RO-7523

Delta
Environmental Consultants, Inc.

Solving environment-related business problems worldwide

www.deltaenv.com

175 Bernal Road • Suite 200
San Jose, California 95119 USA

408.224.4724 800.477.7411
Fax 408.225.8506

Letter of Transmittal

To: Alameda County Environmental Health Services — Date: 6/11/2004

1131 Harbor Bay Pkwy

Alameda CA 94502 — Job No: SJ45-30L-1.2004

Attn: Mr. Scott Seery

We are sending the following items:

Date	No. of Copies	Description
9-Jun-04	1	**2Q04 QMR**
		Shell-branded Service Station
		4530 Las Positas Road
		Livermore, CA

These are transmitted:

☐ For your Information ☐ For action specified below ☐ For review and comment ☒ For your use ☐ As requested

Remarks:

By: Vera Fischer

Title: Senior Staff Geologist

RO-2523

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408.224.4724 800.477.7411
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June 9, 2004
Project No. SJ45-30L-1.2004

Mr. Scott Seery
Environmental Health Services – Environmental Protection
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Quarterly Monitoring Report – Second Quarter 2004**
Shell-branded Service Station
4530 Las Positas Road
Livermore, California

Dear Mr. Seery:

Delta Environmental Consultants, Inc. (Delta), on behalf of Shell Oil Products US (Shell), has prepared the following second quarter 2004 groundwater monitoring and sampling report for the above referenced site. Groundwater sampling was performed by Blaine Tech Services (Blaine), at the direction of Delta. A site location map is included as Figure 1.

QUARTERLY GROUND WATER MONITORING PROGRAM

Groundwater monitoring wells were gauged and sampled by Blaine on April 7, 2004. Depth to groundwater was measured in Wells MW-1 through MW-4. Groundwater elevation data is presented on Figure 2.

Groundwater samples were collected from Wells MW-1 through MW-4. Samples were submitted by Blaine to Severn Trent Laboratories, Inc. (STL) in Pleasanton, California for analysis for total purgeable petroleum hydrocarbons as gasoline (TPH-G); benzene, toluene, ethylbenzene, and total xylenes (BTEX); methyl tert-butyl ether (MTBE); and ethanol using EPA Method 8260B.

Blaine's groundwater monitoring and sampling report, which includes historical and current groundwater elevation data, historical and current analytical results, and field data records for the current monitoring event, is included as Attachment A.

DISCUSSION

The groundwater gradient at the site is complex. As in previous quarters, no clear groundwater flow direction could be established based on the April 7, 2004 gauging data. In general, the downgradient flow direction at the site has consistently been towards Well MW-4 (northeast).

All analytes were below laboratory detection limits for all site wells during the second quarter 2004. Delta eliminated oxygenates DIPE, ETBE, TAME, and TBA from the list of monitoring parameters following the first quarter 2004, as these constituents had never been detected in any site well.

Delta plans to request case closure. MTBE has been below laboratory detection limits in all site wells for at least four consecutive quarters. No other analytes have been detected in site wells since sampling began in 2001. Delta proposes to maintain site wells and return this site to Shell's GRASP voluntary monitoring program (GRASP) pending case closure.

REMARKS

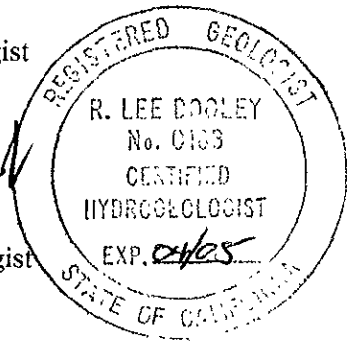
The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this report were performed. This report is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this report.

Please call if you have any questions regarding the contents of this letter.

Sincerely,
Delta Environmental Consultants, Inc.

