CONESTOGA-ROVERS & ASSOCIATES

5900 Hollis Street, Suite A
Emeryville, California 94608
Telephone: (510) 420-0700 Fax: (510) 420-9170
www.CRAworld.com

TRANSMITTAL

DATE: November 23, 2009

REFERENCE NO.: 060204

PROJECT NAME: 2301-2307 Lincoln Avenue, Alameda

TO: Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RECEIVED
2:42 pm, Nov 24, 2009
Alameda County
Environmental Health

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

Sent via:
- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Groundwater Monitoring Report – Third Quarter 2009

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐
- ☐

COMMENTS:
If you have any questions regarding the contents of this document, please call Peter Schaefer at (510) 420-3319.

Copy to: Denis Brown, Shell Oil Products US, 20945 S. Wilmington Avenue, Carson, CA 90810
Alan A. and Beverly M. Sebanc, Trustees, 2805 Ralston Avenue, Hillsborough, CA 94010
Jake Torrens, AMEC Geomatrix, Inc., 2101 Webster Street, 12th Floor, Oakland, CA 94612

Completed by: Peter Schaefer Signed: 

Filing: **Correspondence File**

Denis L. Brown
Shell Oil Products US
HSE - Environmental Services
20945 S. Wilmington Ave.
Carson, CA 90810-1039
Tel (707) 865 0251
Fax (707) 865 2542
Email denis.l.brown@shell.com

Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: 2301-2307 Lincoln Avenue
Alameda, California
SAP Code 165255
Incident No. 97767044
ACEH No. RO0002971

Dear Mr. Wickham,

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (707) 865-0251 with any questions or concerns.

Sincerely,

Denis L. Brown
Project Manager

GROUNDWATER MONITORING REPORT - THIRD QUARTER 2009

FORMER SHELL SERVICE STATION
2301-2307 LINCOLN AVENUE
ALAMEDA, CALIFORNIA

SAP CODE	165255
INCIDENT NO.	97767044
AGENCY NO.	RO0002971

Prepared by:
Conestoga-Rovers & Associates

5900 Hollis Street, Suite A
Emeryville, California
U.S.A. 94608

Office: (510) 420-0700
Fax: (510) 420-9170

web: http://www.CRAworld.com

NOVEMBER 23, 2009
REF. NO. 060204 (8)
This report is printed on recycled paper.

TABLE OF CONTENTS

LIST OF FIGURES
(Following Text)

LIST OF APPENDICES

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this report on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) in accordance with the quarterly reporting requirements of 23 CCR 2652d.

1.1 SITE INFORMATION

Site Address	2301-2307 Lincoln Avenue, Alameda
Site Use	Strip mall
Shell Project Manager	Denis Brown
CRA Project Manager	Peter Schaefer
Lead Agency and Contact	ACEH, Jerry Wickham
Agency Case No.	RO0002971
Shell SAP Code	165255
Shell Incident No.	97767044

Date of most recent agency correspondence was July 24, 2009.

2.0 SITE ACTIVITIES, FINDINGS, AND DISCUSSION

2.1 CURRENT QUARTER'S ACTIVITIES

Blaine Tech Services, Inc. (Blaine) gauged and sampled the wells according to the established monitoring program for the site.

CRA prepared a vicinity map (Figure 1) and a groundwater contour and chemical concentration map (Figure 2). Blaine's report, presenting the analytical data, is included in Appendix A.

2.2 CURRENT QUARTER'S FINDINGS

Groundwater Flow Direction	Variable
Hydraulic Gradient	Variable

Depth to Water	8.79 to 10.00 feet below top of well casing

2.3 PROPOSED ACTIVITIES FOR NEXT QUARTER

Blaine will gauge and sample wells according to the established monitoring program for this site.

As discussed in CRA's September 4, 2009 telephone conversation with Alameda County Environmental Health (ACEH), CRA will submit a revised work plan to replace our August 27, 2009 *Subsurface Investigation Work Plan* which will supplement our proposals to further assess the potential for soil vapor intrusion to indoor air and to further assess soil and groundwater conditions.

2.4 DISCUSSION

CRA will sample all monitoring wells quarterly for one hydrologic cycle (1 year, through the fourth quarter of 2009) and then, as approved in ACEH's July 24, 2009 letter and per State Water Resources Control Board Resolution 2009-0042 adopted May 19, 2009, we will implement a semiannual monitoring and reporting schedule at the site, with sampling conducted during the second and fourth quarters.

