



Shell Oil Products US

RECEIVED

By loprojectop at 10:09 am, Apr 24, 2006

April 17, 2006

Re: **Former Shell-branded Service Station**
318 S. Livermore Avenue
Livermore, California

Dear Mr. Jerry Wickham:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

Sincerely,
Shell Oil Products US

A handwritten signature in black ink, appearing to read "Denis L. Brown", with a long horizontal flourish extending to the right.

Denis L. Brown
Project Manager



Solving environment-related business problems worldwide

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By loprojectop at 10:09 am, Apr 24, 2006

www.deltaenv.com

April 17, 2006
Project No. SJ31-8LI-1.2006
SAP: 135440

Mr. Jerry Wickham
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 – First Quarter 2006**
Former Shell-branded Service Station
318 South Livermore Avenue
Livermore, California

Dear Mr. Wickham:

Delta Environmental Consultants, Inc. (Delta), on behalf of Shell Oil Products US (Shell), has prepared the following first quarter 2006 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 existing site wells. 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.

A member of:



QUARTERLY GROUND WATER MONITORING PROGRAM

Groundwater monitoring wells were gauged and sampled by Blaine Tech Services (Blaine), at the direction of Delta, on January 10, 2006. Depth to groundwater was measured in Wells MW-5 through MW-9. Wells MW-1 through MW-4 were previously destroyed. Groundwater elevation data and contours are presented on Figure 2.

A groundwater sample was only collected from Well MW-9. Recently installed Well MW-9 is sampled quarterly. All other site wells (Wells MW-5 through MW-8) are sampled semi-annually. The sample from Well MW-9 was submitted by Blaine to Sequoia Analytical in Morgan Hill, California for analysis for total purgeable petroleum hydrocarbons as gasoline (TPH-G); benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds); the fuel oxygenates MTBE, di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), and tertiary butyl alcohol (TBA), 1,2-Dichloroethane (1,2-DCA), 1,2-Dibromoethane (EDB) and total lead. Analyses for petroleum hydrocarbons, fuel oxygenates, and lead scavengers was performed by EPA Method 8260B. Analysis for total lead was performed by EPA Method 6010B. 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 (MW-5 through MW-9) has decreased by an average of 4.9 feet since fourth quarter 2005, consistent with historic water level fluctuations. Depth to groundwater in site Well MW-9 has decreased by 5.45 feet since installation in September 2005, and the well screen interval (28 – 32 feet bg) is currently drowned. The groundwater gradient on January 10, 2006 was toward the north at a magnitude of 0.02 feet/feet. This groundwater flow direction is inconsistent with previous site data. The groundwater flow direction in previous quarters has been predominantly towards the west.

TPH-G was detected in Well MW-9 at a concentration of 770 micromilligrams per liter (ug/l). Well MW-9 also contained concentrations of BTEX compounds ranging from 3.4 ug/l (ethylbenzene) to 68 ug/l (benzene). MTBE was detected in Well MW-9 at a concentration of 5.9 ug/l. Fuel oxygenates DIPE, ETBE, and TAME remain below laboratory detection limits for the third consecutive monitoring event. TBA was below the laboratory detection limit in Well MW-9 for the first time. The lead scavenger, 1,2-DCA, was detected in Well MW-9 at a concentration of 2.0 ug/l, a slight increase from last quarter.

All site wells (MW-5 through MW-9) will be gauged and sampled during the second quarter of 2006.

Due to the City of Livermore's redevelopment of the subject property, site Wells MW-5 through MW-9 must be abandoned. Delta has discussed well abandonment with Mr. Jerry Wickham of the ACHCSA, and has obtained verbal permission to destroy site wells per the City's request. A work plan outlining well abandonment activities has been submitted to the ACHCSA by Delta, and fieldwork is scheduled to be conducted on April 19 and 20, 2006.