Vera Fischer
Senior Staff Geologist

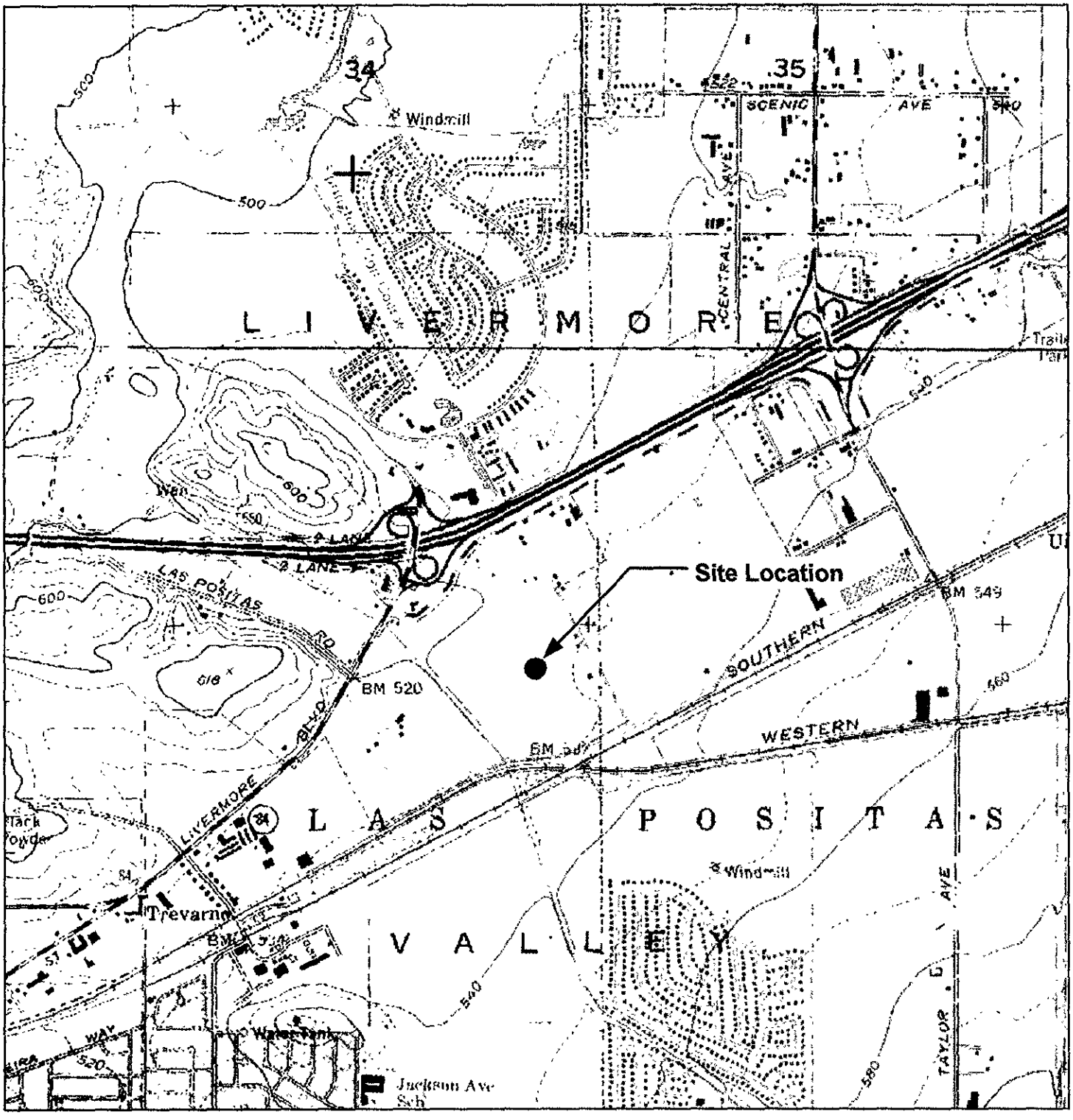
R. Lee Dooley
Senior Hydrogeologist
CHG 0183



Attachments: Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Map

Attachment A – Groundwater Monitoring and Sampling Report, May 7, 2004

cc: Karen Petryna, Shell Oil Products US, Carson
Chuck Headlee, RWQCB - San Francisco Bay Region, Oakland
Livermore-Pleasanton Fire Department, Livermore



GENERAL NOTES:
Base Map from: DeLorme Yarmouth, ME 04096
Source Data: USGS

North

QUADRANGLE LOCATION

0 1,800 3,600
Scale, Feet

FIGURE 1
SITE LOCATION MAP

SHELL-BRANDED SERVICE STATION
4530 Las Positas Roas
Livermore, California

PROJECT NO. SJ45-30L-1.2004	DRAWN BY VF 9/26/03
FILE NO. SJ45-30L-1.2004	PREPARED BY VF
REVISION NO.	REVIEWED BY

Delta
Environmental
Consultants, Inc.

