RO-2525

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

September 20, 2004
Project No. SJ31-8LI-1.2004

Mr. Bob Schultz
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 – Third Quarter 2004**
Shell-branded Service Station
318 South Livermore Avenue
Livermore, California

Dear Mr. Schultz:

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

BACKGROUND

On March 7, 2003, Shell received a notice of responsibility letter from the Alameda County Health Care Services Agency (ACHCSA) 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.

On December 10, 2003, site USTs, fuel dispensers, and associated product piping were removed. A fuel system removal report, dated January 16, 2004, was submitted by Delta to the ACHCSA.

QUARTERLY GROUND WATER MONITORING PROGRAM

Groundwater monitoring wells were gauged and sampled by Blaine Tech Services (Blaine), at the direction of Delta, on July 21, 2004. Depth to groundwater was measured in Wells MW-5 through MW-8. Wells MW-1 through MW-4 were previously destroyed. Groundwater elevation data and contours are presented on Figure 2.

Groundwater samples were collected from Wells MW-5 through MW-8. 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 compounds); and the fuel oxygenate MTBE using EPA Method 8260B. Benzene and MTBE concentrations in groundwater are presented on Figure 3.

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 in site wells has increased by an average of 6.80 feet since last quarter. The groundwater gradient on July 21, 2004 was toward the west-northwest at a magnitude of 0.013 feet/feet, consistent with previous data.

MTBE continues to be detected in Well MW-7, at a concentration of 1.8 micrograms per liter (ug/l). MTBE was below the method detection limit in all other site wells. TPH-G and BTEX compounds were not detected in any site wells for the second consecutive quarter.

In the first and second quarter 2004 monitoring reports, Delta proposed to reduce the sampling frequency to semi-annual during the first and third quarters. The ACHSA has not responded to this proposal. Delta intends to implement semi-annual monitoring. The next groundwater monitoring event will be scheduled for the first quarter 2005.

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

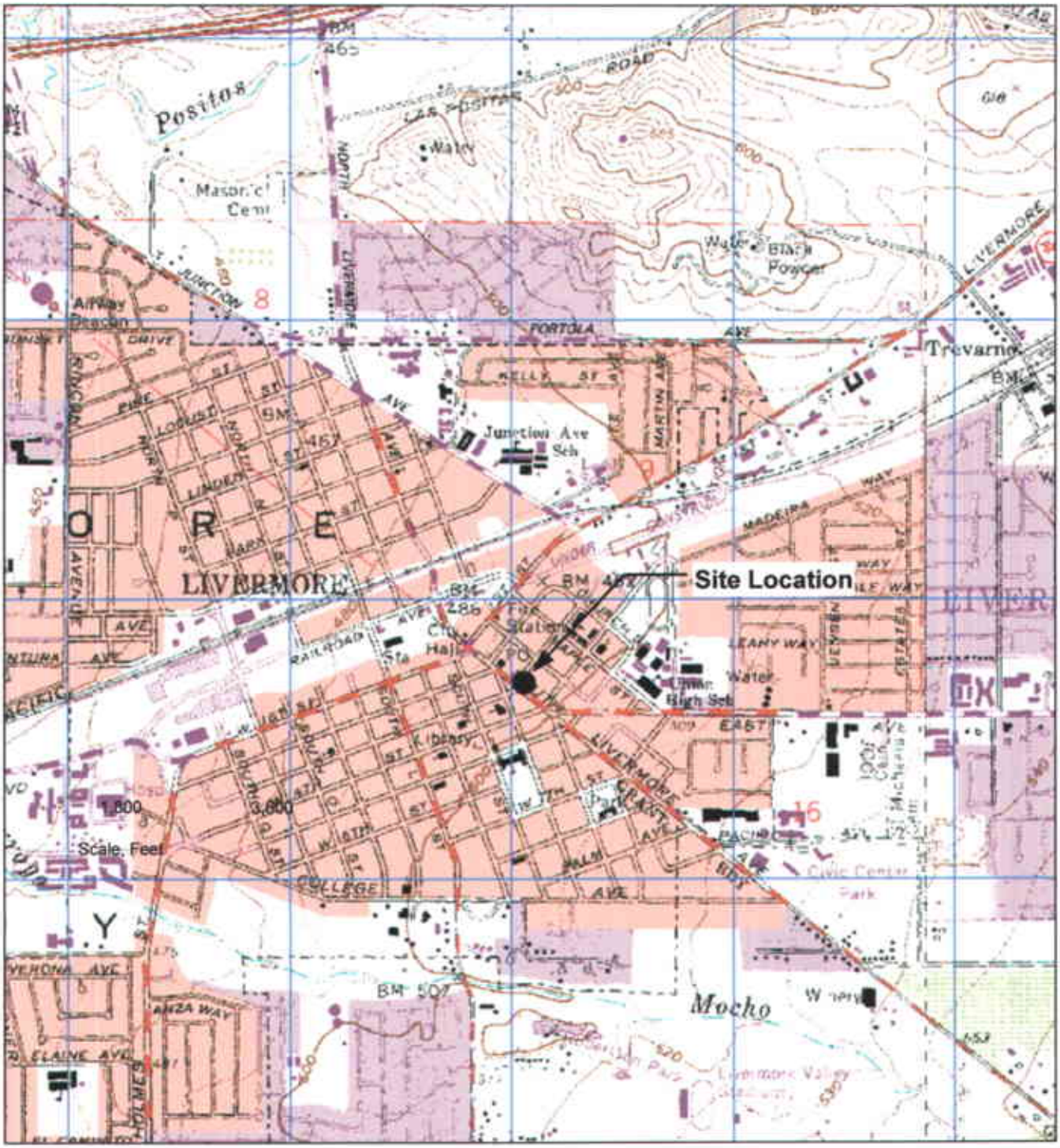
R. Lee Dooley
Senior Hydrogeologist
CHG 0183

