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March 29, 2004
Project No. SJ80-9ST-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

Alameda County
MAR 31 2004
Environmental Health

Re: **Semi-Annual Monitoring Report – First Quarter 2004**
Shell-branded Service Station
809 East Stanley Blvd.
Livermore, California

Dear Mr. Seery:

Delta Environmental Consultants, Inc. (Delta), on behalf of Shell Oil Products US (Shell), has prepared the following first quarter 2004 groundwater monitoring and sampling report for the above referenced site. A site location map is included as Figure 1.

On March 7, 2003, Shell received a notice of responsibility letter from the Alameda County Health Care Services Agency placing the site in the Local Oversight Program due to the presence of methyl tert-butyl ether (MTBE) in groundwater beneath the site. In a work plan, dated May 27, 2003, Delta proposed to continue quarterly sampling of site wells for the remainder of 2003 in order to monitor MTBE concentrations. During the fourth quarter 2003, Delta recommended reducing the sampling frequency from quarterly to semi-annually in the first and third quarters.

QUARTERLY GROUND WATER MONITORING PROGRAM

Groundwater monitoring wells were gauged and sampled by Blaine Tech Services (Blaine), at the direction of Delta, on January 13, 2004. Depth to groundwater was measured in Wells MW-1 through MW-4. Groundwater elevation data and contours are 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 of total purgeable petroleum hydrocarbons as gasoline (TPH-G); benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds) and the fuel oxygenate methyl tert-butyl ether (MTBE) 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

Depth to groundwater has decreased an average of 3.42 feet in site wells since last quarter. The groundwater gradient on January 13, 2004 was toward the north-northeast at a magnitude of 0.005 feet/feet, consistent with previous data.

All analytes tested were below laboratory detection limits during the first quarter 2004.

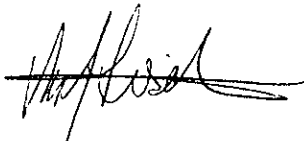
REMARKS

The information 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,

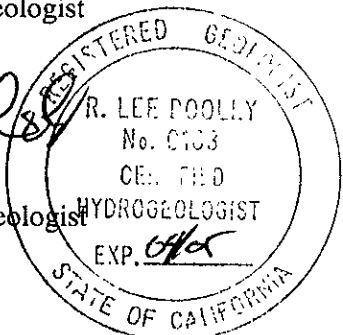
Delta Environmental Consultants, Inc.