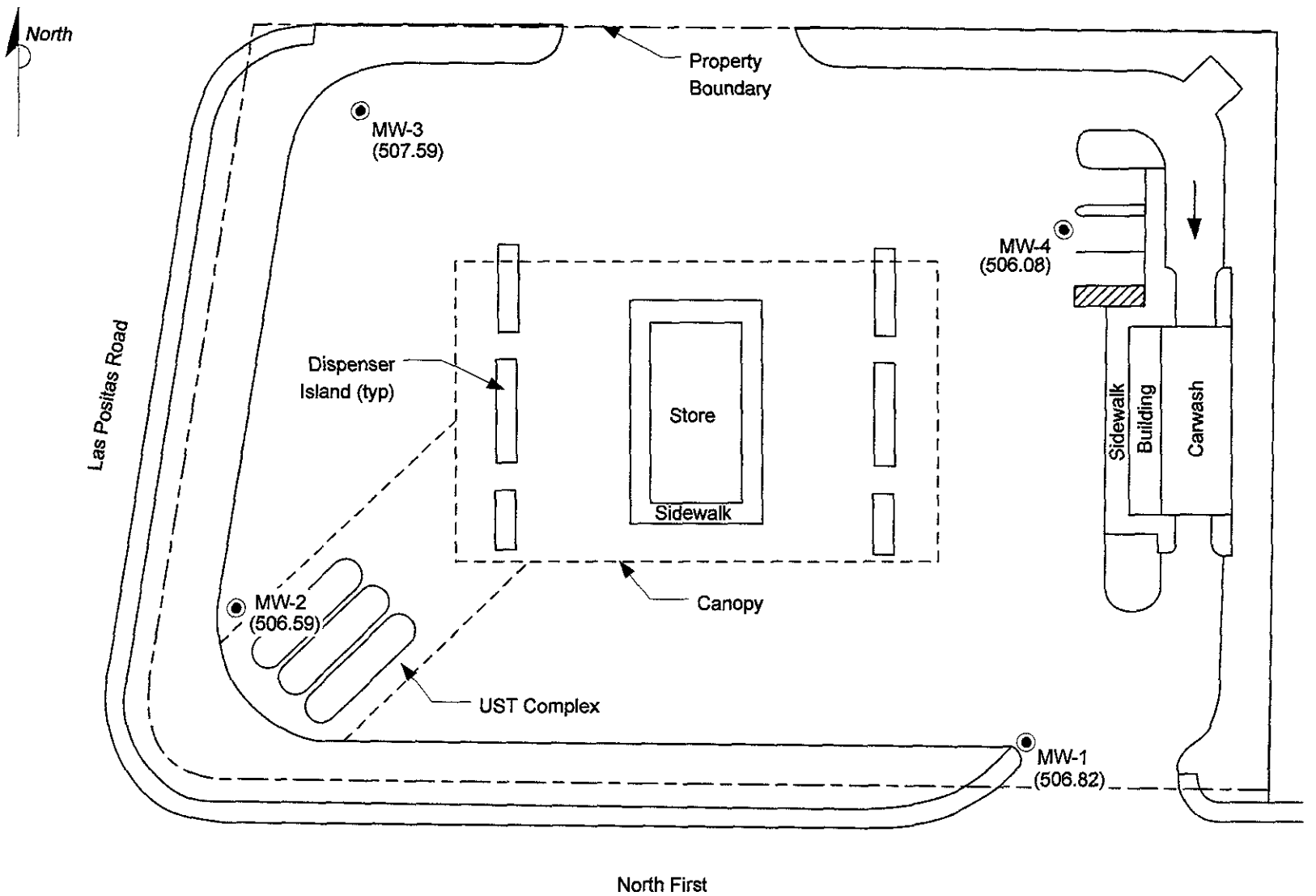


FIGURE 2

GROUNDWATER ELEVATION MAP, APRIL 7, 2004

SHELL-BRANDED SERVICE STATION
4530 Las Positas Road
Livermore, California

LEGEND

MW-2 ◉ **GROUNDWATER MONITORING WELL**

(507.22) **GROUNDWATER ELEVATION (FEET-MSL), 4/07/04**

0 40 FT

APPROX. SCALE

PROJECT NO. SJ45-30L-1.2004	DRAWN BY VF 9/30/03
FILE NO SJ45-30-1.2004	PREPARED BY VF
REVISION NO 1	REVIEWED BY

Delta
Environmental Consultants, Inc.

