Shell Oil Products US

May 17, 2007

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

Denis L. Brown
Project Manager

20945 S. Wilmington Avenue, Carson, CA 90810 P: (559) 645-9306; F: (559) 645-5643

May 17, 2007
Project SJ31-8LI-1
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

DELTA

Re: Final Groundwater Monitoring Event, Well Destructions Report, and
Request for Case Closure Letter
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), presents: 1) data from the second quarter 2006 groundwater monitoring event, 2) a description of completed well destruction activities, and 3) requests issuance of a no further action case closure letter for the site referenced above (Figure 1).

BACKGROUND

The following sections present a description of current site conditions, and a brief summary of previous site soil and groundwater investigations.

Site Description

The site is located on the eastern corner of South Livermore Avenue and Third Street in Livermore, California (Figure 1). The site was formerly the location of a Shell-branded service station. The former service station consisted of a building containing vehicle service bays and a small convenience store, five fuel dispensers under a single canopy, three 12,000-gallon fuel underground storage tanks (USTs), and one 550-gallon waste oil UST. The former station plan is presented on Figure 2. The site is currently a vacant lot.

Monitoring Wells MW-1 through MW-4

In March 1989, a sample of backfill material was collected from around the fill pipe of the regular leaded UST formerly located near the southern corner of the site. The sample was found to contain total petroleum hydrocarbons as gasoline (TPH-G) at 37,000 parts per million (ppm). Subsequently, the Alameda County Health Care Services Agency (ACHCSA) required that groundwater at the site be assessed. In May 1990, following UST replacement activities, four groundwater monitoring wells (MW-1 through MW-4) were

installed adjacent to former site USTs. TPH-G was not detected in any of the soil samples collected from the borings for the monitoring wells. TPH-G and benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds) were detected in groundwater samples collected from Wells MW-3 and MW-4. The highest concentration of TPH-G detected was 90 micrograms per liter (ug/l). The wells were monitored through 1995 when case closure was granted by the ACHCSA and the wells destroyed.

Monitoring Wells MW-5 through MW-8

In September 2001, IT Corporation installed four site groundwater monitoring wells (MW-5 through MW-8) as part of Shell's voluntary Groundwater Assessment Program (GRASP). Only one soil sample was collected from the borings for site wells. Sample MW-7 at 35 feet below grade (bg) was analyzed for TPH-G, BTEX compounds, and fuel oxygenates. All analytes tested were below the laboratory method detection limit. A summary of historic groundwater monitoring data for Wells MW-5 through MW-8 is provided in Attachment A.

Fuel System Removal

In December 2003 and January 2004, site USTs, fuel dispensers and associated product piping, and the oil/water separator were removed. Delta collected soil samples during removal activities. Soil analytical results were presented to Mr. Paul M. Smith, Hazardous Materials Inspector for the Livermore – Pleasanton Fire Department in a report titled *Underground Storage Tank, Product Piping, and Dispenser Removals Report, Former Shell Service Station, 318 Livermore Avenue, Livermore, California,* dated January 16, 2004.

Analytical data indicated minimal petroleum hydrocarbon impact to soil beneath the site. TPH-G was detected in only one soil sample (4.9 milligrams per kilogram (mg/kg)). Benzene and MTBE were not detected in any soil sample. Tert-butanol (TBA) was detected in one soil sample at 0.016 mg/kg. Total lead, exceeding the California Department of Toxic Substances (DTSC) Preliminary Remediation Goal (PRG) of 150 mg/kg, was detected in only one soil sample. Total lead was detected at 380 mg/kg in the soil sample collected at a depth of 2.5 feet beneath the eastern fuel dispenser island. Sample locations are provided in the above referenced report.

Lead Impacted Soil Excavations and Investigation

Due to the detection of total lead beneath the eastern fuel dispenser at a concentration above the DTSC PRG, over-excavation activities were performed at the site.

On May 4, 2005, Delta directed the excavation of soil in the area beneath the former eastern fuel dispenser island (Figure 3). Approximately 100 cubic yards of soil was removed during initial excavation activities. Two of the confirmation soil samples collected during the initial over-excavation activities resulted in total lead detections that were above the ACHCSA approved cleanup goal of 150 mg/kg.

On May 18, 2005, Delta directed the excavation of an additional 75 cubic yards of lead impacted soil (Figure 3). Three of the confirmation soil samples collected during the additional over-excavation activities contained lead above the ACHCSA approved cleanup goal. Lead impacts appeared to be limited to depths between 2 and 4 feet bg within a dark brown soil unit. The presence of concrete debris below grade indicated that this portion of the site was underlain by fill materials to a depth of approximately 5 feet bg. Shell concluded that the lead impacts appeared to be associated with the fill material.

On June 7, 2005, Delta directed the excavation of six (PH-1 through PH-6) investigative excavations ("potholes") in order to laterally define the extent of lead impacted soils and fill materials (Figure 4). Concrete debris was observed in two potholes, and one sample (PH-4) resulted in a total lead detection that was above the ACHCSA approved cleanup goal. Shell recommended over-excavation of approximately an additional 250 cubic yards at the site in order to address the remaining lead impacted soils. Shell also recommended excavating additional on-site potholes for further lateral delineation (Figure 4).

On August 8, 2005, Delta directed the excavation and sampling of an additional eight "potholes" (PH-7 through PH-14). Concrete debris was observed in two locations. All lead detections were well below the ACHCSA approved cleanup goal.

On August 9, 2005, Delta directed the excavation of soil along the northeast and northwest previous (May 18, 2005) excavation walls extending past PH-4 in order to remove elevated lead concentrations remaining in soil (Figure 4). Lead was detected in all eleven samples collected. Only two samples resulted in total lead detections above the ACHCSA approved cleanup goal. Approximately 280 cubic yards of soil were excavated.

On October 24, 2005, Delta directed the over-excavation of soil along the northern corner and southwest sidewall of the August 9, 2005 excavation in order to remove elevated lead concentrations remaining in soil from the previous excavation (Figure 3). During excavation activities, an elevated photoionization detector (PID) reading (530 parts per million by volume, ppmv) was detected in soil from the location of Sample SS-19. Additional soil was subsequently over-excavated southeast of Sample SS-19, and confirmation Sample SS-21 was collected from the extended sidewall. Lead was detected in all eleven soil samples collected. Two samples resulted in total lead concentrations above the ACHCSA approved cleanup goal. Approximately 145 cubic yards of soil were excavated.

On February 23, 2006, Delta directed the final excavation of approximately an additional 150 cubic yards of soil to remove the remaining lead impacts (Figure 4). Lead was detected in only three out of the ten soil samples at concentrations below the ACHCSA cleanup goal for lead.

A total of approximately 850 cubic yards of soil was removed from the site. All excavations were backfilled with compacted baserock.

Borings B-1 through B-3, and Monitoring Well MW-9

In order to 1) define groundwater conditions southwest of the former fuel dispensers, and 2) determine if additional lead impacted soils existed beneath the location of the former (pre-1989) leaded gasoline fuel tank, Delta directed the advancement of three site soil borings (B-1 through B-3) in June 2005 Soil samples were retained for laboratory analysis from each of the three borings at 5-foot intervals. Lead was detected in all retained soil samples at concentrations ranging from 3.8 to 17 mg/kg, while no petroleum hydrocarbons were detected in any soil sample. An approximately 5-foot thick interbedded sand and gravel layer was logged at approximately 30 feet bg. Groundwater samples were collected from each boring, including discrete groundwater samples from the coarse-grained sand and gravel materials encountered at 30 feet. TPH-G and BTEX compounds were predominantly detected in the groundwater samples from the 30-foot zone. (Delta 7/11/05 report *Soil and Groundwater Investigation and Over-Excavation Report Former Shell Service Station)*

As a result, Delta supervised the installation of one additional on-site monitoring well (MW-9) in September 2005. Well MW-9 was located west-southwest of the site's former fuel dispenser islands and west of the former fuel USTs (Figure 2). Lead was detected in all seven soil samples collected from the boring for the well at concentrations ranging from 5 mg/kg to 12 mg/kg. All other petroleum hydrocarbon analytes tested were below the laboratory detection limits.