Vera Fischer
Senior Staff Geologist



R. Lee Dooley
Senior Hydrogeologist
CHG 0183



March 29, 2004

Page 3

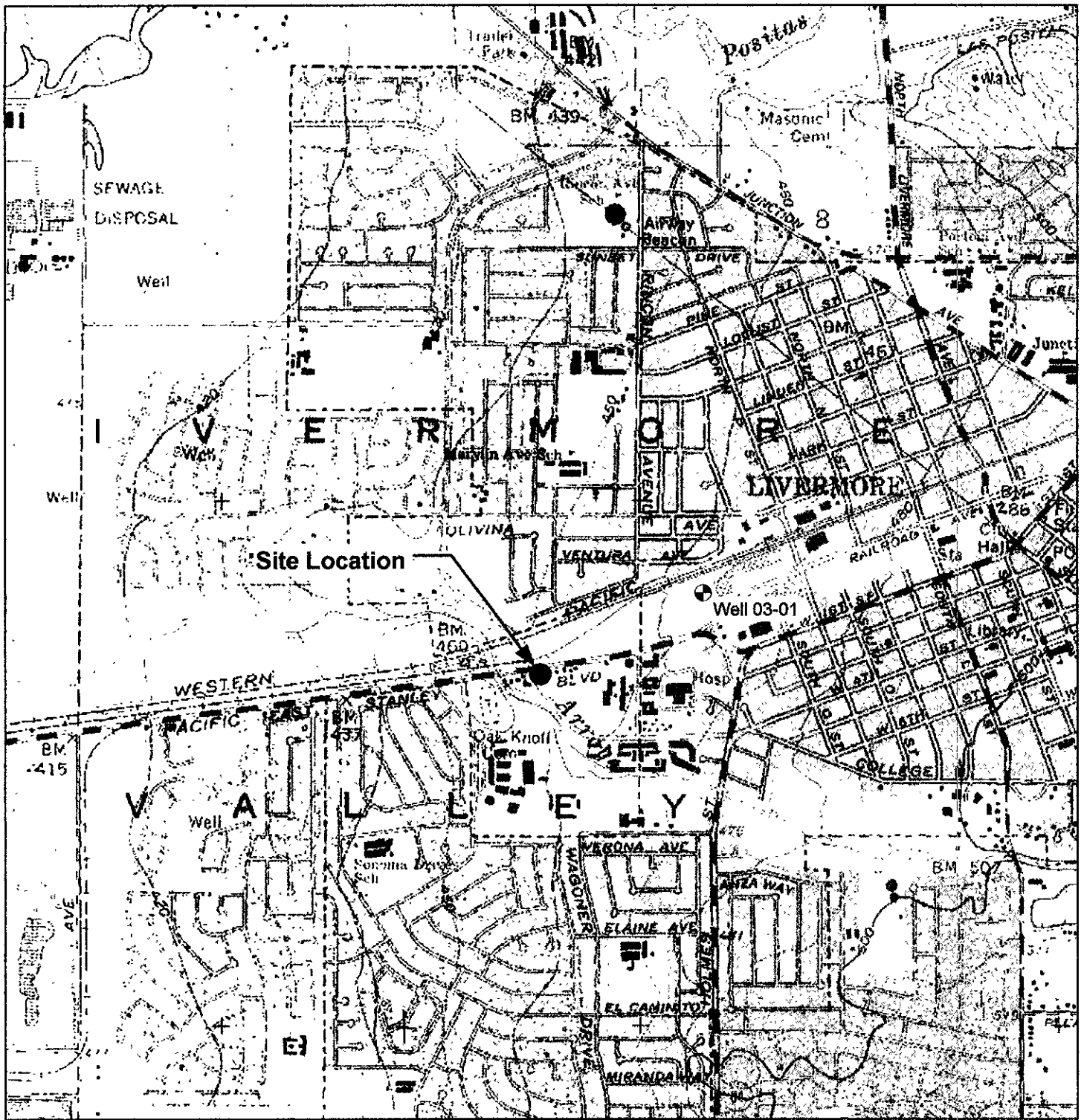
Attachments:

Figure 1 – Site Location Map

Figure 2 – Groundwater Elevation Contour Map

Attachment A – Groundwater Monitoring and Sampling Report, February 11, 2004

cc: Karen Petryna, Shell Oil Products US, Carson
Betty Graham, RWQCB – Oakland



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



QUADRANGLE LOCATION



FIGURE 1

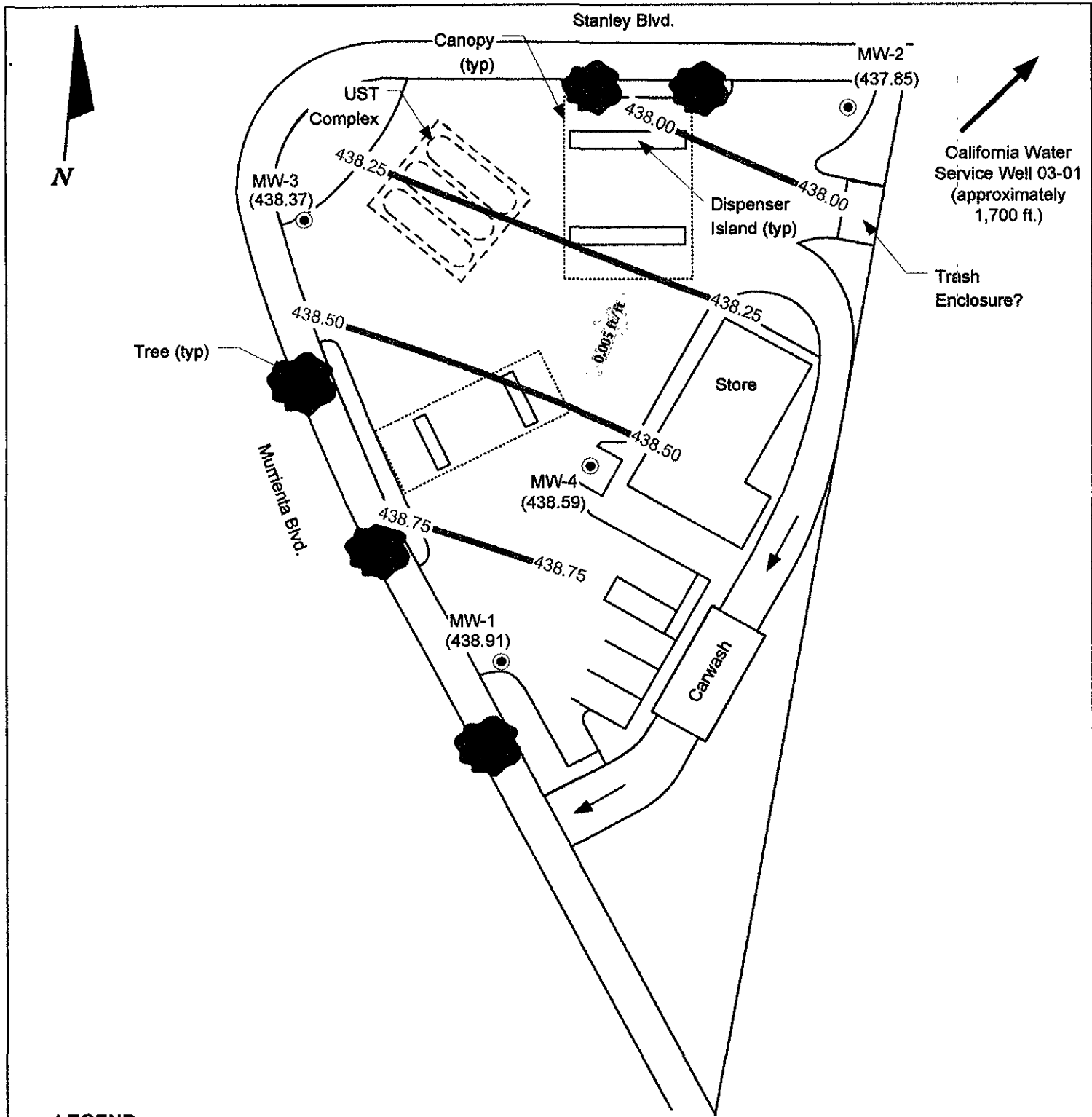
SITE LOCATION MAP

Shell-branded Service Station
 809 East Stanley Blvd.
 Livermore, California

PROJECT NO. SJ80-SST-1.2004	DRAWN BY VF 12/01/03
FILE NO. SJ80-SST-1.2004	PREPARED BY VF
REVISION NO. 1	REVIEWED BY DA



Delta
 Environmental
 Consultants, Inc.