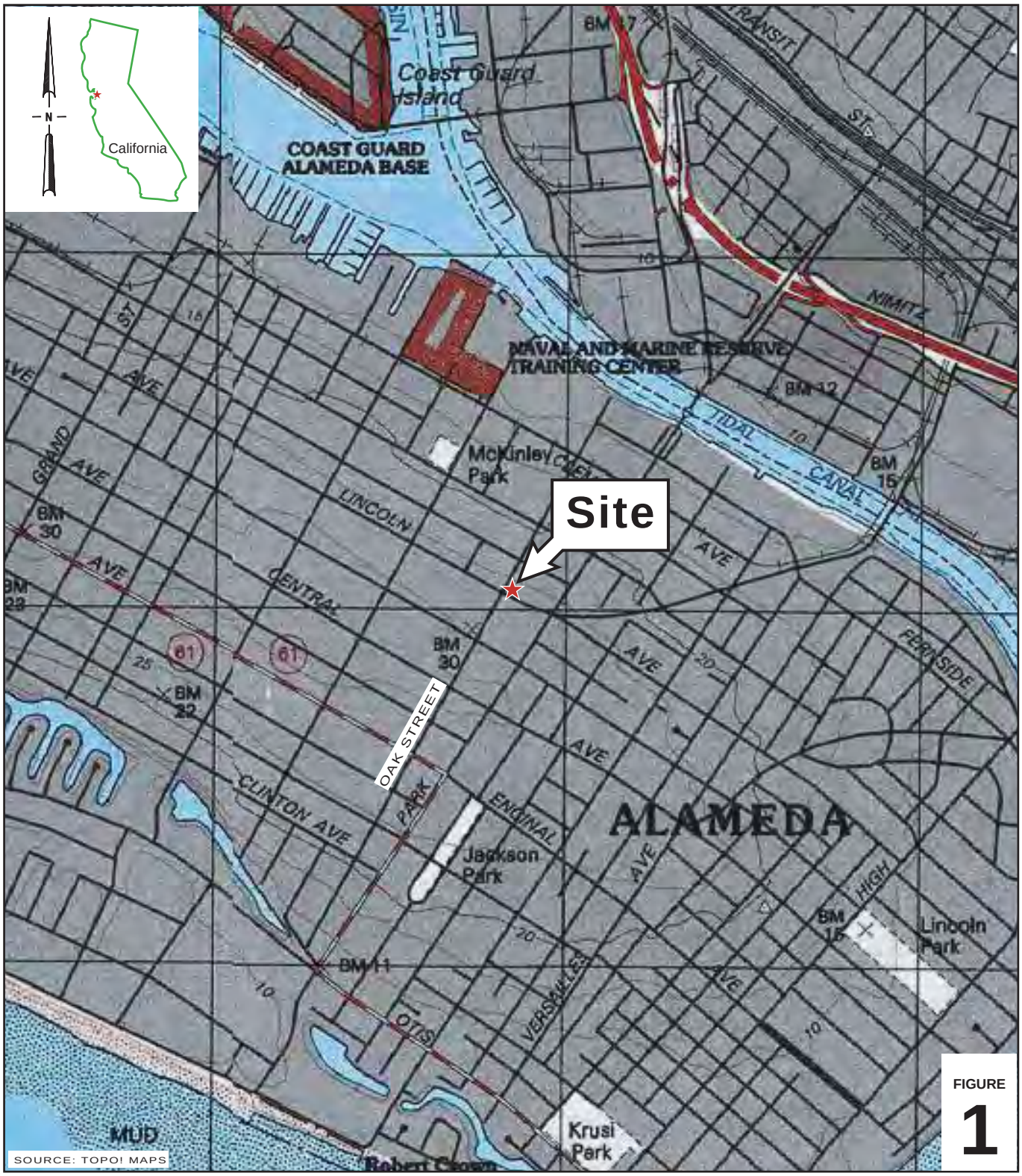
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CEG, CHG

Aubrey K. Cool, PG

FIGURES

12/01/08



I:\Shell\6-chars\0602--\060204-Alameda 2301-2307 Lincoln Ave\060204 FIGURES\060204 VICINITY.AI