SECOND QUARTER 2006 GROUNDWATER MONITORING AND SAMPLING RESULTS

Quarterly groundwater monitoring was routinely performed at the site since July 2002 utilizing Wells MW-5 through MW-8 (15 gauging events). Well MW-9 was added to the groundwater monitoring program following installation during the third quarter 2005. Groundwater beneath the site typically fluctuates by about 8 to 10 feet annually, and the predominant groundwater gradient has historically been towards the west at approximately 0.02 feet/feet. During fourth quarter 2005, the sampling frequency for Wells MW-5 through MW-8 was reduced from quarterly to semi-annually, per ACHCSA approval.

Groundwater monitoring wells were gauged and sampled for the final time by Blaine Tech Services (Blaine), at the direction of Delta, on April 3, 2006. The groundwater gradient on April 3, 2006 was toward the west-northwest at a magnitude of 0.01 feet/feet. Groundwater elevation data and contours are presented in Attachment A. No TPH-G, BTEX compounds, or MTBE concentrations were detected in Wells MW-5 through MW-8. Well MW-9 contained 514 ug/l of TPH-G, 16.6 ug/l of benzene, and 3.5 ug/l of MTBE. 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 final monitoring event, is included as Attachment A.

WELL DESTRUCTIONS

Based on redevelopment plans and construction activities at the site, site wells were approved for destruction by the ACHCSA. Delta obtained well destruction permits from Zone 7 Water Resources Agency. A copy of the permit is provided as Attachment C. The five site wells were destroyed on April 20, 2006 by over drilling and removing casing and sand pack to a depth of 55 feet as specified by the well destruction permits. TestAmerica Drilling Corporation (TestAmerica), License C57- 819548, provided the field equipment and materials. A Delta geologist oversaw and directed the well destruction activities.

The casings of each well were removed utilizing 10-inch diameter hollow stem augers. Approximately 165 gallons of cement/bentonite (5%) grout was tremied through the augers down the over-drilled boreholes to approximately 1-foot bg. The remaining boreholes were backfilled to the surface with concrete flush to the surrounding grade. Delta prepared State of California *Well Completion Reports* (WCR) for each well, submitted them to TestAmerica for signatures, followed by submittal to the appropriate agency. Copies of the WCRs are presented in Attachment D.

REQUEST FOR LETTER OF NO FUTHER ACTION

Shell requests that the ACHCSA case for this site be closed and a letter issued stating that no further monitoring or remediation activities are required. This request is based on the following:

Residual petroleum hydrocarbon impacts in site soil associated with the former fuel system have been laterally and vertically defined, and appear to be limited.

- Minor petroleum hydrocarbons (<5 mg/kg), including TPH-G, BTEX compounds, and TBA, were detected beneath the site's former product piping, waste oil tank, oil and water separator, and fuel USTs. TPH-D and total oil and grease were also detected beneath the oil and water separator at a maximum concentration of 54 mg/kg. TPH-D detections did not match the laboratory's standard chromatographic pattern. In addition, all detections were below the San Francisco-RWQCB ESLs (see Attachment E).

- TPH-G, BTEX compounds, and fuel oxygenates were below the laboratory's reporting limit in all soil samples collected from recent site Borings B-1 through B-3, as well as the boring for Well MW-9. A soil sample collected at a depth of 35 feet bg from the boring for Well MW-7 in 2001 was also non-detect for petroleum hydrocarbons and fuel oxygenates.

- During site over-excavation activities, an elevated PID reading (530 ppmv) was detected in the vicinity of the former eastern fuel dispenser (Sample SS-19) (Figure 3). Sample SS-19 contained TPH-G at 2,000 mg/kg, as well as BTEX constituents. Soil in this area was over-excavated and confirmatory Sample SS-21 did not contain any concentrations of petroleum hydrocarbons or fuel oxygenates.

- No petroleum hydrocarbons or fuel oxygenates were detected in over-excavation confirmatory samples S-1 through S-18 collected within the area of former fuel dispenser islands and product piping.

Lead impacts in site soil appear to have been delineated and successfully remediated.

- Total Lead, above the DTSC PRG, was initially detected in only one soil sample – collected from beneath former site fuel dispensers with a concentration of 380 mg/kg.

- With the exception of Pothole PH-4, exploratory pothole locations indicated that lead impacted soils did not extend beyond the central and northern portions of the site.

- Based on over-excavation confirmatory samples, lead impacts were observed to be concentrated in a north-south trending zone that stretched from the former fuel dispensers, across the front of the former service bays towards the former waste oil tank location (see Figure 4).

- A total of approximately 850 cubic yards of lead impacted soil was removed from the site during five separate over-excavation events. Total lead concentrations in all ten final confirmatory soil samples collected on February 23, 2006 were below the ACHCSA approved cleanup goal of 150 mg/kg.

- No elevated lead concentrations were detected in soils at depths greater than approximately 3 feet bg.

Petroleum hydrocarbon and fuel oxygenate impacts to groundwater beneath the site appear to be limited.

- TPH-G has been sporadically detected in Wells MW-5 through MW-8 (once in Wells MW-5 and MW-6, three times in Well MW-7, and twice in Well MW-8) at a maximum concentration of 260 ug/l.

- Low-level concentrations of BTEX compounds ($\leq$ 16 ug/l) were detected one time in Wells MW-5 through MW-8 during the fourth quarter 2003 event.

- MTBE, historically detected in Well MW-7, decreased from a maximum concentration of 4.0 ug/l (April 2003) to non-detect levels during the final monitoring event (second quarter 2006). Low-level concentrations of MTBE ($\leq$ 6.9 ug/l) were detected once in Well MW-6 and sporadically in Well MW-8.

- Petroleum hydrocarbons and fuel oxygenates were not detected in deep Wells MW-5, MW-6, and MW-8 for at least the last four sampling events. And TPH-G, BTEX compounds, and fuel oxygenates were not detected in Well MW-7 during the final monitoring event.

- Shallow groundwater impacts appear to be limited to the vicinity of Well MW-9 (former fuel dispenser area). TPH-G (maximum concentration = 770 ug/l), BTEX compounds (maximum

concentration = 68 ug/l), and MTBE (maximum concentration = 12 ug/l) were consistently detected in Well MW-9 following installation during the third quarter 2005.

- Grab groundwater samples (from depths of approximately 30 feet bg) collected from Borings B-1 and B-3, adjacent to Well MW-9, also contained detections of petroleum hydrocarbons and fuel oxygenates.

- The fuel oxygenate TBA has only been detected in Well MW-9 (maximum concentration = 14 ug/l). 1,2-DCA was also detected in Well MW-9 (maximum concentration = 2 ug/l), as well as sporadically in Wells MW-7 and MW-8 (prior to 2005).

- (see Attachment With the exception of TPH-g, MTBE, TBA, and benzene in Well MW-9, all groundwater detections in all site wells have been below ESLs for at least the last eight consecutive sampling events E).

- As all site fuel sources, and residual sources in soil, appear to have now been removed – groundwater impacts are expected to decrease over time as a result of natural attenuation.

There are no known nearby sensitive receptors.

- No public drinking water supply wells were identified within 1,000 feet of the site.
- Municipal wells CWS 12-01 and 15-01 are located upgradient to cross-gradient of the site.

REMARKS

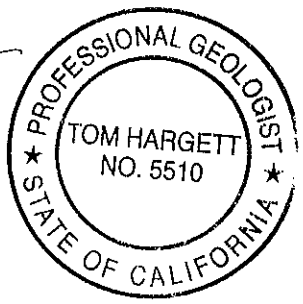
The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report is based upon a specific scope of work requested by the client. The Contract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

If you have any questions regarding this site, please contact Tom Hargett at (408) 826-1868, or Mr. Denis Brown (Shell project manager) at (707) 865-0251.