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.

for *Heather Buckingham*
Andrew Persio
Staff Geologist

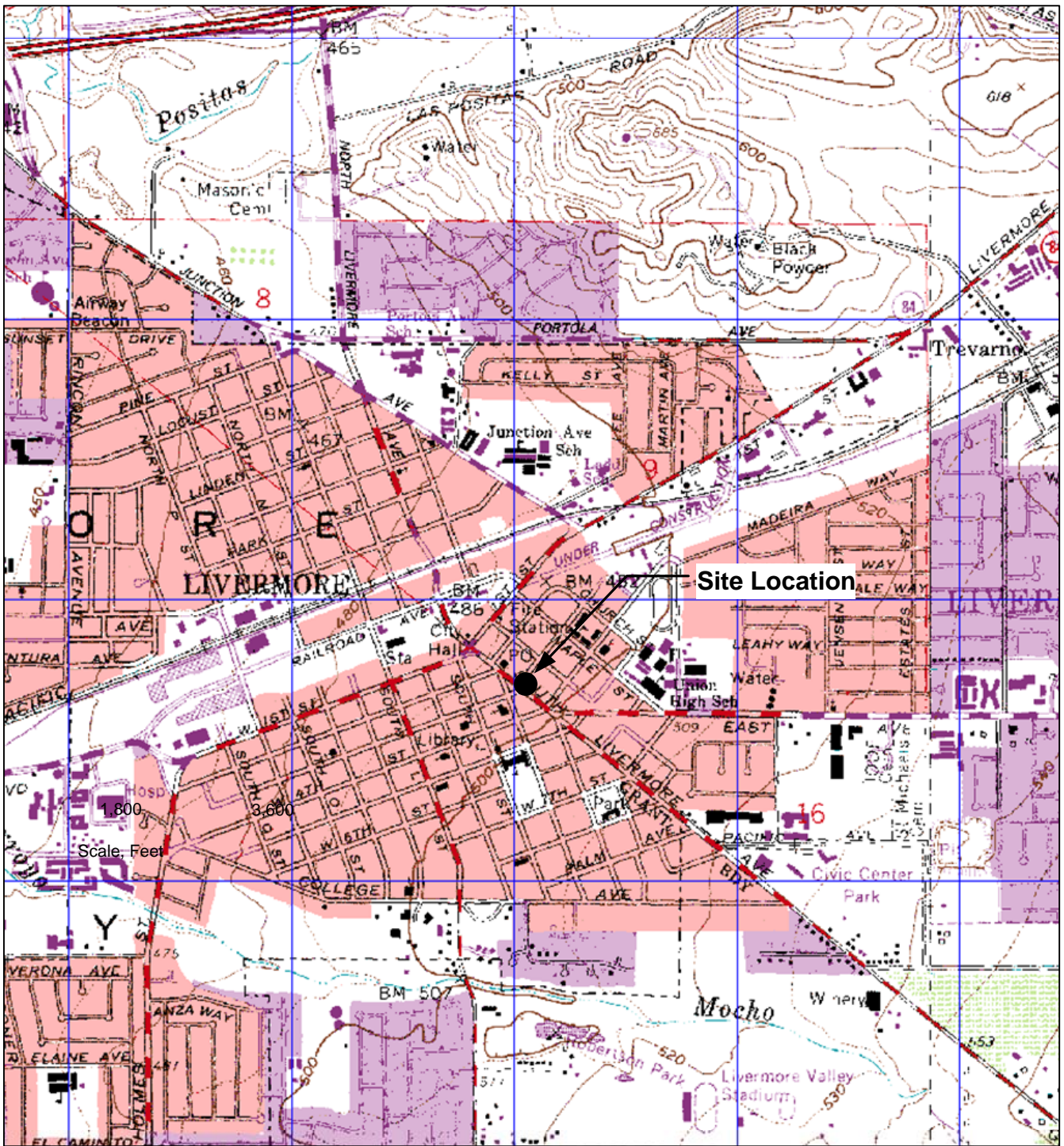
D. Arnold

Debbie Arnold
Project Manager
PG 7745

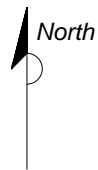


Attachments: Figure 1 – Site Location Map and Well Survey Map
Figure 2 – Groundwater Elevation Contour Map, January 10, 2006
Figure 3 – Benzene and MTBE Concentrations Map, January 10, 2006
Attachment A – Groundwater Monitoring and Sampling Report, January 30, 2006

cc: Denis Brown, Shell Oil Products US, Monte Rio
Betty Graham, RWQCB, Oakland
Chris Davidson, Redevelopment Agency, City of Livermore, Livermore