FIGURE
1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

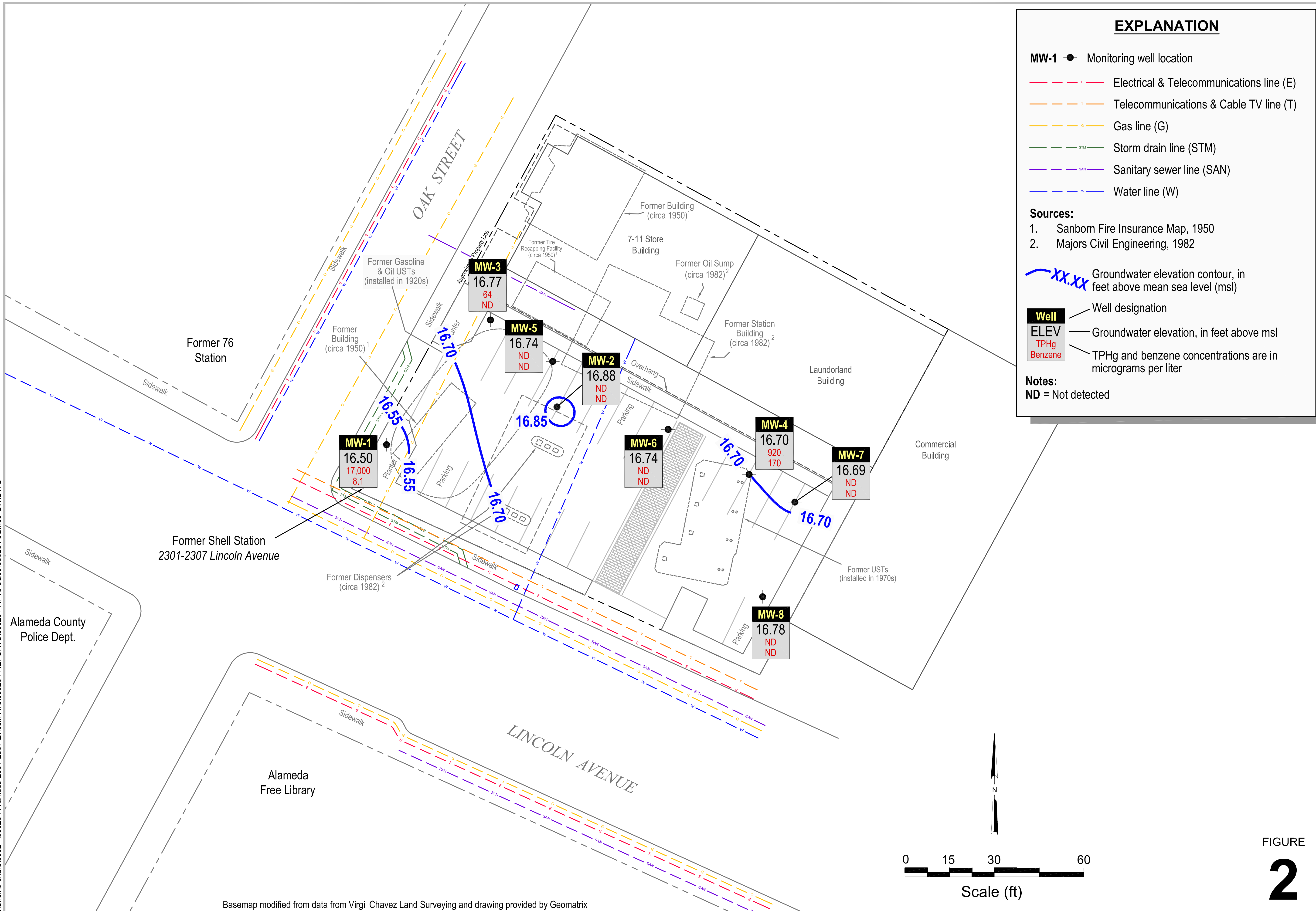
Former Shell Service Station

2301-2307 Lincoln Avenue

Alameda, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map



11/09/09
EXPLANATION
MW-1 Monitoring well location
Electrical & Telecommunications line (E)
Telecommunications & Cable TV line (T)
Gas line (G)
Storm drain line (STM)
Sanitary sewer line (SAN)
Water line (W)
Sources:
1. Sanborn Fire Insurance Map, 1950
2. Majors Civil Engineering, 1982
XX.XX Groundwater elevation contour, in feet above mean sea level (msl)
Well Well designation
ELEV Groundwater elevation, in feet above msl
TPHg Benzene TPHg and benzene concentrations are in micrograms per liter
Notes:
ND = Not detected
OAK STREET
LINCOLN AVENUE
Former 76 Station
Former Shell Station
2301-2307 Lincoln Avenue
Alameda County Police Dept.
Alameda Free Library
7-11 Store Building
Laundorland Building
Commercial Building
Former Building (circa 1950)
Former Gasoline & Oil USTs (installed in 1920s)
Former Building (circa 1950)
Former Oil Sump (circa 1982)
Former Station Building (circa 1982)
Former Dispensers (circa 1982)
Former USTs (installed in 1970s)
MW-1 16.50 17,000 8.1
MW-2 16.88 ND ND
MW-3 16.77 64 ND
MW-4 16.70 920 170
MW-5 16.74 ND ND
MW-6 16.74 ND ND
MW-7 16.69 ND ND
MW-8 16.78 ND ND
16.55
16.70
16.85
Sidewalk
Parking
Overhang
Scale (ft)
0 15 30 60
Basemap modified from data from Virgil Chavez Land Surveying and drawing provided by Geomatrix
I:\Shell6-chars\0602-\060204-Alameda 2301-2307 Lincoln Ave\060204-REPORTS\060204-RPT8-3Q09\060204 3QM09-GW.DWG

CONESTOGA-ROVERS & ASSOCIATES

Groundwater Contour and Chemical Concentration Map

September 23, 2009

Former Shell Service Station
2301-2307 Lincoln Avenue
Alameda, California

FIGURE 2

APPENDIX A

BLAINE TECH SERVICES, INC. – GROUNDWATER MONITORING REPORT

BLAINE
TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

October 7, 2009

Denis Brown
Shell Oil Products US
20945 South Wilmington Avenue
Carson, CA 90810

Third Quarter 2009 Groundwater Monitoring at
Former Shell Service Station
2301-2307 Lincoln Avenue
Alameda, CA

Monitoring performed on September 23, 2009

Groundwater Monitoring Report **090923-SO-1**

This report covers the routine monitoring of groundwater wells at this former Shell service station. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