Attachment A

GROUNDWATER MONITORING AND SAMPLING REPORT

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

May 7, 2004

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

Second Quarter 2004 Groundwater Monitoring at
Shell-branded Service Station
4530 Las Positas Road
Livermore, CA

Monitoring performed on April 7, 2004

Groundwater Monitoring Report **040407-AC-2**

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/ks

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

cc: Garrett Haertel
Delta Environmental
175 Bernal Road, Suite 200
San Jose, CA 95119

WELL CONCENTRATIONS
Shell-branded Service Station
4530 Las Positas Road
Livermore, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/l)	ETBE (ug/l)	TAME (ug/l)	TBA (ug/l)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-1	09/20/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-1	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	519.86	13.13	506.73
MW-1	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	519.86	13.17	506.69
MW-1	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	519.86	12.80	507.06
MW-1	04/15/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.86	12.64	507.22
MW-1	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.86	13.25	506.61
MW-1	10/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.86	13.43	506.43
MW-1	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.86	13.15	506.71
MW-1	**04/07/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**519.86**	**13.04**	**506.82**
MW-2	09/20/2001	NA	<0.50	<0.50	<0.50	<0.50	0.6	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-2	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.50	12.41	506.09
MW-2	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.50	12.34	506.16
MW-2	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.50	11.56	506.94
MW-2	04/15/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.50	11.38	507.12
MW-2	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.50	13.45	505.05
MW-2	10/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.50	12.64	505.86
MW-2	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.50	11.97	506.53
MW-2	**04/07/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**518.50**	**11.91**	**506.59**
MW-3	09/20/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-3	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.93	11.58	507.35
MW-3	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.93	11.17	507.76
MW-3	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	518.93	11.18	507.75
MW-3	04/15/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.93	11.25	507.68
MW-3	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.93	11.39	507.54

WELL CONCENTRATIONS
Shell-branded Service Station
4530 Las Positas Road
Livermore, CA

Well ID	Date	TPPH (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	MTBE 8260 (ug/L)	DIPE (ug/l)	ETBE (ug/l)	TAME (ug/l)	TBA (ug/l)	TOC (MSL)	Depth to Water (ft.)	GW Elevation (MSL)
MW-3	10/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.93	11.54	507.39
MW-3	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	518.93	11.27	507.66
MW-3	**04/07/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**518.93**	**11.34**	**507.59**
MW-4	11/06/2001	NA	<0.50	<0.50	<0.50	<0.50	16.0	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-4	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	470	<2.0	<2.0	<2.0	<50	519.44	13.42	506.02
MW-4	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	22	<2.0	<2.0	<2.0	<50	519.44	13.42	506.02
MW-4	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	519.44	13.07	506.37
MW-4	04/15/2003	<50	<0.50	<0.50	<0.50	<1.0	2.0	<2.0	<2.0	<2.0	<5.0	519.44	12.93	506.51
MW-4	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.44	13.51	505.93
MW-4	10/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.44	13.69	505.75
MW-4	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	519.44	13.48	505.96
MW-4	**04/07/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**519.44**	**13.36**	**506.08**

WELL CONCENTRATIONS
Shell-branded Service Station
4530 Las Positas Road
Livermore, CA

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

Abbreviations:
TPPH = Total petroleum hydrocarbons as gasoline by EPA Method 8260B.
BTEX = Benzene, toluene, ethylbenzene, xylenes by EPA Method 8260B.
MTBE = Methyl-tertiary-butyl ether
DIPE = Diisopropyl ether
ETBE = Ethyl-t-butyl ether
TAME = Tert-amyl methyl ether
TBA = Tert-Butanol
TOC = Top of Casing Elevation
GW = Groundwater
ug/L = Parts per billion
MSL = Mean sea level
ft = Feet
<n = Below detection limit
NA = Not applicable

Notes:
Survey data provided by KHM Environmental Management, Inc.

SEVERN TRENT STL

Submission#: 2004-04-0299

Blaine Tech Services, Inc.