LEGEND

- MW-1 ● **GROUNDWATER MONITORING WELL**
- (436.37) **GROUNDWATER ELEVATION (FEET-MSL), 1/13/04**
- 436.20 — **GROUNDWATER ELEVATION CONTOUR**
- APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT**

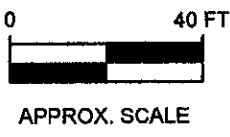


FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP,
JANUARY 13, 2004

Shell-branded Service Station
809 East Stanley Ave.
Livermore, California

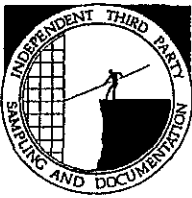
PROJECT NO. SJ80-9ST-1.2004 FILE NO. SJ8-08ST-1.2004 REVISION NO. 1	DRAWN BY VF 12/01/03 PREPARED BY VF REVIEWED BY DA
------------------------------------------------------------------------------------	-------------------------------------------------------------------

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

February 11, 2004

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

First Quarter 2004 Groundwater Monitoring at
Shell-branded Service Station
809 East Stanley Boulevard
Livermore, CA

Monitoring performed on January 13, 2004

Groundwater Monitoring Report 040113-JP-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,

Leon Gearhart
Project Coordinator

LG/jt

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

cc: Debbie Arnold
Delta Environmental
175 Bernal Road, Suite 200
San Jose, CA 95119

WELL CONCENTRATIONS
Shell-branded Service Station
809 East Stanley Boulevard
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	09/25/2001	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	455.49	20.06	435.43
MW-1	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	455.49	19.71	435.78
MW-1	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	455.49	18.05	437.44
MW-1	04/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	455.49	17.57	437.92
MW-1	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	455.49	18.76	436.73
MW-1	10/20/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	5.0	455.49	20.01	435.48
MW-1	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	455.49	16.58	438.91
MW-2	09/25/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<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	454.84	20.40	434.44
MW-2	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	454.84	20.17	434.67
MW-2	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	454.84	18.30	436.54
MW-2	04/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	454.84	17.93	436.91
MW-2	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	454.84	19.01	435.83
MW-2	10/20/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	454.84	20.36	434.48
MW-2	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	454.84	16.99	437.85
MW-3	09/25/2001	NA	<0.50	<0.50	<0.50	<0.50	3.6	<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	454.87	19.95	434.92
MW-3	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	0.83	<2.0	<2.0	<2.0	<50	454.87	19.63	435.24
MW-3	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	454.87	17.90	436.97
MW-3	04/21/2003	<50	<0.50	<0.50	<0.50	<1.0	0.71	<2.0	<2.0	<2.0	<5.0	454.87	17.45	437.42
MW-3	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	0.69	<2.0	<2.0	<2.0	<5.0	454.87	18.69	436.18
MW-3	10/20/2003	<50	<0.50	<0.50	<0.50	<1.0	0.64	<2.0	<2.0	<2.0	<5.0	454.87	19.90	434.97
MW-3	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	454.87	16.50	438.37

WELL CONCENTRATIONS
Shell-branded Service Station
809 East Stanley Boulevard
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)
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MW-4	09/25/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-4	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	456.24	21.15	435.09
MW-4	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	456.24	20.85	435.39
MW-4	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	456.24	19.15	437.09
MW-4	04/21/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	456.24	18.65	437.59
MW-4	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	456.24	19.87	436.37
MW-4	10/20/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	456.24	21.12	435.12
MW-4	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	456.24	17.65	438.59

WELL CONCENTRATIONS
Shell-branded Service Station
809 East Stanley Boulevard
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)
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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.

Blaine Tech Services, Inc.

January 29, 2004

1680 Rogers Avenue
San Jose, CA 95112-1105

Attn.: Leon Gearhart

Project#: 040113-JP3

Project: 97461964

Site: 809 E. Stanley Blvd., Livermore

Dear Mr. Gearhart,

Attached is our report for your samples received on 01/15/2004 16:58


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 02/29/2004 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 Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

Gas/BTEX/MTBE 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: 040113-JP3

97461964

Received: 01/15/2004 16:58

Site: 809 E. Stanley Blvd., Livermore

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-1	01/13/2004 15:00	Water	1
MW-2	01/13/2004 15:25	Water	2
MW-3	01/13/2004 16:20	Water	3
MW-4	01/13/2004 15:50	Water	4

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

01/28/2004 16:09

Gas/BTEX/MTBE 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: 040113-JP3
97461964