Scale, Feet



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

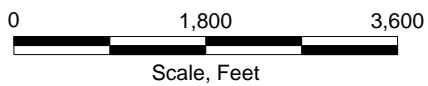


FIGURE 1
 SITE LOCATION MAP

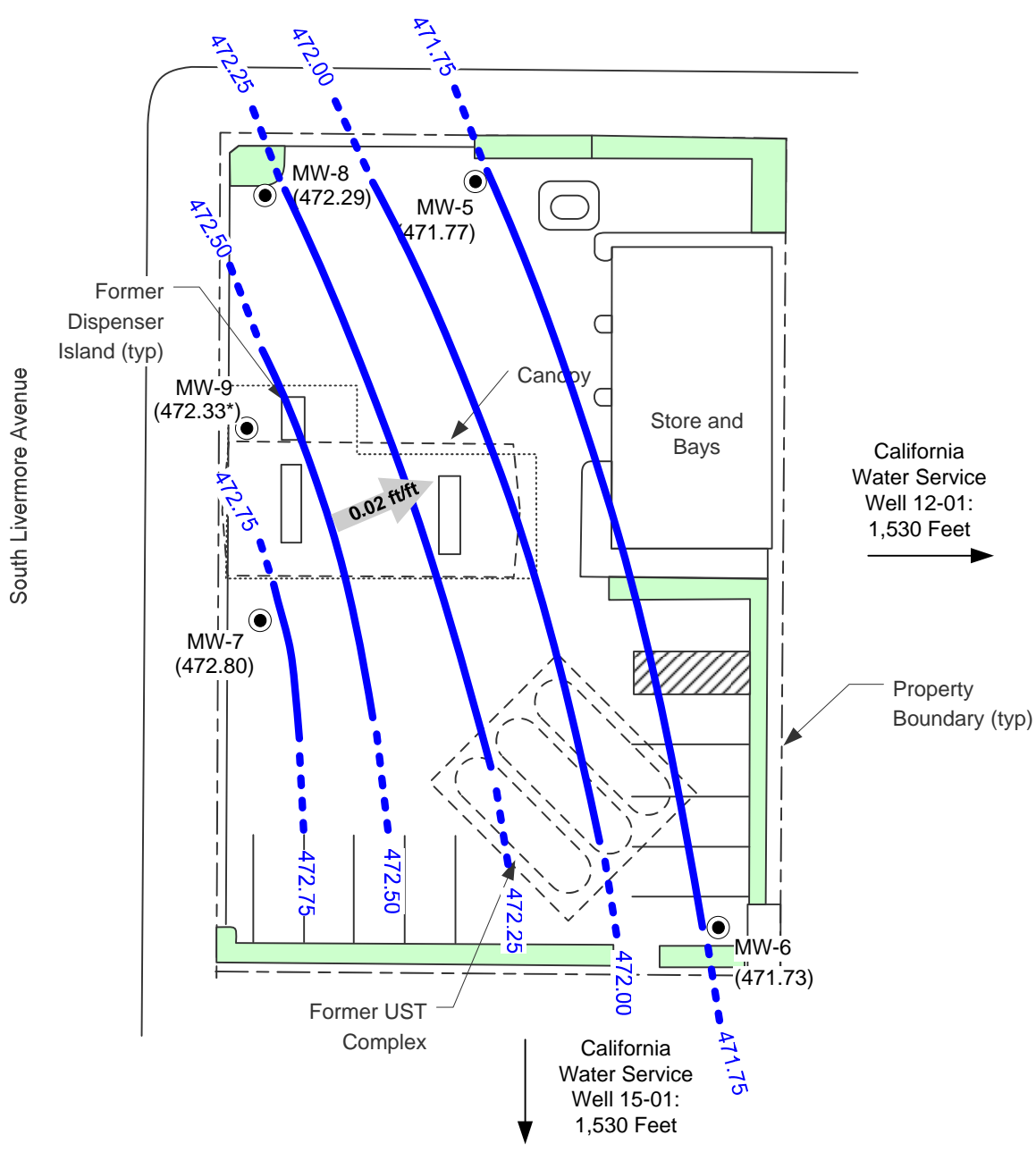
FORMER SHELL-BRANDED SERVICE STATION
 318 South Livermore Avenue
 Livermore, CA

PROJECT NO. SJ31-8LI-1.2005	DRAWN BY VF 9/25/03
FILE NO. SJ31-8LI-1.2005	PREPARED BY VF
REVISION NO. 2	REVIEWED BY





Third Street



LEGEND

- MW-6 ● **GROUNDWATER MONITORING WELL**
- (471.73) **GROUNDWATER ELEVATION (MSL), 01/10/06**
- 472.00 — **GROUNDWATER ELEVATION CONTOUR**
- ← 0.02 ft/ft **APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT**
- * **NOT USED IN CONTOURING**