April 22, 2004

1680 Rogers Avenue
San Jose, CA 95112-1105

Attn.: Leon Gearhart

Project#: 040407-AC2
Project: 97464710
Site: 4530 Las Positas Rd., Livermore

Dear Mr.Gearhart,

Attached is our report for your samples received on 04/08/2004 18:54
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after 05/23/2004 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.
You can also contact me via email. My email address is: vvancil@stl-inc.com

Sincerely,

Vincent Vancil
Project Manager

SEVERN TRENT STL

Submission #: 2004-04-0299

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040407-AC2
97464710

Received: 04/08/2004 18:54

Site: 4530 Las Positas Rd., Livermore

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	04/07/2004 13:45	Water	1
MW-2	04/07/2004 14:05	Water	2
MW-3	04/07/2004 14:20	Water	3
MW-4	04/07/2004 13:25	Water	4

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040407-AC2
97464710

Received: 04/08/2004 18:54

Site: 4530 Las Positas Rd., Livermore

Prep(s): 5030B
Sample ID: **MW-1**
Sampled: 04/07/2004 13:45
Matrix: Water

Test(s): 8260B
Lab ID: 2004-04-0299 - 1
Extracted: 4/17/2004 12:05
QC Batch#: 2004/04/17-1C.66

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/17/2004 12:05	
Benzene	ND	0.50	ug/L	1.00	04/17/2004 12:05	
Toluene	ND	0.50	ug/L	1.00	04/17/2004 12:05	
Ethylbenzene	ND	0.50	ug/L	1.00	04/17/2004 12:05	
Total xylenes	ND	1.0	ug/L	1.00	04/17/2004 12:05	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	04/17/2004 12:05	
Ethanol	ND	50	ug/L	1.00	04/17/2004 12:05	
Surrogate(s)						
1,2-Dichloroethane-d4	95.9	76-130	%	1.00	04/17/2004 12:05	
Toluene-d8	95.1	78-115	%	1.00	04/17/2004 12:05	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040407-AC2
97464710

Received: 04/08/2004 18:54

Site: 4530 Las Positas Rd., Livermore

Prep(s):	5030B	Test(s):	8260B
Sample ID:	**MW-2**	Lab ID:	2004-04-0299 - 2
Sampled:	04/07/2004 14:05	Extracted:	4/17/2004 12:29
Matrix:	Water	QC Batch#:	2004/04/17-1C.66

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/17/2004 12:29	
Benzene	ND	0.50	ug/L	1.00	04/17/2004 12:29	
Toluene	ND	0.50	ug/L	1.00	04/17/2004 12:29	
Ethylbenzene	ND	0.50	ug/L	1.00	04/17/2004 12:29	
Total xylenes	ND	1.0	ug/L	1.00	04/17/2004 12:29	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	04/17/2004 12:29	
Ethanol	ND	50	ug/L	1.00	04/17/2004 12:29	
Surrogate(s)						
1,2-Dichloroethane-d4	98.9	76-130	%	1.00	04/17/2004 12:29	
Toluene-d8	98.0	78-115	%	1.00	04/17/2004 12:29	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040407-AC2
97464710

Received: 04/08/2004 18:54

Site: 4530 Las Positas Rd., Livermore

Prep(s): 5030B
Sample ID: **MW-3**
Sampled: 04/07/2004 14:20
Matrix: Water

Test(s): 8260B
Lab ID: 2004-04-0299 - 3
Extracted: 4/17/2004 12:54
QC Batch#: 2004/04/17-1C.66

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/17/2004 12:54	
Benzene	ND	0.50	ug/L	1.00	04/17/2004 12:54	
Toluene	ND	0.50	ug/L	1.00	04/17/2004 12:54	
Ethylbenzene	ND	0.50	ug/L	1.00	04/17/2004 12:54	
Total xylenes	ND	1.0	ug/L	1.00	04/17/2004 12:54	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	04/17/2004 12:54	
Ethanol	ND	50	ug/L	1.00	04/17/2004 12:54	
Surrogate(s)						
1,2-Dichloroethane-d4	97.2	76-130	%	1.00	04/17/2004 12:54	
Toluene-d8	101.4	78-115	%	1.00	04/17/2004 12:54	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040407-AC2
97464710

Received: 04/08/2004 18:54

Site: 4530 Las Positas Rd., Livermore

Prep(s): 5030B
Sample ID: **MW-4**
Sampled: 04/07/2004 13:25
Matrix: Water

Test(s): 8260B
Lab ID: 2004-04-0299 - 4
Extracted: 4/17/2004 13:18
QC Batch#: 2004/04/17-1C.66

