RO-404

CAMBRIA

October 31, 2002

eva chu
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Re: **Third Quarter 2002 Monitoring Report**
Former Shell Service Station
8930 Bancroft Avenue
Oakland, California
Incident #98995742
Cambria Project #244-1408-002

Dear Ms. chu:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d. The site is located on the corner of Bancroft Avenue and 90th Avenue in Oakland, California (Figures 1 and 2).

REMEDIATION SUMMARY

2000 Mobile Groundwater Extraction (GWE): Weekly mobile groundwater extraction (GWE) was performed on well MW-4 during March through May 2000. Mobile GWE is the process of extracting groundwater from wells using a vacuum truck. In this process, the vacuum created by the truck is applied to a dedicated extraction "stinger" installed in the extraction well. The extracted water is contained by the truck and removed from the site for disposal. The volume of extracted fluid is recorded and used to calculate the quantity of aqueous-phase constituents removed from the subsurface. Approximately 1,875 gallons of water were extracted from well MW-4, and an estimated 0.1 pounds of methyl tertiary butyl ether (MTBE) were removed. Cumulative groundwater purge volume and estimated mass removal data are presented in Table 1. GWE was discontinued due to low extraction volumes.

Oakland, CA
San Ramon, CA
Sonoma, CA

Cambria Environmental Technology, Inc.

1144 65th Street
Suite B
Oakland, CA 94608
Tel (510) 420-0700
Fax (510) 420-9170

2002 Mobile GWE: Separate phase hydrocarbons (SPH) were detected in well MW-5 beginning in February 2002. As recommended in our August 7, 2002 *First and Second Quarter 2002 Monitoring Report*, four weekly mobile GWE events were conducted at the site in August 2002 using well MW-5. During the first GWE event on August 8, 2002, approximately 0.02 feet of SPH were measured in well MW-5 prior to extraction. Groundwater samples were collected from well MW-5 following extraction. During the second GWE event on August 16, 2002, no SPH was detected in well MW-5 prior to extraction, and groundwater samples were collected prior to and following the extraction event. During the last two events on August 22 and 29, 2002, no SPH were detected in well MW-5 and groundwater samples were collected following extraction only. Table 1 summarizes groundwater analytical data, cumulative extraction volumes and estimated mass removal data for the site. Laboratory analytical results are included as Attachment A. During the third quarter 2002 sampling event on September 9, 2002, no SPH were detected in well MW-5. Groundwater samples collected from well MW-5 on September 9, 2002 contained 210 parts per billion (ppb) total petroleum hydrocarbons as gasoline and 200 ppb MTBE (by EPA Method 8260). No benzene was detected in well MW-5. Based on this, the short-term mobile GWE appears to have successfully removed the SPH from well MW-5 and will not be continued at this time.

THIRD QUARTER 2002 ACTIVITIES

Groundwater Monitoring: On September 9, 2002, Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells. Blaine calculated groundwater elevations, and compiled the analytical data. Cambria prepared a vicinity map which includes previously submitted well survey information (Figure 1) and a groundwater elevation contour map (Figure 2). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment B.

ANTICIPATED FOURTH QUARTER 2002 ACTIVITIES

Groundwater Monitoring: Blaine will gauge and sample selected site wells, measure DO concentrations in selected site wells, and tabulate the data. Cambria will prepare a monitoring report.

ORC: The ORC installed in well MW-4 is due to be replaced during the fourth quarter 2002 monitoring event.

CLOSING

We appreciate the opportunity to work with you on this project. Please call Jacquelyn Jones at (510) 420-3316 if you have any questions or comments.

Sincerely,
Cambria Environmental Technology, Inc

Jacquelyn L. Jones
Project Geologist

Matthew W. Derby, P.E.
Senior Project Engineer

REGISTERED PROFESSIONAL ENGINEER
MATTHEW W. DERBY
No. C055475
Exp. 12/31/04
CIVIL
STATE OF CALIFORNIA

Figures: 1 - Vicinity/Well Survey Map
2 - Groundwater Elevation Contour Map

Table: 1 - Groundwater Extraction - Mass Removal Data

Attachments: A - Laboratory Analytical Reports for GWE Sampling
B - Blaine Groundwater Monitoring Report and Field Notes

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869
Leroy Griffin, Fire Prevention Bureau, 250 Frank Ogawa Plaza, 3rd Floor, Suite 3341, Oakland, CA 94612
Sidhu Associates, 8930 Bancroft Ave., Oakland, CA 94605

G:\Oakland 8930 Bancroft\QM\3q02\3q02qm.doc

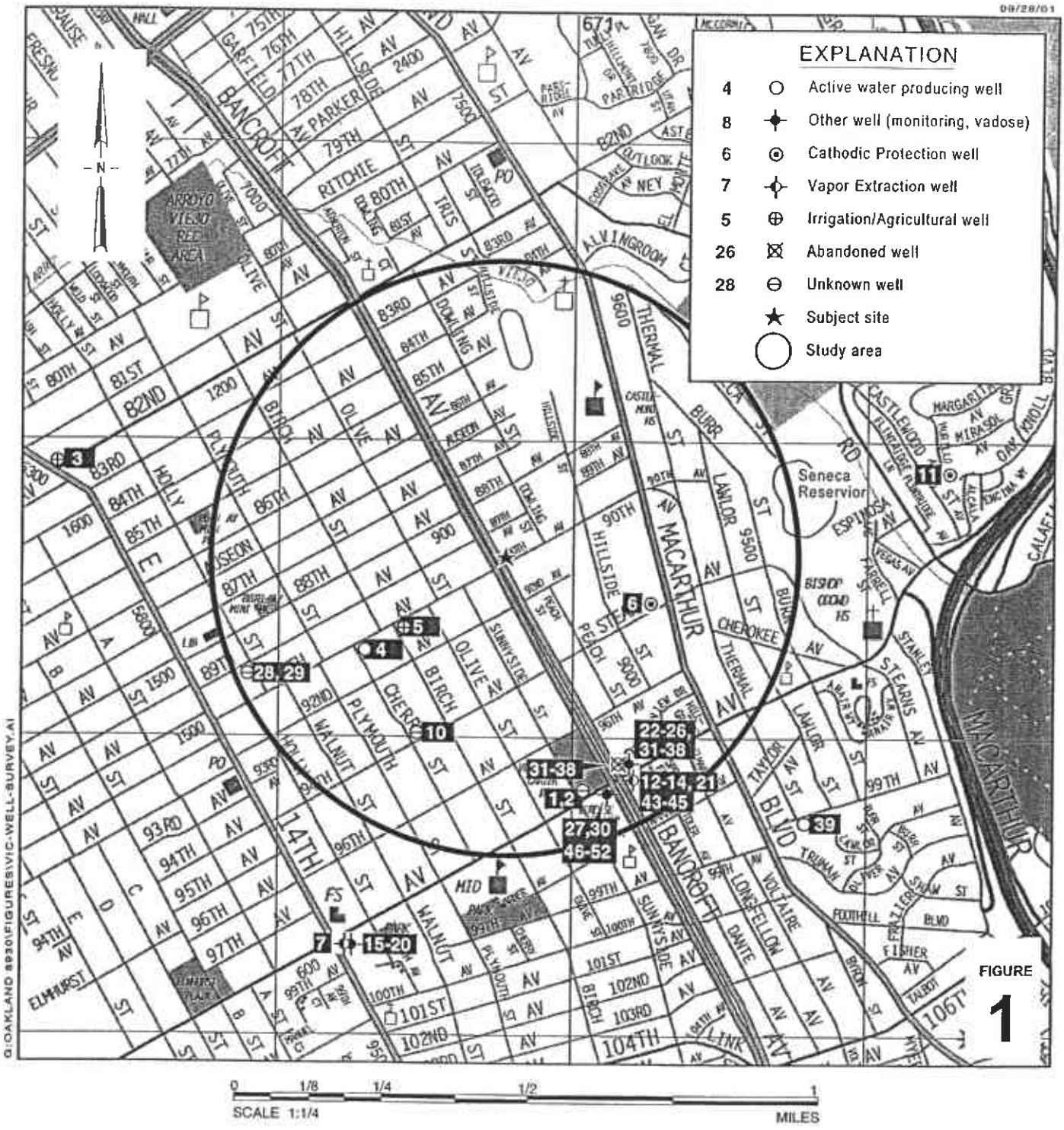

FIGURE 1

Shell-branded Service Station
8930 Bancroft Avenue
Oakland, California
Incident #98995742

CAMBRIA

Vicinity / Well Survey Map
(1/2 Mile Radius)

Groundwater Elevation Contour Map

September 9, 2002

Former Shell Station
8930 Bancroft

property line

MW-1
37.65
<0.50 - 2/26/02
<0.50 - 2/26/02

MW-2
37.43
<0.50
<5.0

MW-3
37.81
<0.50 - 2/26/02
1.5 - 2/26/02

MW-4
37.49
<0.50
50

MW-5
37.50
<0.50
200

MW-6
36.94
<0.50
<5.0

station building

former USTs

former pump island

USTs

8 6
7 5
dispensers
4 2
3 1

37.75
37.50
37.25
37.00
37.00
37.25
37.50
37.75

48"ϕ SD

12"ϕ SD

FL = 51.30'

FL = 43.97'

15"ϕ SD

FL = 44.99'

FL = 44.21'

FL = 44.08'

FL = 43.06'

FL = 46.11'

median

42"ϕ SD

BANCROFT AVENUE

FL = 45.00'

10"ϕ SS

8"ϕ SS

90TH AVENUE

SB-A ◉

SB-B ◉

SB-C ◉

sidewalk

residential property

residential property

sidewalk

residential property

median

NOTE: Conduit locations are approximate

0 15 30 60
Scale (ft)

Nearest Sensitive Receptor to Site

Irrigation Well
1,100 ft. WSW

Groundwater Flow Direction
(2Q00 through 3Q02)

EXPLANATION

- MW-1 ✦ Monitoring well location
- SB-A ◉ Cambria soil boring location (04/01/01)
- → Groundwater flow direction
- XX.XX Groundwater elevation contour, in feet above mean sea level (msl), approximately located; dashed where inferred
- Well / ELEV / Benzene / MTBE
  - Well designation
  - Groundwater elevation, in feet above msl
  - Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260.
- Sanitary Sewer line (SS)
- Storm Drain line (SD)
- Flow direction
- Storm drain inlet
- Manhole
- FL Flowline elevation (in feet above msl)

CAMBRIA

Former Shell-branded Station
8930 Bancroft Avenue
Oakland, California
Incident #98995742

FIGURE
2

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995742, 8930 Bancroft Avenue, Oakland, California

					TPPH			Benzene			MTBE		
Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE Removed To Date (pounds)
03/15/00	MW-4	650	650	12/23/99	<100	0.00027	0.00027	<1.0	0.00000	0.00000	8,400	0.04556	0.04556
03/22/00	MW-4	100	750	03/22/00	<500	0.00021	0.00048	<5.00	0.00000	0.00000	5,020	0.00419	0.04975
03/27/00	MW-4	75	825	03/22/00	<500	0.00016	0.00064	<5.00	0.00000	0.00001	5,020	0.00314	0.05289
04/03/00	MW-4	150	975	03/22/00	<500	0.00031	0.00095	<5.00	0.00000	0.00001	5,020	0.00628	0.05917
04/17/00	MW-4	300	1,275	03/22/00	<500	0.00063	0.00157	<5.00	0.00001	0.00002	5,020	0.01257	0.07174
04/24/00	MW-4	150	1,425	03/22/00	<500	0.00031	0.00189	<5.00	0.00000	0.00002	5,020	0.00628	0.07802
05/01/00	MW-4	75	1,500	03/22/00	<500	0.00016	0.00204	<5.00	0.00000	0.00002	5,020	0.00314	0.08117
05/08/00	MW-4	150	1,650	03/22/00	<500	0.00031	0.00236	<5.00	0.00000	0.00002	5,020	0.00628	0.08745
05/15/00	MW-4	75	1,725	03/22/00	<500	0.00016	0.00251	<5.00	0.00000	0.00003	5,020	0.00314	0.09059
05/22/00	MW-4	75	1,800	03/22/00	<500	0.00016	0.00267	<5.00	0.00000	0.00003	5,020	0.00314	0.09373
05/29/00	MW-4	75	1,875	03/22/00	<500	0.00016	0.00283	<5.00	0.00000	0.00003	5,020	0.00314	0.09687
08/08/02	MW-5	163	163	08/08/02	350	0.00048	0.00048	<0.50	0.00000	0.00000	65	0.00009	0.00009
08/16/02	MW-5	218	381	08/16/02	16,000	0.02911	0.02958	<2.5	0.00000	0.00000	310	0.00056	0.00065
08/16/02	MW-5	0	381	08/16/02	58	0.00000	0.02958	<0.50	0.00000	0.00000	60	0.00000	0.00065
08/22/02	MW-5	377	758	08/22/02	1,500	0.00472	0.03430	<0.50	0.00000	0.00000	110	0.00035	0.00100
08/29/02	MW-5	146	904	08/29/02	120	0.00015	0.03445	<0.50	0.00000	0.00000	76	0.00009	0.00109
Total Gallons Extracted:			**2,779**		**Total Pounds Removed:**		**0.03727**			**0.00003**			**0.09796**
					Total Gallons Removed:		**0.00611**			**0.00000**			**0.01580**

Table 1: Groundwater Extraction - Mass Removal Data - Shell-branded Service Station, Incident #98995742, 8930 Bancroft Avenue, Oakland, California

					TPPH			Benzene			MTBE		
Date Purged	Well ID	Volume Pumped (gal)	Cumulative Volume Pumped (gal)	Date Sampled	TPPH Concentration (ppb)	TPPH Removed (pounds)	TPPH Removed To Date (pounds)	Benzene Concentration (ppb)	Benzene Removed (pounds)	Benzene Removed To Date (pounds)	MTBE Concentration (ppb)	MTBE Removed (pounds)	MTBE Removed To Date (pounds)

Abbreviations & Notes:

TPPH = Total purgeable hydrocarbons as gasoline
MtBE = Methyl tert-butyl ether
ppb = Parts per billion
gal = Gallon
Mass removed based on the formula: volume extracted (gal) x Concentration (µg/L) x (g/10^6µg) x (pound/453.6g) x (3.785 L/gal)
Volume removal data based on the formula: density (in gms/cc) x 9.339 (ccxlbs/gmsxgals)
TPPH, benzene, and MTBE analyzed by EPA Method 8260
Concentrations based on most recent groundwater monitoring results
If concentration is less than the laboratory detection limit, one half of the detection limit concentration is used in the mass removal calculation.
Groundwater extracted by vacuum trucks provided by Onyx. Water disposed of at a Martinez Refinery.

ATTACHMENT A

Laboratory Analytical Results for GWE Sampling

KIFF ANALYTICAL LLC

Report Number : 27922
Date : 8/14/02

Jacquelyn Jones
Cambria Environmental Technology, Inc.
1144 65th Street, Suite B
Oakland, CA 94608

Subject : 1 Water Sample
Project Name : 8930 Bancroft Avenue, Oakland, California
Project Number : 244-1408
P.O. Number : 98995742

Dear Ms. Jones,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 27922
Date : 8/14/02

Subject : 1 Water Sample
Project Name : 8930 Bancroft Avenue, Oakland, California
Project Number : 244-1408
P.O. Number : 98995742

Case Narrative

Matrix Spike/Matrix Spike Duplicate Results associated with sample MW-5 for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 916-297-4800

KIFF ANALYTICAL LLC

Report Number : 27922
Date : 8/14/02

Project Name : **8930 Bancroft Avenue, Oakland, California**
Project Number : **244-1408**

Sample : **MW-5** Matrix : Water Lab Number : 27922-01
Sample Date :8/8/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/9/02
Toluene	**1.2**	0.50	ug/L	EPA 8260B	8/9/02
Ethylbenzene	**2.5**	0.50	ug/L	EPA 8260B	8/9/02
Total Xylenes	**51**	0.50	ug/L	EPA 8260B	8/9/02
Methyl-t-butyl ether (MTBE)	**65**	5.0	ug/L	EPA 8260B	8/9/02
TPH as Gasoline	**350**	50	ug/L	EPA 8260B	8/9/02
Toluene - d8 (Surr)	95.6		% Recovery	EPA 8260B	8/9/02
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	8/9/02

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 27922

Date : 8/14/02

QC Report : Method Blank Data

Project Name : **8930 Bancroft Avenue, Oakland, California**

Project Number : **244-1408**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/9/02
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/9/02
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/9/02
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/9/02
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	8/9/02
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/9/02
Toluene - d8 (Surr)	91.9		%	EPA 8260B	8/9/02
4-Bromofluorobenzene (Surr)	99.6		%	EPA 8260B	8/9/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 27922

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 8/14/02

Project Name : **8930 Bancroft Avenue,**

Project Number : **244-1408**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	27922-01	<0.50	40.0	40.0	43.4	43.0	ug/L	EPA 8260B	8/9/02	108	107	0.996	70-130	25
Toluene	27922-01	1.2	40.0	40.0	41.0	39.2	ug/L	EPA 8260B	8/9/02	99.4	95.0	4.47	70-130	25
Tert-Butanol	27922-01	<5.0	200	200	203	201	ug/L	EPA 8260B	8/9/02	102	100	1.20	70-130	25
Methyl-t-Butyl Ether	27922-01	65	40.0	40.0	123	126	ug/L	EPA 8260B	8/9/02	144	152	5.48	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 27922

QC Report : Laboratory Control Sample (LCS)

Date : 8/14/02

Project Name : **8930 Bancroft Avenue,**

Project Number : **244-1408**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	8/9/02	107	70-130
Toluene	40.0	ug/L	EPA 8260B	8/9/02	98.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/9/02	101	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/9/02	95.8	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

KIFF ANALYTICAL

720 Olive Drive, Suite D
Davis, CA 95616
(530) 297-4800 (530) 297-4803 fax

EQUIVA Services LLC Chain Of Custody Record

Equiva Project Manager to be invoiced: Karen Petryna

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

27922

INCIDENT NUMBER (S&E ONLY): 98995742

SAP or CRMT NUMBER (TS/CRMT):

DATE: 8/8/02

PAGE: 1 of 1

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS (Street and City):	GLOBAL ID NO.:
Cambria Environmental Technology, Inc.	CETO	8930 Bancroft Avenue, Oakland, California	T0600118567

ADDRESS:	EDF DELIVERABLE TO (Responsible Party or Designee):	PHONE NO.:	E-MAIL:	CONSULTANT PROJECT NO.:
1144 65th Street	Anni Kreml	540-420-3335	shelloaklandEDF@cambria-env.com	244-1408

PROJECT CONTACT (Hardcopy or PDF Report to):	TELEPHONE:	FAX:	E-MAIL:
Jacquelyn Jones	510-420-3316	510-420-9170	jjones@cambria-env.com

SAMPLER NAME(S) (Print): Jacquelyn Jones

LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS):
☑ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: _____

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED ☑

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (418.1)	Vapor VOCs BTEX / MTBE (TO-15)	Vapor VOCs Full List (TO-15)	Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (48-_____)		TPH - Diesel, Extractable (8015m)		MTBE (8260B) Confirmation, See Note
	MW-5	8/8/02	1110A	W	4	X	X	X																	

FIELD NOTES:
Container/Preservative or PID Readings or Laboratory Notes

TEMPERATURE ON RECEIPT C°

VOAs w/HCl-0

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) John Cuttle / Kiff Analytical	Date: 080802	Time: 1220

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/15/00 Revision

Q&Q Graphic (714) 898-9702

KIFF ANALYTICAL LLC

Report Number : 28122
Date : 8/28/2002

Jacquelyn Jones
Cambria Environmental Technology, Inc.
1144 65th Street, Suite B
Oakland, CA 94608

Subject : 2 Water Samples
Project Name : 8930 Bancroft
Project Number : 244-1408
P.O. Number : 98995742

Dear Ms. Jones,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 28122
Date : 8/28/2002

Project Name : **8930 Bancroft**
Project Number : **244-1408**

Sample : **MW-5 (830)** Matrix : Water Lab Number : 28122-01
Sample Date :8/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 2.5**	2.5	ug/L	EPA 8260B	8/27/2002
Toluene	**13**	2.5	ug/L	EPA 8260B	8/27/2002
Ethylbenzene	**66**	2.5	ug/L	EPA 8260B	8/27/2002
Total Xylenes	**1900**	2.5	ug/L	EPA 8260B	8/27/2002
Methyl-t-butyl ether (MTBE)	**310**	25	ug/L	EPA 8260B	8/27/2002
TPH as Gasoline	**16000**	250	ug/L	EPA 8260B	8/27/2002
Toluene - d8 (Surr)	94.8		% Recovery	EPA 8260B	8/27/2002
4-Bromofluorobenzene (Surr)	97.5		% Recovery	EPA 8260B	8/27/2002

Sample : **MW-5 (1230)** Matrix : Water Lab Number : 28122-02
Sample Date :8/16/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/24/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	8/24/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/24/2002
Total Xylenes	**2.6**	0.50	ug/L	EPA 8260B	8/24/2002
Methyl-t-butyl ether (MTBE)	**60**	5.0	ug/L	EPA 8260B	8/24/2002
TPH as Gasoline	**58**	50	ug/L	EPA 8260B	8/24/2002
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	8/24/2002
4-Bromofluorobenzene (Surr)	99.5		% Recovery	EPA 8260B	8/24/2002

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28122

Date : 8/28/2002

QC Report : Method Blank Data

Project Name : **8930 Bancroft**

Project Number : **244-1408**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/26/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/26/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/26/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/26/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	8/26/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/26/2002
Toluene - d8 (Surr)	99.1		%	EPA 8260B	8/26/2002
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	8/26/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/23/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/23/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/23/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/23/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	8/23/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/23/2002
Toluene - d8 (Surr)	100		%	EPA 8260B	8/23/2002
4-Bromofluorobenzene (Surr)	99.4		%	EPA 8260B	8/23/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28122

QC Report : Matrix Spike/ Matrix Spike Duplicate

Date : 8/28/2002

Project Name : **8930 Bancroft**

Project Number : **244-1408**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	28165-01	<0.50	39.4	39.9	38.7	39.5	ug/L	EPA 8260B	8/26/02	98.1	99.0	0.913	70-130	25
Toluene	28165-01	<0.50	39.4	39.9	37.9	38.9	ug/L	EPA 8260B	8/26/02	96.2	97.5	1.34	70-130	25
Tert-Butanol	28165-01	<5.0	197	200	199	203	ug/L	EPA 8260B	8/26/02	101	102	0.741	70-130	25
Methyl-t-Butyl Ether	28165-01	<0.50	39.4	39.9	36.3	36.4	ug/L	EPA 8260B	8/26/02	91.9	91.3	0.655	70-130	25
Benzene	28101-01	<0.50	40.0	40.0	41.2	41.2	ug/L	EPA 8260B	8/23/02	103	103	0.00	70-130	25
Toluene	28101-01	<0.50	40.0	40.0	40.0	39.2	ug/L	EPA 8260B	8/23/02	100	97.9	2.15	70-130	25
Tert-Butanol	28101-01	<5.0	200	200	194	199	ug/L	EPA 8260B	8/23/02	96.9	99.6	2.77	70-130	25
Methyl-t-Butyl Ether	28101-01	22	40.0	40.0	64.9	69.0	ug/L	EPA 8260B	8/23/02	106	116	9.40	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28122

QC Report : Laboratory Control Sample (LCS)

Date : 8/28/2002

Project Name : **8930 Bancroft**

Project Number : **244-1408**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	8/26/02	99.2	70-130
Toluene	40.0	ug/L	EPA 8260B	8/26/02	96.1	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/26/02	97.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/26/02	93.1	70-130
Benzene	40.0	ug/L	EPA 8260B	8/23/02	99.0	70-130
Toluene	40.0	ug/L	EPA 8260B	8/23/02	99.0	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/23/02	95.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/23/02	96.8	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

KIFF ANALYTICAL

720 Olive Drive, Suite D

Davis, CA 95616

(530) 297-4800 (530) 297-4803 fax

EQUIVA Services LLC Chain Of Custody Record

Equiva Project Manager to be Invoiced:

- [X] SCIENCE & ENGINEERING — KAREN PETRYNA
- [ ] TECHNICAL SERVICES
- [ ] CRMT HOUSTON

28122

INCIDENT NUMBER (ES ONLY): 98995742

SAP or CRMT NUMBER (TS/CRMT): 135678

DATE: 8/16/2

PAGE: 1 of 1

SAMPLING COMPANY: Cambria

LOG CODE:

SITE ADDRESS (Street and City): 8930 Bancroft

GLOBAL ID NO.:

ADDRESS: 1144 65th St

EDF DELIVERABLE TO (Responsible Party or Designee): shellOakland@cambria-env.com

PHONE NO.: 510 420 0700

E-MAIL: Attn Annie Kremi

CONSULTANT PROJECT NO.: 244-1408

PROJECT CONTACT (Hardcopy or PDF Report to): Jacklyn Jones

SAMPLER NAME(S) (Print): Stewart Dalie III

TELEPHONE: 510-420-3366

FAX:

E-MAIL: JJones@cambria-env.com

TURNAROUND TIME (BUSINESS DAYS): [X] 10 DAYS [ ] 5 DAYS [ ] 72 HOURS [ ] 48 HOURS [ ] 24 HOURS [ ] LESS THAN 24 HOURS

[ ] LA - RWQCB REPORT FORMAT [ ] UST AGENCY: ____

GC/MS MTBE CONFIRMATION: HIGHEST ____ HIGHEST per BORING ____ ALL ____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED [X]

REQUESTED ANALYSIS

Field Sample Identification	Sampling Date	Sampling Time	Matrix	No. of Cont.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (418.1)	Vapor VOCs BTEX / MTBE (TO-15)	Vapor VOCs Full List (TO-15)	Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (4B-)		TPH - Diesel, Extractable (8015m)		MTBE (8260B) Confirmation, See Note	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
MW-5	8/16	830	H2O	1	X	X	X																		TEMPERATURE ON RECEIPT C°
MW-5	8/16	830	H2O	1																					ON ICE
MW-5	8/16	830	H2O	1																					
MW-5	8/16	830	H2O	1																					-01
MW-5	8/16	830	H2O	1																					
MW-5	8/16	1230	H2O	1																					
MW-5	8/16	1230	H2O	1																					
MW-5	8/16	1230	H2O	1																					
MW-5	8/16	1230	H2O	1																					-02
MW-5	8/16	1230	H2O	1																					

(830 / 1230 bracketed beside sample IDs)

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature] 15 8/16/02	SAFE LOCATION 6262 Hollis	8/16/02	15
	John Cuttle Kiff Analytical	081902	1315

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

Q&Q Graphic (714) 898-9202

KIFF ANALYTICAL LLC

Report Number : 28200
Date : 8/29/2002

Jacquelyn Jones
Cambria Environmental Technology, Inc.
1144 65th Street, Suite B
Oakland, CA 94608

Subject : 1 Water Sample
Project Name : 8930 Bancroft
Project Number : 244-1408
P.O. Number : 98995742

Dear Ms. Jones,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 28200

Date : 8/29/2002

Project Name : **8930 Bancroft**

Project Number : **244-1408**

Sample : **MW-5** Matrix : Water Lab Number : 28200-01

Sample Date :8/22/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	8/27/2002
Total Xylenes	**24**	0.50	ug/L	EPA 8260B	8/27/2002
Methyl-t-butyl ether (MTBE)	**110**	5.0	ug/L	EPA 8260B	8/27/2002
TPH as Gasoline	**1500**	50	ug/L	EPA 8260B	8/27/2002
Toluene - d8 (Surr)	97.4		% Recovery	EPA 8260B	8/27/2002
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	8/27/2002

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28200

Date : 8/29/2002

QC Report : Method Blank Data

Project Name : **8930 Bancroft**

Project Number : **244-1408**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	8/27/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	8/27/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	8/27/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	8/27/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	8/27/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	8/27/2002
Toluene - d8 (Surr)	97.1		%	EPA 8260B	8/27/2002
4-Bromofluorobenzene (Surr)	101		%	EPA 8260B	8/27/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28200

Date : 8/29/2002

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **8930 Bancroft**

Project Number : **244-1408**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	28215-01	<0.50	40.0	40.0	38.1	37.6	ug/L	EPA 8260B	8/27/02	95.3	94.0	1.40	70-130	25
Toluene	28215-01	<0.50	40.0	40.0	37.9	37.0	ug/L	EPA 8260B	8/27/02	94.8	92.6	2.37	70-130	25
Tert-Butanol	28215-01	<5.0	200	200	207	197	ug/L	EPA 8260B	8/27/02	103	98.7	4.57	70-130	25
Methyl-t-Butyl Ether	28215-01	<0.50	40.0	40.0	40.2	41.1	ug/L	EPA 8260B	8/27/02	101	103	2.21	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28200

Date : 8/29/2002

QC Report : Laboratory Control Sample (LCS)

Project Name : **8930 Bancroft**

Project Number : **244-1408**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	8/27/02	97.7	70-130
Toluene	40.0	ug/L	EPA 8260B	8/27/02	93.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	8/27/02	107	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	8/27/02	99.1	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

KIFF ANALYTICAL

720 Olive Drive, Suite D

Davis, CA 95616

(530) 297-4800 (530) 297-4803 fax

SHELL Chain Of Custody Record

Shell Project Manager to be invoiced:

☑ SCIENCE & ENGINEERING Karen Petryna

☐ TECHNICAL SERVICES

☐ CRMT HOUSTON

28200

INCIDENT NUMBER (S&E ONLY): 98995742

SAP or CRMT NUMBER (TS/CRMT): 13567 8

DATE: 8/22/02

PAGE: 1 of 1

SAMPLING COMPANY:	LOG CODE:	SITE ADDRESS (Street and City):	GLOBAL ID NO.:
Cambria Environmental Technologies		8930 Bancroft	

ADDRESS:	EDF DELIVERABLE TO (Responsible Party or Designee):	PHONE NO.:	E-MAIL:	CONSULTANT PROJECT NO.:
1144 65th Street, Oakland, CA	shelloaklandef@cambria-env.com	(510) 420-3316	sdalie@cambria-env.com	244-1408

PROJECT CONTACT (Hardcopy or PDF Report to):	TELEPHONE:	FAX:	E-MAIL:	Sampler's Name:
Jacquelyn Jones	(510) 420-3339	(510) 420-9170	jjones@cambria-env.com	Stu Dalie

LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS):

☑ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: _____

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (418.1)	Vapor VOCs BTEX / MTBE (TO-15)	Vapor VOCs Full List (TO-15)	Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (48-____)		TPH - Diesel, Extractable (8015m)		MTBE (8260B) Confirmation, See Note
	MW-5	8/22/02	4:00	H2O	5	X	X	X																	

FIELD NOTES:

Container/Preservative or PID Readings or Laboratory Notes

TEMPERATURE ON RECEIPT C°

On ICE -0 (

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	SAFE location 8262 Kellogg St	8/23/02	9:30 a.m.
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
	John Cuttle / Kiff Analytical	082302	0939

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

Q&Q Graphic (714) 898-9702

KIFF ANALYTICAL LLC

Report Number : 28340
Date : 09/05/2002

Jacquelyn Jones
Cambria Environmental Technology, Inc.
1144 65th Street, Suite B
Oakland, CA 94608

Subject : 1 Water Sample
Project Name : 8930 Bancroft Ave
Project Number : 244-1408
P.O. Number : 98995742

Dear Ms. Jones,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

Joel Kiff

KIFF ANALYTICAL LLC

Report Number : 28340
Date : 09/05/2002

Project Name : **8930 Bancroft Ave**
Project Number : **244-1408**

Sample : **MW-5** Matrix : Water Lab Number : 28340-01
Sample Date :08/29/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/03/2002
Toluene	**< 0.50**	0.50	ug/L	EPA 8260B	09/03/2002
Ethylbenzene	**< 0.50**	0.50	ug/L	EPA 8260B	09/03/2002
Total Xylenes	**1.8**	0.50	ug/L	EPA 8260B	09/03/2002
Methyl-t-butyl ether (MTBE)	**76**	5.0	ug/L	EPA 8260B	09/03/2002
TPH as Gasoline	**120**	50	ug/L	EPA 8260B	09/03/2002
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	09/03/2002
4-Bromofluorobenzene (Surr)	106		% Recovery	EPA 8260B	09/03/2002

Approved By: Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28340

Date : 09/05/2002

QC Report : Method Blank Data

Project Name : **8930 Bancroft Ave**

Project Number : **244-1408**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	09/03/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/03/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/03/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/03/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	09/03/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	09/03/2002
Toluene - d8 (Surr)	107		%	EPA 8260B	09/03/2002
4-Bromofluorobenzene (Surr)	105		%	EPA 8260B	09/03/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28340

Date : 09/05/2002

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **8930 Bancroft Ave**

Project Number : **244-1408**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	28307-02	<0.50	40.0	40.0	40.0	39.8	ug/L	EPA 8260B	9/3/02	100	99.5	0.426	70-130	25
Toluene	28307-02	<0.50	40.0	40.0	44.2	44.2	ug/L	EPA 8260B	9/3/02	111	110	0.0904	70-130	25
Tert-Butanol	28307-02	<5.0	200	200	196	193	ug/L	EPA 8260B	9/3/02	98.0	96.4	1.61	70-130	25
Methyl-t-Butyl Ether	28307-02	<0.50	40.0	40.0	41.3	41.5	ug/L	EPA 8260B	9/3/02	103	104	0.459	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28340

Date : 09/05/2002

QC Report : Laboratory Control Sample (LCS)

Project Name : **8930 Bancroft Ave**

Project Number : **244-1408**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	9/3/02	99.2	70-130
Toluene	40.0	ug/L	EPA 8260B	9/3/02	111	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/3/02	99.5	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/3/02	96.7	70-130

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

LAB: Kiff Analytical

SHELL Chain Of Custody Record

Lab Identification (if necessary):
Address: 720 Olive Dr ste D
City, State, Zip: Davis CA 95616
(530) 297-4800

Shell Project Manager to be invoiced:
☑ SCIENCE & ENGINEERING Karen Petryna
☐ TECHNICAL SERVICES
☐ CRMT HOUSTON

28340

INCIDENT NUMBER (S&E ONLY): 9 8 9 9 5 7 4 2

SAP or CRMT NUMBER (TS/CRMT): [redacted] 1 3 5 6 7 8

DATE: 08/29/02

Page 1 of 1

SAMPLING COMPANY: Cambria Environmental	LOG CODE: CETO	SITE ADDRESS (Street and City): 8930 Bancroft Ave	GLOBAL ID NO.: T0600118567
ADDRESS: 1144 65th Street Oakland, CA	EDF DELIVERABLE TO (shelloaklandedf@cambria-env.com):	PHONE NO.:	E-MAIL:
PROJECT CONTACT (jjones@cambria-env.com): J. Jones			CONSULTANT PROJECT NO.: 244-1408
TELEPHONE: 510-420-3339	FAX: 510-420-9170	E-MAIL: sdalie@cambria-env.com	SAMPLER NAME(S) (Stu Dalie): Stu Dalie

LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS):
☒ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: ____________

GC/MS MTBE CONFIRMATION: HIGHEST ________ HIGHEST per BORING ________ ALL ________

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐

Please cc: jjones@cambria-env.com

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	EDB & 1,2-DCA (8260B)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (418.1)	Vapor VOCs BTEX / MTBE (TO-15)	Vapor VOCs Full List (TO-15)	Vapor TPH (ASTM 3416m)	Vapor Fixed Gases (ASTM D1946)	Test for Disposal (4B-____)		TPH - Diesel, Extractable (8015m)		MTBE (8260B) Confirmation, See Note	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes / TEMPERATURE ON RECEIPT C°
	MW-5	29-Aug	4:15	water	4 VOA	X	X	X																		On Ice -01

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
[signature]	SAFE LOCATION Oak Hills	8/29/02	515
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) John Cutts / Kiff Analytical	Date: 083002	Time: 0957

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

Q&Q Graphic (714) 898-9702

ATTACHMENT B
Blaine Groundwater Monitoring Report and Field Notes

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CA 95112-1105
(408) 573-7771 FAX
(408) 573-0555 PHONE
CONTRACTOR'S LICENSE #746684
www.blainetech.com

October 3, 2002

Karen Petryna
Shell Oil Products US
P.O. Box 7869
Burbank, CA 91510-7869

Third Quarter 2002 Groundwater Monitoring at
Shell-branded Service Station
8930 Bancroft Avenue
Oakland, CA

Monitoring performed on September 9, 2002

Groundwater Monitoring Report **020909-EM-3**

This report covers the routine monitoring of groundwater wells at this Shell-branded 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 Shell Martinez Manufacturing Complex.

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,

Leon Gearhart
Project Coordinator

LG/jt

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

cc: Anni Kreml
Cambria Environmental Technology, Inc.
1144 65th Street, Suite C
Oakland, CA 94608-2411

WELL CONCENTRATIONS
Shell-branded Service Station
8930 Bancroft Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (mg/L)
MW-1	12/17/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	53.19	11.87	NA	41.32	NA	NA
MW-1	03/09/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	53.19	8.21	NA	44.98	NA	NA
MW-1	06/16/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	53.19	15.04	NA	38.15	NA	NA
MW-1	09/30/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	53.19	16.02	NA	37.17	NA	NA
MW-1	12/23/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	53.19	14.78	NA	38.41	NA	NA
MW-1	03/22/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	53.19	8.44	NA	44.75	NA	NA
MW-1	06/01/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	53.19	13.71	NA	39.48	NA	NA
MW-1	09/08/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	53.19	14.95	NA	38.24	NA	NA
MW-1	12/04/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	5.82	NA	53.19	13.85	NA	39.34	NA	NA
MW-1	03/09/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	53.19	9.07	NA	44.12	NA	NA
MW-1	06/27/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	53.19	14.90	NA	38.29	NA	NA
MW-1	09/20/2001	NA	NA	NA	NA	NA	NA	NA	NA	53.19	15.53	NA	37.66	NA	NA
MW-1	12/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	53.19	10.41	NA	42.78	NA	3.8
MW-1	02/26/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<0.50	53.19	11.09	NA	42.10	NA	NA
MW-1	06/06/2002	NA	NA	NA	NA	NA	NA	NA	NA	53.19	14.13	NA	39.06	NA	NA
MW-1	**09/09/2002**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**53.20**	**15.55**	**NA**	**37.65**	**NA**	**NA**
MW-2	12/17/1998	9,900	NA	<5.0	37	22	47	48	<20	52.66	11.65	NA	41.01	NA	NA
MW-2	03/09/1999	2,760	NA	12.3	7.50	85.4	444	<50.0	NA	52.66	8.07	NA	44.59	NA	NA
MW-2	06/16/1999	2,570	NA	36.3	11.6	6.19	10.8	<50.0	NA	52.66	14.63	NA	38.03	NA	NA
MW-2	09/30/1999	1,960	NA	19.1	3.20	4.55	26.9	<25.0	NA	52.66	15.63	NA	37.03	NA	NA
MW-2	12/23/1999	145	NA	1.30	<0.500	<0.500	0.899	<2.50	NA	52.66	14.42	NA	38.24	NA	NA
MW-2	03/22/2000	6,060	NA	18.9	<10.0	210	651	<100	NA	52.66	8.19	NA	44.47	NA	NA
MW-2	06/01/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	52.66	11.46	NA	41.20	NA	NA
MW-2	09/08/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	52.66	14.63	NA	38.03	NA	NA
MW-2	12/04/2000	201	NA	1.35	<0.500	3.39	8.58	<2.50	NA	52.66	13.45	NA	39.21	NA	NA
MW-2	03/09/2001	396	NA	2.82	<0.500	8.69	18.7	<2.50	NA	52.66	8.89	NA	43.77	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
8930 Bancroft Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (mg/L)
MW-2	06/27/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	52.66	14.88	NA	37.78	NA	NA
MW-2	09/20/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	52.66	15.19	NA	37.47	NA	NA
MW-2	12/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	52.66	10.02	NA	42.64	NA	2.8
MW-2	02/26/2002	180	NA	<0.50	<0.50	2.7	4.1	NA	<0.50	52.66	10.76	NA	41.90	NA	NA
MW-2	06/06/2002	NA	NA	NA	NA	NA	NA	NA	NA	52.66	13.83	NA	38.83	NA	NA
MW-2	**09/09/2002**	**<50**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**52.66**	**15.23**	**NA**	**37.43**	**NA**	**NA**
MW-3	12/17/1998	<50	NA	<0.50	<0.50	<0.50	<0.50	10	11	51.30	11.85	NA	39.45	NA	NA
MW-3	03/09/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	51.30	6.53	NA	44.77	NA	NA
MW-3	06/16/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	51.30	12.71	NA	38.59	NA	NA
MW-3	09/30/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	5.14	NA	51.30	14.07	NA	37.23	NA	NA
MW-3	12/23/1999	<500	NA	<5.00	<5.00	<5.00	<5.00	<25.0	NA	51.30	12.82	NA	38.48	NA	NA
MW-3	03/22/2000	<50.0	NA	<0.500	1.48	<0.500	1.90	<5.00	NA	51.30	6.81	NA	44.49	NA	NA
MW-3	06/01/2000	<50.0	NA	<0.500	0.821	<0.500	<0.500	4.39	NA	51.30	11.85	NA	39.45	NA	NA
MW-3	09/08/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	3.62	NA	51.30	12.55	NA	38.75	NA	NA
MW-3	12/04/2000	<50.0	NA	<0.500	<0.500	<0.500	0.588	4.74	NA	51.30	11.65	NA	39.65	NA	NA
MW-3	03/09/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	51.30	7.28	NA	44.02	NA	NA
MW-3	06/27/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	<2.5	NA	51.30	13.16	NA	38.14	NA	NA
MW-3	09/20/2001	NA	NA	NA	NA	NA	NA	NA	NA	51.30	13.35	NA	37.95	NA	NA
MW-3	12/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	51.30	8.14	NA	43.16	NA	1.2
MW-3	02/26/2002	<50	NA	<0.50	7.2	<0.50	<0.50	NA	1.5	51.30	9.09	NA	42.21	NA	0.6
MW-3	06/06/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.30	12.13	NA	39.17	NA	0.8
MW-3	**09/09/2002**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**51.35**	**13.54**	**NA**	**37.81**	**NA**	**1.0**
MW-4	12/17/1998	700	NA	4.3	0.88	<0.50	<0.50	21,000	26,000	50.73	10.80	NA	39.93	NA	NA
MW-4	03/09/1999	83.9	NA	<0.500	<0.500	<0.500	<0.500	17,900	23,700	50.73	6.91	NA	43.82	NA	NA
MW-4	06/16/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	10,600	19,200	50.73	12.84	NA	37.89	NA	NA
MW-4	09/30/1999	51.2	NA	<0.500	<0.500	<0.500	<0.500	12,200	12,300	50.73	13.74	NA	36.99	NA	NA

WELL CONCENTRATIONS
Shell-branded Service Station
8930 Bancroft Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (mg/L)
MW-4	12/23/1999	<100	NA	<1.00	<1.00	<1.00	<1.00	7,990	8,400	50.73	12.40	NA	38.33	NA	NA
MW-4	03/22/2000	<500	NA	<5.00	<5.00	<5.00	<5.00	4,970	5,020	50.73	7.32	NA	43.41	NA	NA
MW-4	06/01/2000	<100	NA	<1.00	<1.00	<1.00	<1.00	5,260	3,580	50.73	11.50	NA	39.23	NA	NA
MW-4	09/08/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	3,610	3,300a	50.73	12.55	NA	38.18	NA	NA
MW-4	12/04/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	2,960	3,520a	50.73	11.77	NA	38.96	NA	NA
MW-4	03/09/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	1,930	2,500	50.73	7.48	NA	43.25	NA	NA
MW-4	06/27/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	1,100	1,100	50.73	12.97	NA	37.76	NA	NA
MW-4	09/20/2001	<250	NA	3.8	14	2.6	7.8	NA	940	50.73	13.30	NA	37.43	NA	NA
MW-4	12/05/2001	<200	NA	<2.0	<2.0	<2.0	<2.0	NA	750	50.73	8.41	NA	42.32	NA	1.2
MW-4	02/26/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	320	50.73	9.40	NA	41.33	NA	0.7
MW-4	06/06/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	160	50.73	11.97	NA	38.76	NA	0.6
MW-4	**09/09/2002**	**<50**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**50**	**50.72**	**13.23**	**NA**	**37.49**	**NA**	**3.6**
MW-5	12/17/1998	750	NA	<0.50	17	1.8	3.5	33	32	51.43	11.51	NA	39.92	NA	NA
MW-5	03/09/1999	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<5.00	NA	51.43	7.15	NA	44.28	NA	NA
MW-5	06/16/1999	646	NA	9.26	1.05	<1.00	<1.00	<10.0	NA	51.43	13.47	NA	37.96	NA	NA
MW-5	09/30/1999	484	NA	1.93	0.511	<0.500	<0.500	159	NA	51.43	14.41	NA	37.02	NA	NA
MW-5	12/23/1999	944	NA	4.59	17.7	3.79	16.7	214	NA	51.43	14.07	NA	37.36	NA	NA
MW-5	03/22/2000	8,770	NA	197	96.5	<50.0	188	2,450	NA	51.43	7.31	NA	44.12	NA	NA
MW-5	06/01/2000	227	NA	0.565	<0.500	<0.500	<0.500	35.9	NA	51.43	12.15	NA	39.28	NA	NA
MW-5	09/08/2000	159	NA	0.606	<0.500	<0.500	1.74	1,000	NA	51.43	13.30	NA	38.13	NA	NA
MW-5	12/04/2000	1,510	NA	19.2	<10.0	<10.0	134	1,360	NA	51.43	12.19	NA	39.24	NA	NA
MW-5	03/09/2001	3,460	NA	37.9	121	40.6	208	235	NA	51.43	7.79	NA	43.64	NA	NA
MW-5	06/27/2001	310	NA	0.97	<0.50	<0.50	<0.50	14	NA	51.43	13.89	NA	37.54	NA	NA
MW-5	09/20/2001	310	NA	<0.50	<0.50	<0.50	<0.50	NA	21	51.43	13.95	NA	37.48	NA	NA
MW-5	12/05/2001	8,800	NA	14	2.9	33	410	NA	2,300	51.43	8.89	NA	42.54	NA	0.6
MW-5	02/26/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.43	9.87	NA	NA	b	NA
MW-5	03/12/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.43	8.84	8.64	42.75	0.20	NA

WELL CONCENTRATIONS
Shell-branded Service Station
8930 Bancroft Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (mg/L)
MW-5	06/06/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.43	12.59	12.54	38.88	0.05	NA
MW-5	**09/09/2002**	**210**	**NA**	**<0.50**	**<0.50**	**<0.50**	**0.90**	**NA**	**200**	**51.44**	**13.94**	**NA**	**37.50**	**NA**	**NA**
MW-6	12/17/1998	940	NA	27	0.32	2.4	2.3	3.0	3.2	51.88	11.37	NA	40.51	NA	NA
MW-6	03/09/1999	336	NA	7.78	1.60	2.40	6.36	<10.0	NA	51.88	8.10	NA	43.78	NA	NA
MW-6	06/16/1999	308	NA	2.45	<0.500	<0.500	<0.500	7.39	NA	51.88	14.49	NA	37.39	NA	NA
MW-6	09/30/1999	80.2	NA	<0.500	<0.500	<0.500	<0.500	24.8	NA	51.88	15.30	NA	36.58	NA	NA
MW-6	12/23/1999	149	NA	0.518	<0.500	<0.500	<0.500	6.43	NA	51.88	13.19	NA	38.69	NA	NA
MW-6	03/22/2000	382	NA	3.31	2.18	0.619	2.35	5.61	NA	51.88	8.27	NA	43.61	NA	NA
MW-6	06/01/2000	158	NA	0.830	<0.500	<0.500	1.10	10.9	NA	51.88	11.13	NA	40.75	NA	NA
MW-6	09/08/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	51.88	14.28	NA	37.60	NA	NA
MW-6	12/04/2000	231	NA	4.93	<0.500	<0.500	<0.500	4.57	NA	51.88	12.62	NA	39.26	NA	NA
MW-6	03/09/2001	789	NA	11.6	2.72	<2.00	<2.00	28.0	NA	51.88	8.65	NA	43.23	NA	NA
MW-6	06/27/2001	140	NA	<0.50	1.1	<0.50	<0.50	<2.5	NA	51.88	14.95	NA	36.93	NA	NA
MW-6	09/20/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	51.88	14.70	NA	37.18	NA	NA
MW-6	12/05/2001	NA	NA	NA	NA	NA	NA	NA	NA	51.88	9.62	NA	42.26	NA	1.8
MW-6	02/26/2002	130	NA	<0.50	2.6	0.69	4.1	NA	6.4	51.88	10.14	NA	41.74	NA	NA
MW-6	06/06/2002	NA	NA	NA	NA	NA	NA	NA	NA	51.88	13.52	NA	38.36	NA	NA
MW-6	**09/09/2002**	**<50**	**NA**	**<0.50**	**<0.50**	**<0.50**	**<0.50**	**NA**	**<5.0**	**51.86**	**14.92**	**NA**	**36.94**	**NA**	**NA**

WELL CONCENTRATIONS
Shell-branded Service Station
8930 Bancroft Avenue
Oakland, CA

Well ID	Date	TPPH (ug/L)	TEPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8020 (ug/L)	MTBE 8260 (ug/L)	TOC (MSL)	Depth to Water (ft.)	Depth to SPH (ft.)	GW Elevation (MSL)	SPH Thickness (ft.)	DO Reading (mg/L)

Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to September 20, 2001, analyzed by EPA Method 8015.

TEPH = Total petroleum hydrocarbons as diesel by modified EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to September 20, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

SPH = Separate-phase hydrocarbons

GW = Groundwater

ug/L = Parts per billion

MSL = Mean sea level

ft = Feet

<n = Below detection limit

NA = Not applicable

DO = Dissolved oxygen

mg/L = Parts per million

Notes:

a = This sample analyzed outside of EPA recommended holding time.

b = SPH detected in well, but exact thickness could not be measured.

When separate-phase hydrocarbons are present, groundwater elevation is adjusted using the relation:

Groundwater Elevation = Top-of-Casing Elevation - Depth to Water + (0.8 x Hydrocarbon Thickness).

Site surveyed February 12 and May 16, 2002, by Virgil Chavez Land Surveying of Vallejo, California.

KIFF ANALYTICAL LLC

Report Number : 28514
Date : 9/16/2002

Leon Gearhart
Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112-1105

Subject : 4 Water Samples
Project Name : 8930 Bancroft Avenue, Oakland
Project Number : 020909-EM3
P.O. Number : 98995742

Dear Mr. Gearhart,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

Joel Kiff

Joel Kiff

Report Number : 28514

Date : 9/16/2002

QC Report : Method Blank Data

Project Name : **8930 Bancroft Avenue, Oakland**

Project Number : **020909-EM3**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	9/13/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	9/13/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	9/13/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	9/13/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	9/13/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	9/13/2002
Toluene - d8 (Surr)	98.1		%	EPA 8260B	9/13/2002
4-Bromofluorobenzene (Surr)	98.7		%	EPA 8260B	9/13/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive. Suite D Davis. CA 95616 530-297-4800

Report Number : 28514

Date : 9/16/2002

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **8930 Bancroft Avenue,**

Project Number : **020909-EM3**

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	28514-01	<0.50	40.0	40.0	43.8	42.2	ug/L	EPA 8260B	9/13/02	109	105	3.79	70-130	25
Toluene	28514-01	<0.50	40.0	40.0	41.6	40.1	ug/L	EPA 8260B	9/13/02	104	100	3.65	70-130	25
Tert-Butanol	28514-01	<5.0	200	200	208	202	ug/L	EPA 8260B	9/13/02	104	101	3.26	70-130	25
Methyl-t-Butyl Ether	28514-01	<0.50	40.0	40.0	38.1	37.1	ug/L	EPA 8260B	9/13/02	95.2	92.7	2.64	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

720 Olive Drive, Suite D Davis, CA 95616 530-297-4800

Report Number : 28514

QC Report : Laboratory Control Sample (LCS)

Date : 9/16/2002

Project Name : **8930 Bancroft Avenue,**

Project Number : **020909-EM3**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	9/13/02	106	70-130
Toluene	40.0	ug/L	EPA 8260B	9/13/02	99.4	70-130
Tert-Butanol	200	ug/L	EPA 8260B	9/13/02	99.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	9/13/02	91.6	70-130

KIFF ANALYTICAL, LLC

Approved By: Joel Kiff

SHELL Chain Of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be Invoiced: Karen Petryna

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT HOUSTON

28514

INCIDENT NUMBER (S&E ONLY): 98995742

SAP or CRMT NUMBER (TS/CRMT):

DATE: 9/9/02

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services	LOG CODE: BTSS
ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112	
PROJECT CONTACT (Hardcopy or PDF Report to): Leon Gearhart	
TELEPHONE: 408-573-0555	FAX: 408-573-7771
E-MAIL: lgearhart@blainetech.com	
SITE ADDRESS (Street and City): 8930 Bancroft Avenue, Oakland	GLOBAL ID NO.: PENDING
EDF DELIVERABLE TO (Responsible Party or Designee): Anni Kreml	PHONE NO.: 510-420-3335
E-MAIL: ShellOaklandEDF@cambria-env.com	CONSULTANT PROJECT NO.: BTS # 020909-EM3
SAMPLER NAME(S) (Print): Eric McReynolds	LAB USE ONLY

TURNAROUND TIME (BUSINESS DAYS): ☒ 10 DAYS ☐ 5 DAYS ☐ 72 HOURS ☐ 48 HOURS ☐ 24 HOURS ☐ LESS THAN 24 HOURS

☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY: _____

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED ☐

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (5) by (8260B)	Ethanol (8260B)	Methanol	1,2-DCA (8260B)	EDB (8260B)	TPH - Diesel, Extractable (8015m)	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes / TEMPERATURE ON RECEIPT C°
	MW-2	9/9	16:50	GW	3	X	X	X								-01
	MW-4	"	15:50	"	"	X	X	X								-02
	MW-5	"	17:25	"	"	X	X	X								-03
	MW-6	"	16:20	"	"	X	X	X								-04

Relinquished by: (Signature) Eric McReynolds	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature) John Carroll / Kiff Analytical	Date: 091002	Time: 1147

DISTRIBUTION: White with final report, Green to File, Yellow and Pink to Client.

10/16/00 Revision

Q&Q Graphic (714) 898-9702

WELL GAUGING DATA

Project # 020909-EM3 Date 9/9/02 Client Shell

Site 8930 Bancroft Oakland

Well ID	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	D.O.
MW-1	3"					15.55	16.88		
MW-2	3"					15.23	19.20		
MW-3	3"					13.54	19.66		1.0
MW-4	3"	Gauged w/ Stinger in Well				13.23	19.57		3.6
MW-5	3"	No Product detected				13.94	19.63		
MW-6	3"					14.92	19.70		

SHELL WELL MONITORING DATA SHEET

BTS #: 020909 - EM3	Site: 8930 Bancroft Ave. Oakland
Sampler: EM	Date: 9/9/02
Well I.D.: MW-2	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 19.20	Depth to Water: 15.23
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer / Disposable Bailer / (Middleburg) / (Electric Submersible) / Waterra / Peristaltic / Extraction Pump / Other_____

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

80% Recharge = 16.02

1.4 (Gals.) X 3 = 4.2 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
16:50	73.9	7.7	353	128	1.5	clear
16:33	72.6	7.3	352	7200	3	"
16:37	71.9	7.3	352	>200	4.5	"
16:45	DTW	15.90				

Did well dewater? Yes (No) Gallons actually evacuated: 4.5

Sampling Time: 16:50 Sampling Date: 9/9/02

Sample I.D.: MW-2 Laboratory: (Kiff) SPL Other_____

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

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 #: 020909 - EM3	Site: 8930 Bancroft Ave. Oakland
Sampler: EM	Date: 9/9/02
Well I.D.: MW-4	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 19.57	Depth to Water: 13.23
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH

Purge Method: Bailer; Disposable Bailer; (Middleburg); (Electric Submersible); Waterra Peristaltic; Extraction Pump; Other_____

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

80% recharge = 14.49

2.3 (Gals.) X 3 = 6.9 Gals.
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
15:30	76.0	7.3	520	>200	2.3	Brown/black
15:34	76.8	7.1	466	>200	4.6	"
15:38	75.1	7.1	437	>200	6.9	"
15:45	DTW	14:20				

Did well dewater? Yes (No) Gallons actually evacuated: 7

Sampling Time: 15:50 Sampling Date: 9/9/02

Sample I.D.: MW-4 Laboratory: (Kiff) SPL Other_____

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: 020909 - EM3	Site: 8930 Bancroft Ave. Oakland
Sampler: EM	Date: 9/9/02
Well I.D.: MW-5	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 19.63	Depth to Water: 13.94
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer / Disposable Bailer / (Middleburg) / ~~Electric Submersible~~ / Waterra / Peristaltic / Extraction Pump / Other_____

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

80% Recharge = 15.07

2.1 (Gals.) X 3 = 6.3 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
1700	75.3	6.5	356	60	2.1	clear
17:05	73.3	6.4	356	12	4.2	"
17:10	73.1	6.4	358	7	6.3	"
17:20	DTW	14.80				

Did well dewater? Yes (No) Gallons actually evacuated: 6.3

Sampling Time: 17:25 Sampling Date: 9/9/02

Sample I.D.: MW-5 Laboratory: (Kiff) SPL Other_____

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

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 #: 020909 - EM3	Site: 8930 Bancroft Ave. Oakland
Sampler: EM	Date: 9/9/02
Well I.D.: MW-6	Well Diameter: 2 (3) 4 6 8 ___
Total Well Depth: 19.70	Depth to Water: 14.92
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer / Disposable Bailer / (Middleburg) / (X) Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

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

80% Recharge = 15.97

1.7 (Gals.) X 3 = 5.1 Gals.
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
15:59	77.6	7.1	705	>200	1.7	Black
16:03	76.4	7.2	630	>200	3.4	"
16:06	76.9	7.5	490	>200	5.1	"
16:15	DTW	15.10				

Did well dewater? Yes (No) Gallons actually evacuated: 5

Sampling Time: 16:20 Sampling Date: 9/9/02

Sample I.D.: MW-6 Laboratory: (Kiff) SPL Other_____

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

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