Sincerely,
DELTA ENVIRONMENTAL CONSULTANTS, INC.

Abhik Dutta
for: Joby Dunmire

Tom Hargett, PG 5510
Project Manager



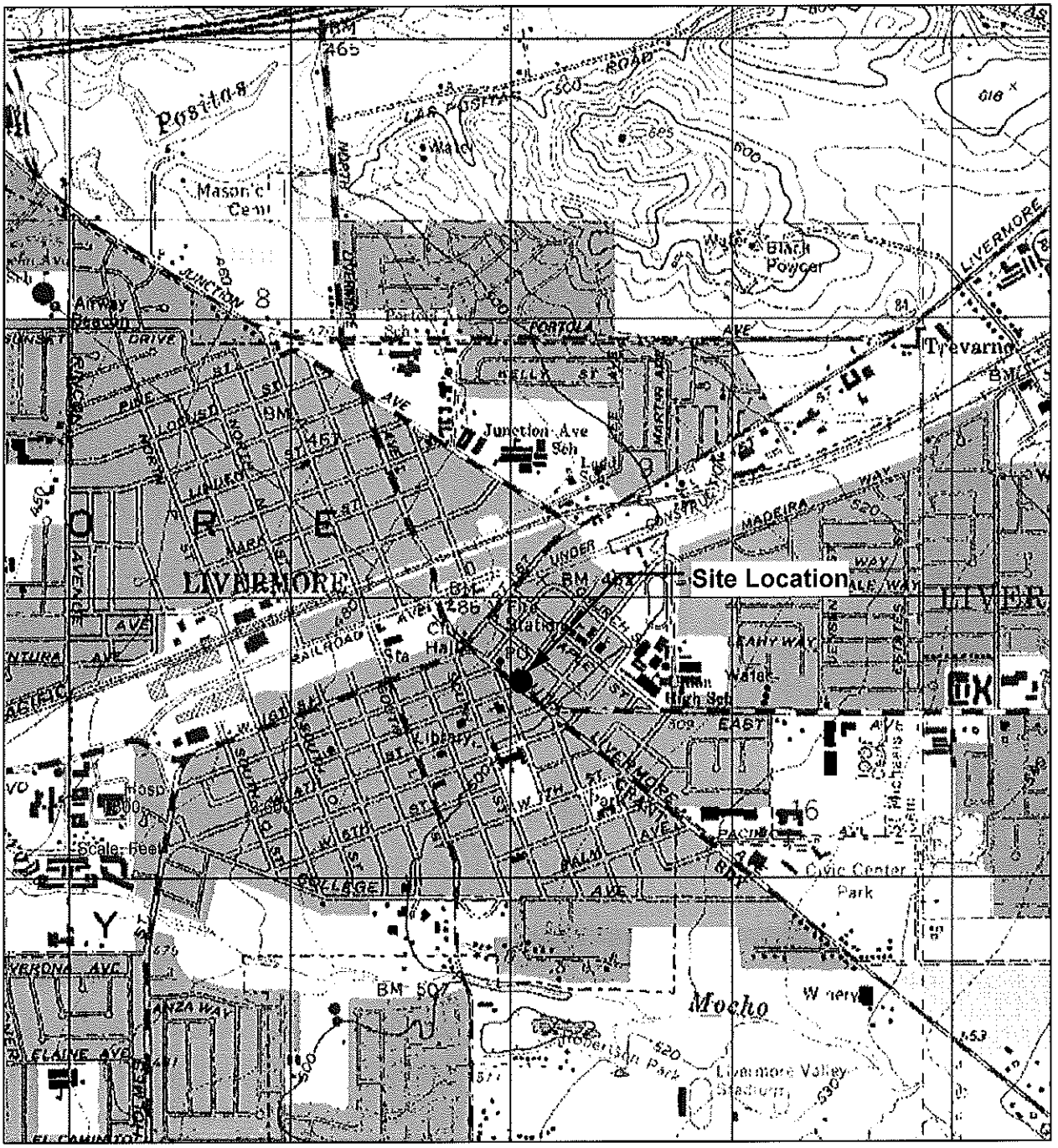
Attachments:

Figure 1 – Site Location Map
Figure 2 – Former Station Plan
Figure 3 – Soil Sample Location Map
Figure 4 – Lead Concentrations in Soil (mg/kg) at Depths from 1.9' to 3.5' bgs
Figure 5 – Groundwater Contour Elevation Map, April 3, 2006
Figure 6 – Groundwater Concentration Map, April 3, 2006

Attachment A – Groundwater Monitoring and Sampling Report, April 18, 2006 (Blaine)
Attachment B – Historical Soil and Groundwater Analytical Data Tables
Attachment C – Monitoring Well Destruction Permits (Zone 7)
Attachment D - Well Completion Reports (MW-5 through MW-9)
Attachment E – RWQCB ESL Tables

cc: Mr. Denis Brown, Shell Oil Products US, Rio Vista
Betty Graham, RWQCB, Oakland
Chris Davidson, Redevelopment Agency, City of Livermore, Livermore
Paul Smith, Livermore-Pleasanton Fire Department, Pleasanton