Received: 01/15/2004 16:58

Site: 809 E. Stanley Blvd., Livermore

Prep(s): 5030B	Test(s): 8260B
Sample ID: MW-1	Lab ID: 2004-01-0416 - 1
Sampled: 01/13/2004 15:00	Extracted: 1/23/2004 19:39
Matrix: Water	QC Batch#: 2004/01/23-2B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/23/2004 19:39	
Benzene	ND	0.50	ug/L	1.00	01/23/2004 19:39	
Toluene	ND	0.50	ug/L	1.00	01/23/2004 19:39	
Ethylbenzene	ND	0.50	ug/L	1.00	01/23/2004 19:39	
Total xylenes	ND	1.0	ug/L	1.00	01/23/2004 19:39	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	01/23/2004 19:39	
Surrogate(s)						
1,2-Dichloroethane-d4	88.0	76-130	%	1.00	01/23/2004 19:39	
Toluene-d8	88.8	78-115	%	1.00	01/23/2004 19:39	

Gas/BTEX/MTBE 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: 040113-JP3

97461964

Received: 01/15/2004 16:58

Site: 809 E. Stanley Blvd., Livermore

Prep(s):	5030B	Test(s):	8260B
Sample ID:	MW-2	Lab ID:	2004-01-0416 - 2
Sampled:	01/13/2004 15:25	Extracted:	1/23/2004 20:01
Matrix:	Water	QC Batch#:	2004/01/23-2B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/23/2004 20:01	
Benzene	ND	0.50	ug/L	1.00	01/23/2004 20:01	
Toluene	ND	0.50	ug/L	1.00	01/23/2004 20:01	
Ethylbenzene	ND	0.50	ug/L	1.00	01/23/2004 20:01	
Total xylenes	ND	1.0	ug/L	1.00	01/23/2004 20:01	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	01/23/2004 20:01	
Surrogate(s)						
1,2-Dichloroethane-d4	97.3	76-130	%	1.00	01/23/2004 20:01	
Toluene-d8	91.2	78-115	%	1.00	01/23/2004 20:01	

Gas/BTEX/MTBE 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: 040113-JP3
97461964

Received: 01/15/2004 16:58

Site: 809 E. Stanley Blvd., Livermore

Prep(s): 5030B Test(s): 8260B
Sample ID: MW-3 Lab ID: 2004-01-0416 - 3
Sampled: 01/13/2004 16:20 Extracted: 1/23/2004 20:23
Matrix: Water QC Batch#: 2004/01/23-2B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/23/2004 20:23	
Benzene	ND	0.50	ug/L	1.00	01/23/2004 20:23	
Toluene	ND	0.50	ug/L	1.00	01/23/2004 20:23	
Ethylbenzene	ND	0.50	ug/L	1.00	01/23/2004 20:23	
Total xylenes	ND	1.0	ug/L	1.00	01/23/2004 20:23	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	01/23/2004 20:23	
Surrogate(s)						
1,2-Dichloroethane-d4	91.6	76-130	%	1.00	01/23/2004 20:23	
Toluene-d8	89.6	78-115	%	1.00	01/23/2004 20:23	

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

01/28/2004 16:09

Page 4 of 7

Gas/BTEX/MTBE 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: 040113-JP3

97461964

Received: 01/15/2004 16:58

Site: 809 E. Stanley Blvd., Livermore

Prep(s): 5030B

Sample ID: MW-4

Sampled: 01/13/2004 15:50

Matrix: Water

Test(s): 8260B

Lab ID: 2004-01-0416 - 4

Extracted: 1/23/2004 20:45

QC Batch#: 2004/01/23-2B.64

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	01/23/2004 20:45	
Benzene	ND	0.50	ug/L	1.00	01/23/2004 20:45	
Toluene	ND	0.50	ug/L	1.00	01/23/2004 20:45	
Ethylbenzene	ND	0.50	ug/L	1.00	01/23/2004 20:45	
Total xylenes	ND	1.0	ug/L	1.00	01/23/2004 20:45	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	01/23/2004 20:45	
Surrogate(s)						
1,2-Dichloroethane-d4	91.0	76-130	%	1.00	01/23/2004 20:45	
Toluene-d8	88.5	78-115	%	1.00	01/23/2004 20:45	