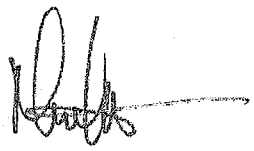
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,



Mike Ninokata
Project Manager

MN/np

attachments: Cumulative Table of WELL CONCENTRATIONS
Certified Analytical Report
Field Data Sheets

cc: Anni Kreml
Conestoga-Rovers & Associates
5900 Hollis St., Suite A
Emeryville, CA 94608

WELL CONCENTRATIONS
2301-2307 Lincoln Avenue
Alameda, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	03/16/2009	NA	NA	NA	NA	NA	25.77	8.24	17.53
MW-1	03/27/2009	13,000	9.7	<10	<10	<10	25.77	7.09	18.68
MW-1	05/22/2009	3,900	2.6	<2.0	<2.0	<2.0	25.77	7.70	18.07
MW-1	**09/23/2009**	**17,000**	**8.1**	**<10**	**<10**	**<10**	**25.77**	**9.27**	**16.50**
MW-2	03/16/2009	NA	NA	NA	NA	NA	26.09	8.54	17.55
MW-2	03/27/2009	<50	<0.50	<1.0	<1.0	<1.0	26.09	8.16	17.93
MW-2	05/22/2009	<50	<0.50	<1.0	<1.0	<1.0	26.09	7.88	18.21
MW-2	**09/23/2009**	**<50**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**26.09**	**9.21**	**16.88**
MW-3	03/16/2009	NA	NA	NA	NA	NA	25.56	6.06	19.50
MW-3	03/27/2009	<50	<0.50	<1.0	<1.0	<1.0	25.56	6.37	19.19
MW-3	05/22/2009	<50	<0.50	<1.0	<1.0	<1.0	25.56	7.35	18.21
MW-3	**09/23/2009**	**64**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**25.56**	**8.79**	**16.77**
MW-4	03/16/2009	NA	NA	NA	NA	NA	26.60	7.43	19.17
MW-4	03/27/2009	3,900	170	25	190	360	26.60	7.50	19.10
MW-4	05/22/2009	3,500	280	19	270	220	26.60	8.43	18.17
MW-4	**09/23/2009**	**920**	**170**	**3.4**	**14**	**16**	**26.60**	**9.90**	**16.70**
MW-5	03/16/2009	NA	NA	NA	NA	NA	26.63	7.21	19.42
MW-5	03/27/2009	<50	<0.50	<1.0	<1.0	<1.0	26.63	7.74	18.89
MW-5	05/22/2009	<50	<0.50	<1.0	<1.0	<1.0	26.63	8.42	18.21
MW-5	**09/23/2009**	**<50**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**26.63**	**9.89**	**16.74**

WELL CONCENTRATIONS
2301-2307 Lincoln Avenue
Alameda, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-6	03/16/2009	NA	NA	NA	NA	NA	26.61	7.31	19.30
MW-6	03/27/2009	<50	<0.50	<1.0	<1.0	<1.0	26.61	7.82	18.79
MW-6	05/22/2009	<50	<0.50	<1.0	<1.0	<1.0	26.61	8.43	18.18
MW-6	**09/23/2009**	**<50**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**26.61**	**9.87**	**16.74**
MW-7	03/16/2009	NA	NA	NA	NA	NA	26.69	7.35	19.34
MW-7	03/27/2009	54	<0.50	<1.0	<1.0	<1.0	26.69	7.62	19.07
MW-7	05/22/2009	<50	<0.50	<1.0	<1.0	<1.0	26.69	8.50	18.19
MW-7	**09/23/2009**	**<50**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**26.69**	**10.00**	**16.69**
MW-8	03/16/2009	NA	NA	NA	NA	NA	26.05	6.81	19.24
MW-8	03/27/2009	<50	<0.50	<1.0	<1.0	<1.0	26.05	7.04	19.01
MW-8	05/22/2009	<50	<0.50	<1.0	<1.0	<1.0	26.05	7.76	18.29
MW-8	**09/23/2009**	**<50**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**26.05**	**9.27**	**16.78**

WELL CONCENTRATIONS
2301-2307 Lincoln Avenue
Alameda, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)

Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B
BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B
TOC = Top of Casing Elevation
GW = Groundwater
DO = Dissolved Oxygen
ug/L = Parts per billion
ppm = Parts per million
MSL = Mean sea level
ft. = Feet
<n = Below detection limit
NA = Not applicable
ND = Not detected

Calscience
Environmental
Laboratories, Inc.

