CONESTOGA-ROVERS & ASSOCIATES

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

TRANSMITTAL

DATE: January 22, 2009

REFERENCE NO.: 240898

PROJECT NAME: 510 East 14th Street (506-510 International Boulevard), Oakland

TO: Jerry Wickham
Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

RECEIVED
9:34 am, Jan 23, 2009
Alameda County
Environmental Health

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

QUANTITY	DESCRIPTION
1	Groundwater Monitoring Report – Fourth Quarter 2008

- ☐ 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
SF Data Room

Completed by: Peter Schaefer
[Please Print]

Signed: Peter Schaefer

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

Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Shell-branded Service Station
510 East 14th Street (506-510 International Boulevard)
Oakland, California
SAP Code 135695
Incident No. 97601734
ACHCSA Case No. RO0002853

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.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

Denis L. Brown
Project Manager

GROUNDWATER MONITORING REPORT - FOURTH QUARTER 2008

SHELL-BRANDED SERVICE STATION
510 EAST 14TH STREET (506-510 INTERNATIONAL BOULEVARD)
OAKLAND, CALIFORNIA

SAP CODE	135695
INCIDENT NO.	97601734
AGENCY NO.	RO0002853

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

JANUARY 22, 2009
REF. NO. 240898 (2)
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	510 East 14th Street (506-510 International Boulevard), Oakland
Site Use	Shell-branded Service Station
Shell Project Manager	Denis Brown
CRA Project Manager	Peter Schaefer
Lead Agency and Contact	ACHCSA, Jerry Wickham
Agency Case No.	RO0002853
Shell SAP Code	135695
Shell Incident No.	97601734

Date of most recent agency correspondence was November 1, 2006.

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 this 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	West-southwesterly
Hydraulic Gradient	0.02
Depth to Water	9.93 to 11.15 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.

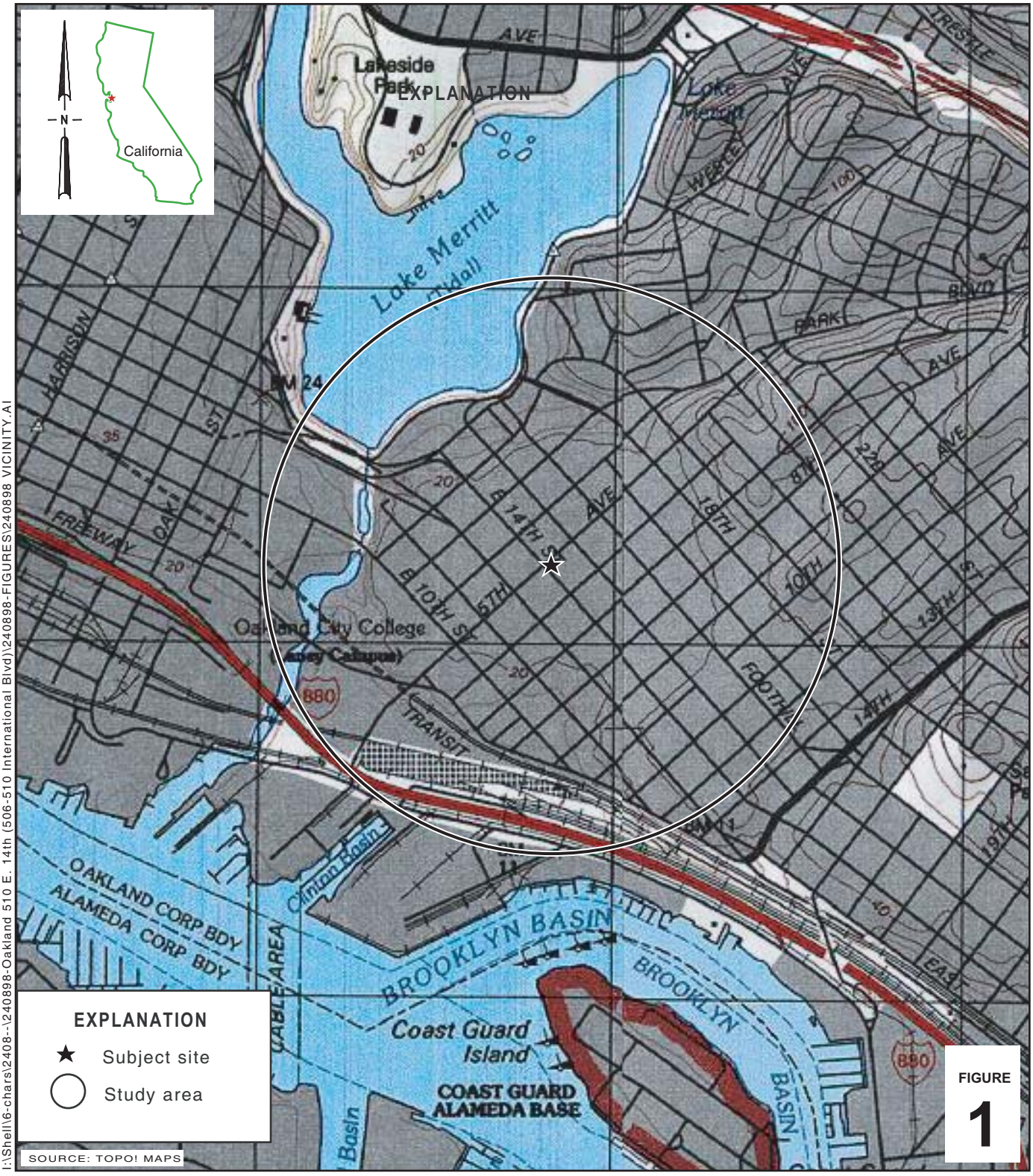
All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