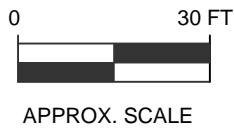


FIGURE 2
GROUNDWATER ELEVATION CONTOUR MAP,
JANUARY 10, 2006
FORMER SHELL-BRANDED SERVICE STATION
318 South Livermore Avenue
Livermore, California

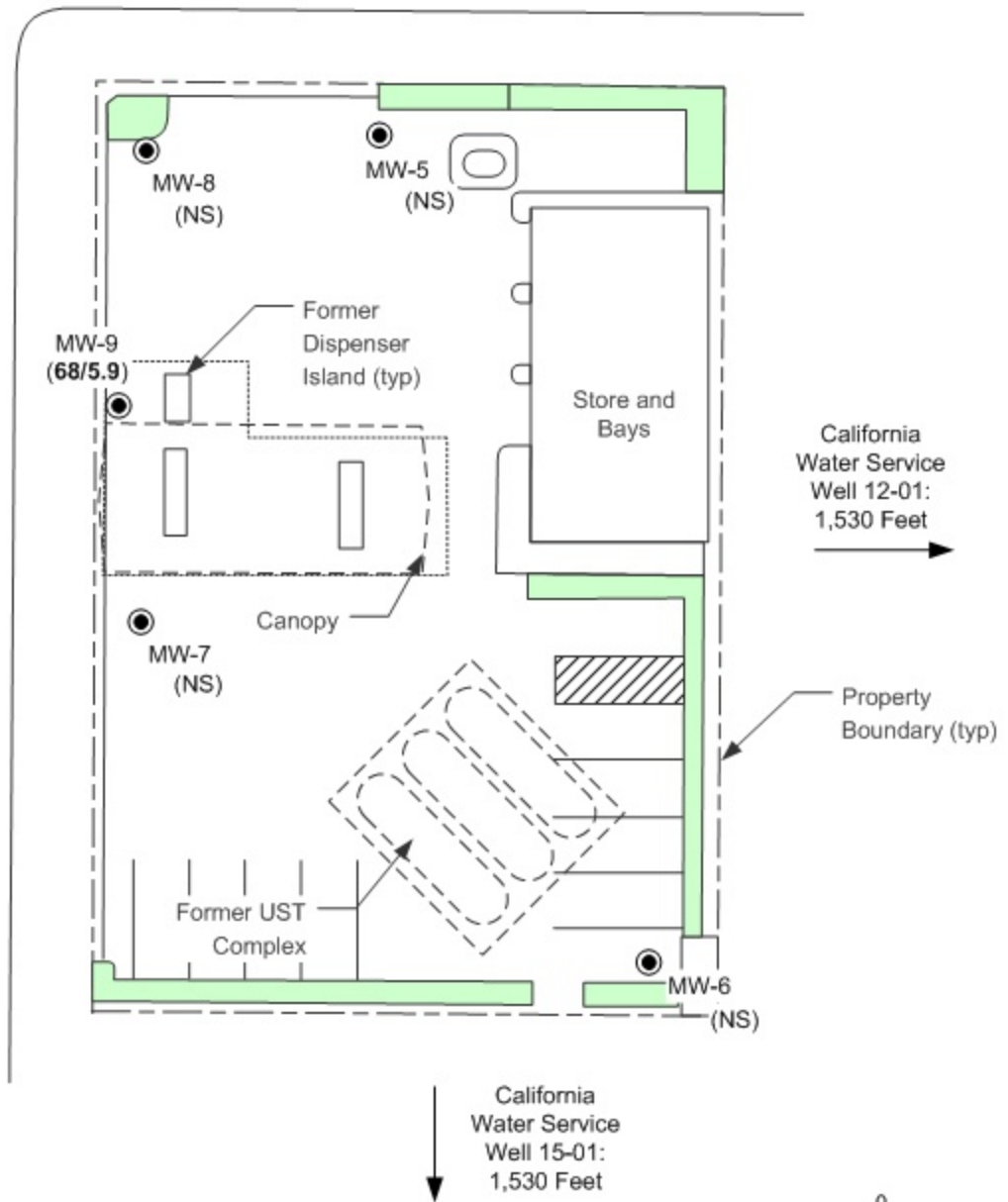
PROJECT NO. SJ31-8LI-1.2006 FILE NO. SJ31-8LI-1.2006 REVISION NO. 1	DRAWN BY JL 02/20/06 PREPARED BY AP REVIEWED BY
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Delta
Environmental
Consultants, Inc.