October 07, 2009

Michael Ninokata
Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Subject: **Calscience Work Order No.:** **09-09-2085**
Client Reference: **2301 - 2307 Lincoln Ave., Alameda, CA**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 9/29/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Philip Samelle for

Calscience Environmental
Laboratories, Inc.
Xuan H. Dang
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.		Date Received:	09/29/09
1680 Rogers Avenue		Work Order No:	09-09-2085
San Jose, CA 95112-1105		Preparation:	EPA 5030B
		Method:	LUFT GC/MS / EPA 8260B
		Units:	ug/L

Project: 2301 - 2307 Lincoln Ave., Alameda, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**09-09-2085-1-B**	**09/23/09 10:50**	**Aqueous**	**GC/MS T**	**09/30/09**	**09/30/09 18:39**	**090930L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	8.1	5.0	10		Xylenes (total)	ND	10	10	
Ethylbenzene	ND	10	10		TPPH	17000	500	10	
Toluene	ND	10	10						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	102	80-132		1,2-Dichloroethane-d4	99	80-141	
Toluene-d8	106	80-120		Toluene-d8-TPPH	104	88-112	
1,4-Bromofluorobenzene	102	76-120					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**09-09-2085-2-B**	**09/23/09 10:25**	**Aqueous**	**GC/MS T**	**09/30/09**	**09/30/09 15:12**	**090930L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
Ethylbenzene	ND	1.0	1		TPPH	ND	50	1	
Toluene	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	109	80-132		1,2-Dichloroethane-d4	107	80-141	
Toluene-d8	98	80-120		Toluene-d8-TPPH	101	88-112	
1,4-Bromofluorobenzene	93	76-120					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	**09-09-2085-3-B**	**09/23/09 10:35**	**Aqueous**	**GC/MS T**	**09/30/09**	**09/30/09 19:08**	**090930L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
Ethylbenzene	ND	1.0	1		TPPH	64	50	1	
Toluene	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	103	80-132		1,2-Dichloroethane-d4	98	80-141	
Toluene-d8	100	80-120		Toluene-d8-TPPH	102	88-112	
1,4-Bromofluorobenzene	97	76-120					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 09/29/09
Work Order No: 09-09-2085
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B
Units: ug/L

Project: 2301 - 2307 Lincoln Ave., Alameda, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	09-09-2085-4-B	09/23/09 09:20	Aqueous	GC/MS T	09/30/09	09/30/09 19:38	090930L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	170	1.0	2		Xylenes (total)	16	2.0	2	
Ethylbenzene	14	2.0	2		TPPH	920	100	2	
Toluene	3.4	2.0	2						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	102	80-132			1,2-Dichloroethane-d4	97	80-141		
Toluene-d8	98	80-120			Toluene-d8-TPPH	101	88-112		
1,4-Bromofluorobenzene	99	76-120							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-5	09-09-2085-5-B	09/23/09 10:15	Aqueous	GC/MS T	09/30/09	09/30/09 20:08	090930L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
Ethylbenzene	ND	1.0	1		TPPH	ND	50	1	
Toluene	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	106	80-132			1,2-Dichloroethane-d4	104	80-141		
Toluene-d8	97	80-120			Toluene-d8-TPPH	100	88-112		
1,4-Bromofluorobenzene	93	76-120							

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-6	09-09-2085-6-B	09/23/09 09:55	Aqueous	GC/MS T	09/30/09	09/30/09 20:37	090930L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
Ethylbenzene	ND	1.0	1		TPPH	ND	50	1	
Toluene	ND	1.0	1						
Surrogates:	REC (%)	Control Limits		Qual	Surrogates:	REC (%)	Control Limits		Qual
Dibromofluoromethane	108	80-132			1,2-Dichloroethane-d4	106	80-141		
Toluene-d8	96	80-120			Toluene-d8-TPPH	100	88-112		
1,4-Bromofluorobenzene	92	76-120							

RL - Reporting Limit, DF - Dilution Factor, Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: 09/29/09
Work Order No: 09-09-2085
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B
Units: ug/L

Project: 2301 - 2307 Lincoln Ave., Alameda, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-7	09-09-2085-7-B	09/23/09 09:00	Aqueous	GC/MS T	09/30/09	09/30/09 21:07	090930L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
Ethylbenzene	ND	1.0	1		TPPH	ND	50	1	
Toluene	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	107	80-132		1,2-Dichloroethane-d4	107	80-141	
Toluene-d8	99	80-120		Toluene-d8-TPPH	102	88-112	
1,4-Bromofluorobenzene	92	76-120					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-8	09-09-2085-8-B	09/23/09 09:40	Aqueous	GC/MS T	09/30/09	09/30/09 21:37	090930L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
Ethylbenzene	ND	1.0	1		TPPH	ND	50	1	
Toluene	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	112	80-132		1,2-Dichloroethane-d4	111	80-141	
Toluene-d8	97	80-120		Toluene-d8-TPPH	100	88-112	
1,4-Bromofluorobenzene	92	76-120					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-767-2,622	N/A	Aqueous	GC/MS T	09/30/09	09/30/09 14:42	090930L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Xylenes (total)	ND	1.0	1	
Ethylbenzene	ND	1.0	1		TPPH	ND	50	1	
Toluene	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	109	80-132		1,2-Dichloroethane-d4	109	80-141	
Toluene-d8	98	80-120		Toluene-d8-TPPH	101	88-112	
1,4-Bromofluorobenzene	91	76-120					

RL - Reporting Limit . DF - Dilution Factor . Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

