lab File ID: 10120904.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 10 mL

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
MTBE	124	123	69 - 125	0	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
4-Bromofluorobenzene	113	110	52 - 130
1,2-Dichloroethane-d4 (Surr)	124	121	67 - 132
Toluene-d8 (Surr)	105	106	58 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Method Blank - Batch: 720-59217

Method: 8260B/CA_LUFTMS
Preparation: 5030B

Lab Sample ID: MB 720-59217/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/06/2009 1950
Date Prepared: 10/06/2009 1950

Analysis Batch: 720-59217
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900C
Lab File ID: e:\data\200910\100609\mb-wa
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	Result	Qual	RL
MTBE	ND		0.50

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	98	70 - 130
1,2-Dichloroethane-d4 (Surr)	95	67 - 130

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-59217

Method: 8260B/CA_LUFTMS
Preparation: 5030B

LCS Lab Sample ID: LCS 720-59217/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/06/2009 2015
Date Prepared: 10/06/2009 2015

Analysis Batch: 720-59217
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900C
Lab File ID: e:\data\200910\100609\ls-wa-
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

LCSD Lab Sample ID: LCSD 720-59217/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/06/2009 2040
Date Prepared: 10/06/2009 2040

Analysis Batch: 720-59217
Prep Batch: N/A
Units: ug/L

Instrument ID: Varian 3900C
Lab File ID: e:\data\200910\100609\ld-wa-9-
Initial Weight/Volume: 40 mL
Final Weight/Volume: 40 mL

Analyte	% Rec. LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
MTBE	97	95	64 - 130	2	20		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	97	99	70 - 130
1,2-Dichloroethane-d4 (Surr)	98	90	67 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-59217

Method: 8260B/CA_LUFTMS
Preparation: 5030B

MS Lab Sample ID:	720-23004-A-1 MS	Analysis Batch: 720-59217	Instrument ID: Varian 3900C
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: e:\data\200910\100609\sa-w
Dilution:	5.0		Initial Weight/Volume: 40 mL
Date Analyzed:	10/07/2009 0542		Final Weight/Volume: 40 mL
Date Prepared:	10/07/2009 0542		

MSD Lab Sample ID:	720-23004-A-1 MSD	Analysis Batch: 720-59217	Instrument ID: Varian 3900C
Client Matrix:	Water	Prep Batch: N/A	Lab File ID: e:\data\200910\100609\sa-wa
Dilution:	5.0		Initial Weight/Volume: 40 mL
Date Analyzed:	10/07/2009 0606		Final Weight/Volume: 40 mL
Date Prepared:	10/07/2009 0606		

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
MTBE	92	102	22 - 185	10	20		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
Toluene-d8 (Surr)	99	100	70 - 130
1,2-Dichloroethane-d4 (Surr)	81	97	67 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Method Blank - Batch: 720-59002

Method: 8015B
Preparation: 3510C SGC
Silica Gel Cleanup

Lab Sample ID: MB 720-59002/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/07/2009 1535
Date Prepared: 10/06/2009 1357

Analysis Batch: 720-59054
Prep Batch: 720-59002
Units: ug/L

Instrument ID: HP DRO5
Lab File ID: 5a1007018.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	ND		50
Motor Oil Range Organics [C24-C36]	ND		300
Bunker Range Organics (C9-C36)	ND		500

Surrogate	% Rec	Acceptance Limits
Capric Acid (Surr)	0	0 - 5
p-Terphenyl	90	31 - 150

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-59002

Method: 8015B
Preparation: 3510C SGC
Silica Gel Cleanup

LCS Lab Sample ID: LCS 720-59002/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/07/2009 1027
Date Prepared: 10/06/2009 1357

Analysis Batch: 720-59055
Prep Batch: 720-59002
Units: ug/L

Instrument ID: HP DRO5
Lab File ID: 5b1007008.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-59002/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 10/07/2009 1054
Date Prepared: 10/06/2009 1357

Analysis Batch: 720-59055
Prep Batch: 720-59002
Units: ug/L

Instrument ID: HP DRO5
Lab File ID: 5b1007009.d
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Diesel Range Organics [C10-C28]	78	86	32 - 119	9	35		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
p-Terphenyl	94	93	31 - 150