Peter Schaefer, CHG, CEG

Aubrey K. Cool, PG

FIGURES

01/20/09



I:\Shell\6-chars\2408--\240898-Oakland 510 E. 14th (506-510 International Blvd)\240898-FIGURES\240898 VICINITY.AI

FIGURE
1

0 1/8 1/4 1/2 1

SCALE : 1" = 1/4 MILE

Shell-branded Service Station

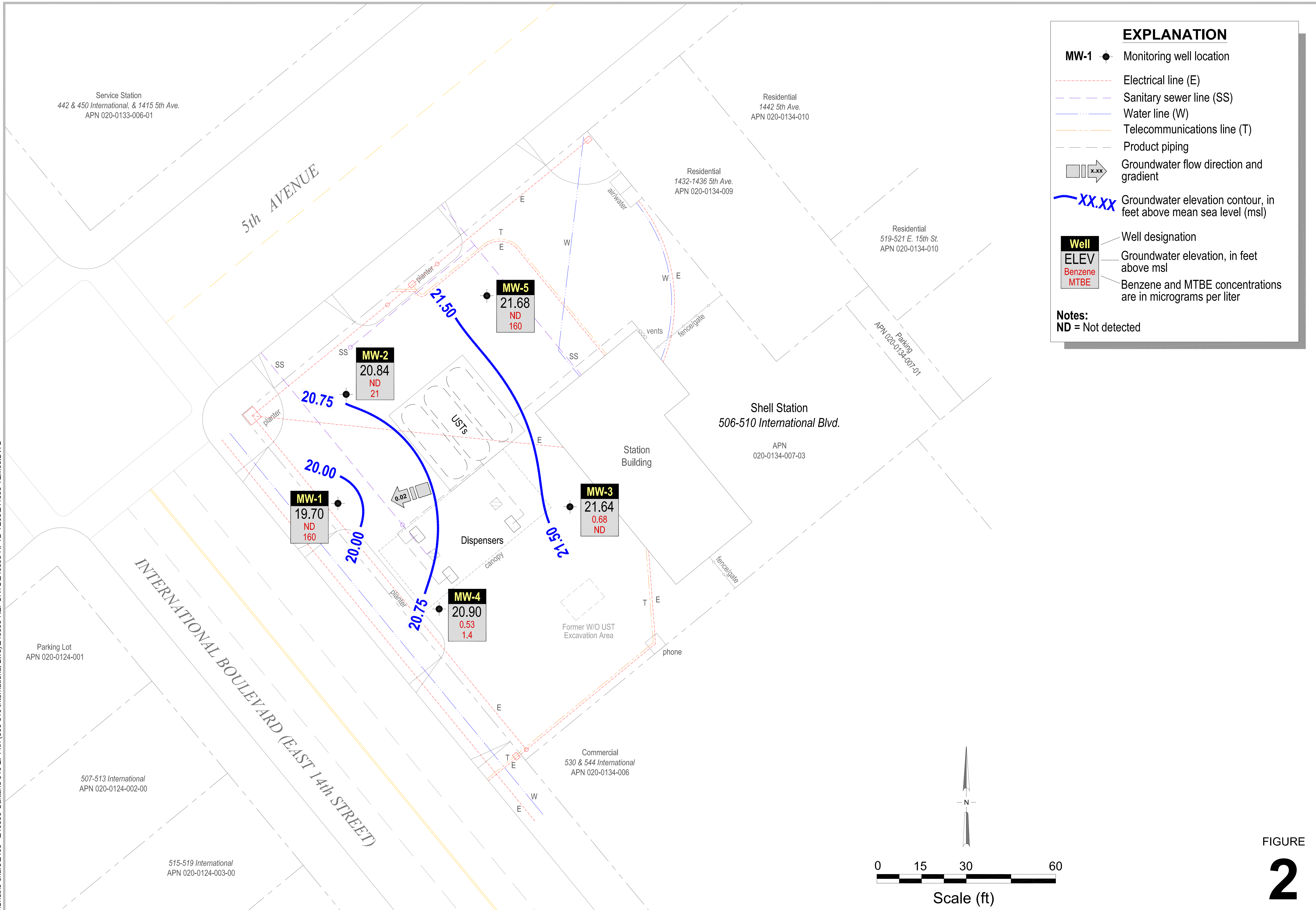
510 E. 14th Street (506-510 International Blvd.)