Gas/BTEX/MTBE 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: 040113-JP3
97461964

Received: 01/15/2004 16:58

Site: 809 E. Stanley Blvd., Livermore

Batch QC Report

Prep(s): 5030B

Method Blank

MB: 2004/01/23-2B.64-007

Water

Test(s): 8260B

QC Batch # 2004/01/23-2B.64

Date Extracted: 01/23/2004 19:07

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	01/23/2004 19:07	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	01/23/2004 19:07	
Benzene	ND	0.5	ug/L	01/23/2004 19:07	
Toluene	ND	0.5	ug/L	01/23/2004 19:07	
Ethylbenzene	ND	0.5	ug/L	01/23/2004 19:07	
Total xylenes	ND	1.0	ug/L	01/23/2004 19:07	
Surrogates(s)					
1,2-Dichloroethane-d4	84.8	76-130	%	01/23/2004 19:07	
Toluene-d8	88.6	78-115	%	01/23/2004 19:07	

Gas/BTEX/MTBE 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: 040113-JP3
97461964

Received: 01/15/2004 16:58

Site: 809 E. Stanley Blvd., Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike

Water

QC Batch # 2004/01/23-2B.64

LCS 2004/01/23-2B.64-022

Extracted: 01/23/2004

Analyzed: 01/23/2004 18:22

LCSD 2004/01/23-2B.64-045

Extracted: 01/23/2004

Analyzed: 01/23/2004 18:45

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD		%	Rec.	RPD	LCS
Methyl tert-butyl ether (MTBE)	25.4	24.6	25	101.6	98.4	3.2	65-165	20		
Benzene	25.3	25.0	25	101.2	100.0	1.2	69-129	20		
Toluene	26.2	25.0	25	104.8	100.0	4.7	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	440	421	500	88.0	84.2		76-130			
Toluene-d8	450	451	500	90.0	90.2		78-115			

Severn Trent Laboratories, Inc.

STL San Francisco * 1220 Quarry Lane, Pleasanton, CA 94566

Tel 925 484 1919 Fax 925 484 1096 * www.stl-inc.com * CA DHS ELAP# 2496

01/28/2004 16:09

LAB: STL

SHELL Chain Of Custody Record

82036

Lab Identification (if necessary)

Address

City, State, Zip

Shell Project Manager to be invoiced:

SCIENCE & ENGINEERING

TECHNICAL SERVICES

CRMT-HOUSTON

Karen Petryna

2004-01-0416

INCIDENT NUMBER (SEE ONLY)

9 7 4 6 1 9 6 4

SAP or CRMT NUMBER (TS/CRMT)

DATE: 1/13/04

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services		LOG CODE: BTSS	SITE ADDRESS (Street and City): 809 E. Stanley Blvd., Livermore		GLOBAL ID NO.: pending
ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112		EDF GUARANTEER TO (Responsible Party or Design): Debbie Arnold		PHONE NO.: (408)244-4724	EMAIL: darnold@khm1.com
PROJECT CONTACT (Secretary or PCH Report to): Leon Gearhart		CONSULTANT PROJECT NO.: 046113-JP3		BTS #	
TELEPHONE: 408-573-0566	FAX: 408-573-7771	EMAIL: lgearhart@blainetech.com		SAMPLER NAME(S) (if any): <i>Matthew Pyrech</i>	

REQUESTED ANALYSIS

LA - RWQCS REPORT FORMAT UST AGENCY: _____

GCMS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

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

FIELD NOTES:

Container/Preservative
or PID Readings
or Laboratory Notes

2.5

LAB USE ONLY	Field Sample Identification		SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (021B - 6ppb RL)	MTBE (260B - 0.6ppb RL)	Oxygens (5) by (260B)					
	DATE	TIME	DATE	TIME												
/	MW-1	1/13/04	1500		✓	3	X	X	X							
/	MW-2	1/13/04	1525			1	X	X	X							
/	MW-3	1/13/04	1620			1	X	X	X							
/	MW-4	1/13/04	1550			1	X	X	X							

TEMPERATURE ON RECEIPT °C

Requested by: (Signature) <i>Matthew Pyrech</i>	Received by: (Signature) <i>[Signature]</i>	Date: <u>1/15/04</u>	Time: <u>1530</u>
Requested by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date: <u>1/15/04</u>	Time: <u>1658</u>
Requested by: (Signature) <i>[Signature]</i>	Received by: (Signature) <i>[Signature]</i>	Date:	Time:

2078-08-08 (1.1) (2) SHELL/CDC

WELLHEAD INSPECTION CHECKLIST

Client Shell Date 1/13/04
 Site Address 809 E. Stanley Blvd, Livermore
 Job Number 040113-JP3 Technician M. Rych

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							

NOTES: _____

WELL GAUGING DATA

Project # 040113-JP3 Date 1/13/04 Client 97461964

Site 809 E. Stanley Blvd, 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					16.58	47.65	TOC
MW-2	2					16.99	47.08	↓
MW-3	2					16.50	47.40	
MW-4	2					17.65	47.80	

SHELL WELL MONITORING DATA SHEET

BTS #: <u>030113 040113-JP3</u>	Site: <u>97461964</u>
Sampler: <u>M. Pyrch</u>	Date: <u>1/13/04</u>
Well I.D.: <u>MW-1</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD): <u>47.65</u>	Depth to Water (DTW): <u>16.58</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>22.79</u>	

Purge Method: Bailer Water Sampling Method: Bailer
 ~~Disposable Bailer~~ Peristaltic Disposable Bailer
 Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing

$4.9 \text{ (Gals.)} \times 3 = 14.7 \text{ Gals.}$ <p>1 Case Volume Specified Volumes Calculated Volume</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <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>radius² * 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 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>LS</u>)	Turbidity (NTUs)	Gals. Removed	Observations
1445	57.3	6.5	635	7200	5	brown, cloudy
1450	59.4	6.9	541	7200	10	"
1455	61.5	6.9	517	7200	15	cloudy

Did well dewater? Yes No Gallons actually evacuated: 15

Sampling Date: 1/13/04 Sampling Time: 1500 Depth to Water: 16.69

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

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

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: <u>030113 040113-JP3</u>	Site: <u>97461964</u>
Sampler: <u>M. Pynch</u>	Date: <u>1/13/04</u>
Well I.D.: <u>MW-2</u>	Well Diameter: <u>(2)</u> 3 4 6 8 _____
Total Well Depth (TD): <u>47.08</u>	Depth to Water (DTW): <u>16.99</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>23.01</u>	

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

$\frac{4.8}{1} \text{ (Gals.)} \times \frac{3}{\text{Specified Volumes}} = \frac{14.4}{\text{Calculated Volume}} \text{ Gals.}$	<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>radius² * 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 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 μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1512	56.9	7.7	509	7200	5	cloudy
1517	60.5	7.4	511	7200	10	"
1522	60.8	7.0	512	7200	14.5	"

Did well dewater? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Gallons actually evacuated: <u>14.5</u>	
Sampling Date: <u>1/13/04</u>	Sampling Time: <u>1525</u>	Depth to Water: <u>16.90</u>
Sample I.D.: <u>MW-2</u>	Laboratory: <u>STL</u> Other _____	
Analyzed for: <input checked="" type="checkbox"/> TPH-G <input checked="" type="checkbox"/> BTEX <input checked="" type="checkbox"/> MTBE <input type="checkbox"/> TPH-D Other: _____		
EB I.D. (if applicable): _____ @ _____ Time	Duplicate I.D. (if applicable): _____	
Analyzed for: TPH-G BTEX MTBE TPH-D Other: _____		
D.O. (if req'd): Pre-purge: _____ mg/L	Post-purge: _____ mg/L	
O.R.P. (if req'd): Pre-purge: _____ mV	Post-purge: _____ mV	