REGISTERED GEOLOGIST
R. LEE DOOLEY
No. 0183
CERTIFIED
HYDROGEOLOGIST
EXP. 6/05
STATE OF CALIFORNIA

Attachments: Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Contour Map, July 21, 2004
Figure 3 – Benzene and MTBE Concentrations Map, July 21, 2004

Attachment A – Groundwater Monitoring and Sampling Report, August 20, 2004

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



North

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

0 1,800 3,600
Scale, Feet

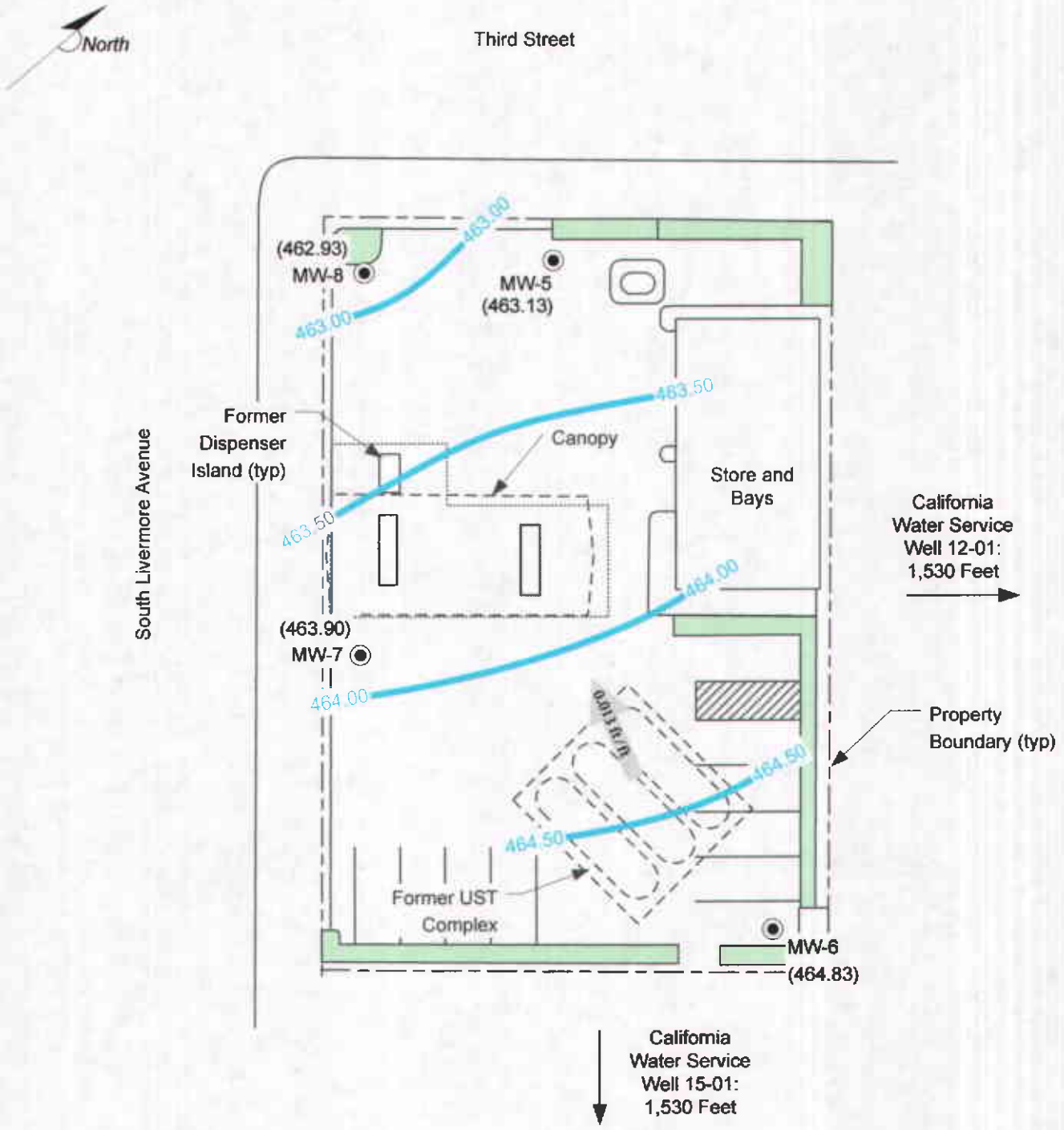
FIGURE 1

SITE LOCATION MAP

FORMER SHELL-BRANDED SERVICE STATION
318 South Livermore Avenue
Livermore, CA

PROJECT NO. SJ31-8LI-1.2004	DRAWN BY VF 9/25/03
FILE NO. SJ31-8LI-1.2004	PREPARED BY VF