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Method Blank - Batch: 720-59111

Method: 8015B
Preparation: 3550B
Silica Gel Cleanup

Lab Sample ID: MB 720-59111/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 10/08/2009 1447
Date Prepared: 10/07/2009 1426

Analysis Batch: 720-59175
Prep Batch: 720-59111
Units: mg/Kg

Instrument ID: HP GC 7890
Lab File ID: FID1000009.D
Initial Weight/Volume: 30.04 g
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	ND		1.0
Motor Oil Range Organics [C24-C36]	ND		50
Bunker Range Organics (C9-C36)	ND		50

Surrogate	% Rec	Acceptance Limits
Capric Acid (Surr)	0	0 - 5
p-Terphenyl	86	46 - 115

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 720-59111

Method: 8015B
Preparation: 3550B
Silica Gel Cleanup

LCS Lab Sample ID: LCS 720-59111/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 10/08/2009 1509
Date Prepared: 10/07/2009 1426

Analysis Batch: 720-59175
Prep Batch: 720-59111
Units: mg/Kg

Instrument ID: HP GC 7890
Lab File ID: FID1000010.D
Initial Weight/Volume: 30.12 g
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

LCSD Lab Sample ID: LCSD 720-59111/3-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 10/08/2009 1532
Date Prepared: 10/07/2009 1426

Analysis Batch: 720-59175
Prep Batch: 720-59111
Units: mg/Kg

Instrument ID: HP GC 7890
Lab File ID: FID1000011.D
Initial Weight/Volume: 30.04 g
Final Weight/Volume: 5 mL
Injection Volume: 1 uL
Column ID: PRIMARY

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Diesel Range Organics [C10-C28]	72	82	45 - 115	14	35		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
p-Terphenyl	90	94	46 - 115

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 720-59111

Method: 8015B
Preparation: 3550B
Silica Gel Cleanup

MS Lab Sample ID:	720-23001-1	Analysis Batch: 720-59175	Instrument ID: HP GC 7890
Client Matrix:	Solid	Prep Batch: 720-59111	Lab File ID: FID1000013.D
Dilution:	1.0		Initial Weight/Volume: 30.15 g
Date Analyzed:	10/08/2009 1616		Final Weight/Volume: 5 mL
Date Prepared:	10/07/2009 1426		Injection Volume: 1 uL
			Column ID: PRIMARY
MSD Lab Sample ID:	720-23001-1	Analysis Batch: 720-59175	Instrument ID: HP GC 7890
Client Matrix:	Solid	Prep Batch: 720-59111	Lab File ID: FID1000014.D
Dilution:	1.0		Initial Weight/Volume: 30.13 g
Date Analyzed:	10/08/2009 1637		Final Weight/Volume: 5 mL
Date Prepared:	10/07/2009 1426		Injection Volume: 1 uL
			Column ID: PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Diesel Range Organics [C10-C28]	88	81	50 - 130	9	30		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
p-Terphenyl	98	95	46 - 115

Calculations are performed before rounding to avoid round-off errors in calculated results.

720-23001 (Revised)

Salimpour, Afsaneh

From: Klitzke, Tiffany [Tiffany.Klitzke@amec.com]
Sent: Monday, October 05, 2009 10:33 AM
To: Salimpour, Afsaneh
Subject: Pacific Shops Samples

Hi Afsaneh,
On Friday I had a courier pick up some samples for our Pacific Shops project (#14740). I'd like to request two things:

1. Please analyze TB-100209 for MTBE by 8260.
2. I did not collect a sample specifically for an MS/MSD, however if there is enough volume left after sample analysis, please use one of our samples for the MS/MSD.

I will be in the office Monday-Wednesday this week if you have any questions.

Thank you,

Tiffany Klitzke
Staff Geologist

AMEC Geomatrix
2101 Webster St
12th Floor
Oakland, CA 94618
510-663-4144 direct
510-663-4141 fax
tiffany.klitzke@amec.com

CHAIN-OF-CUSTODY RECORD

PROJECT NAME: Pacific Shops Inc.	DATE: 10-2-09 PAGE 1 OF 3
PROJECT NUMBER: 14740.000	LABORATORY NAME: TestAmerica - SF
RESULTS TO: tiffany.klitzke@amec.com	LABORATORY ADDRESS: Pleasanton, CA
TURNAROUND TIME: Standard	LABORATORY CONTACT: Afsaneh S.
SAMPLE SHIPMENT METHOD: courier	LABORATORY PHONE NUMBER: 925-484-1919
CLIENT INFORMATION:	REPORTING REQUIREMENTS:
GEOTRACKER REQUIRED: YES (NO)	SITE SPECIFIC GLOBAL ID NO:

SAMPLERS (SIGNATURE): [signature]

ANALYSES: TPH Diesel + TPH Bunker Oil by 8015 Silica Gel 3630B; MTBE 8260

DATE	TIME	SAMPLE NUMBER	TPH Diesel +	TPH Bunker Oil	by 8015	Silica Gel 3630B	MTBE 8260	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
10-2-09	0844	SB-1-6.0	X	X	X	X	X	40 mL VOA	S	N	SOBI	Y	N	2	
	~~0909~~	~~SB-1-6.5~~						40 mL VOA	S	N	MeOH	Y	N	1	
								6-inch liner	S	N	None	Y	N	1	
10/2/09	0909	SB-1-6.5	X	X	X	X	X	40 mL VOA	S	N	SOBI	Y	N	2	
								40 mL VOA	S	N	MeOH	Y	N	1	
								6-inch liner	S	N	None	Y	N	1	
10/2/09	0829	SB-1-15.0	X	X	X	X	X	40 mL VOA	S	N	SOBI	Y	N	2	
								40 mL VOA	S	N	MeOH	Y	N	1	
								6-inch liner	S	N	None	Y	N	1	
10/2/09	0951	SB-2-15.0	X	X	X	X	X	40 mL VOA	S	N	SOBI	Y	N	2	
								40 mL VOA	S	N	MeOH	Y	N	1	
								6-inch liner	S	N	None	Y	N	1	
10/2/09	0945	SB-2-5.5	X	X	X	X	X	40 mL VOA	S	N	SOBI	Y	N	2	
								40 mL VOA	S	N	MeOH	Y	N	1	
								6-inch liner	S	N	None	Y	N	1	

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE: [signature] PRINTED NAME: Tiffany Klitzke COMPANY: AMEC Geomatrix	10/2/09	1530	SIGNATURE: [signature] PRINTED NAME: Mullens COMPANY: TA Amanin	10/02/09	1711
SIGNATURE: PRINTED NAME: COMPANY:			SIGNATURE: PRINTED NAME: COMPANY:		
SIGNATURE: PRINTED NAME: COMPANY:			SIGNATURE: PRINTED NAME: COMPANY:		

TOTAL NUMBER OF CONTAINERS:

SAMPLING COMMENTS:
SOBI = Sodium Bisulfate
MeOH = Methyl Alcohol

2.5°/1.7°

amec

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10/13/2009

CHAIN-OF-CUSTODY RECORD

11944 15160

PROJECT NAME: Pacific Shops	DATE: 10-2-09 PAGE 2 OF 3
PROJECT NUMBER: 14740.000	LABORATORY NAME: TA-SF
RESULTS TO: tiffany.klitzke@amec.com	LABORATORY ADDRESS: Pleasanton, CA
TURNAROUND TIME: Standard	LABORATORY CONTACT: Afsaneh S.
SAMPLE SHIPMENT METHOD: courier	LABORATORY PHONE NUMBER: 925-484-1919
CLIENT INFORMATION:	REPORTING REQUIREMENTS:
GEOTRACKER REQUIRED: YES / NO (circled)	SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE): [signature]

ANALYSES: TPH Diesel 8015; TPH Bunker Oil 8015; Silica Gel Cleanup 3630; MTBE 8260