Third Street

South Livermore Avenue



APPROX. SCALE

LEGEND

- MW-6 ● **GROUNDWATER MONITORING WELL**
- (68/5.9) **BENZENE / MTBE CONCENTRATIONS IN GROUNDWATER (UG/L), 01/10/06**
- NS **NOT SAMPLED**

FIGURE 3
BENZENE AND MTBE CONCENTRATION MAP,
JANUARY 10, 2006
FORMER SHELL-BRANDED SERVICE STATION
318 South Livermore Avenue
Livermore, California

PROJECT NO. SJ31-SLI-1.2006	DRAWN BY JL 02/20/06
FILE NO. SJ31-SLI-1.2006	PREPARED BY AP
REVISION NO. 1	REVIEWED BY

Delta

Environmental Consultants, Inc.

Attachment A

GROUNDWATER MONITORING AND SAMPLING REPORT

BLAINE
TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

January 30, 2006

Denis Brown
Shell Oil Products US
20945 South Wilmington Avenue
Carson, CA 90810

First Quarter 2006 Groundwater Monitoring at
Former Shell Service Station
318 South Livermore Avenue
Livermore, CA

Monitoring performed on January 10, 2006

Groundwater Monitoring Report **060110-MT-3**

This report covers the routine monitoring of groundwater wells at this former Shell 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,

Mike Ninokata
Project Coordinator

MN/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
Former Shell 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)
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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-5	11/11/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	495.47	33.24	462.23
MW-5	01/26/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	495.47	26.80	468.67
MW-5	04/13/2005	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	495.47	22.58	472.89
MW-5	10/07/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	495.47	28.78	466.69
MW-5	01/10/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	495.47	23.70	471.77

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

WELL CONCENTRATIONS
Former Shell 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)
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MW-6	11/11/2004	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	497.57	33.75	463.82
MW-6	01/26/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	497.57	26.89	470.68
MW-6	04/13/2005	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	497.57	23.05	474.52
MW-6	10/07/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	497.57	28.12	469.45
MW-6	01/10/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	497.57	25.84	471.73

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
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-7	11/11/2004	75	<0.50	<0.50	<0.50	<1.0	2.2	<2.0	<2.0	<2.0	<5.0	495.58	32.92	462.66
MW-7	01/26/2005	<50	<0.50	<0.50	<0.50	<1.0	1.8	<2.0	<2.0	<2.0	<5.0	495.58	26.60	468.98
MW-7	04/13/2005	<50	<0.50	<0.50	<0.50	<0.50	0.87	<0.50	<0.50	<0.50	<5.0	495.58	23.25	472.33
MW-7	10/07/2005	77	<0.50	<0.50	<0.50	<1.0	0.70	<2.0	<2.0	<2.0	<5.0	495.58	27.76	467.82
MW-7	01/10/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	495.58	22.78	472.80

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

WELL CONCENTRATIONS
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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-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
MW-8	11/11/2004	<50	<0.50	<0.50	<0.50	<1.0	0.82	<2.0	<2.0	<2.0	<5.0	494.90	32.80	462.10
MW-8	01/26/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	494.90	26.00	468.90
MW-8	04/13/2005	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	494.90	22.81	472.09
MW-8	10/07/2005	<50	<0.50	<0.50	<0.50	<1.0	<0.50	<2.0	<2.0	<2.0	<5.0	494.90	29.05	465.85
MW-8	01/10/2006	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	494.90	22.61	472.29

MW-9	09/19/2005	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27.89	NA
MW-9	09/23/2005	290	53	2.7	7.8	34	12	<2.0	<2.0	<2.0	14	NA	27.95	NA
MW-9	10/07/2005	400	42	1.2	3.7	22	12	<2.0	<2.0	<2.0	9.4	494.77	28.13	466.64
MW-9	01/10/2006	770	68	7.7	3.4	24	5.9	<0.50	<0.50	<0.50	<20	494.77	22.44	472.33

WELL CONCENTRATIONS
Former Shell 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)
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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 = 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.