REVISION NO. 2	REVIEWED BY

Delta Environmental Consultants, Inc.



LEGEND

MW-6 ◉ **GROUNDWATER MONITORING WELL**

(462.29) **GROUNDWATER ELEVATION (MSL), 7/21/04**

467.00 **GROUNDWATER ELEVATION CONTOUR**

0.012 ft/ft **APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT**

0 30 FT

APPROX. SCALE

FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP,
JULY 21, 2004

SHELL-BRANDED SERVICE STATION
318 South Livermore Avenue
Livermore, California

PROJECT NO. SJ31-8LI-1.2004	DRAWN BY VF 9/25/03
FILE NO. SJ31-8LI-1.2004	PREPARED BY VF
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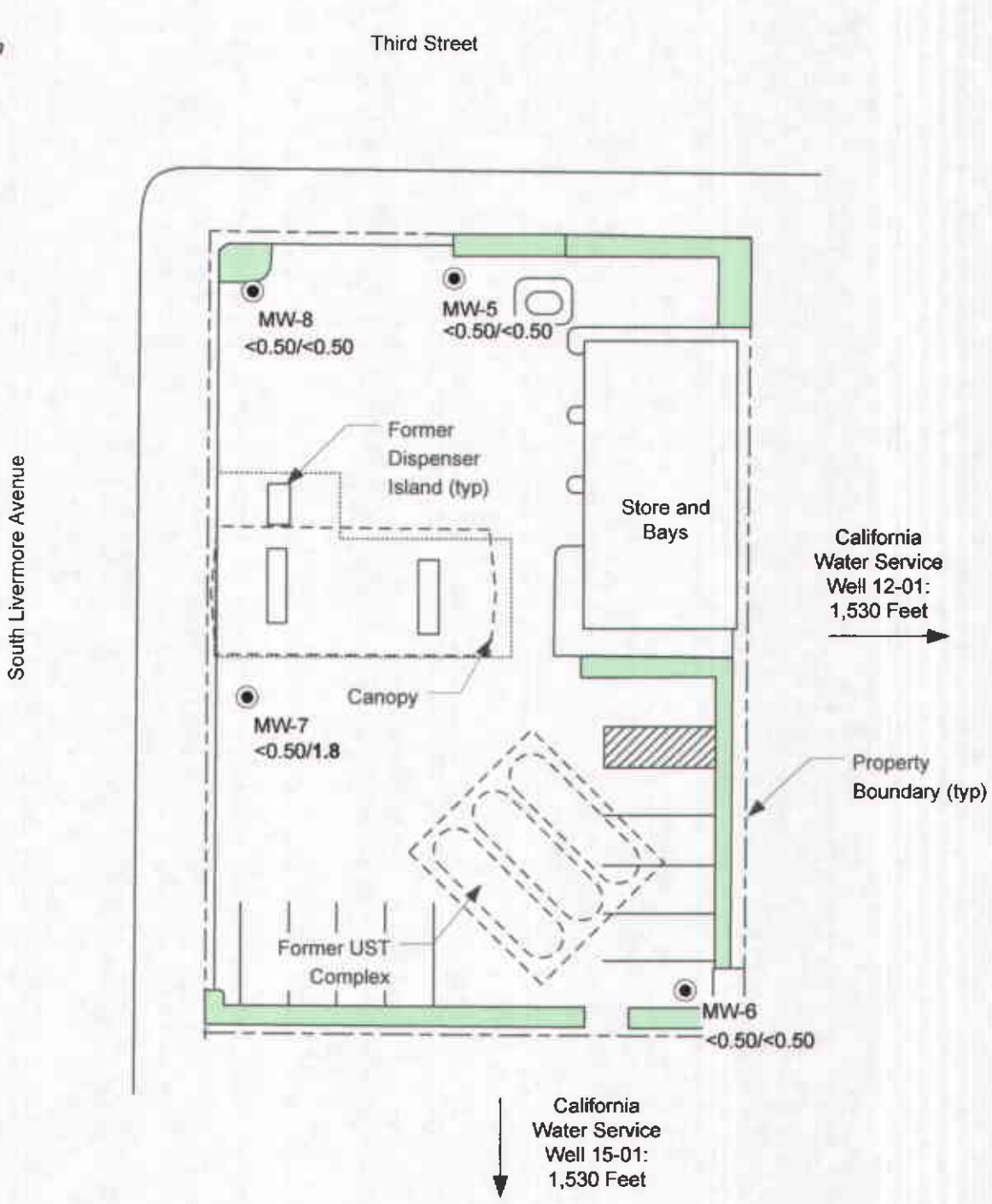
Delta Environmental Consultants, Inc