Oakland, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map

01/20/09



EXPLANATION
MW-1 Monitoring well location
Electrical line (E)
Sanitary sewer line (SS)
Water line (W)
Telecommunications line (T)
Product piping
Groundwater flow direction and gradient
XX.XX Groundwater elevation contour, in feet above mean sea level (msl)
Well designation
Groundwater elevation, in feet above msl
Benzene and MTBE concentrations are in micrograms per liter
Notes:
ND = Not detected
5th AVENUE
INTERNATIONAL BOULEVARD (EAST 14th STREET)
Service Station
442 & 450 International, & 1415 5th Ave.
APN 020-0133-006-01
Residential
1442 5th Ave.
APN 020-0134-010
Residential
1432-1436 5th Ave.
APN 020-0134-009
Residential
519-521 E. 15th St.
APN 020-0134-010
Shell Station
506-510 International Blvd.
APN
020-0134-007-03
Station Building
USTs
Dispensers
canopy
Former W/O UST Excavation Area
Parking
APN 020-0134-007-01
Commercial
530 & 544 International
APN 020-0134-006
Parking Lot
APN 020-0124-001
507-513 International
APN 020-0124-002-00
515-519 International
APN 020-0124-003-00
MW-1 19.70 ND 160
MW-2 20.84 ND 21
MW-3 21.64 0.68 ND
MW-4 20.90 0.53 1.4
MW-5 21.68 ND 160
20.00
20.75
21.50
0.02
vents
air/water
fence/gate
planter
phone
N
0 15 30 60
Scale (ft)

FIGURE 2

Groundwater Contour and Chemical Concentration Map

December 2, 2008

CONESTOGA-ROVERS & ASSOCIATES

Shell-branded Service Station

510 East 14th Street (506-510 International Boulevard)

Oakland, California

I:\Shell6-chars\2408--\240898-Oakland 510 E. 14th (506-510 International Blvd)\240898-REPORTS\240898-RPT2-4Q08\241898 4QM08.DWG

APPENDIX A

BLAINE TECH SERVICES, INC. - GROUNDWATER MONITORING REPORT

BLAINE
TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

December 22, 2008

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

Fourth Quarter 2008 Groundwater Monitoring at
Shell Service Station
510 E. 14th Street
Oakland, CA

Monitoring performed on December 2, 2008

Groundwater Monitoring Report **081202-MT-2**

This report covers the routine monitoring of groundwater wells at this Shell facility. 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/tm