Blaine Tech Services, Inc.		Date Received:	09/29/09
1680 Rogers Avenue		Work Order No:	09-09-2085
San Jose, CA 95112-1105		Preparation:	EPA 5030B
		Method:	LUFT GC/MS / EPA 8260B

Project 2301 - 2307 Lincoln Ave., Alameda, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-2	Aqueous	GC/MS T	09/30/09	09/30/09	090930S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	99	96	72-120	3	0-20	
Carbon Tetrachloride	103	98	63-135	5	0-20	
Chlorobenzene	97	95	80-120	2	0-20	
1,2-Dibromoethane	99	95	80-120	4	0-20	
1,2-Dichlorobenzene	98	96	80-120	2	0-20	
1,1-Dichloroethene	91	88	60-132	4	0-24	
Ethylbenzene	100	97	78-120	3	0-20	
Toluene	97	94	74-122	3	0-20	
Trichloroethene	97	95	69-120	3	0-20	
Vinyl Chloride	88	88	58-130	1	0-20	
Methyl-t-Butyl Ether (MTBE)	98	94	72-126	3	0-21	
Tert-Butyl Alcohol (TBA)	98	92	72-126	6	0-20	
Diisopropyl Ether (DIPE)	93	90	71-137	3	0-23	
Ethyl-t-Butyl Ether (ETBE)	93	92	74-128	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	96	94	76-124	2	0-20	
Ethanol	87	78	35-167	11	0-48	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

Blaine Tech Services, Inc.
1680 Rogers Avenue
San Jose, CA 95112-1105

Date Received: N/A
Work Order No: 09-09-2085
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B

Project: 2301 - 2307 Lincoln Ave., Alameda, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-767-2,622	Aqueous	GC/MS T	09/30/09	09/30/09	090930L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	98	96	80-122	73-129	2	0-20	
Carbon Tetrachloride	103	101	68-140	56-152	2	0-20	
Chlorobenzene	96	93	80-120	73-127	3	0-20	
1,2-Dibromoethane	98	95	80-121	73-128	3	0-20	
1,2-Dichlorobenzene	95	94	80-120	73-127	1	0-20	
1,1-Dichloroethene	95	91	72-132	62-142	4	0-25	
Ethylbenzene	99	96	80-126	72-134	2	0-20	
Toluene	96	94	80-121	73-128	2	0-20	
Trichloroethene	98	96	80-123	73-130	2	0-20	
Vinyl Chloride	87	85	67-133	56-144	2	0-20	
Methyl-t-Butyl Ether (MTBE)	96	93	75-123	67-131	3	0-20	
Tert-Butyl Alcohol (TBA)	92	93	75-123	67-131	1	0-20	
Diisopropyl Ether (DIPE)	91	91	71-131	61-141	1	0-20	
Ethyl-t-Butyl Ether (ETBE)	92	91	76-124	68-132	1	0-20	
Tert-Amyl-Methyl Ether (TAME)	95	92	80-123	73-130	3	0-20	
Ethanol	83	85	61-139	48-152	2	0-27	
TPPH	78	80	65-135	53-147	1	0-30	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 09-09-2085

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

Shell Oil Products Chain Of Custody Record

LAB (LOCATION)

- ☑ CALSCIENCE ( )
- ☐ SPL ( )
- ☐ XENCO ( )
- ☐ TEST AMERICA ( )
- ☐ OTHER ( )

Please Check Appropriate Box:

- ☐ ENV. SERVICES ☐ MOTIVA RETAIL ☐ SHELL RETAIL
- ☐ MOTIVA SD&CM ☑ CONSULTANT ☐ LUBES
- ☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name: Peter Schaefer 060204

INCIDENT # (ENV SERVICES): 9 7 7 6 7 0 4 4

☐ CHECK IF NO INCIDENT # APPLIES

DATE: 9-23-09

PAGE: 1 of 1

PO #

SAP #

SAMPLING COMPANY	Blaine Tech Services
LOG CODE	BTSS
SITE ADDRESS: Street and City	2301 - 2307 Lincoln Ave., Alameda
State	CA
GLOBAL ID NO	T06179714590
ADDRESS	1680 Rogers Ave, San Jose, CA 95112
EDF DELIVERABLE TO (Name, Company, Office Location)	Anni Kreml, CRA, Emeryville Office
PHONE NO	(510) 420-3335
E-MAIL	shelledf@craworld.com
CONSULTANT PROJECT NO	090923-J01
BTS #	
PROJECT CONTACT (Hardcopy or PDF Report to)	Michael Ninokata - Copy to Shell.Lab.Billing@craworld.com
TELEPHONE	(408)573-0555
FAX	(408)573-7771
E-MAIL	mninokata@blainetech.com
SAMPLER NAME(S) (Print)	J. Ortiz
LAB USE ONLY	09-2085

TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:

SPECIAL INSTRUCTIONS OR NOTES :

- ☐ SHELL CONTRACT RATE APPLIES
- ☐ STATE REIMBURSEMENT RATE APPLIES
- ☐ EDD NOT NEEDED
- ☑ RECEIPT VERIFICATION REQUESTED