LEGEND

MW-6 ◉ **GROUNDWATER MONITORING WELL**

<0.50/<0.50 **BENZENE / MTBE CONCENTRATIONS IN GROUNDWATER (UG/L), 7/21/04**

0 30 FT

APPROX. SCALE

FIGURE 3

BENZENE AND MTBE CONCENTRATION MAP, JULY 21, 2004

SHELL-BRANDED SERVICE STATION
318 South Livermore Avenue
Livermore, California

PROJECT NO. SJ31-8LI-1.2004	DRAWN BY VF 9/25/03
FILE NO. SJ31-8LI-1.2004	PREPARED BY VF
REVISION NO. 2	REVIEWED BY

Delta Environmental Consultants, Inc.

Attachment A

GROUNDWATER MONITORING AND SAMPLING REPORT

BLAINE
TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

August 20, 2004

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

Third Quarter 2004 Groundwater Monitoring at
Shell-branded Service Station
318 South Livermore Avenue
Livermore, CA

Monitoring performed on July 21, 2004

Groundwater Monitoring Report **040721-DA-1**

This report covers the routine monitoring of groundwater wells at this Shell-branded facility. In accordance with standard procedures that conform to Regional Water Quality Control Board requirements, routine field data collection includes depth to water, total well depth, thickness of any separate immiscible layer, water column volume, calculated purge volume (if applicable), elapsed evacuation time (if applicable), total volume of water removed (if applicable), and standard water parameter instrument readings. Sample material is collected, contained, stored, and transported to the laboratory in conformance with EPA standards. Purgewater (if applicable) is, likewise, collected and transported to the Martinez Refining Company.

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

At a minimum, Blaine Tech Services, Inc. field personnel are certified on completion of a forty-hour Hazardous Materials and Emergency Response training course per 29 CFR 1910.120. Field personnel are also enrolled in annual eight-hour refresher courses.

Blaine Tech Services, Inc. conducts sampling and documentation assignments of this type as an independent third party. Our activities at this site consisted of objective data and sample collection only. No interpretation of analytical results, defining of hydrological conditions or formulation of recommendations was performed.

Please call if you have any questions.

Yours truly,

Leon Gearhart
Project Coordinator

LG/ks

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
318 South Livermore Avenue
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-5	09/18/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-5	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	495.47	34.85	460.62
MW-5	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	495.47	37.26	458.21
MW-5	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	495.47	27.30	468.17
MW-5	04/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	495.47	27.84	467.63
MW-5	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	495.47	30.54	464.93
MW-5	11/13/2003	60	<0.50	1.5	1.7	9.6	<0.50	<2.0	<2.0	<2.0	<5.0	495.47	33.94	461.53
MW-5	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	495.47	26.59	468.88
MW-5	04/07/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	495.47	25.44	470.03
MW-5	**07/21/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**495.47**	**32.34**	**463.13**
MW-6	09/18/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-6	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	497.57	35.41	462.16
MW-6	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	2.5	<2.0	<2.0	<2.0	<50	497.57	37.92	459.65
MW-6	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	497.57	27.71	469.86
MW-6	04/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	497.57	28.28	469.29
MW-6	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	497.57	30.56	467.01
MW-6	11/13/2003	90	<0.50	2.6	2.4	12	<0.50	<2.0	<2.0	<2.0	<5.0	497.57	34.18	463.39
MW-6	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	497.57	27.16	470.41
MW-6	04/07/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	497.57	25.88	471.69
MW-6	**07/21/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**497.57**	**32.74**	**464.83**
MW-7	09/18/2001	NA	<0.50	<0.50	<0.50	<0.50	1.2	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-7	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	2.0	<2.0	<2.0	<2.0	<50	495.58	34.29	461.29
MW-7	10/25/2002	<50	<0.50	<0.50	<0.50	<0.50	1.9	<2.0	<2.0	<2.0	<50	495.58	36.80	458.78
MW-7	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	0.89	<2.0	<2.0	<2.0	<50	495.58	26.75	468.83