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

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

WELL CONCENTRATIONS
Shell Service Station
510 E. 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	8/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.85	10.98	19.87
MW-1	8/29/2006	242	<0.500	<0.500	<0.500	<0.500	255	<0.500	<0.500	<0.500	54.1	<0.500	<0.500	30.85	10.98	19.87
MW-1	11/13/2006	140 a	<2.5	<2.5	<2.5	<2.5	300	<2.5	<2.5	<2.5	<100	NA	NA	30.85	11.05	19.80
MW-1	2/9/2007	100	<0.50	0.86	<0.50	<1.0	160	<2.0	<2.0	<2.0	95	NA	NA	30.85	9.61	21.24
MW-1	6/1/2007	<50 b	<0.50	<1.0	<1.0	<1.0	160	<2.0	<2.0	<2.0	<10	NA	NA	30.85	10.67	20.18
MW-1	8/15/2007	<50 b	<0.50	<1.0	<1.0	<1.0	210	<2.0	<2.0	<2.0	5.8 c	NA	NA	30.85	10.90	19.95
MW-1	11/30/2007	120 b,d	<1.0	<2.0	<2.0	<2.0	180	<4.0	<4.0	<4.0	<02	NA	NA	30.85	10.65	20.20
MW-1	1/24/2008	120 b,d	<0.50	<1.0	<1.0	<1.0	120	<2.0	<2.0	<2.0	<10	NA	NA	30.85	8.74	22.11
MW-1	5/20/2008	160	<0.50	<1.0	<1.0	<1.0	160	<2.0	<2.0	<2.0	<10	NA	NA	30.85	10.95	19.90
MW-1	8/5/2008	150	<0.50	<1.0	<1.0	<1.0	140	<2.0	<2.0	<2.0	<10	NA	NA	30.85	11.55	19.30
MW-1	**12/2/2008**	**190**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**160**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**30.85**	**11.15**	**19.70**
MW-2	8/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	30.96	9.91	21.05
MW-2	8/29/2006	2,130	1.18	0.660	1.67	0.960	206	<0.500	<0.500	<0.500	55.5	<0.500	<0.500	30.96	9.91	21.05
MW-2	11/13/2006	890	<0.50	1.4	4.1	4.5	37	<0.50	<0.50	<0.50	41	NA	NA	30.96	10.11	20.85
MW-2	2/9/2007	760	0.84	3.0	5.0	6.7	67	<2.0	<2.0	<2.0	210	NA	NA	30.96	8.73	22.23
MW-2	6/1/2007	3,300 b	0.48 c	0.98 c	12	3.89 c	39	<2.0	<2.0	<2.0	79	NA	NA	30.96	8.83	22.13
MW-2	8/15/2007	3,500 b	0.40 c	0.78 c	11	3.4	9.4	<2.0	<2.0	<2.0	58	NA	NA	30.96	9.81	21.15
MW-2	11/30/2007	1,000 b	<0.50	0.34 c	<1.0	1.1	17	<2.0	<2.0	<2.0	<10	NA	NA	30.96	9.93	21.03
MW-2	1/24/2008	800 b	<0.50	<1.0	2.5	1.8	15	<2.0	<2.0	<2.0	320	NA	NA	30.96	8.13	22.83
MW-2	5/20/2008	2,600	<0.50	<1.0	11	2.6	11	<2.0	<2.0	<2.0	120	NA	NA	30.96	9.70	21.26
MW-2	8/5/2008	620	<0.50	<1.0	3.4	<1.0	37	<2.0	<2.0	<2.0	<10	NA	NA	30.96	10.46	20.50
MW-2	**12/2/2008**	**<50**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**21**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**30.96**	**10.12**	**20.84**
MW-3	8/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32.02	10.00	22.02
MW-3	8/29/2006	<50.0	<0.500	<0.500	<0.500	<0.500	28.8	<0.500	<0.500	<0.500	11.9	<0.500	<0.500	32.02	10.00	22.02
MW-3	11/13/2006	<50	<0.50	<0.50	<0.50	<0.50	1.5	<0.50	<0.50	<0.50	<20	NA	NA	32.02	10.85	21.17
MW-3	2/9/2007	<50	<0.50	2.4	0.81	5.8	2.6	<2.0	<2.0	<2.0	<5.0	NA	NA	32.02	9.90	22.12

WELL CONCENTRATIONS
Shell Service Station
510 E. 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-3	6/1/2007	<50 b	<0.50	<1.0	<1.0	<1.0	0.98 c	<2.0	<2.0	<2.0	<10	NA	NA	32.02	9.72	22.30
MW-3	8/15/2007	<50 b	<0.50	<1.0	<1.0	<1.0	1.3	<2.0	<2.0	<2.0	<10	NA	NA	32.02	10.69	21.33
MW-3	11/30/2007	<50 b	<0.50	<1.0	<1.0	<1.0	0.90 c	<2.0	<2.0	<2.0	<10	NA	NA	32.02	10.69	21.33
MW-3	1/24/2008	<50 b	<0.50	<1.0	<1.0	<1.0	1.1	<2.0	<2.0	<2.0	<10	NA	NA	32.02	9.00	23.02
MW-3	5/20/2008	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	32.02	10.70	21.32
MW-3	8/5/2008	<50	<0.50	<1.0	<1.0	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	32.02	11.22	20.80
MW-3	**12/2/2008**	**<50**	**0.68**	**<1.0**	**<1.0**	**<1.0**	**<1.0**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**32.02**	**10.38**	**21.64**
MW-4	8/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.10	9.91	21.19
MW-4	8/29/2006	375	<0.500	<0.500	3.10	0.660	6.53	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	31.10	9.91	21.19
MW-4	11/13/2006	120	<0.50	<0.50	0.87	<0.50	4.6	<0.50	<0.50	<0.50	<20	NA	NA	31.10	10.05	21.05
MW-4	2/9/2007	130	<0.50	0.92	1.6	<1.0	5.2	<2.0	<2.0	<2.0	11	NA	NA	31.10	8.62	22.48
MW-4	6/1/2007	580 b	0.30 c	<1.0	5.5	0.57 c	3.4	<2.0	<2.0	<2.0	<10	NA	NA	31.10	6.94	24.16
MW-4	8/15/2007	430 b	<0.50	<1.0	0.48 c	<1.0	<1.0	<2.0	<2.0	<2.0	<10	NA	NA	31.10	9.01	22.09
MW-4	11/30/2007	87 b	<0.50	<1.0	0.25 c	<1.0	1.7	<2.0	<2.0	<2.0	<10	NA	NA	31.10	9.89	21.21
MW-4	1/24/2008	350 b,d	<0.50	<1.0	1.7	<1.0	2.5	<2.0	<2.0	<2.0	<10	NA	NA	31.10	7.52	23.58
MW-4	5/20/2008	200	<0.50	<1.0	<1.0	<1.0	1.8	<2.0	<2.0	<2.0	<10	NA	NA	31.10	9.85	21.25
MW-4	8/5/2008	<50	<0.50	<1.0	<1.0	<1.0	1.1	<2.0	<2.0	<2.0	<10	NA	NA	31.10	10.54	20.56
MW-4	**12/2/2008**	**86**	**0.53**	**<1.0**	**<1.0**	**<1.0**	**1.4**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**31.10**	**10.20**	**20.90**
MW-5	8/24/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.61	9.98	21.63
MW-5	8/29/2006	1,260	<0.500	<0.500	<0.500	<0.500	829	<0.500	<0.500	<0.500	<10.0	<0.500	<0.500	31.61	9.98	21.63
MW-5	11/13/2006	290 a	<5.0	<5.0	<5.0	<5.0	640	<5.0	<5.0	<5.0	<200	NA	NA	31.61	9.82	21.79
MW-5	2/9/2007	260	<0.50	1.1	<0.50	1.1	350	<2.0	<2.0	<2.0	270	NA	NA	31.61	9.41	22.20
MW-5	6/1/2007	<50 b	<1.0	<2.0	<2.0	<2.0	290	<4.0	<4.0	<4.0	<20	NA	NA	31.61	9.29	22.32
MW-5	8/15/2007	<50 b	<0.50	<1.0	<1.0	<1.0	580	<2.0	<2.0	<2.0	<10	NA	NA	31.61	10.01	21.60
MW-5	11/30/2007	210 b,d	<2.5	<5.0	<5.0	<5.0	340	<10	<10	<10	<50	NA	NA	31.61	9.52	22.09
MW-5	1/24/2008	82 b,d	<0.50	<1.0	<1.0	<1.0	230	<2.0	<2.0	<2.0	<10	NA	NA	31.61	8.95	22.66