24 January, 2006

Michael Ninokata
Blaine Tech Services - San Jose (Shell)
1680 Rogers Avenue
San Jose, CA 95112

RE: 318 S. Livermore Ave., Livermore
Work Order: MPA0485

Enclosed are the results of analyses for samples received by the laboratory on 01/11/06 14:35. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Theresa Allen
Project Manager

CA ELAP Certificate #1210

Blaine Tech Services - San Jose (Shell) 1680 Rogers Avenue San Jose CA, 95112	Project:318 S. Livermore Ave., Livermore Project Number:060110-MT3 Project Manager:Michael Ninokata	MPA0485 Reported: 01/24/06 17:09
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-9	MPA0485-01	Water	01/10/06 16:03	01/11/06 14:35

Blaine Tech Services - San Jose (Shell)
1680 Rogers Avenue
San Jose CA, 95112

Project:318 S. Livermore Ave., Livermore
Project Number:060110-MT3
Project Manager:Michael Ninokata

MPA0485
Reported:
01/24/06 17:09

**Total Metals by EPA 6000/7000 Series Methods
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9 (MPA0485-01) Water Sampled: 01/10/06 16:03 Received: 01/11/06 14:35									
Lead	ND	0.10	mg/l	1	6A16026	01/16/06	01/16/06	EPA 6010B	

Blaine Tech Services - San Jose (Shell)
 1680 Rogers Avenue
 San Jose CA, 95112

 Project:318 S. Livermore Ave., Livermore
 Project Number:060110-MT3
 Project Manager:Michael Ninokata

 MPA0485
Reported:
 01/24/06 17:09

Volatile Organic Compounds by EPA Method 8260B
Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9 (MPA0485-01RE1) Water Sampled: 01/10/06 16:03 Received: 01/11/06 14:35									
Gasoline Range Organics (C4-C12)	770	50	ug/l	1	6A23034	01/23/06	01/24/06	EPA 8260B	
Benzene	68	0.50	"	"	"	"	"	"	
Toluene	7.7	0.50	"	"	"	"	"	"	
Ethylbenzene	3.4	0.50	"	"	"	"	"	"	
Xylenes (total)	24	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	5.9	0.50	"	"	"	"	"	"	
Di-isopropyl ether	ND	0.50	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	0.50	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	0.50	"	"	"	"	"	"	
tert-Butyl alcohol	ND	20	"	"	"	"	"	"	
1,2-Dichloroethane	2.0	0.50	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	0.50	"	"	"	"	"	"	
<i>Surrogate: 1,2-Dichloroethane-d4</i>		84 %		60-135	"	"	"	"	

Blaine Tech Services - San Jose (Shell)
 1680 Rogers Avenue
 San Jose CA, 95112

 Project:318 S. Livermore Ave., Livermore
 Project Number:060110-MT3
 Project Manager:Michael Ninokata

 MPA0485
Reported:
 01/24/06 17:09

**Total Metals by EPA 6000/7000 Series Methods - Quality Control
Sequoia Analytical - Morgan Hill**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6A16026 - EPA 3005A / EPA 6010B
Blank (6A16026-BLK1)

Prepared & Analyzed: 01/16/06

Lead ND 0.10 mg/l

Laboratory Control Sample (6A16026-BS1)

Prepared: 01/16/06 Analyzed: 01/17/06

Lead 0.872 0.10 mg/l 1.00 87 85-120

Matrix Spike (6A16026-MS1)
Source: MPA0163-01

Prepared & Analyzed: 01/16/06

Lead 0.856 0.10 mg/l 1.00 ND 86 85-120

Matrix Spike Dup (6A16026-MSD1)
Source: MPA0163-01

Prepared & Analyzed: 01/16/06

Lead 0.836 0.10 mg/l 1.00 ND 84 85-120 2 15 QM02

Blaine Tech Services - San Jose (Shell)
 1680 Rogers Avenue
 San Jose CA, 95112

 Project: 318 S. Livermore Ave., Livermore
 Project Number: 060110-MT3
 Project Manager: Michael Ninokata

 MPA0485
Reported:
 01/24/06 17:09

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6A23034 - EPA 5030B P/T / EPA 8260B
Blank (6A23034-BLK1)

Prepared: 01/23/06 Analyzed: 01/24/06

Gasoline Range Organics (C4-C12)	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	0.50	"							
Di-isopropyl ether	ND	0.50	"							
Ethyl tert-butyl ether	ND	0.50	"							
tert-Amyl methyl ether	ND	0.50	"							
tert-Butyl alcohol	ND	5.0	"							
1,2-Dichloroethane	ND	0.50	"							
1,2-Dibromoethane (EDB)	ND	0.50	"							
Ethanol	ND	100	"							

Surrogate: 1,2-Dichloroethane-d4

2.24

"

2.50

90

60-135

Laboratory Control Sample (6A23034-BS1)

Prepared & Analyzed: 01/23/06

Gasoline Range Organics (C4-C12)	495	50	ug/l	440		112	60-140			
Benzene	4.45	0.50	"	5.04		88	65-115			
Toluene	34.0	0.50	"	38.0		89	85-120			
Ethylbenzene	6.90	0.50	"	7.28		95	75-135			
Xylenes (total)	40.8	0.50	"	40.8		100	85-125			
Methyl tert-butyl ether	7.62	0.50	"	7.84		97	65-125			
Di-isopropyl ether	14.2	0.50	"	16.2		88	75-125			
Ethyl tert-butyl ether	15.5	0.50	"	16.4		95	75-130			
tert-Amyl methyl ether	16.3	0.50	"	16.3		100	80-115			
tert-Butyl alcohol	150	5.0	"	169		89	75-150			
1,2-Dichloroethane	15.2	0.50	"	18.7		81	85-130			QC02
1,2-Dibromoethane (EDB)	17.0	0.50	"	16.6		102	85-120			
Ethanol	141	100	"	165		85	70-135			

Surrogate: 1,2-Dichloroethane-d4

2.05

"

2.50

82

60-135

Blaine Tech Services - San Jose (Shell)
 1680 Rogers Avenue
 San Jose CA, 95112

 Project: 318 S. Livermore Ave., Livermore
 Project Number: 060110-MT3
 Project Manager: Michael Ninokata

 MPA0485
Reported:
 01/24/06 17:09

Volatile Organic Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 6A23034 - EPA 5030B P/T / EPA 8260B
Laboratory Control Sample Dup (6A23034-BSD1)

Prepared & Analyzed: 01/23/06

Gasoline Range Organics (C4-C12)	513	50	ug/l	440		117	60-140	4	25	
Benzene	4.72	0.50	"	5.04		94	65-115	6	20	
Toluene	36.4	0.50	"	38.0		96	85-120	7	20	
Ethylbenzene	7.32	0.50	"	7.28		101	75-135	6	15	
Xylenes (total)	41.8	0.50	"	40.8		102	85-125	2	20	
Methyl tert-butyl ether	7.75	0.50	"	7.84		99	65-125	2	20	
Di-isopropyl ether	14.9	0.50	"	16.2		92	75-125	5	15	
Ethyl tert-butyl ether	15.8	0.50	"	16.4		96	75-130	2	25	
tert-Amyl methyl ether	16.6	0.50	"	16.3		102	80-115	2	15	
tert-Butyl alcohol	187	5.0	"	169		111	75-150	22	25	
1,2-Dichloroethane	15.2	0.50	"	18.7		81	85-130	0	20	QC02
1,2-Dibromoethane (EDB)	17.1	0.50	"	16.6		103	85-120	0.6	15	
Ethanol	205	100	"	165		124	70-135	37	35	QC21
<i>Surrogate: 1,2-Dichloroethane-d4</i>	2.03		"	2.50		81	60-135			

Blaine Tech Services - San Jose (Shell) 1680 Rogers Avenue San Jose CA, 95112	Project:318 S. Livermore Ave., Livermore Project Number:060110-MT3 Project Manager:Michael Ninokata	MPA0485 Reported: 01/24/06 17:09
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Notes and Definitions

- QM02 The spike recovery was below control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- QC21 The RPD result exceeded the control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
- QC02 The percent recovery was below the control limits.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

LAB: Test America STL Other **TA**

SHELL Chain Of Custody Record

- Lab Identification (if necessary):
- TA - Irvine, California
 - TA - Morgan Hill, California
 - TA - Nashville, Tennessee
 - STL
 - Other (location) _____

Shell Project Manager to be Invoiced:

ENVIRONMENTAL SERVICES **Denis Brown**

TECHNICAL SERVICES

CRMT HOUSTON

INCIDENT NUMBER (ES ONLY)

9	7	4	6	4	7	0	9
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SAP or CRMT NUMBER (TS/CRMT)