WELL CONCENTRATIONS
Shell-branded Service Station
318 South Livermore Avenue
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-7	04/17/2003	<50	<0.50	<0.50	<0.50	<1.0	4.0	<2.0	<2.0	<2.0	<5.0	495.58	27.31	468.27
MW-7	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	3.2	<2.0	<2.0	<2.0	<5.0	495.58	30.02	465.56
MW-7	11/13/2003	72	<0.50	0.62	0.57	3.2	1.4	<2.0	<2.0	<2.0	<5.0	495.58	33.85	461.73
MW-7	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	0.85	NA	NA	NA	NA	495.58	27.13	468.45
MW-7	04/07/2004	<50	<0.50	<0.50	<0.50	<1.0	0.71	NA	NA	NA	NA	495.58	25.13	470.45
MW-7	**07/21/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**1.8**	**NA**	**NA**	**NA**	**NA**	**495.58**	**31.68**	**463.90**
MW-8	09/18/2001	NA	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	NA	NA	NA
MW-8	07/09/2002	<50	<0.50	<0.50	<0.50	<0.50	6.9	<2.0	<2.0	<2.0	<50	494.90	34.46	460.44
MW-8	10/25/2002	140	<0.50	<0.50	<0.50	<0.50	2.2	3.3	<2.0	<2.0	<50	494.90	36.98	457.92
MW-8	01/24/2003	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0	<2.0	<2.0	<50	494.90	27.35	467.55
MW-8	04/17/2003	<50	<0.50	<0.50	<0.50	<1.0	0.67	<2.0	<2.0	<2.0	<5.0	494.90	27.44	467.46
MW-8	07/17/2003	<50	<0.50	<0.50	<0.50	<1.0	0.50	<2.0	<2.0	<2.0	<5.0	494.90	32.29	462.61
MW-8	11/13/2003	260	1.5	2.3	2.9	16	1.4	<2.0	<2.0	<2.0	<5.0	494.90	33.08	461.82
MW-8	01/13/2004	<50	<0.50	<0.50	<0.50	<1.0	0.92	NA	NA	NA	NA	494.90	26.18	468.72
MW-8	04/07/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	NA	NA	NA	NA	494.90	25.10	469.80
MW-8	**07/21/2004**	**<50**	**<0.50**	**<0.50**	**<0.50**	**<1.0**	**<0.50**	**NA**	**NA**	**NA**	**NA**	**494.90**	**31.97**	**462.93**

WELL CONCENTRATIONS
Shell-branded Service Station
318 South Livermore Avenue
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 = Di-isopropyl ether, analyzed by EPA Method 8260B
ETBE = Ethyl tertiary butyl ether, analyzed by EPA Method 8260B
TAME = Tertiary amyl methyl ether, analyzed by EPA Method 8260B
TBA = Tertiary butyl alcohol, analyzed by EPA Method 8260B
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#: 2004-07-0701

Blaine Tech Services, Inc.

August 05, 2004

1680 Rogers Avenue
San Jose, CA 95112-1105

Attn.: Leon Gearhart

Project#: 040721-DA1
Project: 97464709
Site: 318 S. Livermore Ave., Livermore

Dear Mr.Gearhart,

Attached is our report for your samples received on 07/22/2004 13:17
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 09/05/2004 unless you have requested otherwise.
We appreciate the opportunity to be of service to you. If you have any questions,

You can also contact me via email. My email address is: mbrewer@stl-inc.com

Sincerely,

Melissa Brewer

Melissa Brewer
Project Manager

SEVERN TRENT STL

Submission: 2004-07-0701

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: 040721-DA1
97464709

Received: 07/22/2004 13:17

Site: 318 S. Livermore Ave., Livermore

Samples Reported

Sample Name	Date Sampled	Matrix	Lab #
MW-5	07/21/2004 09:36	Water	1
MW-6	07/21/2004 09:03	Water	2
MW-7	07/21/2004 10:23	Water	3
MW-8	07/21/2004 09:55	Water	4