WELL CONCENTRATIONS
Shell Service Station
510 E. 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-5	5/20/2008	160	<1.0	<2.0	<2.0	<2.0	140	<4.0	<4.0	<4.0	<20	NA	NA	31.61	9.90	21.71
MW-5	8/5/2008	190	<0.50	<1.0	<1.0	<1.0	180	<2.0	<2.0	<2.0	<10	NA	NA	31.61	10.27	21.34
MW-5	**12/2/2008**	**180**	**<0.50**	**<1.0**	**<1.0**	**<1.0**	**160**	**<2.0**	**<2.0**	**<2.0**	**<10**	**NA**	**NA**	**31.61**	**9.93**	**21.68**

Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by modified EPA Method 8260B.
BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B.
MTBE = Methyl tertiary butyl ether
DIPE = Di-isopropyl ether, analyzed by EPA Method 8260B
ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260B
TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260B
TBA = Tertiary butyl alcohol or tertiary butanol, analyzed by EPA Method 8260B
1,2-DCA = 1,2-Dichloroethane, analyzed by EPA Method 8260B
EDB = Ethylene Dibromide, analyzed by EPA Method 8260B
TOC = Top of Casing Elevation
GW = Groundwater
ug/L = Parts per billion
MSL = Mean sea level
ft. = Feet
<n = Below detection limit
NA = Not applicable

WELL CONCENTRATIONS
Shell Service Station
510 E. 14th Street
Oakland, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/L)	ETBE (ug/L)	TAME (ug/L)	TBA (ug/L)	1,2-DCA (ug/L)	EDB (ug/L)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)

Notes:

a = The result for this hydrocarbon is elevated due to the presence of single analyte peak(s) in the quantitation range.

b = Analyzed by EPA Method 8015B (M).

c = Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.

d = The sample chromatographic pattern for TPH does not match the chromatographic pattern of the specified standard. Quantitation of the unknown hydrocarbon(s) in the sample was based upon the specified standard.

Site surveyed September 7, 2006 by Virgil Chavez of Vallejo, CA.

Calscience
Environmental
Laboratories, Inc.

December 11, 2008

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

Subject: **Calscience Work Order No.: 08-12-0433**
Client Reference: 510 E. 14th Street, Oakland, CA

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 12/4/2008 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,

Calscience Environmental
Laboratories, Inc.
Jessie Kim
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

ACCREDITED IN ACCORDANCE WITH nelac

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

Date Received: 12/04/08
Work Order No: 08-12-0433
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B
Units: ug/L

Project: 510 E. 14th Street, Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-1	**08-12-0433-1-A**	**12/02/08 12:51**	**Aqueous**	**GC/MS W**	**12/06/08**	**12/07/08 03:30**	**081206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1		TPPH	190	50	1	
Methyl-t-Butyl Ether (MTBE)	160	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	118	74-140		1,2-Dichloroethane-d4	123	74-146	
Toluene-d8	95	88-112		Toluene-d8-TPPH	89	88-112	
1,4-Bromofluorobenzene	85	74-110					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-2	**08-12-0433-2-A**	**12/02/08 12:41**	**Aqueous**	**GC/MS W**	**12/06/08**	**12/07/08 05:32**	**081206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1		TPPH	ND	50	1	
Methyl-t-Butyl Ether (MTBE)	21	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	122	74-140		1,2-Dichloroethane-d4	124	74-146	
Toluene-d8	97	88-112		Toluene-d8-TPPH	90	88-112	
1,4-Bromofluorobenzene	86	74-110					