FIGURES



North

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

0 1,800 3,600
Scale, Feet

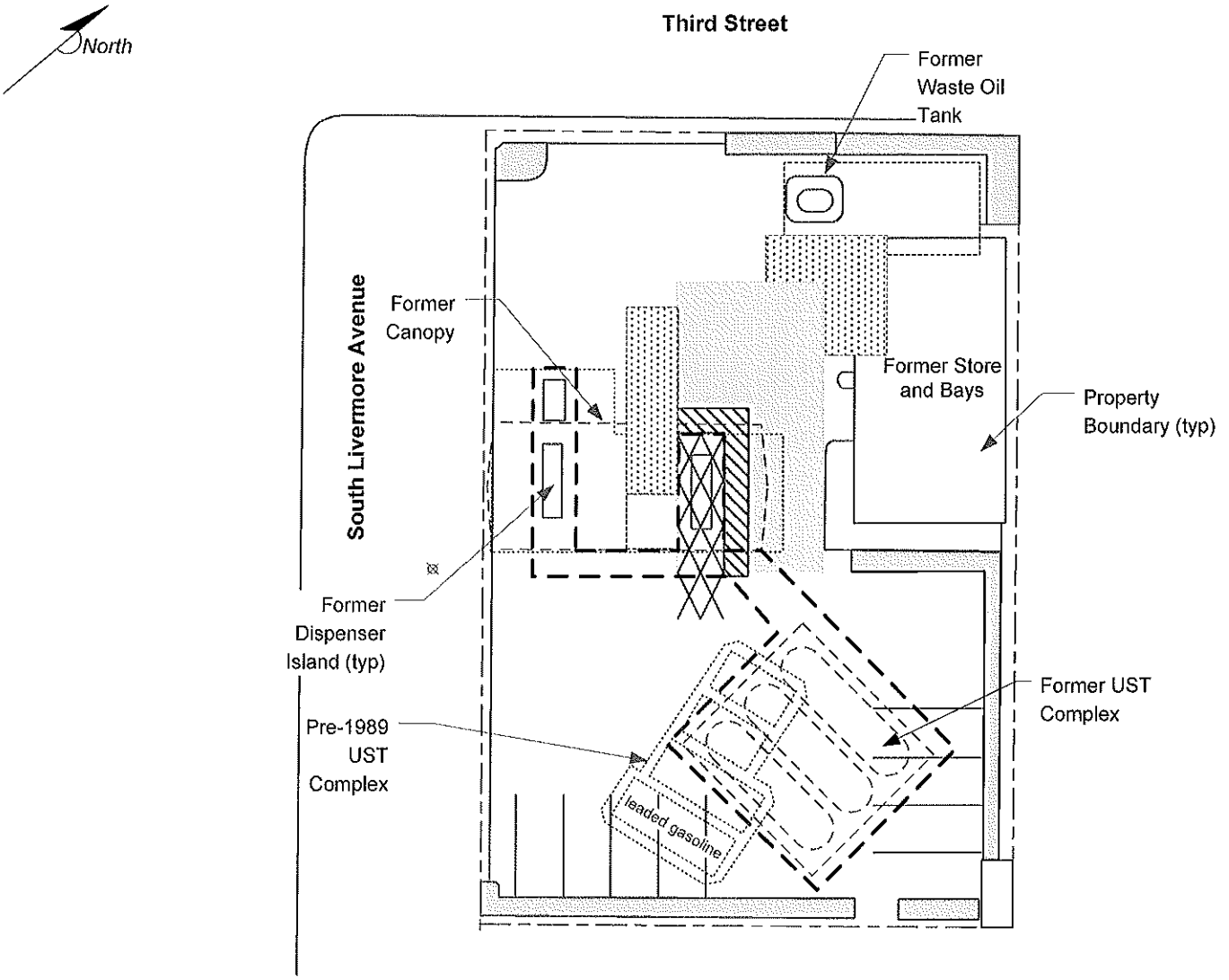
FIGURE 1

SITE LOCATION MAP

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

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

Delta Environmental Consultants, Inc.



LEGEND

0 30 FT

APPROX. SCALE

- AREA OF ADDITIONAL EXCAVATION (2-23-06)
- EXCAVATION AREA (5-4-05)
- EXCAVATION AREA (5-18-05)
- EXCAVATION AREA (8-9-05)
- EXCAVATION AREA (10-24-05)

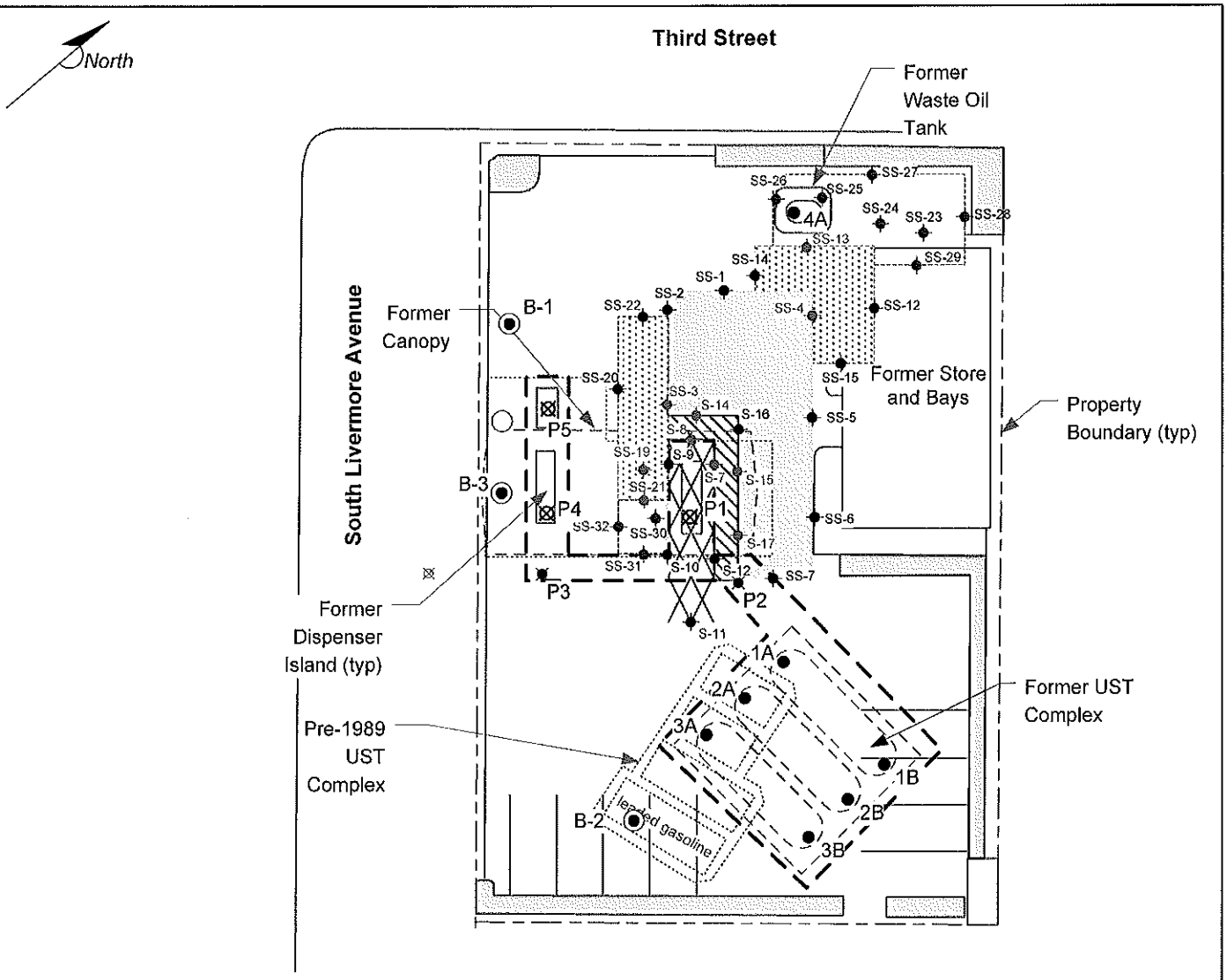
FIGURE 2

FORMER SHELL-BRANDED SERVICE STATION PLAN

318 South Livermore Avenue
Livermore, California

PROJECT NO. SJ31-8LI-1.2006	DRAWN BY JL 03/09/06
FILE NO. SJ31-8LI-2006	PREPARED BY JL
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.



LEGEND

- SS-25 — SOIL SAMPLE LOCATION AND DESIGNATION (2-23-06)
- OVER-EXCAVATED SIDEWALL SOIL SAMPLE LOCATION (LEAD CONCENTRATION > 150 PPM)
- SIDEWALL SOIL SAMPLE LOCATION (LEAD CONCENTRATION < 150 PPM)
- 2A — TANK PIT SOIL SAMPLE LOCATION AND DESIGNATION (12/03 & 01/04)
- P3 — PIPING TRENCH SOIL SAMPLE LOCATION AND DESIGNATION (12/03 & 01/04)
- P4 — DISPENSER SOIL SAMPLE LOCATION AND DESIGNATION (12/03 & 01/04)
- B-2 — SOIL BORINGS (05/05)
- EXCAVATION AREA (5-4-05)
- EXCAVATION AREA (5-18-05)
- EXCAVATION AREA (8-9-05)
- EXCAVATION AREA (10-24-05)
- AREA OF ADDITIONAL EXCAVATION (2-23-06)