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: 040721-DA1
97464709

Received: 07/22/2004 13:17

Site: 318 S. Livermore Ave., Livermore

Prep(s): 5030B
Sample ID: **MW-5**
Sampled: 07/21/2004 09:36
Matrix: Water

Test(s): 8260B
Lab ID: 2004-07-0701 - 1
Extracted: 8/3/2004 09:14
QC Batch#: 2004/08/03-1D.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/03/2004 09:14	
Benzene	ND	0.50	ug/L	1.00	08/03/2004 09:14	
Toluene	ND	0.50	ug/L	1.00	08/03/2004 09:14	
Ethylbenzene	ND	0.50	ug/L	1.00	08/03/2004 09:14	
Total xylenes	ND	1.0	ug/L	1.00	08/03/2004 09:14	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	08/03/2004 09:14	
Surrogate(s)						
1,2-Dichloroethane-d4	96.4	76-130	%	1.00	08/03/2004 09:14	
Toluene-d8	112.0	78-115	%	1.00	08/03/2004 09:14	

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: 040721-DA1
97464709

Received: 07/22/2004 13:17

Site: 318 S. Livermore Ave., Livermore

Prep(s): 5030B
Sample ID: **MW-6**
Sampled: 07/21/2004 09:03
Matrix: Water

Test(s): 8260B
Lab ID: 2004-07-0701 - 2
Extracted: 8/3/2004 09:32
QC Batch#: 2004/08/03-1D.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/03/2004 09:32	
Benzene	ND	0.50	ug/L	1.00	08/03/2004 09:32	
Toluene	ND	0.50	ug/L	1.00	08/03/2004 09:32	
Ethylbenzene	ND	0.50	ug/L	1.00	08/03/2004 09:32	
Total xylenes	ND	1.0	ug/L	1.00	08/03/2004 09:32	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	08/03/2004 09:32	
Surrogate(s)						
1,2-Dichloroethane-d4	94.5	76-130	%	1.00	08/03/2004 09:32	
Toluene-d8	95.0	78-115	%	1.00	08/03/2004 09:32	

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: 040721-DA1
97464709

Received: 07/22/2004 13:17

Site: 318 S. Livermore Ave., Livermore

Prep(s): 5030B
Sample ID: **MW-7**
Sampled: 07/21/2004 10:23
Matrix: Water

Test(s): 8260B
Lab ID: 2004-07-0701 - 3
Extracted: 8/3/2004 09:50
QC Batch#: 2004/08/03-1D.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/03/2004 09:50	
Benzene	ND	0.50	ug/L	1.00	08/03/2004 09:50	
Toluene	ND	0.50	ug/L	1.00	08/03/2004 09:50	
Ethylbenzene	ND	0.50	ug/L	1.00	08/03/2004 09:50	
Total xylenes	ND	1.0	ug/L	1.00	08/03/2004 09:50	
Methyl tert-butyl ether (MTBE)	1.8	0.50	ug/L	1.00	08/03/2004 09:50	
Surrogate(s)						
1,2-Dichloroethane-d4	103.2	76-130	%	1.00	08/03/2004 09:50	
Toluene-d8	94.1	78-115	%	1.00	08/03/2004 09:50	

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: 040721-DA1
97464709

Received: 07/22/2004 13:17

Site: 318 S. Livermore Ave., Livermore

Prep(s): 5030B
Sample ID: **MW-8**
Sampled: 07/21/2004 09:55
Matrix: Water

Test(s): 8260B
Lab ID: 2004-07-0701 - 4
Extracted: 8/3/2004 10:09
QC Batch#: 2004/08/03-1D.69

Compound	Conc.	RL	Unit	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	08/03/2004 10:09	
Benzene	ND	0.50	ug/L	1.00	08/03/2004 10:09	
Toluene	ND	0.50	ug/L	1.00	08/03/2004 10:09	
Ethylbenzene	ND	0.50	ug/L	1.00	08/03/2004 10:09	
Total xylenes	ND	1.0	ug/L	1.00	08/03/2004 10:09	
Methyl tert-butyl ether (MTBE)	ND	0.50	ug/L	1.00	08/03/2004 10:09	
Surrogate(s)						
1,2-Dichloroethane-d4	99.3	76-130	%	1.00	08/03/2004 10:09	
Toluene-d8	109.3	78-115	%	1.00	08/03/2004 10:09	

