



December 10, 2002

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

Alameda County
DEC 13 2002
Environmental Health

Subject: Shell-branded Service Station
11989 Dublin Boulevard
Dublin, California

Dear Ms. chu:

Attached for your review and comment is a copy of the *Fourth Quarter 2002 Monitoring Report* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

Shell Oil Products US

Karen Petryna
Sr. Environmental Engineer

C A M B R I A

December 10, 2002

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

Re: **Fourth Quarter 2002 Monitoring Report**
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, California
Incident #98995328
Cambria Project #244-0548-002



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.

FOURTH QUARTER 2002 ACTIVITIES

Groundwater Monitoring: Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells, 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 with a rose diagram showing groundwater gradient (Figure 2). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

As requested in a February 6, 2002 correspondence from the Alameda County Health Care Services Agency, wells MW-2, MW-3, and MW-4 were additionally analyzed for diisopropyl ether, ethyl tertiary butyl ether, tertiary amyl methyl ether, and tertiary butyl alcohol. Results are summarized on Table 1.

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

ANTICIPATED FIRST QUARTER 2003 ACTIVITIES

Groundwater Monitoring: Blaine will gauge and sample all wells and tabulate the data. Cambria will prepare a monitoring report.

Subsurface Investigation: Cambria is currently attempting to obtain a right-of-entry agreement for the subsurface investigation described in our July 29, 2002 *Investigation Work Plan Addendum*. We anticipate completing the drilling during the first quarter 2003.



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



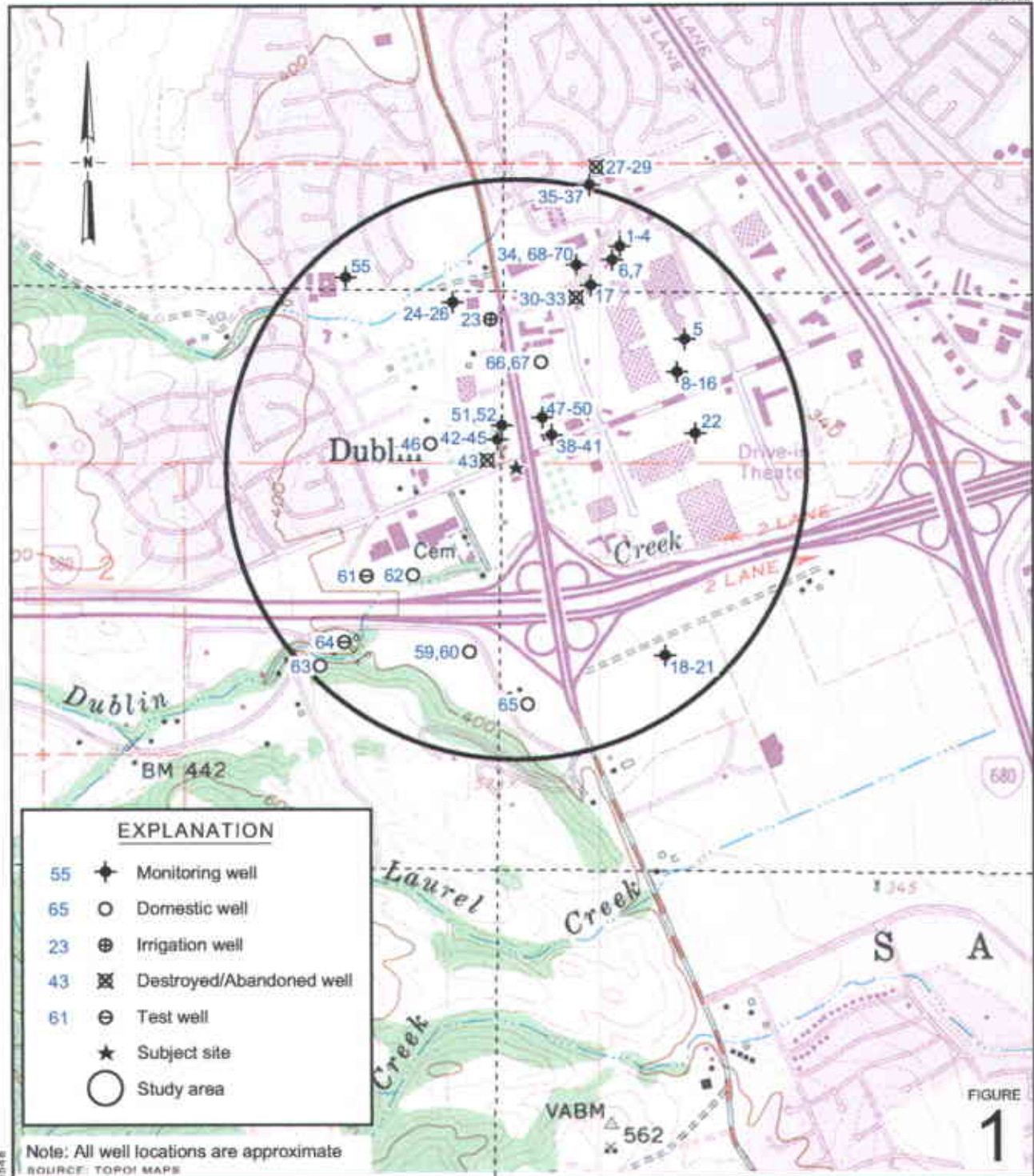
Figures: 1 - Vicinity/Area Well Survey Map
2 - Groundwater Elevation Contour Map