0 30 FT

APPROX. SCALE

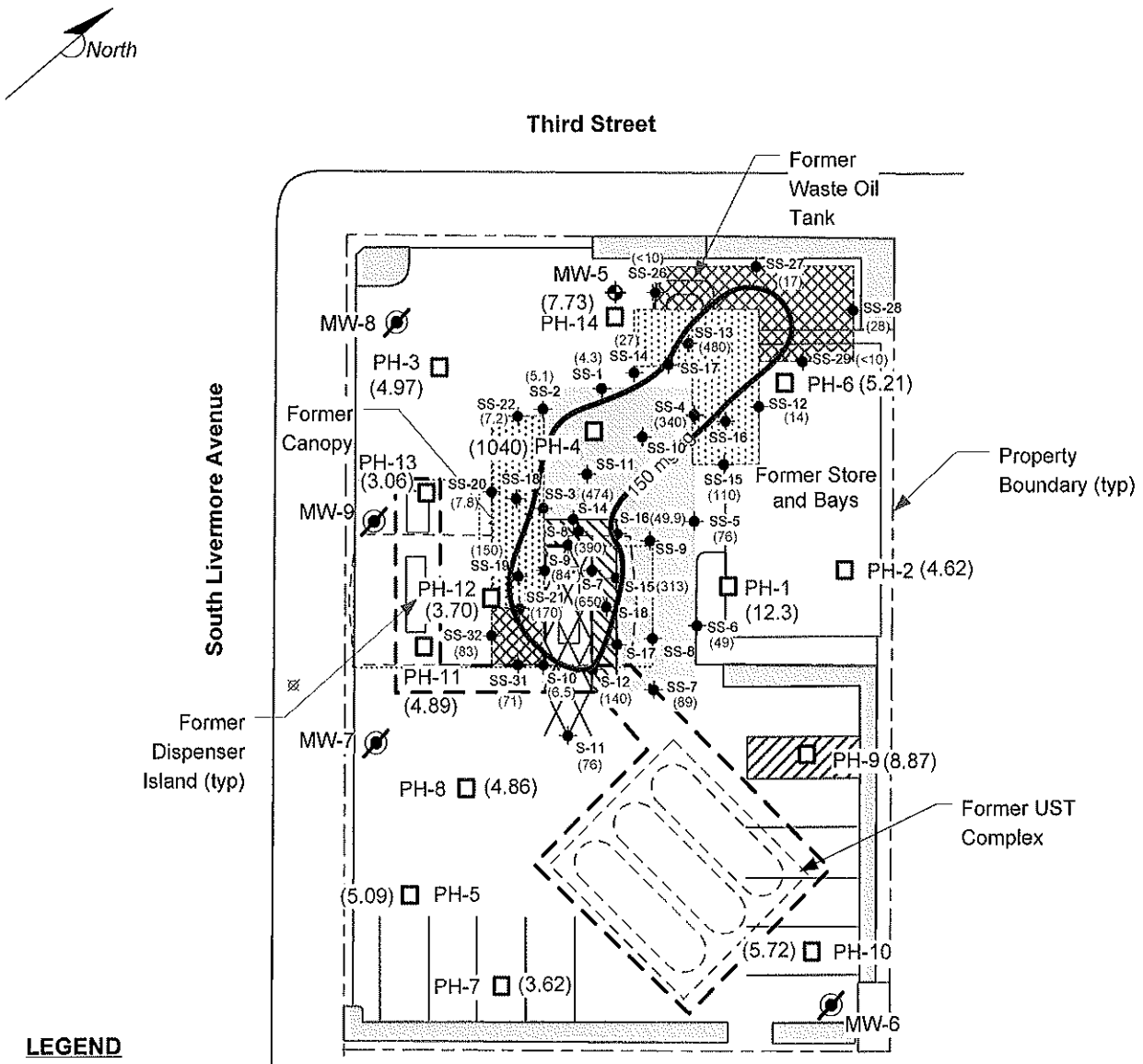
FIGURE 3

OVER-EXCAVATION AND SOIL SAMPLE LOCATION MAP

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

PROJECT NO. SJ31-8LI-1.2006	DRAWN BY JL 03/09/06
FILE NO. SJ31-8LI-2006	PREPARED BY JL
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.



LEGEND

- SS-1 — SOIL SAMPLE LOCATION AND DESIGNATION
- (89) — LEAD CONCENTRATIONS IN SOIL (MG/KG) AT DEPTHS FROM 1.9' TO 3.5' BG
- 150 mg/kg — LEAD CONCENTRATION CONTOUR
- * — THE LEAD CONCENTRATION AT S-9 IS BELOW THE ACHCSA CLEANUP GOAL
- MW-5 — EXISTING GROUNDWATER MONITORING WELL
- MW-6 — DESTROYED GROUNDWATER MONITORING WELL
- PH-6 — POTHOLE LOCATION AND DESIGNATION
- (3.62) — LEAD CONCENTRATION (PPM)
- EXCAVATION AREA (5-4-05)
- EXCAVATION AREA (5-18-05)
- EXCAVATION AREA (8-9-05)
- EXCAVATION (10-24-05)
- EXCAVATION AREA (2-23-06)

0 30 FT

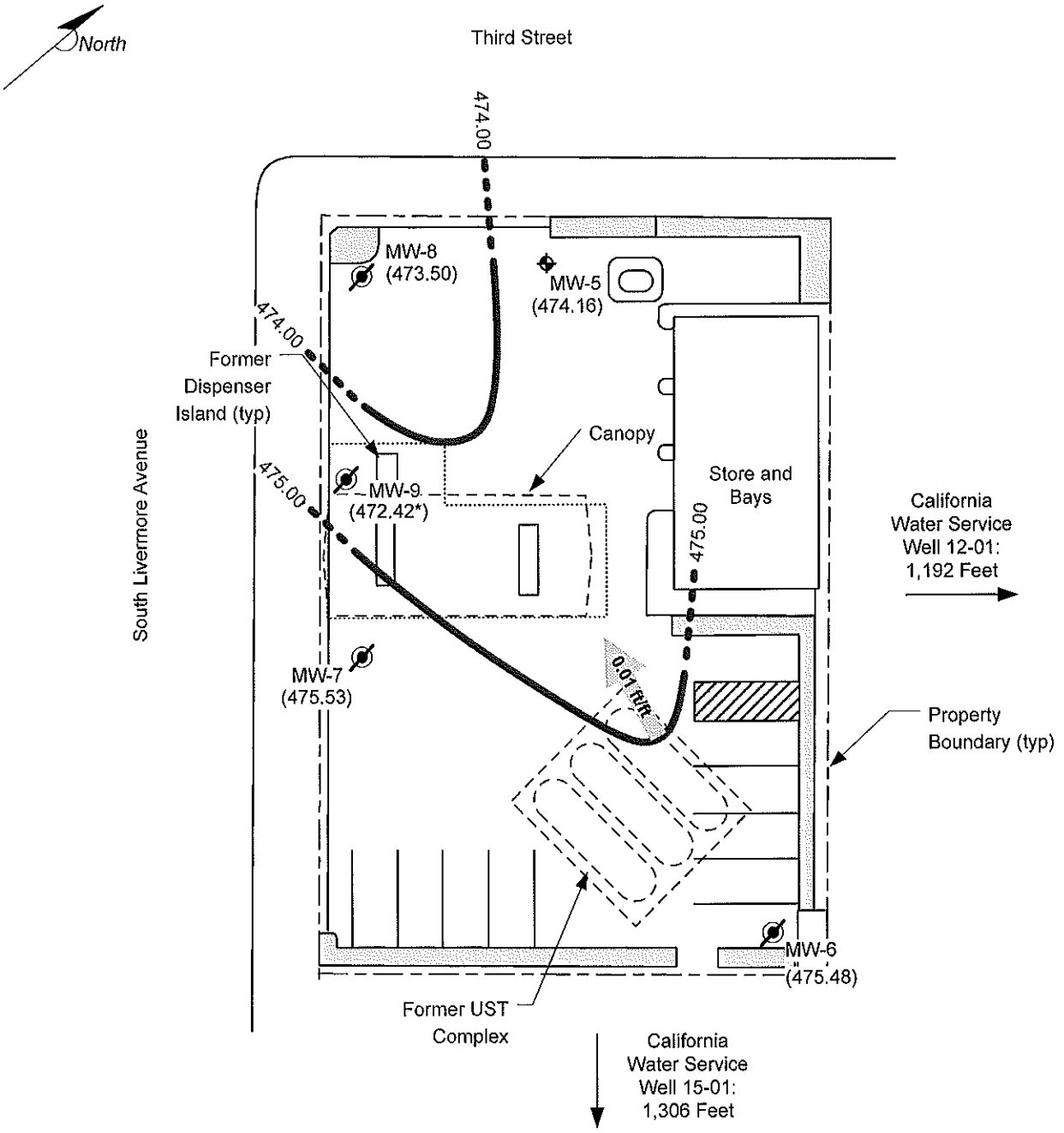
APPROX. SCALE

FIGURE 4
LEAD CONCENTRATIONS IN SOIL (MG/KG)
AT DEPTHS FROM 1.9' TO 3.5' BG

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

PROJECT NO. SJ31-8LI-1.2006	DRAWN BY JL 03/09/06
FILE NO. SJ31-8LI-2006	PREPARED BY JL
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.