DATE	TIME	SAMPLE NUMBER	TPH Diesel 8015	TPH Bunker Oil 8015	Silica Gel Cleanup 3630	MTBE 8260	CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
10/2/09	1009	SB-2-8.0	X	X	X	X	40 mL VOA	S	N	SOBI	Y	N	2	
							40mL VOA	S	N	MeOH	Y	N	1	
							6-inch liner	S	N	None	Y	N	1	
10/2/09	1052	SB-3-15.0	X	X	X	X	40mL VOA	S	N	SOBI	Y	N	2	
							40 mL VOA	S	N	MeOH	Y	N	1	
							6-inch liner	S	N	None	Y	N	1	
10/2/09	1100	SB-3-5.5	X	X	X	X	40ml VOA	S	N	SOBI	Y	N	2	
							40 mL VOA	S	N	MeOH	Y	N	1	
							6-inch liner	S	N	None	Y	N	1	
10/2/09 ~~11-30~~	1130	GW-1-100209	X	X	X	X	40 mL VOA	W	N	HCl	Y	N	3	
							1 L Amber	W	N	HCl	Y	N	2	
10/2/09	1146	GW-2-100209	X	X	X	X	40 mL VOA	W	N	HCl	Y	N	3	
							1 L Amber	W	N	HCl	Y	N	2	
10/2/09 ~~1200~~	1200	GW-3-100209	X	X	X	X	40 mL VOA	W	N	HCl	Y	N	3	
							1 L Amber	W	N	HCl	Y	N	2	

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME
SIGNATURE: [signature] PRINTED NAME: Tiffany Klitzke COMPANY: Amec Geomatrix	10/2/09	1530	SIGNATURE: [signature] PRINTED NAME: Mulley COMPANY: [illegible]	10/02/09	1711
SIGNATURE: PRINTED NAME: COMPANY:			SIGNATURE: PRINTED NAME: COMPANY:		
SIGNATURE: PRINTED NAME: COMPANY:			SIGNATURE: PRINTED NAME: COMPANY:		

TOTAL NUMBER OF CONTAINERS: 27

SAMPLING COMMENTS: 2.5°C / 1.7°C

2101 Webster Street, 12th Floor
Oakland, California 94612-3066
Tel 510.663.4100 Fax 510.663.4141

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CHAIN-OF-CUSTODY RECORD

TAT - 1SDA

119426 16093

PROJECT NAME: Pacific Shops		DATE: 10/2/09	PAGE 3 OF 3
PROJECT NUMBER: 14740	LABORATORY NAME: Test America	CLIENT INFORMATION	REPORTING REQUIREMENTS:
RESULTS TO: tiffany.klitzke@amec.com	LABORATORY ADDRESS:		
TURNAROUND TIME: Standard			
SAMPLE SHIPMENT METHOD: Carrier	LABORATORY CONTACT: Afsaneh S.		GEOTRACKER REQUIRED YES (NO)
	LABORATORY PHONE NUMBER: 928 4847919		SITE SPECIFIC GLOBAL ID NO.

SAMPLERS (SIGNATURE): [signature]

ANALYSES

DATE	TIME	SAMPLE NUMBER	MTBE by 8260														CONTAINER TYPE AND SIZE	Soil (S), Water (W), Vapor (V), or Other (O)	Filtered	Preservative Type	Cooled	MS/MSD	No. of Containers	ADDITIONAL COMMENTS
10/2/09	1500	TB-100209					HOLD										40mL VOA	W	N	HCl	Y	N	2	HOLD

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	
SIGNATURE: [signature]	10/2/09	1530	SIGNATURE: [signature]	10/02/09	1718	TOTAL NUMBER OF CONTAINERS: 2
PRINTED NAME: Tiffany Klitzke			PRINTED NAME: Mullen			SAMPLING COMMENTS:
COMPANY: AMEC Geomatrix			COMPANY: Test America			2.5°/1.7°
SIGNATURE:			SIGNATURE:			
PRINTED NAME:			PRINTED NAME:			
COMPANY:			COMPANY:			
SIGNATURE:			SIGNATURE:			
PRINTED NAME:			PRINTED NAME:			
COMPANY:			COMPANY:			

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Oakland, California 94612-3066
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Login Sample Receipt Check List

Client: AMEC Geomatrix Inc.

Job Number: 720-23001-1

Login Number: 23001
Creator: Mullen, Joan
List Number: 1

List Source: TestAmerica San Francisco

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	N/A	
The cooler's custody seal, if present, is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified	True	