REQUESTED ANALYSIS

TEMPERATURE ON RECEIPT C°

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	TPH - Purgeable (8260B)	TPH - Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (8260B)	Ethanol (8260B)	Methanol (8015M)	Container PID Readings or Laboratory Notes
1	MW-1	9/23	1050	W	3					3	X		X											
2	MW-2	↓	1025	↓	↓					↓	↓		↓											
3	MW-3	↓	1035	↓	↓					↓	↓		↓											
4	MW-4	↓	0920	↓	↓					↓	↓		↓											
5	MW-5	↓	1015	↓	↓					↓	↓		↓											
6	MW-6	↓	0955	↓	↓					↓	↓		↓											
7	MW-7	↓	0900	↓	↓					↓	↓		↓											
8	MW-8	↓	0940	↓	↓					↓	↓		↓											

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	[signature] (Sample custodian)	9-23-09	1500
[signature] (Sample Custody)	Ta O'Malley CCL	9/28/09	1000
[signature] CD 9-28-09 CSD 1730 GSO 512716940	[signature]	9/29/09	1015

05/2/06 Revision

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Calscience Environmental Laboratories, Inc.

WORK ORDER #: 09-09-2085

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: BTS DATE: 09/29/09

TEMPERATURE: (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 4.1 °C - 0.2 °C (CF) = 3.9 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter ☐ Metals Only ☐ PCBs Only **Initial:** XX

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☑ Not Present ☐ N/A **Initial:** XX

☐ Sample ☐_____ ☐ No (Not Intact) ☑ Not Present **Initial:** PS

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ COC not relinquished. ☐ No date relinquished. ☐ No time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Correct containers and volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
Proper preservation noted on COC or sample container	☑	☐	☐
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☑VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na** ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® ☐_____ **Other:** ☐_____ **Checked/Labeled by:** PS

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelop **Reviewed by:** _____

Preservative: h: HCL n: HNO3 **na$_2$**:$Na_2S_2O_3$ Na: NaOH p: H_3PO_4 s: H_2SO_4 znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** _____

WELL GAUGING DATA

Project # 090923-501 Date 9-23-09 Client shell

Site 2301 Lincoln Ave Alameda ca.

Well ID	Time	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	Notes
MW-1	0841	1					9.27	12.91		
MW-2	0838	1					9.21	12.40		
MW-3	0835	1					8.79	11.53		
MW-4	0823	4					9.90	17.71		
MW-5	0829	4					9.89	17.86		
MW-6	0826	4					9.87	17.79		
MW-7	0820	4					10.00	17.69		
MW-8	0837	4					9.27	17.50		

SHELL WELL MONITORING DATA SHEET

BTS #: 090923-SD1	Site: 2301 Lincoln Ave
Sampler: SD	Date: 9-23-09
Well I.D.: MW-1	Well Diameter: 2 3 4 6 8 (1)
Total Well Depth (TD): 12.91	Depth to Water (DTW): 9.27
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.98	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other new tubing check valve

Sampling Method: Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: new tubing

0.1 (Gals.) X 3 = 0.3 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1043	69.9	7.56	503	784	0.1	grey
1044	69.3	7.41	518	881	0.2	↓
1045	69.4	7.38	533	901	0.3	↓

Did well dewater? Yes (No) Gallons actually evacuated: 0.3

Sampling Date: 9-23-09 Sampling Time: 1050 Depth to Water: 9.84

Sample I.D.: MW-1 Laboratory: (CalScience) Columbia Other

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL ..ELL MONITORING DATA S..EET

BTS #: 090923-JO1	Site: 2301 Lincoln Ave Alameda CO
Sampler: JO	Date: 9-23-09
Well I.D.: MW-2	Well Diameter: ~~2~~ 3 4 6 8 (1)
Total Well Depth (TD): 12.46	Depth to Water (DTW): 9.21
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.85	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other new tubing & check valve

Sampling Method: Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: new tubing

0.1 (Gals.) X	3	= 0.3 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1020	70.3	7.12	1103	273	0.1	Brown cloudy
1021	70.6	7.07	1137	304	0.2	↓
1023	70.5	7.04	1118	324	0.3	↓

Did well dewater? Yes (No) Gallons actually evacuated: 0.3

Sampling Date: 9-23-09 Sampling Time: 1025 Depth to Water: 9.54

Sample I.D.: MW-2 Laboratory: (CalScience) Columbia Other

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see coc

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL ..ELL MONITORING DATA S..EET

BTS #: 090923-J01	Site: 2301 Lincoln Ave Alameda CA
Sampler: JO	Date: 9-23-09
Well I.D.: MW-3	Well Diameter: 2 3 4 6 8 (1)
Total Well Depth (TD): 11.53	Depth to Water (DTW): 8.79
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.33	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other new Tubing & check valve

Sampling Method: Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: new Tubing