0 30 FT

APPROX. SCALE

LEGEND

MW-5 — **GROUNDWATER MONITORING WELL**

MW-6 — **DESTROYED GROUNDWATER MONITORING WELL**

(475.48) — **GROUNDWATER ELEVATION (MSL), 04/03/06**

472.00 — **GROUNDWATER ELEVATION CONTOUR**

0.02 ft/ft — **APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT**

* — **NOT USED IN CONTOURING**

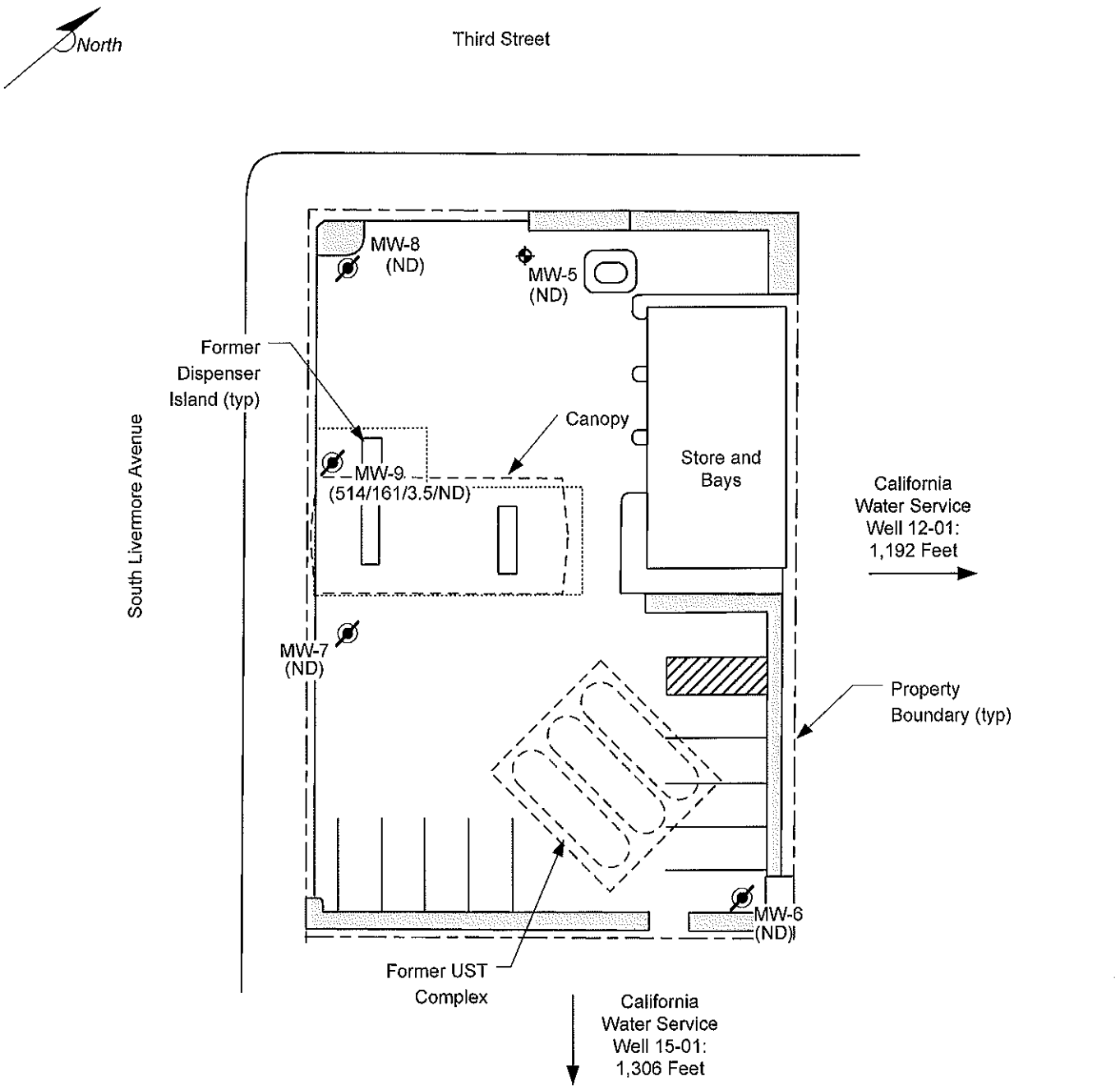
FIGURE 5

GROUNDWATER ELEVATION CONTOUR MAP,
APRIL 3, 2006

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

PROJECT NO. SJ31-8LI-1.2006	DRAWN BY JL 05/09/06
FILE NO. SJ31-8LI-1.2006	PREPARED BY HB
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.



LEGEND

MW-5 ⊕ **GROUNDWATER MONITORING WELL**

MW-6 ⊘ **DESTROYED GROUNDWATER MONITORING WELL**

(514/161/3.5/ND) **TPPH/BENZENE/MTBE/TBA (µg/L)**

ND **GROUNDWATER CONCENTRATION BELOW LABORATORY DETECTION LIMIT**

FIGURE 6

GROUNDWATER CONCENTRATION MAP,
APRIL 3, 2006

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

PROJECT NO. SJ31-8LI-1.2006	DRAWN BY AD 05/15/07
FILE NO. SJ31-8LI-1.2006	PREPARED BY HB
REVISION NO. 1	REVIEWED BY

Delta Environmental Consultants, Inc.

ATTACHMENT A

GROUNDWATER MONITORING AND SAMPLING REPORT
APRIL 18, 2006

BLAINE
TECH SERVICES INC.

GROUNDWATER SAMPLING SPECIALISTS
SINCE 1985

April 18, 2006

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

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

Monitoring performed on April 3, 2006

Groundwater Monitoring Report **060403-PC-1**

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)
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-5	**04/03/2006**	**<50.0**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<10.0**	**495.47**	**21.31**	**474.16**
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

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)
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-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-6	**04/03/2006**	**<50.0**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<10.0**	**497.57**	**22.09**	**475.48**
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-7	**04/03/2006**	**<50.0**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<10.0**	**495.58**	**20.05**	**475.53**
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

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)
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
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-8	**04/03/2006**	**<50.0**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<0.500**	**<10.0**	**494.90**	**21.40**	**473.50**
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
MW-9	**04/03/2006**	**514**	**16.6**	**1.97**	**2.37**	**6.08**	**3.50**	**<0.500**	**<0.500**	**<0.500**	**<10.0**	**494.77**	**22.35**	**472.42**

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)

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.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

April 17, 2006

Client: Delta Env. Consultants (San Jose) / SHELL (13653)
175 Bernal Rd., Suite 200
San Jose, CA 95119
Attn: Heather Buckingham

Work Order: NPD0517
Project Name: 318 S Livermore Ave., Livermore, CA
Project Nbr: SAP 135440
P/O Nbr: 97464709
Date Received: 04/06/06

SAMPLE IDENTIFICATION	LAB NUMBER	COLLECTION DATE AND TIME
MW-5	NPD0517-01	04/03/06 10:34
MW-6	NPD0517-02	04/03/06 11:08
MW-7	NPD0517-03	04/03/06 10:00
MW-8	NPD0517-04	04/03/06 11:42
MW-9	NPD0517-05	04/03/06 11:58

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

California Certification Number: 01168CA

The Chain(s) of Custody, 3 pages, are included and are an integral part of this report.