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	04/17/2004 13:18	
Benzene	ND	0.50	ug/L	1.00	04/17/2004 13:18	
Toluene	ND	0.50	ug/L	1.00	04/17/2004 13:18	
Ethylbenzene	ND	0.50	ug/L	1.00	04/17/2004 13:18	
Total xylenes	ND	1.0	ug/L	1.00	04/17/2004 13:18	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	04/17/2004 13:18	
Ethanol	ND	50	ug/L	1.00	04/17/2004 13:18	
Surrogate(s)						
1,2-Dichloroethane-d4	96.0	76-130	%	1.00	04/17/2004 13:18	
Toluene-d8	99.0	78-115	%	1.00	04/17/2004 13:18	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.
Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040407-AC2
97464710

Received: 04/08/2004 18:54

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 5030B
Method Blank
MB: 2004/04/17-1C.66-046

Water

Test(s): 8260B
QC Batch # 2004/04/17-1C.66
Date Extracted: 04/17/2004 09:46

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	04/17/2004 09:46	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	04/17/2004 09:46	
Benzene	ND	0.5	ug/L	04/17/2004 09:46	
Toluene	ND	0.5	ug/L	04/17/2004 09:46	
Ethylbenzene	ND	0.5	ug/L	04/17/2004 09:46	
Total xylenes	ND	1.0	ug/L	04/17/2004 09:46	
Ethanol	ND	50	ug/L	04/17/2004 09:46	
Surrogates(s)					
1,2-Dichloroethane-d4	90.2	76-130	%	04/17/2004 09:46	
Toluene-d8	99.0	78-115	%	04/17/2004 09:46	

Gas/BTEX Fuel Oxygenates by 8260B (C6-C12)

Blaine Tech Services, Inc.

Attn.: Leon Gearhart

1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040407-AC2
97464710

Received: 04/08/2004 18:54

Site: 4530 Las Positas Rd., Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike | **Water** | **QC Batch # 2004/04/17-1C.66**

LCS 2004/04/17-1C.66-058 Extracted: 04/17/2004 Analyzed: 04/17/2004 08:58

LCSD 2004/04/17-1C.66-022 Extracted: 04/17/2004 Analyzed: 04/17/2004 09:22

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	24.2	21.8	25	96.8	87.2	10.4	65-165	20		
Benzene	25.7	24.4	25	102.8	97.6	5.2	69-129	20		
Toluene	25.2	23.5	25	100.8	94.0	7.0	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	412	427	500	82.4	85.4		76-130			
Toluene-d8	497	502	500	99.4	100.4		78-115			

LAB: STL

Lab Identification (if necessary)

Address

City, State, Zip

SHELL Chain Of Custody Record

84667

Shell Project Manager to be involved:

☑ SCIENCE & ENGINEERING ☐ TECHNICAL SERVICES ☐ CRMT-HOUSTON

Karen Petryna

2004-04-0299

INCIDENT NUMBER (R&E ONLY): 9 7 4 6 4 7 1 0

SAP or CRMT NUMBER (TS/CRMT): [redacted]

DATE: 4/7/04

PAGE: 1 of 1

CONSULTING COMPANY: Blaine Tech Services	LOG CODE: BTSS	SITE ADDRESS (Street and City): 4530 Las Positas Rd., Livermore	SHELL FACILITY NO: T0600194179
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	
CC REPORT, INVOICE TO (Responsible Party or Designee): Garrett Haertel	PHONE NO.: (408)224-4724	E-MAIL: ghaertel@deltaenv.com	CONSULTANT PROJECT NO.: BTS #040407-A02
SAMPLER NAME(S) (Print): Aaron Costa			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: _____

GCMS 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
	MW-1	4/7	1345	W	3	X	X		X		X
	MW-2	"	1405	"	"	X	X		X		X
	MW-3	"	1420	"	"	X	X		X		X
	MW-4	"	1325	"	"	X	X		X		X

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

3.5

TEMPERATURE ON RECEIPT OF:

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Aaron Costa		4/8/04	1603
Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature] 4/8/04 1900	[signature]	4/8/04	1854
Relinquished by: (Signature)	Received by: (Signature)	Date	Time

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

10/15/03 Revision

OAKLAND (510) 566-1700

WELLHEAD INSPECTION CHECKLIST

ent 9746710 Date 4/7/04

e Address 453 Las Positas Rd.