1 Case Volume	Specified Volumes	Calculated Volume
0.1 (Gals.) X	3 =	0.3 Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1030	69.5	7.12	707.2	>1000	0.1	
1031	69.4	7.04	721	>1000	0.2	
1032	69.3	7.01	742	>1000	0.3	

Did well dewater? Yes (No) Gallons actually evacuated: 0.3

Sampling Date: 9-23-09 Sampling Time: 1035 Depth to Water: 9.01

Sample I.D.: MW-3 Laboratory: (CalScience) Columbia Other

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL ..ELL MONITORING DATA S..EET

BTS #: 090922-801	Site: 2301 Lincoln Ave Alameda CA
Sampler: SC	Date: 9-22-09
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ___
Total Well Depth (TD): 17.71	Depth to Water (DTW): 9.90
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.46	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; (Electric Submersible); Waterra; Peristaltic; Extraction Pump; Other ___

Sampling Method: (Bailer); ~~Disposable Bailer~~; Extraction Port; Dedicated Tubing; Other: ___

50 (Gals.) X	3	=	15 Gals.
1 Case Volume	Specified Volumes		Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
0940	70.1	7.18	1477	101	5	
0944	70.2	7.07	1500	77	10	
0948	70.1	7.05	1512	37	15	

Did well dewater? Yes (No) Gallons actually evacuated: 15

Sampling Date: 9-22-09 Sampling Time: 0920 Depth to Water: 10.37

Sample I.D.: MW-4 Laboratory: (CalScience) Columbia Other ___

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL ..ELL MONITORING DATA S..EET

BTS #: 090923-SQ1	Site: 2328 Lincoln Ave Alameda CA
Sampler: JO	Date: 9-23-09
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 17.86	Depth to Water (DTW): 9.89
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.46	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; (Electric Submersible); Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: (Bailer); Disposable Bailer; Extraction Port; Dedicated Tubing; Other: _____

5.1 (Gals.) X	3	= 15.3 Gals.
1 Case Volume	Specified Volumes	Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1006	68.9	7.47	1027	187	5.1	
1007	69.2	7.28	1064	63	10.2	
1008	69.1	7.23	1093	66	15.3	

Did well dewater? Yes (No) Gallons actually evacuated: 15.3

Sampling Date: 9-23-09 Sampling Time: 1015 Depth to Water: 10.22

Sample I.D.: MW-5 Laboratory: (CalScience) Columbia Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL WELL MONITORING DATA SHEET

BTS #: 090923-JO1	Site: 2301 Lincoln Ave Alameda CA.
Sampler: JO	Date: 9-23-09
Well I.D.: MW-6	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 17.79	Depth to Water (DTW): 9.87
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.45	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; (Electric Submersible); Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: (Bailer); Disposable Bailer; Extraction Port; Dedicated Tubing; Other: _____

5.1	(Gals.) X	3	=	15.3	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0950	68.9	7.87	1069	51	5.1	
0951	68.9	7.43	1035	54	10.2	
0952	69.2	7.38	1017	57	15.3	

Did well dewater? Yes (No) Gallons actually evacuated: 15.3

Sampling Date: 9-23-09 Sampling Time: 0955 Depth to Water: 10.39

Sample I.D.: MW-6 Laboratory: (CalScience) Columbia Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL ELL MONITORING DATA S..EET

BTS #: 090923-JO1	Site: 2301 Lincoln Ave Alameda
Sampler: JO	Date: 9-23-09
Well I.D.: MW-7	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 17.69	Depth to Water (DTW): 10.00
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.53	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; (Electric Submersible); Waterra; Peristaltic; Extraction Pump; Other____

Sampling Method: (Bailer); Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

50 (Gals.) X 3 = 15 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
0850	70.8	7.91	694	>1000.	5	Brown / cloudy
0851	70.6	8.03	744	>1000	10	↓
0852	70.3	7.99	757	>1000	15	↓

Did well dewater? Yes No Gallons actually evacuated: 15

Sampling Date: 9-23-09 Sampling Time: 0900 Depth to Water: 11.03

Sample I.D.: MW-7 Laboratory: (CalScience) Columbia Other____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: see COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

SHELL ..ELL MONITORING DATA S..EET

BTS #: 090923-JO1	Site:: 2301 Lincoln Ave Alameda Ca
Sampler: JO	Date: 9-23-09
Well I.D.: MW-8	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 17.50	Depth to Water (DTW): 9.27
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.91	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; (Electric Submersible); Waterra; Peristaltic; Extraction Pump; Other_____

Sampling Method: (Bailer); Disposable Bailer; Extraction Port; Dedicated Tubing; Other: _____

5.3	(Gals.) X	3	=	15.9	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius^2 * 0.163

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
0930	69.7	7.83	579	>1000	5.3	Brown/clear
0931	69.8	7.84	583	>1000	10.6	↓
0933	69.8	7.81	591	>1000	15.9	↓

Did well dewater? Yes (No) Gallons actually evacuated: 15.9

Sampling Date: 9-23-09 Sampling Time: 0940 Depth to Water: 9.87

Sample I.D.: MW-8 Laboratory: (CalScience) Columbia Other_____

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other: See COC

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV