

C A M B R I A

SPH  
4022

July 23, 2001

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

Received  
8/14/01  
MS  
JUL 26 2001

Re: **Second Quarter 2001 Monitoring Report**  
Shell-branded Service Station  
2120 Montana Street  
Oakland, California  
Incident #98995740  
Cambria Project #243-0733-002



Dear Mr. Gholami:

On behalf of Equiva Services LLC, Cambria Environmental Technology, Inc. (Cambria) is submitting this groundwater monitoring report in accordance with the reporting requirements of 23 CCR 2652d.

## SECOND QUARTER 2001 ACTIVITIES

**Groundwater Monitoring:** On May 31, 2001 Blaine Tech Services, Inc. (Blaine) of San Jose, California gauged and sampled the site wells. The analytical results for wells MW-1 and MW-3 were not consistent with results from the initial March 23, 2001 sampling event, and the site wells were re-sampled on June 27, 2001. During the June 27<sup>th</sup> site visit, approximately 0.15 feet of separate phase hydrocarbon (SPH) were encountered in well MW-1, and Blaine collected an SPH sample from well MW-1. Blaine returned to the site on July 9, 2001 and encountered 0.31 feet of SPH in well MW-1. Blaine collected another SPH sample from well MW-1 and from each grade of gasoline available at the site. Blaine submitted these samples to Westhollow Research Center in Houston, Texas for fuel fingerprinting. Results will be presented under separate cover.

Oakland, CA  
San Ramon, CA  
Sonoma, CA

Blaine calculated groundwater elevations, and compiled the analytical data from the quarterly sampling events, and Cambria prepared a groundwater elevation contour map (Figure 1). Blaine's report, presenting the laboratory report and supporting field documents, is included as Attachment A.

**Cambria  
Environmental  
Technology, Inc.**

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

**ANTICIPATED THIRD QUARTER 2001 ACTIVITIES**

**Groundwater Monitoring:** Blaine will check for SPH, gauge and sample all wells, and tabulate the data. Cambria will prepare a monitoring report.

**CLOSING**

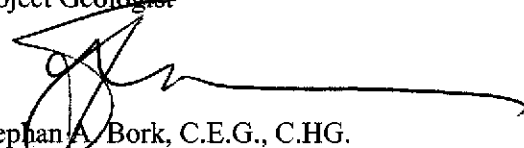


We appreciate the opportunity to work with you on this project. Please call Jacquelyn Jones at (510) 420-3316 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**

*Stephan A. Bork*

for: Jacquelyn L. Jones  
Project Geologist

  
Stephan A. Bork, C.E.G., C.H.G.  
Associate Hydrogeologist

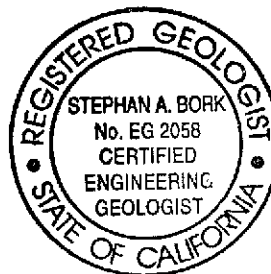


Figure: 1 - Groundwater Elevation Contour Map

Attachment: A - Blaine Groundwater Monitoring Report and Field Notes

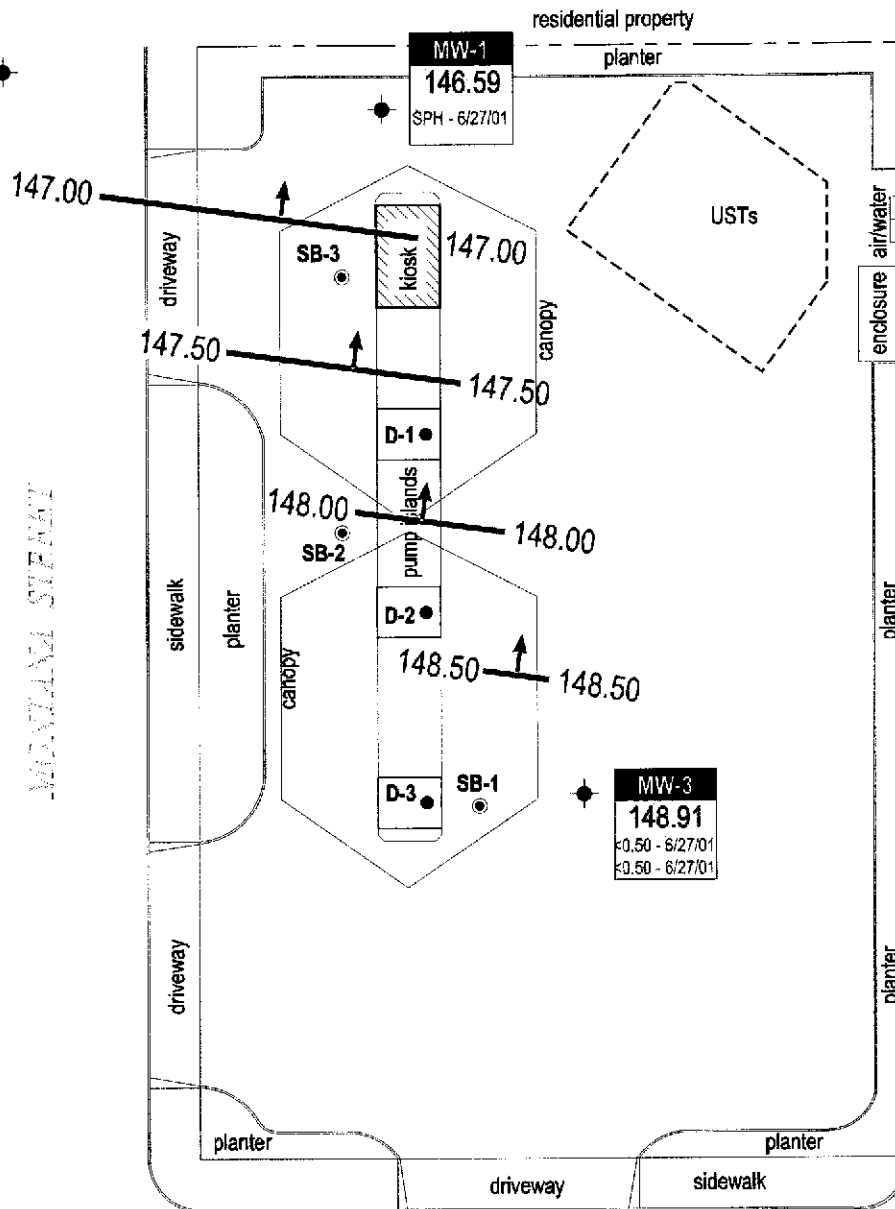
cc: Karen Petryna, Equiva Services LLC, P.O. Box 7869, Burbank, California 91510-7869  
Equilon Enterprises LLC c/o Stewart Title Guaranty Company 1980 Post Oak Blvd.,  
Suite 110, Houston, Texas 77056

g:\oakland 2120montana\qm\2q01qm.doc

**MW-2**  
**146.63**  
 610 - 6/27/01  
 47,993 - 6/27/01

**MW-1**  
**146.59**  
 SPH - 6/27/01

**MW-3**  
**148.91**  
 <0.50 - 6/27/01  
 <0.50 - 6/27/01



**EXPLANATION**

- MW-1** ● Monitoring well location
- SB-1** ● Cambria soil boring location (10/99)
- D-1** ● Cambria soil sampling location (11/97)
- SPH** Separate-phase hydrocarbons present, well not sampled
- Groundwater flow direction
- XX.XX Groundwater elevation contour, in feet above mean sea level (msl), approximately located, dashed where inferred

Well	Well designation
ELEV	Groundwater elevation, in feet above msl
Benzene MTBE	Benzene and MTBE concentrations are in parts per billion and are analyzed by EPA Method 8260.



FIGURE

**1**

**Shell-branded Service Station**

2120 Montana Street  
 Oakland, California  
 Incident #98995740



C A M B R I A

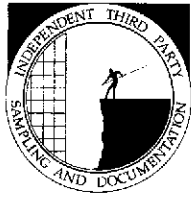
**Groundwater Elevation Contour Map**

May 31, 2001

**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

July 10, 2001

Karen Petryna  
Equiva Services LLC  
P.O. Box 7869  
Burbank, CA 91510-7869

Second Quarter 2001 Groundwater Monitoring at  
Shell-branded Service Station  
2120 Montana Street  
Oakland, CA

Monitoring performed on May 31, June 27,  
and July 9, 2001

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### Groundwater Monitoring Report 010531-C-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 Martinez Refining Company.

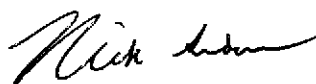
Basic field information is presented alongside analytical values excerpted from the laboratory report in the cumulative table of **WELL CONCENTRATIONS**. The full analytical report for the most recent samples and the field data sheets are attached to this report.

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,

A handwritten signature in black ink, appearing to read "Nick Sudano". The signature is written in a cursive style with a large initial "N".

Nick Sudano  
Project Coordinator

NS/mb

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

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

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**2120 Montana Street**  
**Oakland, CA**

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
MW-1	03/19/3001	NA	NA	NA	NA	NA	NA	NA	159.59	12.14	147.45	NA
MW-1	03/23/2001	16,600	753	1,720	407	2,330	NA	27,500	159.59	12.25	147.34	NA
MW-1	05/31/2001	<50a	<0.50a	<0.50a	<0.50a	<0.50a	NA	<5.0a	159.59	13.00	146.59	NA
MW-1	06/27/2001	NA	NA	NA	NA	NA	NA	NA	159.59	13.00b	NA	NA
MW-1	07/09/2001	NA	NA	NA	NA	NA	NA	NA	159.59	13.17	146.67	0.31
MW-2	03/19/3001	NA	NA	NA	NA	NA	NA	NA	158.03	11.60	146.43	NA
MW-2	03/23/2001	4,450	280	41.0	62.1	63.0	NA	16,600	158.03	11.76	146.27	NA
MW-2	05/31/2001	<20,000a	820a	<200a	<200a	<200a	NA	63,000a	158.03	11.40	146.63	NA
MW-2	06/27/2001	<50,000	610	4.0	13	9.2	NA	47,000	158.03	12.65	145.38	NA
MW-3	03/19/3001	NA	NA	NA	NA	NA	NA	NA	161.13	11.42	149.71	NA
MW-3	03/23/2001	<50.0	<0.500	<0.500	<0.500	<0.500	NA	1.26	161.13	11.42	149.71	NA
MW-3	05/31/2001	<20,000a	1,000a	920a	490a	2,000a	NA	54,000a	161.13	12.22	148.91	NA
MW-3	06/27/2001	<50	<0.50	<0.50	<0.50	<0.50	NA	<0.50	161.13	12.32	148.81	NA

**WELL CONCENTRATIONS**  
**Shell-branded Service Station**  
**2120 Montana Street**  
**Oakland, CA**

Well ID	Date	TPPH (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)	SPH Thickness (ft.)
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**Abbreviations:**

TPPH = Total petroleum hydrocarbons as gasoline by modified EPA Method 8260B; prior to May 31, 2001 analyzed by EPA Method 8015

BTEX = benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B; prior to May 31, 2001, analyzed by EPA Method 8020

MTBE = methyl-tertiary-butyl ether

TOC = Top of Casing Elevation

GW = Groundwater

ug/L = parts per billion

msl = Mean sea level

ft = Feet

<n = Below detection limit

**Notes:**

**a = Resampled on June 27, 2001, due to anomolous results**

**b = Separate phase hydrocarbons encountered during purge; groundwater elevation may not be accurate.**

Survey data provided by Cambria Environmental Technology, May 2001.

When separate phase hydrocarbons are present, ground water elevation is adjusted using the relation:

corrected ground water elevation = Top-of-casing elevation - depth to water + (0.8 x hydrocarbon thickness).





Report Number : 20536

Date : 6/14/2001

Nick Sudano  
Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Subject : 3 Water Samples  
Project Name : 2120 Montana Street, Oakland  
Project Number : 010531-C3  
P.O. Number : 98995740

Dear Mr. Sudano,

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,

A handwritten signature in black ink that reads "Joel Kiff". The signature is stylized and written in a cursive-like font.

Joel Kiff



Report Number : 20536

Date : 6/14/2001

Project Name : 2120 Montana Street, Oakland

Project Number : 010531-C3

Sample : MW-1

Matrix : Water

Lab Number : 20536-01

Sample Date :5/31/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	6/10/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	6/10/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	6/10/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	6/10/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 5.0	5.0	ug/L	EPA 8260B	6/10/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	6/10/2001
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	6/10/2001
4-Bromofluorobenzene (Surr)	99.0		% Recovery	EPA 8260B	6/10/2001

Sample : MW-2

Matrix : Water

Lab Number : 20536-02

Sample Date :5/31/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	820	200	ug/L	EPA 8260B	6/10/2001
<b>Toluene</b>	< 200	200	ug/L	EPA 8260B	6/10/2001
<b>Ethylbenzene</b>	< 200	200	ug/L	EPA 8260B	6/10/2001
<b>Total Xylenes</b>	< 200	200	ug/L	EPA 8260B	6/10/2001
<b>Methyl-t-butyl ether (MTBE)</b>	63000	2000	ug/L	EPA 8260B	6/10/2001
<b>TPH as Gasoline</b>	< 20000	20000	ug/L	EPA 8260B	6/10/2001
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	6/10/2001
4-Bromofluorobenzene (Surr)	96.6		% Recovery	EPA 8260B	6/10/2001

Approved By:  Joel Kiff



Report Number : 20536

Date : 6/14/2001

Project Name : 2120 Montana Street, Oakland

Project Number : 010531-C3


Sample : MW-3

Matrix : Water

Lab Number : 20536-03

Sample Date :5/31/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>1000</b>	200	ug/L	EPA 8260B	6/9/2001
<b>Toluene</b>	<b>920</b>	200	ug/L	EPA 8260B	6/9/2001
<b>Ethylbenzene</b>	<b>490</b>	200	ug/L	EPA 8260B	6/9/2001
<b>Total Xylenes</b>	<b>2000</b>	200	ug/L	EPA 8260B	6/9/2001
<b>Methyl-t-butyl ether (MTBE)</b>	<b>54000</b>	2000	ug/L	EPA 8260B	6/9/2001
<b>TPH as Gasoline</b>	<b>&lt; 20000</b>	20000	ug/L	EPA 8260B	6/9/2001
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	6/9/2001
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	6/9/2001

Approved By:  Joel Kiff

Report Number : 20536

Date : 6/14/2001

Project Name : **2120 Montana Street,**

Project Number : **010531-C3**

20536 Quality Control Data - Method Blank

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	6/7/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	6/7/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	6/7/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	6/7/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 5.0	5.0	ug/L	EPA 8260B	6/7/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	6/7/2001
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	6/7/2001
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	6/7/2001

Approved By:  Joel Kiff

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 2120 Montana Street,

Project Number : 010531-C3

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
Spike Recovery Data														
Benzene	20506-02	<0.50	24.6	24.3	25.8	25.2	ug/L	EPA 8260B	6/7/2001	105	104	0.922	70-130	25
Toluene	20506-02	<0.50	24.6	24.3	24.4	23.8	ug/L	EPA 8260B	6/7/2001	99.0	97.9	1.12	70-130	25
Tert-Butanol	20506-02	<5.0	24.6	24.3	26.0	24.5	ug/L	EPA 8260B	6/7/2001	106	101	4.51	70-130	25
Methyl-t-Butyl Ether	20506-02	<0.50	24.6	24.3	25.0	24.5	ug/L	EPA 8260B	6/7/2001	102	101	0.533	70-130	25

KIFF ANALYTICAL, LLC

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

Approved By:  Joel Kiff

Report Number : 20536

Date : 6/14/2001

**QC Report : Laboratory Control Sample (LCS)**

Project Name : **2120 Montana Street,**

Project Number : **010531-C3**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	19.2	ug/L	EPA 8260B	6/7/2001	102	70-130
Toluene	19.2	ug/L	EPA 8260B	6/7/2001	99.4	70-130
Tert-Butanol	95.8	ug/L	EPA 8260B	6/7/2001	98.1	70-130
Methyl-t-Butyl Ether	19.2	ug/L	EPA 8260B	6/7/2001	104	70-130

KIFF ANALYTICAL, LLC

Approved By:  \_\_\_\_\_  
Joel Kiff

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

LAB: Kiff

EQUIVA Services LLC Chain Of Custody Record 20536

Lab Identification (if necessary):

Address:

City, State, Zip:

Equiva Project Manager to be Invoiced:

SCIENCE & ENGINEERING

TECHNICAL SERVICES

OMT HOUSTON

Karen Petryna

9	8	9	9	5	7	4	0
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DATE: 5-31-01

PAGE: 1 of 1

CONSULTANT COMPANY:

Blaine Tech Services

ADDRESS:

1680 Rogers Avenue

CITY:

San Jose, CA 95112

TELEPHONE:

408-673-0665

FAX:

408-673-7771

E-MAIL:

nsudano@blainetech.com

WTE ADDRESS (Street and City):

2120 Montana Street, Oakland

PROJECT CONTACT (Report to):

Nick Sudano

SAMPLER NAME(S) (P#):

Hank Castro

CONSULTANT PROJECT NO.:

BTS# 010531-C3

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: TEMPERATURE ON RECEIPT C°

REQUESTED ANALYSIS

FIELD NOTES:

Container/Preservative  
or PID Readings  
or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable (801 Sm)	BTX (8021 B)	MTBE (8021 B)	MTBE (8290 B)	TPH - Diesel, Extractable (801 Sm)	Oxygenates (e) by (8290 B)	Ethanol (8290 B)	Methanol	MTBE (8290 B) Confirmation, See Note
		DATE	TIME											
	MU-1	5/31	1453	W	2	X	X							
	MU-2	↓	1414	↓	3	X	X							
	MU-3	↓	1424	↓	2	X	X							

Relinquished by: (Signature) Hank Castro

Received by: (Signature) \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: (Signature) \_\_\_\_\_

Received by: (Signature) \_\_\_\_\_

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished by: (Signature) \_\_\_\_\_

Received by: (Signature) David Bunn with Analytical

Date: 060101 Time: 1215

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

10/16/00 Revision

Q&C Graphic (714) 968-9702



Report Number : 21036

Date : 7/6/2001

Nick Sudano  
Blaine Tech Services  
1680 Rogers Avenue  
San Jose, CA 95112-1105

Subject : 2 Water Samples  
Project Name : 2120 Montana Street, Oakland  
Project Number : 010627-R1  
P.O. Number : 98995740

Dear Mr. Sudano,

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,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large, looping initial "J".

Joel Kiff





Report Number : 21036

Date : 7/6/2001

Project Name : 2120 Montana Street, Oakland

Project Number : 010627-R1


Sample : MW-2

Matrix : Water

Lab Number : 21036-01

Sample Date :6/27/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>610</b>	250	ug/L	EPA 8260B	7/5/2001
<b>Toluene</b>	<b>4.0</b>	0.50	ug/L	EPA 8260B	7/4/2001
<b>Ethylbenzene</b>	<b>13</b>	0.50	ug/L	EPA 8260B	7/4/2001
<b>Total Xylenes</b>	<b>9.2</b>	0.50	ug/L	EPA 8260B	7/4/2001
<b>Methyl-t-butyl ether (MTBE)</b>	<b>47000</b>	250	ug/L	EPA 8260B	7/5/2001
<b>TPH as Gasoline</b>	<b>&lt; 50000</b>	50000	ug/L	EPA 8260B	7/5/2001
Toluene - d8 (Surr)	88.1		% Recovery	EPA 8260B	7/4/2001
4-Bromofluorobenzene (Surr)	101		% Recovery	EPA 8260B	7/5/2001

Approved By:  Joel Kiff



Report Number : 21036

Date : 7/6/2001

Project Name : 2120 Montana Street, Oakland

Project Number : 010627-R1


Sample : MW-3

Matrix : Water

Lab Number : 21036-02

Sample Date :6/27/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/5/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/5/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/5/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	7/5/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	7/5/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	7/5/2001
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	7/5/2001
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	7/5/2001

Approved By:  Joel Kiff

Report Number : 21036

Date : 7/6/2001

Project Name : **2120 Montana Street,**

Project Number : **010627-R1**

21036 Quality Control Data - Method Blank

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/5/2001
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/5/2001
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	7/5/2001
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	7/5/2001
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	7/5/2001
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	7/5/2001
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	7/5/2001
4-Bromofluorobenzene (Surr)	99.8		% Recovery	EPA 8260B	7/5/2001

Approved By:  Joel Kiff

Report Number : 21036


Date : 7/6/2001

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 2120 Montana Street,

Project Number : 010627-R1

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
Spike Recovery Data														
Benzene	21036-01	340	19.8	19.4	324	310	ug/L	EPA 8260B	7/4/2001	0.00	0.00	0.00	70-130	25
Toluene	21036-01	4.0	19.8	19.4	21.2	20.8	ug/L	EPA 8260B	7/4/2001	86.8	86.6	0.334	70-130	25
Tert-Butanol	21036-01	4100	98.8	97.2	2810	2770	ug/L	EPA 8260B	7/4/2001	0.00	0.00	0.00	70-130	25
Methyl-t-Butyl Ether	21036-01	6300	19.8	19.4	4200	3920	ug/L	EPA 8260B	7/4/2001	0.00	0.00	0.00	70-130	25

Approved By:  \_\_\_\_\_

Report Number : 21036

Date : 7/6/2001

**QC Report : Laboratory Control Sample (LCS)**

Project Name : **2120 Montana Street,**

Project Number : **010627-R1**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	19.5	ug/L	EPA 8260B	7/3/2001	94.2	70-130
Toluene	19.5	ug/L	EPA 8260B	7/3/2001	98.1	70-130
Tert-Butanol	97.5	ug/L	EPA 8260B	7/3/2001	95.8	70-130
Methyl-t-Butyl Ether	19.5	ug/L	EPA 8260B	7/3/2001	101	70-130

KIFF ANALYTICAL, LLC

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

Approved By:

  
Joel Kiff

LAB: KIFF

# EQUIVA Services LLC Chain Of Custody Record

2103C  
2013  
1993

Lab Identification (if necessary):

Address:

City, State, Zip:

Equiva Project Manager to be Invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- COST REDUCTION

Karen Petryna

9	8	9	9	5	7	4	0

DATE: 6/27/01  
PAGE: 1 of 1

CONSULTANT COMPANY:  
**Blaine Tech Services**  
ADDRESS:  
**1880 Rogers Avenue**  
CITY:  
**San Jose, CA 95112**  
TELEPHONE:  
**408-573-0555**  
FAX:  
**408-573-7771**  
E-MAIL:  
**nsudano@blainetech.com**

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

LA - RWQCB REPORT FORMAT  LIST AGENCY: \_\_\_\_\_

GC/MS MTBE CONFIRMATION: HIGHEST \_\_\_\_\_ HIGHEST per BORING \_\_\_\_\_ ALL \_\_\_\_\_

SPECIAL INSTRUCTIONS OR NOTES: \_\_\_\_\_ TEMPERATURE ON RECEIPT

SITE ADDRESS (Street and City):  
**2120 Montana Street, Oakland**

PROJECT CONTACT (Report to):  
**Nick Sudano**

CONSULTANT PROJECT NO.:  
**010627-R1**

BTS # \_\_\_\_\_

SAMPLER NAME(S) #4-: **Trei'**

### REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable (6016m)	BTX (6021B)	MTBE (6021B)	MTBE (6250B)	TPH - Diesel, Extractable (6016m)	Oxygenates (6) by (6250B)	Ethanol (6250B)	Methanol	MTBE (6250B) Confirmation, See Note	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
		DATE	TIME												
	MW-2	6/27	1255	W	3	X	X	X							-01
	MW-3	6/27	1250	W	3	X	X	X							-02

Requested by: (Signature) _____	Received by: (Signature) _____	Date: <u>6/27/01</u>	Time: <u>1858</u>
Requested by: (Signature) _____	Received by: (Signature) _____	Date: _____	Time: _____
Requested by: (Signature) _____	Received by: (Signature) <u>John Cutler/Kiff Analytical</u>	Date: <u>062801</u>	Time: <u>1147</u>

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

10/18/00 Revision

CLC Graphic (714) 888-9702

## WELL GAUGING DATA

Project # 010709-04 Date 7-9-01 Client Equiv

Site 2120 Montana St.

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 of TOC
MW-1	2	odor	12.86	0.31	-	13.17	28.21	↓
Grade 1 = 87								
Grade 2 = 89 <del>Impervious container</del>								
Grade 3 = 92								

WELL GAUGING DATA

Project # 010627-RD Date 6/27/01 Client ES 98995740

Site 2120 Moutan Street

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
MW-1	2	sheen odor		* 0.15	1 liter	13.00	28.35	TOC
MW-2	2					12.65	19.95	
MW-3	2					12.32	20.10	TOC

\* 0.15' measured in disposable bailer w/ sonar tape. An interface probe was not used. This is an estimated/approx. amount.



## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010627-R2</u>	Site: <u>98995740</u>
Sampler: <u>Trei'</u>	Date: <u>6/27/01</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>3</u> 4 6 8
Total Well Depth: <u>28.35</u>	Depth to Water: <u>13.00</u>
Depth to Free Product:	Thickness of Free Product (feet): <u>0.15</u>
Referenced to: <u>PVC</u> 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: \_\_\_\_\_

2.4 (Gals.) X 3 = 7 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 <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>1330</u>						<u>smelled strong odor coming from well. Dropped Disposable Bailer to check for Free Product, pulled Bailer out and saw a thick yellow stuff with foam underneath the product (looked like a sponge) then there was the water - (Took 1 NP liter sample)</u>

Did well dewater? Yes  No  Gallons actually evacuated: 0

Sampling Time: 1345 Sampling Date: 6-27-01

Sample I.D.: MW-1 Laboratory: Sequoia Columbia 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

## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010627-R2</u>	Site: <u>98995740</u>
Sampler: <u>TREI</u>	Date: <u>6/27/01</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: <u>19.95</u>	Depth to Water: <u>12.65</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:  Bailer       Waterra  
 Disposable Bailer       Peristaltic  
 Middleburg       Extraction Pump  
 Electric Submersible       Other \_\_\_\_\_

Sampling Method:  Bailer \*       Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other: \_\_\_\_\_

1.1 (Gals.) X 3 = 3.5 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	radius <sup>2</sup> * 0.165

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1243	63.8	7.1	741.1	>200	1	Turbid
1246	63.7	7.0	906.5	>200	2.5	"
1249	63.6	7.0	881.2	>200	3.5	"

Did well dewater? Yes   No      Gallons actually evacuated: 3.5

Sampling Time: 1255      Sampling Date: 6/27/01

Sample I.D.: MW-2      Laboratory: Sequoia Columbia  Other KIFE

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

## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010627-22</u>	Site: <u>98995740</u>
Sampler: <u>Tree-</u>	Date: <u>6/27/01</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth: <u>20.10</u>	Depth to Water: <u>12.32</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:  Bailer      Waterra  
 Disposable Bailer      Peristaltic  
 Middleburg      Extracuan Pump  
 Electric Submersible      Other \_\_\_\_\_

Sampling Method:  Bailer  
 Disposable Bailer  
 Extraction Port  
 Dedicated Tubing  
 Other: \_\_\_\_\_

1.2 (Gals.) X 3 = 4 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 <sup>2</sup> * 0.163

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
<u>1215</u>	<u>66.5</u>	<u>7.3</u>	<u>707.0</u>	<u>&gt;200</u>	<u>1.5</u>	<u>Turbid</u>
<u>1218</u>	<u>66.3</u>	<u>7.2</u>	<u>640.9</u>	<u>&gt;200</u>	<u>3</u>	<u>li</u>
<u>1221</u>	<u>66.1</u>	<u>7.1</u>	<u>665.9</u>	<u>&gt;200</u>	<u>4</u>	<u>li</u>

Did well dewater? Yes  No       Gallons actually evacuated: 4

Sampling Time: 1230      Sampling Date: 6/27/01

Sample I.D.: MW-3      Laboratory: Sequoia Columbia  Other KIFF

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

### WELL GAUGING DATA

Project # 010531-C3 Date 5-31-01 Client Equiva

Site 2120 Montana St.