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3	**08-12-0433-3-A**	**12/02/08 12:05**	**Aqueous**	**GC/MS W**	**12/06/08**	**12/07/08 06:02**	**081206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	0.68	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1		TPPH	ND	50	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	119	74-140		1,2-Dichloroethane-d4	121	74-146	
Toluene-d8	95	88-112		Toluene-d8-TPPH	89	88-112	
1,4-Bromofluorobenzene	82	74-110					

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

Calscience Environmental Laboratories, Inc.

Analytical Report

Blaine Tech Services, Inc.		Date Received:	12/04/08
1680 Rogers Avenue		Work Order No:	08-12-0433
San Jose, CA 95112-1105		Preparation:	EPA 5030B
		Method:	LUFT GC/MS / EPA 8260B
		Units:	ug/L

Project: 510 E. 14th Street, Oakland, CA

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-4	**08-12-0433-4-A**	**12/02/08 13:03**	**Aqueous**	**GC/MS W**	**12/06/08**	**12/07/08 06:32**	**081206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	0.53	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1		TPPH	86	50	1	
Methyl-t-Butyl Ether (MTBE)	1.4	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	126	74-140		1,2-Dichloroethane-d4	130	74-146	
Toluene-d8	98	88-112		Toluene-d8-TPPH	92	88-112	
1,4-Bromofluorobenzene	83	74-110					

MW-5	**08-12-0433-5-A**	**12/02/08 13:15**	**Aqueous**	**GC/MS W**	**12/06/08**	**12/07/08 07:02**	**081206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1		TPPH	180	50	1	
Methyl-t-Butyl Ether (MTBE)	160	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	121	74-140		1,2-Dichloroethane-d4	125	74-146	
Toluene-d8	96	88-112		Toluene-d8-TPPH	91	88-112	
1,4-Bromofluorobenzene	82	74-110					

Method Blank	**099-12-767-573**	**N/A**	**Aqueous**	**GC/MS W**	**12/06/08**	**12/07/08 03:00**	**081206L03**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	0.50	1		Tert-Butyl Alcohol (TBA)	ND	10	1	
Ethylbenzene	ND	1.0	1		Diisopropyl Ether (DIPE)	ND	2.0	1	
Toluene	ND	1.0	1		Ethyl-t-Butyl Ether (ETBE)	ND	2.0	1	
p/m-Xylene	ND	1.0	1		Tert-Amyl-Methyl Ether (TAME)	ND	2.0	1	
o-Xylene	ND	1.0	1		TPPH	ND	50	1	
Methyl-t-Butyl Ether (MTBE)	ND	1.0	1						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	119	74-140		1,2-Dichloroethane-d4	120	74-146	
Toluene-d8	95	88-112		Toluene-d8-TPPH	89	88-112	
1,4-Bromofluorobenzene	86	74-110					

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

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

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

Date Received: 12/04/08
Work Order No: 08-12-0433
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B

Project 510 E. 14th Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
MW-1	**Aqueous**	**GC/MS W**	**12/06/08**	**12/07/08**	**081206S03**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	102	99	88-118	3	0-7	
Carbon Tetrachloride	100	102	67-145	2	0-11	
Chlorobenzene	103	96	88-118	7	0-7	
1,2-Dibromoethane	110	105	70-130	4	0-30	
1,2-Dichlorobenzene	98	96	86-116	2	0-8	
1,1-Dichloroethene	91	92	70-130	1	0-25	
Ethylbenzene	103	98	70-130	6	0-30	
Toluene	99	97	87-123	2	0-8	
Trichloroethene	95	95	79-127	1	0-10	
Vinyl Chloride	90	94	69-129	4	0-13	
Methyl-t-Butyl Ether (MTBE)	60	58	71-131	0	0-13	3
Tert-Butyl Alcohol (TBA)	89	90	36-168	1	0-45	
Diisopropyl Ether (DIPE)	100	99	81-123	0	0-9	
Ethyl-t-Butyl Ether (ETBE)	95	96	72-126	2	0-12	
Tert-Amyl-Methyl Ether (TAME)	103	99	72-126	5	0-12	
Ethanol	91	92	53-149	1	0-31	

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: 08-12-0433
Preparation: EPA 5030B
Method: LUFT GC/MS / EPA 8260B

Project: 510 E. 14th Street, Oakland, CA

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-767-573	**Aqueous**	**GC/MS W**	**12/06/08**	**12/07/08**	**081206L03**