o Number 040407-AC2 Technician AC

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1	X							
MW-2	X							
MW-3	X							
MW-4	X				X			

NOTES:

WELL GAUGING DATA

Project # 040407-ACZ Date 4/7/04 Client ~~97644~~ AC 9746710

Site 4530 Las Positas Rd. Livermore

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					13.04	22.30	TOC	
MW-2	2					11.91	22.77		
MW-3	2					11.34	22.20		
MW-4	2					13.36	22.58		

SHELL WELL MONITORING DATA SHEET

TS #: 040407-AC2	Site: 97464710
mpler: AC	Date: 4/7/04
ell I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
otal Well Depth (TD): 22.30	Depth to Water (DTW): 13.04
epth to Free Product:	Thickness of Free Product (feet):
eferenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
TW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.89	

ge Method: (Bailer) Waterra Sampling Method: (Bailer)
Disposable Bailer — Peristaltic — Disposable Bailer
Positive Air Displacement — Extraction Pump — Extraction Port
Electric Submersible — Other_____ — Dedicated Tubing
Other: _____

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

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

Time	Temp (°F)	pH	Cond. (mS or ~~uS~~)	Turbidity (NTUs)	Gals. Removed	Observations
333	67.3	7.3	1408	71000	1.5	Cloudy
1337	65.7	7.2	1368	71000	3	"
1339	65.9	7.2	1340	71000	4.5	"

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

ampling Date: 4/7/04 Sampling Time: 1345 Depth to Water: 14.76

ample I.D.: MW-1 Laboratory: (STL) Other_____

nalyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other: Ethanol

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

nalyzed for: TPH-G BTEX MTBE TPH-D Other:

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

SHELL WELL MONITORING DATA SHEET

TS #: 040407-AC2	Site: 97464710
mpler: AC	Date: 4/7/04
ell I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ____
otal Well Depth (TD): 22.77	Depth to Water (DTW): 11.91
epth to Free Product:	Thickness of Free Product (feet):
eferenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

TW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.08

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

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

2 (Gals.) X 3 = 6 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
1353	69.4	7.3	1236	71000	2	Cloudy, brown
1356	69.8	7.3	1239	71000	4	"
1359	70.1	7.2	1228	71000	6	"

id well dewater? Yes (No) Gallons actually evacuated: 6

ampling Date: 4/7/04 Sampling Time: 1405 Depth to Water: 13.60

ample I.D.: MW-2 Laboratory: (STL) Other_____

nalyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other: Ethanol

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

nalyzed for: TPH-G BTEX MTBE TPH-D Other:

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

SHELL WELL MONITORING DATA SHEET

TS #: 040407-AC2	Site: 97464710
mpler: AC	Date: 4/7/04
ell I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ____
otal Well Depth (TD): 22.20	Depth to Water (DTW): 11.34
epth to Free Product:	Thickness of Free Product (feet):
eferenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH
TW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.51	

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

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

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

2 (Gals.) X 3 = 6 Gals.
Case Volume — Specified Volumes — Calculated Volume

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1411	71.3	7.3	1214	71000	2	Cloudy
1414	71.0	7.3	1227	71000	4	"
1417	70.1	7.3	1200	71000	6	"

id well dewater? Yes (No) Gallons actually evacuated: 6

ampling Date: 4/7/04 Sampling Time: 1420 Depth to Water: 13.08

ample I.D.: MW-3 Laboratory: (STL) Other_____

nalyzed for: (TPH-G) (BTEX) (MTBE) TPH-D Other: Ethanol

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

nalyzed for: TPH-G BTEX MTBE TPH-D Other:

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

SHELL WELL MONITORING DATA SHEET

STS #: 040407-AC2	Site: 97464710
Sampler: AC	Date: 4/7/04
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 22.58	Depth to Water (DTW): 13.36
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 15.20

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

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

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

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

Time	Temp (°F)	pH	Cond. (mS or (uS))	Turbidity (NTUs)	Gals. Removed	Observations
1315	68.4	7.4	2018	>1000	1.5	Cloudy, brown
1318	68.9	7.4	1968	>1000	3	"
1321	69.2	7.3	1924	>1000	4.5	"

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

Sampling Date: 4/7/04 Sampling Time: 1325 Depth to Water: 14.88

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

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

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