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: 040721-DA1
97464709

Received: 07/22/2004 13:17

Site: 318 S. Livermore Ave., Livermore

Batch QC Report

Prep(s): 5030B — Test(s): 8260B

Method Blank — **Water** — **QC Batch # 2004/08/03-1D.69**

MB: 2004/08/03-1D.69-040 — Date Extracted: 08/03/2004 07:40

Compound	Conc.	RL	Unit	Analyzed	Flag
Gasoline	ND	50	ug/L	08/03/2004 07:40	
Methyl tert-butyl ether (MTBE)	ND	0.5	ug/L	08/03/2004 07:40	
Benzene	ND	0.5	ug/L	08/03/2004 07:40	
Toluene	ND	0.5	ug/L	08/03/2004 07:40	
Ethylbenzene	ND	0.5	ug/L	08/03/2004 07:40	
Total xylenes	ND	1.0	ug/L	08/03/2004 07:40	
Surrogates(s)					
1,2-Dichloroethane-d4	99.0	76-130	%	08/03/2004 07:40	
Toluene-d8	101.4	78-115	%	08/03/2004 07:40	

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
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Project: 040721-DA1
97464709

Received: 07/22/2004 13:17

Site: 318 S. Livermore Ave., Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Laboratory Control Spike **Water** **QC Batch # 2004/08/03-1D.69**

LCS 2004/08/03-1D.69-003 Extracted: 08/03/2004 Analyzed: 08/03/2004 07:03

LCSD 2004/08/03-1D.69-021 Extracted: 08/03/2004 Analyzed: 08/03/2004 07:21

Compound	Conc. ug/L		Exp.Conc.	Recovery %		RPD	Ctrl.Limits %		Flags	
	LCS	LCSD		LCS	LCSD	%	Rec.	RPD	LCS	LCSD
Methyl tert-butyl ether (MTBE)	23.9	24.0	25	95.6	96.0	0.4	65-165	20		
Benzene	27.5	25.3	25	110.0	101.2	8.3	69-129	20		
Toluene	26.3	24.7	25	105.2	98.8	6.3	70-130	20		
Surrogates(s)										
1,2-Dichloroethane-d4	449	426	500	89.8	85.2		76-130			
Toluene-d8	551	525	500	110.2	105.0		78-115			

Gas/BTEX/MTBE by 8260B (C6-C12)

Blaine Tech Services, Inc.
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1680 Rogers Avenue
San Jose, CA 95112-1105
Phone: (408) 573-0555 Fax: (408) 573-7771

Project: 040721-DA1
97464709

Received: 07/22/2004 13:17

Site: 318 S. Livermore Ave., Livermore

Batch QC Report

Prep(s): 5030B

Test(s): 8260B

Matrix Spike (MS / MSD) **Water** **QC Batch # 2004/08/03-1D.69**

MW-8 >> MS

Lab ID: 2004-07-0701 - 004

MS: 2004/08/03-1D.69-027 Extracted: 08/03/2004

Analyzed: 08/03/2004 10:27

Dilution: 1.00

MSD: 2004/08/03-1D.69-045 Extracted: 08/03/2004

Analyzed: 08/03/2004 10:45

Dilution: 1.00

Compound	Conc. ug/L			Spk.Level	Recovery %			Limits %		Flags	
	MS	MSD	Sample	ug/L	MS	MSD	RPD	Rec.	RPD	MS	MSD
Methyl tert-butyl ether	23.1	24.4	ND	25	92.4	97.6	5.5	65-165	20		
Benzene	25.6	25.5	ND	25	102.4	102.0	0.4	69-129	20		
Toluene	22.3	24.7	ND	25	89.2	98.8	10.2	70-130	20		
Surrogate(s)											
1,2-Dichloroethane-d4	449	454		500	89.8	90.8		76-130			
Toluene-d8	475	517		500	95.0	103.4		78-115			

LAB: STL

Lab Identification (if necessary):

Address:

City, State, Zip:

SHELL Chain Of Custody Record

88053

Shell Project Manager to be invoiced:

- [x] SCIENCE & ENGINEERING
- [ ] TECHNICAL SERVICES
- [ ] CRMT HOUSTON

Karen Petryna

2004-07-0701

INCIDENT NUMBER (S&E ONLY)							
9	7	4	6	4	7	0	9

SAP or CRMT NUMBER (TS/CRMT):

DATE: 7/21/04

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services	LOG CODE: BTSS	SITE ADDRESS (Street and City): 318 S. Livermore Ave., Livermore	GLOBAL ID NO.: T0600101249
ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112		EDF DELIVERABLE TO (Responsible Party or Designee): Vera Fischer	PHONE NO.: (408) 224-4724
PROJECT CONTACT (Hardcopy or PDF Report to): Leon Gearhart		E-MAIL: vfischer@deltaenv.com	CONSULTANT PROJECT NO.: 040721-DA1 BTS #
TELEPHONE: 408-573-0555	FAX: 408-573-7771	E-MAIL: lgearhart@blainetech.com	SAMPLER NAME(S) (Print): David Allbut