SHELL WELL MONITORING DATA SHEET

BTS #: <u>04015-0P3</u>	Site: <u>97461964</u>
Sampler: <u>N. Pyra</u>	Date: <u>1/13/04</u>
Well I.D.: <u>MW-3</u>	Well Diameter: <u>2</u> 3 4 6 8
Total Well Depth (TD): <u>47.40</u>	Depth to Water (DTW): <u>16.50</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>22.68</u>	

Purge Method: Bailer Waterra Sampling Method: Bailer
 Disposable Bailer Peristaltic Disposable Bailer
Positive Air Displacement Extraction Pump Extraction Port
 Electric Submersible Other _____ Dedicated Tubing

Other: _____

$\frac{4.9 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{14.7 \text{ Gals.}}{\text{Calculated Volume}}$	<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>radius² * 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 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
<u>1605</u>	<u>59.0</u>	<u>7.2</u>	<u>565</u>	<u>7200</u>	<u>5</u>	<u>Cloudy, brown</u>
<u>1610</u>	<u>60.3</u>	<u>7.2</u>	<u>575</u>	<u>7200</u>	<u>10</u>	<u>Slightly cloudy</u>
<u>1615</u>	<u>61.5</u>	<u>7.0</u>	<u>579</u>	<u>7200</u>	<u>15</u>	<u>"</u>

Did well dewater? Yes No Gallons actually evacuated: 15

Sampling Date: 1/13/04 Sampling Time: 1620 Depth to Water: 16.62

Sample I.D.: MW-3 Laboratory: STL Other _____

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

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

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

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

SHELL WELL MONITORING DATA SHEET

BTS #: <u>030113 040113-JP3</u>	Site: <u>97461964</u>
Sampler: <u>M. Pynch</u>	Date: <u>1/13/04</u>
Well I.D.: <u>MW-4</u>	Well Diameter: <u>(2)</u> 3 4 6 8
Total Well Depth (TD): <u>47.60</u>	Depth to Water (DTW): <u>17.65</u>
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: <u>PVC</u> Grade	D.O. Meter (if req'd): YSI HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: <u>23.68</u>	

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

$\frac{4.8 \text{ (Gals.)} \times 3}{\text{Specified Volumes}} = \frac{14.4 \text{ Gals.}}{\text{Calculated Volume}}$	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <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>radius² * 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 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 μ S)	Turbidity (NTUs)	Gals. Removed	Observations
1537	56.3	6.9	509	7200	5	Cloudy
1542	60.5	6.9	510	7200	10	Cloudy
1547	61.0	7.0	559	7200	14.5	cloudy

Did well dewater? Yes No Gallons actually evacuated: 14.5

Sampling Date: 1/13/04 Sampling Time: 1550 Depth to Water: 17.67

Sample I.D.: MW-4 Laboratory: STL 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



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San Jose, California 95119 USA
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Fax 408.225.8506

www.deltaenv.com

Alameda County
MAR 31 2004
Environmental Health

To: Alameda County Environmental Health Services Date: 3/29/2004
 1131 Harbor Bay Pkwy
 Alameda CA 94502 Job No: SJ80-9ST-1.2004

Attn: Mr. Scott Seery

We are sending the following items:

Date	Quantity	Description
29-Mar-04	1	Semi-Annual Monitoring Report - 1Q04
		Shell-branded Service Station
		809 E Stanley Blvd
		Livermore, CA

These are transmitted:

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

By: Vera Fischer

Title: Senior Staff Geologist

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