These results relate only to the items tested. This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:

Jim Hatfield
Project Management

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPD0517-01 (MW-5 - Water) Sampled: 04/03/06 10:34								
Volatile Organic Compounds by EPA Method 8260B								
Tert-Amyl Methyl Ether	ND		ug/L	0.500	1	04/09/06 22:30	SW846 8260B	6041615
1,2-Dibromoethane (EDB)	ND		ug/L	0.500	1	04/09/06 22:30	SW846 8260B	6041615
Benzene	ND		ug/L	0.500	1	04/09/06 22:30	SW846 8260B	6041615
1,2-Dichloroethane	ND		ug/L	0.500	1	04/09/06 22:30	SW846 8260B	6041615
Ethylbenzene	ND		ug/L	0.500	1	04/09/06 22:30	SW846 8260B	6041615
Toluene	ND		ug/L	0.500	1	04/09/06 22:30	SW846 8260B	6041615
Ethyl tert-Butyl Ether	ND		ug/L	0.500	1	04/09/06 22:30	SW846 8260B	6041615
Diisopropyl Ether	ND		ug/L	0.500	1	04/09/06 22:30	SW846 8260B	6041615
Methyl tert-Butyl Ether	ND		ug/L	0.500	1	04/09/06 22:30	SW846 8260B	6041615
Xylenes, total	ND		ug/L	0.500	1	04/09/06 22:30	SW846 8260B	6041615
Tertiary Butyl Alcohol	ND		ug/L	10.0	1	04/09/06 22:30	SW846 8260B	6041615
Surr: 1,2-Dichloroethane-d4 (70-130%)	*105 %*					*04/09/06 22:30*	*SW846 8260B*	*6041615*
Surr: Dibromofluoromethane (79-122%)	*111 %*					*04/09/06 22:30*	*SW846 8260B*	*6041615*
Surr: Toluene-d8 (78-121%)	*108 %*					*04/09/06 22:30*	*SW846 8260B*	*6041615*
Surr: 4-Bromofluorobenzene (78-126%)	*105 %*					*04/09/06 22:30*	*SW846 8260B*	*6041615*
Purgeable Petroleum Hydrocarbons								
Gasoline Range Organics	ND		ug/L	50.0	1	04/09/06 22:30	CA LUFT GC/MS	6041615
Sample ID: NPD0517-02 (MW-6 - Water) Sampled: 04/03/06 11:08								
Volatile Organic Compounds by EPA Method 8260B								
Tert-Amyl Methyl Ether	ND		ug/L	0.500	1	04/09/06 22:53	SW846 8260B	6041615
1,2-Dibromoethane (EDB)	ND		ug/L	0.500	1	04/09/06 22:53	SW846 8260B	6041615
Benzene	ND		ug/L	0.500	1	04/09/06 22:53	SW846 8260B	6041615
1,2-Dichloroethane	ND		ug/L	0.500	1	04/09/06 22:53	SW846 8260B	6041615
Ethylbenzene	ND		ug/L	0.500	1	04/09/06 22:53	SW846 8260B	6041615
Toluene	ND		ug/L	0.500	1	04/09/06 22:53	SW846 8260B	6041615
Ethyl tert-Butyl Ether	ND		ug/L	0.500	1	04/09/06 22:53	SW846 8260B	6041615
Diisopropyl Ether	ND		ug/L	0.500	1	04/09/06 22:53	SW846 8260B	6041615
Methyl tert-Butyl Ether	ND		ug/L	0.500	1	04/09/06 22:53	SW846 8260B	6041615
Xylenes, total	ND		ug/L	0.500	1	04/09/06 22:53	SW846 8260B	6041615
Tertiary Butyl Alcohol	ND		ug/L	10.0	1	04/09/06 22:53	SW846 8260B	6041615
Surr: 1,2-Dichloroethane-d4 (70-130%)	*107 %*					*04/09/06 22:53*	*SW846 8260B*	*6041615*
Surr: Dibromofluoromethane (79-122%)	*112 %*					*04/09/06 22:53*	*SW846 8260B*	*6041615*
Surr: Toluene-d8 (78-121%)	*114 %*					*04/09/06 22:53*	*SW846 8260B*	*6041615*
Surr: 4-Bromofluorobenzene (78-126%)	*117 %*					*04/09/06 22:53*	*SW846 8260B*	*6041615*
Purgeable Petroleum Hydrocarbons								
Gasoline Range Organics	ND		ug/L	50.0	1	04/09/06 22:53	CA LUFT GC/MS	6041615

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Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPD0517-03 (MW-7 - Water) Sampled: 04/03/06 10:00								
Volatile Organic Compounds by EPA Method 8260B								
Tert-Amyl Methyl Ether	ND		ug/L	0.500	1	04/09/06 23:15	SW846 8260B	6041615
1,2-Dibromoethane (EDB)	ND		ug/L	0.500	1	04/09/06 23:15	SW846 8260B	6041615
Benzene	ND		ug/L	0.500	1	04/09/06 23:15	SW846 8260B	6041615
1,2-Dichloroethane	**1.25**		ug/L	0.500	1	04/09/06 23:15	SW846 8260B	6041615
Ethylbenzene	ND		ug/L	0.500	1	04/09/06 23:15	SW846 8260B	6041615
Toluene	ND		ug/L	0.500	1	04/09/06 23:15	SW846 8260B	6041615
Ethyl tert-Butyl Ether	ND		ug/L	0.500	1	04/09/06 23:15	SW846 8260B	6041615
Diisopropyl Ether	ND		ug/L	0.500	1	04/09/06 23:15	SW846 8260B	6041615
Methyl tert-Butyl Ether	ND		ug/L	0.500	1	04/09/06 23:15	SW846 8260B	6041615
Xylenes, total	ND		ug/L	0.500	1	04/09/06 23:15	SW846 8260B	6041615
Tertiary Butyl Alcohol	ND		ug/L	10.0	1	04/09/06 23:15	SW846 8260B	6041615
Surr: 1,2-Dichloroethane-d4 (70-130%)	*109 %*					*04/09/06 23:15*	*SW846 8260B*	*6041615*
Surr: Dibromofluoromethane (79-122%)	*107 %*					*04/09/06 23:15*	*SW846 8260B*	*6041615*
Surr: Toluene-d8 (78-121%)	*108 %*					*04/09/06 23:15*	*SW846 8260B*	*6041615*
Surr: 4-Bromofluorobenzene (78-126%)	*106 %*					*04/09/06 23:15*	*SW846 8260B*	*6041615*
Purgeable Petroleum Hydrocarbons								
Gasoline Range Organics	ND		ug/L	50.0	1	04/09/06 23:15	CA LUFT GC/MS	6041615
Sample ID: NPD0517-04 (MW-8 - Water) Sampled: 04/03/06 11:42								
Volatile Organic Compounds by EPA Method 8260B								
Tert-Amyl Methyl Ether	ND		ug/L	0.500	1	04/09/06 23:37	SW846 8260B	6041615
1,2-Dibromoethane (EDB)	ND		ug/L	0.500	1	04/09/06 23:37	SW846 8260B	6041615
Benzene	ND		ug/L	0.500	1	04/09/06 23:37	SW846 8260B	6041615
1,2-Dichloroethane	ND		ug/L	0.500	1	04/09/06 23:37	SW846 8260B	6041615
Ethylbenzene	ND		ug/L	0.500	1	04/09/06 23:37	SW846 8260B	6041615
Toluene	ND		ug/L	0.500	1	04/09/06 23:37	SW846 8260B	6041615
Ethyl tert-Butyl Ether	ND		ug/L	0.500	1	04/09/06 23:37	SW846 8260B	6041615
Diisopropyl Ether	ND		ug/L	0.500	1	04/09/06 23:37	SW846 8260B	6041615
Methyl tert-Butyl Ether	ND		ug/L	0.500	1	04/09/06 23:37	SW846 8260B	6041615
Xylenes, total	ND		ug/L	0.500	1	04/09/06 23:37	SW846 8260B	6041615
Tertiary Butyl Alcohol	ND		ug/L	10.0	1	04/09/06 23:37	SW846 8260B	6041615
Surr: 1,2-Dichloroethane-d4 (70-130%)	*108 %*					*04/09/06 23:37*	*SW846 8260B*	*6041615*
Surr: Dibromofluoromethane (79-122%)	*110 %*					*04/09/06 23:37*	*SW846 8260B*	*6041615*
Surr: Toluene-d8 (78-121%)	*110 %*					*04/09/06 23:37*	*SW846 8260B*	*6041615*
Surr: 4-Bromofluorobenzene (78-126%)	*116 %*					*04/09/06 23:37*	*SW846 8260B*	*6041615*
Purgeable Petroleum Hydrocarbons								
Gasoline Range Organics	ND		ug/L	50.0	1	04/09/06 23:37	CA LUFT GC/MS	6041615