DATE: 1/10/06

PAGE: 1 of 1

SAMPLING COMPANY: **Blaine Tech Services**

LOG CODE: **BTSS**

SITE ADDRESS: Street and City
318 S. Livermore Ave., Livermore

State: **CA** GLOBAL ID NO.: **T0600101249**

ADDRESS:
1680 Rogers Avenue, San Jose, CA 95112

EDF DELIVERABLE TO (Name, Company, Office Location):
Heather Buckingham, Delta, San Jose Office

PHONE NO.: **(408)224-4724**

E-MAIL: **hbuckingham@deltaenv.com**

CONSULTANT PROJECT NO.: **060110-1143**

PROJECT CONTACT (Hardcopy or PDF Report to):
Michael Ninokata

TELEPHONE: **408-573-0555** FAX: **408-573-7771** E-MAIL: **mninokata@blainetech.com**

SAMPLER NAME(S) (Print): **MIKETALL**

LAB USE ONLY

TURNAROUND TIME (STANDARD IS 10 CALENDAR DAYS):

STD 5 DAY 3 DAY 2 DAY 24 HOURS RESULTS NEEDED ON WEEKEND

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: **MPA 0485**

LAB USE ONLY	Field Sample Identification				RECEIPT VERIFICATION REQUESTING <input checked="" type="checkbox"/>											TEMPERATURE ON RECEIPT C°				
	DATE	TIME	MATRIX	NO. OF CONT.	TPH - Gas, Purgeable (8260B)	TPH - Diesel, Extractable (8015M)	BTEX (8260B)	5 Oxygenates (8260B) (MTBE, TBA, DIPE, TAME, ETBE)	MTBE (8260B)	TBA (8260B)	DIPE (8260B)	TAME (8260B)	ETBE (8260B)	1,2 DCA (8260B)	EDB (504.1)		Ethanol (8260B)	Methanol (8015M)	Total Lead (6010B)	
	1/10/06	12:00	W	7	X	X	X							X	X			X		

Relinquished by: (Signature) **[Signature]**

Received by: (Signature) **[Signature]** Date: **1/10/06** Time: **1:10**

Received by: (Signature) **[Signature]** Date: **1/11/06** Time: **9:08**

Received by: (Signature) **[Signature]** Date: **1/11/06** Time: **1435**

SEQUOIA ANALYTICAL SAMPLE RECEIPT LOG

CLIENT NAME: Shell / Blaine
REC. BY (PRINT): E. Fallin
WORKORDER: MPA 0485

DATE REC'D AT LAB: 1/11/06
TIME REC'D AT LAB: 1433
DATE LOGGED IN: 1-12-06

For Regulatory Purposes?
 DRINKING WATER YES / NO
 WASTE WATER YES / NO

CIRCLE THE APPROPRIATE RESPONSE	LAB SAMPLE #	DASH #	CLIENT ID	CONTAINER DESCRIPTION	PRESERVATIVE	pH	SAMPLE MATRIX	DATE SAMPLED	REMARKS: CONDITION (ETC.)
1. Custody Seal(s) Present / <input checked="" type="radio"/> Absent Intact / Broken*									ERF 1/11/06 SEE COC
2. Chain-of-Custody Present / Absent*									
3. Traffic Reports or Packing List: Present / <input checked="" type="radio"/> Absent									
4. Airbill: Airbill / Sticker Present / <input checked="" type="radio"/> Absent									
5. Airbill #:									
6. Sample Labels: Present / Absent									
7. Sample IDs: Listed / Not Listed on Chain-of-Custody									
8. Sample Condition: Intact / Broken* / Leaking*									
9. Does information on chain-of-custody, traffic reports and sample labels agree? Yes / No*									
10. Sample received within hold time? Yes / No*									
11. Adequate sample volume received? Yes / No*									
12. Proper preservatives used? Yes / No*									
13. Trip Blank / Temp Blank Received? (circle which, if yes) Yes / <input checked="" type="radio"/> No									
14. Read Temp: <u>2.5 °C</u> Corrected Temp: <u>2.5 °C</u> Is corrected temp 4 +/-2°C? Yes / No**									

*IF CIRCLED, CONTACT PROJECT MANAGER AND ATTACH RECORD OF RESOLUTION.

WELL GAUGING DATA

Project # 060110-MT3 Date 01/10/06 Client 97464709

Site 318 S Livermore Ave

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					23.70	55.00	
MW-6	2					25.84	53.38	
MW-7	2					22.78	50.90	
MW-8	2					21.61	50.85	
MW-9	4					22.44	31.55	