Table: 1 - Groundwater Analytical Data - Oxygenates

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

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

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Shell-branded Service Station
 11989 Dublin Boulevard
 Dublin, California



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

CAMBRIA

Table 1. Groundwater Analytical Data - Oxygenates - Shell-branded Service Station, Incident #98995328, 11989 Dublin Boulevard, Dublin, California

Sample ID	Date Sampled	MTBE	DIPE	ETBE (Concentrations in ppb)	TAME	TBA	Ethanol
MW-2	10/26/01	9,200	<20	<20	<20	1,800	<500
	05/22/02	20,000	<50	<50	<50	6,300	---
	07/15/02	16,000	<50	<50	<50	3,100	---
	10/11/02	8,200	<20	<20	<20	1,600	---
MW-3	10/26/01	680	<2.0	<2.0	<2.0	79	<500
	05/22/02	680	<2.0	<2.0	<2.0	58	---
	07/15/02	520	<2.0	<2.0	<2.0	53	---
	10/11/02	320	<2.0	<2.0	<2.0	330	---
MW-4	05/22/02	3,200	<5.0	<5.0	<5.0	2,500	---
	07/15/02	7,000	<20	<20	<20	2,000	---
	10/11/02	2,900	<5.0	<5.0	<5.0	5,100	---

Abbreviations:

MTBE = Methyl tert-butyl ether, analyzed by EPA Method 8260
 DIPE = Di-isopropyl ether, analyzed by EPA Method 8260
 ETBE = Ethyl tert-butyl ether, analyzed by EPA Method 8260
 TAME = Tert-amyl methyl ether, analyzed by EPA Method 8260
 TBA = Tert-butyl alcohol, analyzed by EPA Method 8260
 Ethanol analyzed by EPA Method 8260
 ppb = Parts per billion

ATTACHMENT A
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

November 12, 2002

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

Fourth Quarter 2002 Groundwater Monitoring at
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, CA

Monitoring performed on October 11, 2002

Groundwater Monitoring Report 021011-MG-1

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 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,

Leon Gearhart
Project Coordinator

LG/jt

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

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

WELL CONCENTRATIONS
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, 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)	GW Elevation (MSL)	D.O. Reading (ppm)
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MW-1	07/20/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	367.99	6.24	361.75	NA
MW-1	10/25/1999	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<5.00	NA	367.99	6.36	361.63	NA
MW-1	01/27/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.65	362.34	NA
MW-1	04/03/2000	<50.0	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.68	362.31	1.2/1.6
MW-1	07/27/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.69	362.30	1.0/1.1
MW-1	10/16/2000	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.74	362.25	1.2/0.8
MW-1	01/16/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.71	362.28	0.59/2.8
MW-1	04/19/2001	<50.0	NA	<0.500	<0.500	<0.500	<0.500	<2.50	NA	367.99	5.63	362.36	1.4/1.5
MW-1	07/13/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.70	362.29	2.3/3.1
MW-1	08/13/2001	NA	NA	NA	NA	NA	NA	NA	NA	367.99	5.72	362.27	NA
MW-1	10/26/2001	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.73	362.26	0.4/0.0
MW-1	01/11/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.55	362.44	5.4/2.0
MW-1	05/22/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.55	362.44	NA
MW-1	07/15/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.70	362.29	NA
MW-1	10/11/2002	<50	NA	<0.50	<0.50	<0.50	<0.50	NA	<5.0	367.99	5.87	362.12	NA

MW-2	07/20/1999	2,600	699	55.0	<2.50	59.5	<2.50	9,370	NA	365.43	20.31	345.12	NA
MW-2	10/25/1999	4,710	761	61.1	<10.0	74.6	<10.0	22,800	NA	365.43	22.80	342.63	NA
MW-2	01/27/2000	3,820	1490	60.8	<10.0	156	<10.0	13,400	15,000a	365.43	19.17	346.26	NA
MW-2	04/03/2000	7,130	NA	184	14.9	238	18.8	34,200	28,000	365.43	19.03	346.40	1.6/1.7
MW-2	07/27/2000	311	NA	10.0	<0.500	<0.500	<0.500	280	NA	365.43	19.09	346.34	1.9/1.7
MW-2	10/16/2000	3,970	NA	123	<5.00	68.5	<5.00	14,000	15,600	365.43	23.98	341.45	0.5/0.5
MW-2	01/16/2001	5,780	NA	125	9.71	139	6.93	7,660	7,810	365.43	22.12	343.31	0.90/2.61
MW-2	04/19/2001	4,460	NA	114	7.61	115	4.87	15,200	18,400	365.43	20.95	344.48	1.6/1.5
MW-2	07/13/2001	<5,000	NA	<25	<25	110	<25	NA	15,000	365.43	22.62	342.81	2.7/1.8
MW-2	08/13/2001	NA	NA	NA	NA	NA	NA	NA	NA	365.43	22.33	343.10	NA
MW-2	10/26/2001	3,700	NA	<20	<20	66	<20	NA	9,200	365.43	22.32	343.11	0.7/0.8
MW-2	01/11/2002	<5,000	NA	<50	<50	54	<50	NA	15,000	365.43	18.72	346.71	5.1/c

WELL CONCENTRATIONS
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, 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)	GW Elevation (MSL)	D.O. Reading (ppm)
MW-2	05/22/2002	<5,000	NA	53	<50	57	<50	NA	20,000	365.43	20.59	344.84	NA
MW-2	07/15/2002	<5,000	NA	<50	<50	<50	<50	NA	16,000	365.43	21.90	343.53	NA
MW-2	10/11/2002	3,600	NA	<20	<20	48	<20	NA	8,200	365.43	22.45	342.98	NA
MW-3	07/20/1999	208	177	4.69	<0.500	<0.500	<0.500	664	NA	364.97	24.23	340.74	NA
MW-3	10/25/1999	378	182	9.49	<0.500	<0.500	<0.500	1,410	NA	364.97	23.26	341.71	NA
MW-3	01/27/2000	428	100	29.4	<0.500	<0.500	<0.500	941	NA	364.97	19.53	345.44	NA
MW-3	04/03/2000	<125	NA	11.4	<1.25	<1.25	<1.25	639	NA	364.97	19.13	345.84	1.4/1.9
MW-3	07/27/2000	4,360	NA	78.4	6.95	85.8	2.61	26,600	25,200b	364.97	19.10	345.87	1.9/2.0
MW-3	10/16/2000	586	NA	21.3	<0.500	<0.500	<0.500	3,310	NA	364.97	24.11	340.86	1.1/0.8
MW-3	01/16/2001	558	NA	14.7	<0.500	<0.500	<0.500	2,210	NA	364.97	22.19	342.78	0.87/3.5
MW-3	04/19/2001	376	NA	9.08	<0.500	<0.500	<0.500	667	NA	364.97	20.96	344.01	1.7/1.4
MW-3	07/13/2001	370	NA	<2.0	<2.0	<2.0	<2.0	NA	670	364.97	22.77	342.20	3.1/4.8
MW-3	08/13/2001	NA	NA	NA	NA	NA	NA	NA	NA	364.97	22.59	342.38	NA
MW-3	10/26/2001	<200	NA	<2.0	<2.0	<2.0	<2.0	NA	680	364.97	22.81	342.16	1.0/3.2
MW-3	01/11/2002	480	NA	<2.0	<2.0	<2.0	<2.0	NA	830	364.97	18.88	346.09	1.1/3.2
MW-3	05/22/2002	570	NA	<1.0	<1.0	<1.0	<1.0	NA	680	364.97	20.75	344.22	NA
MW-3	07/15/2002	420	NA	1.1	<1.0	<1.0	1.1	NA	520	364.97	22.09	342.88	NA
MW-3	10/11/2002	730	NA	<0.50	<0.50	<0.50	<0.50	NA	320	364.97	22.68	342.29	NA
MW-4	08/10/2001	NA	NA	NA	NA	NA	NA	NA	NA	364.01	25.63	338.38	NA
MW-4	08/13/2001	2,400	NA	<10	<10	<10	<10	NA	8,300	364.01	26.32	337.69	4.2/2.7
MW-4	10/26/2001	<2,000	NA	<20	<20	<20	<20	NA	8,600	364.01	26.02	337.99	3.1/2.8
MW-4	01/11/2002	<2,000	NA	<20	<20	<20	<20	NA	5,100	364.01	22.25	341.76	7.9/3.0
MW-4	05/22/2002	<500	NA	<5.0	<5.0	<5.0	<5.0	NA	3,200	364.01	23.96	340.05	NA
MW-4	07/15/2002	<2,500	NA	<20	<20	<20	<20	NA	7,000	363.97	25.18	338.79	NA
MW-4	10/11/2002	1,900	NA	<5.0	<5.0	<5.0	<5.0	NA	2,900	363.97	25.91	338.06	NA

WELL CONCENTRATIONS
Shell-branded Service Station
11989 Dublin Boulevard
Dublin, 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.)	GW Elevation (MSL)	D.O. Reading (ppm)
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Abbreviations:

TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B; prior to July 13, 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 July 13, 2001, analyzed by EPA Method 8020.

MTBE = Methyl-tertiary-butyl ether by EPA Method 8020.

TOC = Top of Casing Elevation

GW = Groundwater

DO = Dissolved Oxygen

ug/L = Parts per billion

ppm = Parts per million

MSL = Mean sea level

ft = Feet

<n = Below detection limit

n/n = Pre-purge/Post-purge DO Readings

NA = Not applicable

Notes:

a = Sample was analyzed outside the EPA recommended holding time.

b = Concentration is an estimate.

c = D.O. meter malfunctioning.

Wells surveyed June 21, 1999, by Virgil Chavez Land Surveying of Vallejo, California.

Wells surveyed August 23, 2001, and February 18, 2002, by Virgil Chavez Land Surveying of Vallejo, California.



Report Number : 29163

Date : 10/24/2002

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

Subject : 4 Water Samples
Project Name : 11989 Dublin Boulevard, Dublin
Project Number : 021011--MG1
P.O. Number : 98995328

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



Report Number : 29163

Date : 10/24/2002

Project Name : 11989 Dublin Boulevard, Dublin

Project Number : 021011--MG1

Sample : MW-1

Matrix : Water

Lab Number : 29163-01

Sample Date :10/11/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/15/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/15/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/15/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/15/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	10/15/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/15/2002
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	10/15/2002
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	10/15/2002

Approved By:  Joel Kiff



Report Number : 29163

Date : 10/24/2002

Project Name : 11989 Dublin Boulevard, Dublin

Project Number : 021011--MG1

Sample : MW-2

Matrix : Water

Lab Number : 29163-02

Sample Date :10/11/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 20	20	ug/L	EPA 8260B	10/21/2002
Toluene	< 20	20	ug/L	EPA 8260B	10/21/2002
Ethylbenzene	48	20	ug/L	EPA 8260B	10/21/2002
Total Xylenes	< 20	20	ug/L	EPA 8260B	10/21/2002
Methyl-t-butyl ether (MTBE)	8200	20	ug/L	EPA 8260B	10/21/2002
Diisopropyl ether (DIPE)	< 20	20	ug/L	EPA 8260B	10/21/2002
Ethyl-t-butyl ether (ETBE)	< 20	20	ug/L	EPA 8260B	10/21/2002
Tert-amyl methyl ether (TAME)	< 20	20	ug/L	EPA 8260B	10/21/2002
Tert-Butanol	1600	200	ug/L	EPA 8260B	10/21/2002
TPH as Gasoline	3600	2000	ug/L	EPA 8260B	10/21/2002
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	10/21/2002
4-Bromofluorobenzene (Surr)	98.3		% Recovery	EPA 8260B	10/21/2002

Approved By:  Joel Kiff



Report Number : 29163

Date : 10/24/2002

Project Name : 11989 Dublin Boulevard, Dublin

Project Number : 021011--MG1

Sample : MW-3

Matrix : Water

Lab Number : 29163-03

Sample Date :10/11/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/20/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/20/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/20/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/20/2002
Methyl-t-butyl ether (MTBE)	320	0.50	ug/L	EPA 8260B	10/20/2002
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	10/20/2002
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	10/20/2002
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	10/20/2002
Tert-Butanol	330	50	ug/L	EPA 8260B	10/20/2002
TPH as Gasoline	730	50	ug/L	EPA 8260B	10/20/2002
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	10/20/2002
4-Bromofluorobenzene (Surr)	87.1		% Recovery	EPA 8260B	10/20/2002

Approved By:  Joel Kiff



Report Number : 29163

Date : 10/24/2002

Project Name : 11989 Dublin Boulevard, Dublin

Project Number : 021011--MG1

Sample : MW-4

Matrix : Water

Lab Number : 29163-04

Sample Date :10/11/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 5.0	5.0	ug/L	EPA 8260B	10/23/2002
Toluene	< 5.0	5.0	ug/L	EPA 8260B	10/23/2002
Ethylbenzene	< 5.0	5.0	ug/L	EPA 8260B	10/23/2002
Total Xylenes	< 5.0	5.0	ug/L	EPA 8260B	10/23/2002
Methyl-t-butyl ether (MTBE)	2900	5.0	ug/L	EPA 8260B	10/23/2002
Diisopropyl ether (DIPE)	< 5.0	5.0	ug/L	EPA 8260B	10/23/2002
Ethyl-t-butyl ether (ETBE)	< 5.0	5.0	ug/L	EPA 8260B	10/23/2002
Tert-amyl methyl ether (TAME)	< 5.0	5.0	ug/L	EPA 8260B	10/23/2002
Tert-Butanol	5100	50	ug/L	EPA 8260B	10/23/2002
TPH as Gasoline	1900	500	ug/L	EPA 8260B	10/23/2002
Toluene - d8 (Surr)	104		% Recovery	EPA 8260B	10/23/2002
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	10/23/2002

Approved By:  Joel Kiff

Report Number : 29163

Date : 10/24/2002

QC Report : Method Blank Data

Project Name : **11989 Dublin Boulevard, Dublin**

Project Number : **021011--MG1**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/19/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/19/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/19/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/19/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	10/19/2002
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	10/19/2002
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	10/19/2002
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	10/19/2002
Tert-Butanol	< 50	50	ug/L	EPA 8260B	10/19/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/19/2002
Toluene - d8 (Surr)	100		%	EPA 8260B	10/19/2002
4-Bromofluorobenzene (Surr)	99.6		%	EPA 8260B	10/19/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	10/15/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	10/15/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	10/15/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	10/15/2002
Methyl-t-butyl ether (MTBE)	< 5.0	5.0	ug/L	EPA 8260B	10/15/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	10/15/2002
Toluene - d8 (Surr)	102		%	EPA 8260B	10/15/2002
4-Bromofluorobenzene (Surr)	98.1		%	EPA 8260B	10/15/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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Approved By: Joel Kiff

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **11989 Dublin Boulevard,**

Project Number : **021011--MG1**

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	29161-01	<0.50	39.8	39.8	39.8	39.5	ug/L	EPA 8260B	10/19/02	99.9	99.0	0.880	70-130	25
Toluene	29161-01	<0.50	39.8	39.8	39.6	39.4	ug/L	EPA 8260B	10/19/02	99.5	98.9	0.580	70-130	25
Tert-Butanol	29161-01	<5.0	199	199	190	193	ug/L	EPA 8260B	10/19/02	95.2	96.8	1.73	70-130	25
Methyl-t-Butyl Ether	29161-01	<0.50	39.8	39.8	39.2	39.4	ug/L	EPA 8260B	10/19/02	98.3	99.0	0.659	70-130	25
Benzene	29163-01	<0.50	40.0	40.0	40.8	40.3	ug/L	EPA 8260B	10/15/02	102	101	1.26	70-130	25
Toluene	29163-01	<0.50	40.0	40.0	41.8	40.8	ug/L	EPA 8260B	10/15/02	104	102	2.45	70-130	25
Tert-Butanol	29163-01	<5.0	200	200	203	193	ug/L	EPA 8260B	10/15/02	102	96.3	5.36	70-130	25
Methyl-t-Butyl Ether	29163-01	<0.50	40.0	40.0	41.3	41.5	ug/L	EPA 8260B	10/15/02	103	104	0.314	70-130	25

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By:  Joel Kiff

Report Number: 29163

Date: 10/24/2002

QC Report : Laboratory Control Sample (LCS)

Project Name : **11989 Dublin Boulevard,**

Project Number : **021011--MG1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	10/19/02	100	70-130
Toluene	40.0	ug/L	EPA 8260B	10/19/02	99.6	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/19/02	98.3	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/19/02	94.0	70-130
Benzene	40.0	ug/L	EPA 8260B	10/15/02	103	70-130
Toluene	40.0	ug/L	EPA 8260B	10/15/02	102	70-130
Tert-Butanol	200	ug/L	EPA 8260B	10/15/02	107	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	10/15/02	93.8	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 involved:

SCIENCE & ENGINEERING
 TECHNICAL SERVICES
 CRMT HOUSTON

Karen Petryna

29163

INCIDENT NUMBER (S&E ONLY)

9 8 9 9 5 3 2 8

SAP or CRMT NUMBER (TS/CRMT)

DATE: 10/11/02
 PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services		LOG CODE: BTSS	SITE ADDRESS (Street and City): 11989 Dublin Boulevard, Dublin		GLOBAL ID NO.: T0600102083
ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112		EDF DELIVERABLE TO (Responsible Party or Designee): Anni Kreml		PHONE NO.: 510-420-3335	E-MAIL: ShellOaklandEDF@cambria-env.com
PROJECT CONTACT (Hardcopy or PDF Report to): Leon Gearhart		CONSULTANT PROJECT NO.: BTS #021011-141		LAB USE ONLY	
TELEPHONE: 408-573-0555	FAX: 408-573-7771	E-MAIL: lgearhart@blainetech.com		SAMPLER NAME(S) (Print): Morgan Gillies	

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

TPH - Gas, Purgeable	BTEX	MTBE (6021B - 5ppb RL)	MTBE (6260B - 0.5ppb RL)	Oxygenates (S) by (6280B)	Ethanol (6260B)	Methanol	1,2-DCA (6260B)	EDB (6260B)	TPH - Diesel, Extractable (6015m)

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

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (6021B - 5ppb RL)	MTBE (6260B - 0.5ppb RL)	Oxygenates (S) by (6280B)	Ethanol (6260B)	Methanol	1,2-DCA (6260B)	EDB (6260B)	TPH - Diesel, Extractable (6015m)	TEMPERATURE ON RECEIPT C°
		DATE	TIME													
	MW-1	10/11/02	1225	GW	3	XX	X									01
	MW-2		1305			XX				X						02
	MW-3		1248			XX				X						03
	MW-4		1120			XX				X						04

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date: 10/14/02	Time: 10/3

SHELL WELL MONITORING DATA SHEET

BTS #: <u>021011-MG1</u>	Site: <u>98995328</u>
Sampler: <u>MW</u>	Date: <u>10/11/02</u>
Well I.D.: <u>MW-1</u>	Well Diameter: 2 3 <u>4</u> 6 8 <u> </u>
Total Well Depth (TD): <u>19.78</u>	Depth to Water (DTW): <u>5.87</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>8.65</u>	

Purge Method: Bailor Waterra Sampling Method: Bailor
 Disposable Bailor Peristaltic Disposable Bailor
 Middleburg Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing
Other: _____

9 (Gals.) X 3 = 27 Gals.
I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multplier	Well Diameter	Multplier
1"	0.04	4"	0.65
2"	0.16	5"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
<u>1026</u>	<u>72.1</u>	<u>6.6</u>	<u>1171</u>	<u>14</u>	<u>10</u>	
<u>1032</u>	<u>72.2</u>	<u>6.7</u>	<u>1162</u>	<u>48</u>	<u>19</u>	
<u>1036</u>	<u>70.7</u>	<u>6.7</u>	<u>1170</u>	<u>133</u>	<u>28</u>	<u>DTW = 16.40'</u>

Did well dewater? Yes No Gallons actually evacuated: 28

Sampling Date: 10/11/02 Sampling Time: 1225 Depth to Water: 6.11

Sample I.D.: MW-1 Laboratory: (Kif) SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____

EB I.D. (if applicable): _____ 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 #: <u>021011-M61</u>	Site: <u>98995328</u>
Sampler: <u>MW</u>	Date: <u>10/11/02</u>
Well I.D.: <u>MW-2</u>	Well Diameter: 2 3 <u>4</u> 6 8
Total Well Depth (TD): <u>32.53</u>	Depth to Water (DTW): <u>22.45</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>24.46</u>	

Purge Method: Bailer Water Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
 Middleburg Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing

6.6 (Gals.) X 3 = 19.8 Gals. I Case Volume Specified Volumes Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> </thead> <tbody> <tr> <td>1"</td> <td>0.04</td> <td>4"</td> <td>0.65</td> </tr> <tr> <td>2"</td> <td>0.16</td> <td>6"</td> <td>1.47</td> </tr> <tr> <td>3"</td> <td>0.37</td> <td>Other</td> <td>radius² * 0.163</td> </tr> </tbody> </table>	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
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 <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
1206	68.8	6.7	1123	12.5	7	
1210	68.9	6.6	1118	20.5	14	
1213	68.9	6.7	1127	110	20	odor
						DTW = 28.32'

Did well dewater? Yes No Gallons actually evacuated: 20

Sampling Date: 10/11/02 Sampling Time: 1305 Depth to Water: 22.62

Sample I.D.: MW-2 Laboratory: (KIT) SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Oxygenates

EB I.D. (if applicable): _____ 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 #: <u>021011-M61</u>	Site: <u>98995328</u>
Sampler: <u>MW</u>	Date: <u>10/11/02</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>35.20</u>	Depth to Water (DTW): <u>25.91</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>(PVC)</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>27.77</u>	

Purge Method: Bailor Water
 Disposable Bailor Peristaltic
 Middleburg Extraction Pump
 Electric Submersible Other _____

Sampling Method: Bailor
 Disposable Bailor
 Extraction Port
 Dedicated Tubing
 Other: _____

1.5 (Gals.) X 3 = 4.5 Gals.
 I Case Volume Specified Volumes Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	<u>0.16</u>	6"	1.47
3"	0.37	Other	radius ² * 0.163

Time	Temp (°F)	pH	Cond. (mS or <u>µS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
1106	66.8	6.7	1070	>200	1.75	
1109	67.0	6.7	1087	>200	3.5	
1111	66.7	6.8	1099	>200	5	DTW = 33.14
						Traffic Control

Did well dewater? Yes No Gallons actually evacuated: 5

Sampling Date: 10/11/02 Sampling Time: 1120 Depth to Water: 32.80

Sample I.D.: MW-4 Laboratory: (Kir) SPL Other _____

Analyzed for: TPH-G BTEX MTBE TPH-D Other: Oxyanions

EB I.D. (if applicable): _____ 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