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
MW-1	2					13.00	28.21	↓
MW-2	2					11.40	20.04	
MW-3	2					12.22	20.03	

## EQUIVA WELL MONITORING DATA SHEET

BTS #: 010531-C3	Site: 2120 Montana St.
Sampler: Hunt	Date: 5-31-01
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8
Total Well Depth: 28.21	Depth to Water: 13.00
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer      Watertra      Sampling Method: Bailer  
 Disposable Bailer      Peristaltic       Disposable Bailer  
 Middleburg      Extraction Pump      Extraction Port  
 Electric Submersible      Other \_\_\_\_\_      Dedicated Tubing  
 Other: \_\_\_\_\_

$2.4 \text{ (Gals.)} \times 3 = 7.2 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <tr> <th>Well Diameter</th> <th>Multiplier</th> <th>Well Diameter</th> <th>Multiplier</th> </tr> <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>radius<sup>2</sup> * 0.163</td> </tr> </table>	Well Diameter	Multiplier	Well Diameter	Multiplier	1"	0.04	4"	0.65	2"	0.16	6"	1.47	3"	0.37	Other	radius <sup>2</sup> * 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 <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1440	72.2	7.8	671	>200	2.4	odor
1444	72.3	7.5	668	>200	4.8	↓
1448	72.1	7.7	674	>200	7.2	

Did well dewater?    Yes     No      Gallons actually evacuated: 7.2

Sampling Time: 1453      Sampling Date: 5-31-01

Sample I.D.: MW-1      Laboratory: (Kiff) Sequoia 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

## EQUIVA WELL MONITORING DATA SHEET

BTS #: <u>010531-C3</u>	Site: <u>2120 Montana St.</u>
Sampler: <u>Hant</u>	Date: <u>5-31-01</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth: <u>20.04</u>	Depth to Water: <u>11.40</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Middleburg Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
---	--	---

$\frac{1.3}{\text{I Case Volume}} \times \frac{3}{\text{Specified Volumes}} = \frac{3.9}{\text{Calculated Volume}} \text{ Gals.}$	<table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <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>radius<sup>2</sup> * 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 <sup>2</sup> * 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 <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1403	73.2	6.0	1013	>200	1.3	Odor <del>✓</del>
1406	73.4	6.1	1032	>200	2.6	↓
1409	73.1	6.0	1048	>200	4	↓

Did well dewater? Yes  No  Gallons actually evacuated: ~~4~~ 4

Sampling Time: 1414 Sampling Date: 5-31-01

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

## EQUIVA WELL MONITORING DATA SHEET

BTS #: 010531-C3	Site: 2120 Montana St.
Sampler: Hunt	Date: 5-31-01
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8
Total Well Depth: 20.03	Depth to Water: 12.22
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Middleburg Electric Submersible	Waterra Peristaltic Extraction Pump Other _____	Sampling Method: Bailer <input checked="" type="checkbox"/> Disposable Bailer Extraction Port Dedicated Tubing Other: _____
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$1.2 \text{ (Gals.)} \times 3 = 3.6 \text{ Gals.}$ 1 Case Volume      Specified Volumes      Calculated Volume	<table border="1" style="font-size: small;"> <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>radius<sup>2</sup> * 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 <sup>2</sup> * 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 <sup>2</sup> * 0.163														

Time	Temp (°F)	pH	Cond.	Turbidity	Gals. Removed	Observations
1423	72.1	6.8	1007	>200	1.2	odor
1426	71.8	6.9	1116	>200	2.4	↓
1429	71.7	7.0	1121	>200	3.6	↓

Did well dewater? Yes  No  Gallons actually evacuated: 3.6

Sampling Time: 1434      Sampling Date: 5-31-01

Sample I.D.: MW-3      Laboratory: (Kiff) Sequoia 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