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	108	102	84-120	78-126	5	0-8	
Carbon Tetrachloride	107	109	63-147	49-161	3	0-10	
Chlorobenzene	108	101	89-119	84-124	7	0-7	
1,2-Dibromoethane	111	106	80-120	73-127	5	0-20	
1,2-Dichlorobenzene	101	99	89-119	84-124	2	0-9	
1,1-Dichloroethene	101	99	77-125	69-133	2	0-16	
Ethylbenzene	112	102	80-120	73-127	9	0-20	
Toluene	107	100	83-125	76-132	7	0-9	
Trichloroethene	110	103	89-119	84-124	6	0-8	
Vinyl Chloride	104	101	63-135	51-147	3	0-13	
Methyl-t-Butyl Ether (MTBE)	98	102	82-118	76-124	4	0-13	
Tert-Butyl Alcohol (TBA)	95	95	46-154	28-172	0	0-32	
Diisopropyl Ether (DIPE)	98	102	81-123	74-130	4	0-11	
Ethyl-t-Butyl Ether (ETBE)	92	98	74-122	66-130	6	0-12	
Tert-Amyl-Methyl Ether (TAME)	101	101	76-124	68-132	0	0-10	
Ethanol	92	91	60-138	47-151	1	0-32	
TPPH	83	84	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: 08-12-0433

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.

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: Denis Brown

INCIDENT # (ENV SERVICES): 9 7 6 0 1 7 3 4 ☐ CHECK IF NO INCIDENT # APPLIES

PO # | SAP #

DATE: 12-2-08

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services	LOG CODE: BTSS	SITE ADDRESS: Street and City: 510 E. 14th Street, Oakland	State: CA
GLOBAL ID NO: T0600112421			
ADDRESS: 1680 Rogers Ave, San Jose, CA 95112		EDF DELIVERABLE TO (Name, Company, Office Location): Anni Kreml, CRA, Emeryville	PHONE NO: (510) 420-3335
E-MAIL: Shelledf@craworld.com	CONSULTANT PROJECT NO: BTS # 080202-MR2		
PROJECT CONTACT (Hardcopy or PDF Report to): Michael Ninokata		SAMPLER NAME(S) (Print): M. Todi	LAB USE ONLY: 12-0433
TELEPHONE: (408)573-0555	FAX: (408)573-7771	E-MAIL: mninokata@blainetech.com	

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

Run TPH-d w/Silica Gel Clean Up

REQUESTED ANALYSIS

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)	TEMPERATURE ON RECEIPT C° / Container PID Readings or Laboratory Notes
1	MW-1	12-2-08	1251	W	3					3	X		X	X										
2	MW-2		1241								X		X	X										
3	MW-3		1205								X		X	X										
4	MW-4		1303								X		X	X										
5	MW-5		1315								X		X	X										

Relinquished by: (Signature)	Received by: (Signature)	Date: 12-2-08	Time: 1550
Relinquished by: (Signature) Cynthia Hoffman (Sample Custodian) TO 12-3-08 GSO 1730 GSO # 510848372	Received by: (Signature) CEL	Date: 12-3-08	Time: 1145
Relinquished by: (Signature)	Received by: (Signature) Bruce R. CEL	Date: 12/04/08	Time: 10:30

05/2/06 Revision

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 08-12-0433

SAMPLE RECEIPT FORM

Cooler 1 **of** 1

CLIENT: BLAINE TECH **DATE:** 12/04/08

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

Temperature 2.7 °C - 0.2 °C (CF) = 2.5 °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:** PS

CUSTODY SEALS INTACT:

☐ Cooler ☐_____ ☐ No (Not Intact) ☒ Not Present ☐ N/A **Initial:** PS

☐ Sample ☐_____ ☐ No (Not Intact) ☒ Not Present **Initial:** YL

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
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 sample label(s)	☑	☐	☐
Volatile analysis container(s) free of headspace	☑	☐	☐
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

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

Water: ☐VOA ☑3 VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBpo_4 ☐1AGB ☐1AGBna_2

☐1AGBs ☐500AGB ☐500AGBs ☐250CGB ☐250CGBs ☐1PB ☐500PB ☐500PBna ☐250PB

☐250PBn ☐125PB ☐125PBznna ☐100PBsterile ☐100PBna_2 ☐_____ ☐_____ ☐_____

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

Container: C:Clear A:Amber P:Poly/Plastic G:Glass J:Jar B:Bottle **Reviewed by:** WSC

Preservative: h:HCL n:HNO_3 na_2:$Na_2S_2O_3$ na:NaOH po_4:H_3PO_4 s:H_2SO_4 znna:$ZnAc_2$+NaOH **Scanned by:** YL

SHELL WELLHEAD INSPECTION FORM

(FOR SAMPLE TECHNICIAN)