LAB USE ONLY

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

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

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

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS 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)~~ 4/3																FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
	MW-5	7/21/04	0936	W	3	X	X		X	~~X~~																
	MW-6	↓	0903	↓	↓	X	X		X	~~X~~																
	MW-7	↓	1023	↓	↓	X	X		X	~~X~~																
	MW-8	↓	0955	↓	↓	X	X		X	~~X~~																

TEMPERATURE ON RECEIPT C°: 5

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
David Allbut	[signature]	7/22/04	1317
Relinquished by: (Signature) [signature] 7/22/04 1748	Received by: (Signature) [signature]	7/22/04	1748
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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

10/16/00 Revision

WELLHEAD INSPECTION CHECKLIST

Client Shell Date 7/21/04

Site Address 318 S. Livermore Ave. Livermore, CA

Job Number 040721-DA-1 Technician DA

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-5	X							
MW-6	X							
MW-7	X							
MW-8	X							

NOTES:

WELL GAUGING DATA

Project # 040721-DA1 Date 7/21/04 Client Shell

Site 3185 Livermore Ave. Livermore, CA

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-5	2					32.34	55.19	TOC	
MW-6	2					32.74	53.47		
MW-7	2					31.68	51.21		
MW-8	2					31.97	51.15		
*Allowed all wells to stabilize 15 min. before gauging									

SHELL WELL MONITORING DATA SHEET

BTS #: 040721-DA1	Site: 318 S. Livermore Ave. Livermore, CA
Sampler: DA	Date: 7/21/04
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 55.19	Depth to Water (DTW): 32.34
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]: 36.91	

Purge Method: Bailer; Disposable Bailer; x Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other____

Sampling Method: x Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

1 Case Volume	Specified Volumes	Calculated Volume
3.7 (Gals.) X	3	= 11.1 Gals.

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
0920	69.4	7.2	1286	108	4	cloudy
0923	68.4	7.2	1220	71000	8	" , tan
0926	68.2	7.2	1174	721	11.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 11.5

Sampling Date: 7/21/04 Sampling Time: 0936 Depth to Water: 36.91

Sample I.D.: MW-5 Laboratory: (STL) Other____

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

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 #: 040721-DA1	Site: 318 S. Livermore Ave. Livermore, CA
Sampler: DA	Date: 7/21/04
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 53.47	Depth to Water (DTW): 32.74
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]: 36.89	

Purge Method: Bailer; Disposable Bailer; x Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other ____

Sampling Method: x Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

3.3 (Gals.) X	3 =	9.9 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	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0855	68.7	5.8	1297	71000	3.5	cloudy
0858	69.8	6.6	2824	432	7	"
0900	68.6	6.8	2732	221	10	"

Did well dewater? Yes (No) Gallons actually evacuated: 10

Sampling Date: 7/21/04 Sampling Time: 0903 Depth to Water: 36.25

Sample I.D.: MW-6 Laboratory: (STL) Other ____

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

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 #: 040721-DA-1	Site: 318 S. Livermore Ave. Livermore, C.
Sampler: DA	Date: 7/21/04
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 51.21	Depth to Water (DTW): 31.68
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]: 35.59	

Purge Method: Bailer; Disposable Bailer; X Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other____

Sampling Method: X Bailer; Disposable Bailer; Extraction Port; Dedicated Tubing; Other: ____

3.1 (Gals.) X 3 = 9.3 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
(2")	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1007	69.3	7.0	1349	71000	3.5	dark, cloudy
1009	69.4	7.0	1401	71000	7	"
1012	69.1	7.0	1399	71000	9.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 9.5

Sampling Date: 7/21/04 Sampling Time: 1023 Depth to Water: 35.59

Sample I.D.: MW-7 Laboratory: (STL) Other____

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

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 #: 040721-DA1	Site: 318 S. Livermore Ave. Livermore, CA
Sampler: DA	Date: 7/21/04
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 51.15	Depth to Water (DTW): 31.97
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]: 35.81	

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

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

3.1 (Gals.) X 3 = 9.3 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
0947	69.1	7.3	1158	71000	3.5	tan, cloudy
0949	68.8	7.3	1146	71000	7	"
0952	68.5	7.2	1133	71000	9.5	"

Did well dewater? Yes (No) Gallons actually evacuated: 9.5

Sampling Date: 7/21/04 Sampling Time: 0955 Depth to Water: 35.65

Sample I.D.: MW-8 Laboratory: (STL) Other_____

Analyzed for: (TPH-G) ~~BTEX~~ (MTBE) TPH-D Other: Oxy's

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