Site Address 510 E. 14th St. Date 12-02-08

Job Number 081202-MT2 Technician M. Todi Page 1 of 1

Well ID	Well Inspected - No Corrective Action Required	Well Box Meets Compliance Requirements *See Below	Water Bailed From Wellbox	Cap Replaced	Lock Replaced	Well Not Inspected (explain in notes)	New Deficiency Identified	Previously Identified Deficiency Persists	Notes
mw-1	X								
mw-2	X								
mw-3	X								
mw-4	X								
mw-5	X								

*Well box must meet all three criteria to be compliant: 1) WELL IS SECURABLE BY DESIGN (12"or less) 2) WELL IS MARKED WITH THE WORDS "MONITORING WELL" (12"or less) 3) WELL TAG IS PRESENT, SECURE, AND CORRECT

Notes:

WELL GAUGING DATA

Project # 081202-MT2 Date 12-02-08 Client Shell

Site 510 E 14th St.

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	1100	4					11.15	20.60		2
MW-2	1109	4					10.12	23.91		5
MW-3	1050	4					10.38	29.24		4
MW-4	1055	4					10.20	21.70		1
MW-5	1104	4					9.93	21.76	↓	3

SHELL WELL MONITORING DATA SHEET

BTS #: 081202-MT2	Site: ~~Shell~~ 50 E 14
Sampler: MT	Date: 12-02-08
Well I.D.: MW-1	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 20.60	Depth to Water (DTW): 11.15
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]: 13.04	

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

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

6.1 (Gals.) X	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
1125	68.5	6.94	553.1	58.3		clear
	Dewatered @ 10 gls DTW = 17.03					
1251	68.2	7.10	713.7	7000		cloudy

Did well dewater? (Yes) No Gallons actually evacuated: 10

Sampling Date: 12-2-08 Sampling Time: 1251 Depth to Water: 11.33

Sample I.D.: MW-1 Laboratory: STL Other CALSCIENCE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 080202-MT2	Site: 510 E 14th
Sampler: MT	Date: 12-02-08
Well I.D.: MW-2	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 23.91	Depth to Water (DTW): 10.12
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]: 12.88	

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

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

1 Case Volume	Specified Volumes	Calculated Volume
9 (Gals.) X	3 =	27 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
1230	69.4	7.41	861.9	75.3	9	
1232	70.4	7.21	867.3	103	18	
1234	70.7	7.13	866.2	156	27	

Did well dewater? Yes (No) Gallons actually evacuated: 27

Sampling Date: 12-2-08 Sampling Time: 1241 Depth to Water: 12.43

Sample I.D.: MW-2 Laboratory: STL Other CAL SCIENCE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 08202-MW2	Site: 510 E 14th
Sampler: MW	Date: 12-02-08
Well I.D.: MW-3	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 29.24	Depth to Water (DTW): 10.38
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]: 14.15	

Purge Method: Bailer; Disposable Bailer; Positive Air Displacement; X Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

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

12.3 (Gals.) X	3	= 36.9 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 (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1151	67.4	8.19	669.9	235	12.3	
1153	67.1	7.80	685.2	57.9	24.6	
1155	67.1	7.71	694.5	26.2	36.9	

Did well dewater? Yes (No) Gallons actually evacuated: 36.9

Sampling Date: 12-02-08 Sampling Time: 1205 Depth to Water: 11.48

Sample I.D.: MW-3 Laboratory: STL Other CAL SCIENCE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 98202-MT2	Site: 510 E 14th
Sampler: MT	Date: 12-02-08
Well I.D.: MW-4	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 21.70	Depth to Water (DTW): 10.20
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]: 12.44	

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

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

7.3 (Gals.) X	3	= 21.9 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 (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1115	69.0	7.24	385.9	51.6		
1116	Dewatered	@ 9gls		DTW = 19.41		
1303	69.4	6.88	439.9	192		

Did well dewater? (Yes) No Gallons actually evacuated: 9

Sampling Date: 12-02-08 Sampling Time: 1303 Depth to Water: 12.36

Sample I.D.: MW-4 Laboratory: STL Other CAL SCIENCE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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 #: 081202-MT2	Site: 510 E 14th
Sampler: MT	Date: 12-02-08
Well I.D.: MW-5	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 21.76	Depth to Water (DTW): 9.93
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]: 12.30	

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: ____

7.7 (Gals.) X	3 =	23.1 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
1130	71.3	9.91	1934	96.6	7.7	
Dewatered @ 11 gals			DTW =		19.78	
1315	72.8	7.35	965.3	92.6		

Did well dewater? (Yes) No Gallons actually evacuated: 11

Sampling Date: 12-02-08 Sampling Time: 1315 Depth to Water: 12.01

Sample I.D.: MW-5 Laboratory: STL Other CALSCIENCE

Analyzed for: TPH-G BTEX MTBE TPH-D Other: See COC

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

Analyzed for: TPH-G BTEX MTBE TPH-D 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