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

ANALYTICAL REPORT

Analyte	Result	Flag	Units	MRL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: NPD0517-05 (MW-9 - Water) Sampled: 04/03/06 11:58								
Total Metals by EPA Method 6010B								
Lead	ND		mg/L	0.00500	1	04/07/06 20:24	SW846 6010B	6041140
Volatile Organic Compounds by EPA Method 8260B								
Tert-Amyl Methyl Ether	ND		ug/L	0.500	1	04/09/06 23:59	SW846 8260B	6041615
1,2-Dibromoethane (EDB)	ND		ug/L	0.500	1	04/09/06 23:59	SW846 8260B	6041615
Benzene	16.6		ug/L	0.500	1	04/09/06 23:59	SW846 8260B	6041615
1,2-Dichloroethane	ND		ug/L	0.500	1	04/09/06 23:59	SW846 8260B	6041615
Ethylbenzene	2.37		ug/L	0.500	1	04/09/06 23:59	SW846 8260B	6041615
Toluene	1.97		ug/L	0.500	1	04/09/06 23:59	SW846 8260B	6041615
Ethyl tert-Butyl Ether	ND		ug/L	0.500	1	04/09/06 23:59	SW846 8260B	6041615
Diisopropyl Ether	ND		ug/L	0.500	1	04/09/06 23:59	SW846 8260B	6041615
Methyl tert-Butyl Ether	3.50		ug/L	0.500	1	04/09/06 23:59	SW846 8260B	6041615
Xylenes, total	6.08		ug/L	0.500	1	04/09/06 23:59	SW846 8260B	6041615
Tertiary Butyl Alcohol	ND		ug/L	10.0	1	04/09/06 23:59	SW846 8260B	6041615
Surr: 1,2-Dichloroethane-d4 (70-130%)	*106 %*					*04/09/06 23:59*	*SW846 8260B*	*6041615*
Surr: Dibromofluoromethane (79-122%)	*106 %*					*04/09/06 23:59*	*SW846 8260B*	*6041615*
Surr: Toluene-d8 (78-121%)	*108 %*					*04/09/06 23:59*	*SW846 8260B*	*6041615*
Surr: 4-Bromofluorobenzene (78-126%)	*113 %*					*04/09/06 23:59*	*SW846 8260B*	*6041615*
Purgeable Petroleum Hydrocarbons								
Gasoline Range Organics	514		ug/L	50.0	1	04/09/06 23:59	CA LUFT GC/MS	6041615

TestAmerica
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2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

SAMPLE EXTRACTION DATA

Parameter	Batch	Lab Number	Wt/Vol Extracted	Extracted Vol	Date	Analyst	Extraction Method
Total Metals by EPA Method 6010B							
SW846 6010B	6041140	NPD0517-05	50.00	50.00	04/07/06 10:45	JLS	EPA 3010A

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

PROJECT QUALITY CONTROL DATA
Blank

Analyte	Blank Value	Q	Units	Q.C. Batch	Lab Number	Analyzed Date/Time
Total Metals by EPA Method 6010B						
6041140-BLK1						
Lead	<0.00240		mg/L	6041140	6041140-BLK1	04/07/06 19:10
Volatile Organic Compounds by EPA Method 8260B						
6041615-BLK1						
Tert-Amyl Methyl Ether	<0.200		ug/L	6041615	6041615-BLK1	04/09/06 21:24
1,2-Dibromoethane (EDB)	<0.250		ug/L	6041615	6041615-BLK1	04/09/06 21:24
Benzene	<0.200		ug/L	6041615	6041615-BLK1	04/09/06 21:24
1,2-Dichloroethane	<0.390		ug/L	6041615	6041615-BLK1	04/09/06 21:24
Ethylbenzene	<0.200		ug/L	6041615	6041615-BLK1	04/09/06 21:24
Toluene	<0.200		ug/L	6041615	6041615-BLK1	04/09/06 21:24
Ethyl tert-Butyl Ether	<0.200		ug/L	6041615	6041615-BLK1	04/09/06 21:24
Diisopropyl Ether	<0.200		ug/L	6041615	6041615-BLK1	04/09/06 21:24
Methyl tert-Butyl Ether	<0.200		ug/L	6041615	6041615-BLK1	04/09/06 21:24
Xylenes, total	<0.350		ug/L	6041615	6041615-BLK1	04/09/06 21:24
Tertiary Butyl Alcohol	<5.06		ug/L	6041615	6041615-BLK1	04/09/06 21:24
Surrogate: 1,2-Dichloroethane-d4	103%			6041615	6041615-BLK1	04/09/06 21:24
Surrogate: 1,2-Dichloroethane-d4	103%			6041615	6041615-BLK1	04/09/06 21:24
Surrogate: Dibromofluoromethane	103%			6041615	6041615-BLK1	04/09/06 21:24
Surrogate: Dibromofluoromethane	103%			6041615	6041615-BLK1	04/09/06 21:24
Surrogate: Toluene-d8	106%			6041615	6041615-BLK1	04/09/06 21:24
Surrogate: Toluene-d8	106%			6041615	6041615-BLK1	04/09/06 21:24
Surrogate: 4-Bromofluorobenzene	103%			6041615	6041615-BLK1	04/09/06 21:24
Surrogate: 4-Bromofluorobenzene	103%			6041615	6041615-BLK1	04/09/06 21:24
Purgeable Petroleum Hydrocarbons						
6041615-BLK1						
Gasoline Range Organics	<50.0		ug/L	6041615	6041615-BLK1	04/09/06 21:24
Surrogate: 1,2-Dichloroethane-d4	103%			6041615	6041615-BLK1	04/09/06 21:24
Surrogate: Dibromofluoromethane	103%			6041615	6041615-BLK1	04/09/06 21:24
Surrogate: Toluene-d8	106%			6041615	6041615-BLK1	04/09/06 21:24
Surrogate: 4-Bromofluorobenzene	103%			6041615	6041615-BLK1	04/09/06 21:24

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

PROJECT QUALITY CONTROL DATA
LCS

Analyte	Known Val.	Analyzed Val	Q	Units	% Rec.	Target Range	Batch	Analyzed Date/Time
Total Metals by EPA Method 6010B								
6041140-BS1								
Lead	0.0500	0.0488		mg/L	98%	80 - 120	6041140	04/07/06 19:14
Volatile Organic Compounds by EPA Method 8260B								
6041615-BS1								
Tert-Amyl Methyl Ether	50.0	49.1		ug/L	98%	56 - 145	6041615	04/09/06 20:17
1,2-Dibromoethane (EDB)	50.0	48.2		ug/L	96%	75 - 128	6041615	04/09/06 20:17
Benzene	50.0	50.5		ug/L	101%	79 - 123	6041615	04/09/06 20:17
1,2-Dichloroethane	50.0	49.6		ug/L	99%	74 - 131	6041615	04/09/06 20:17
Ethylbenzene	50.0	52.2		ug/L	104%	79 - 125	6041615	04/09/06 20:17
Toluene	50.0	49.0		ug/L	98%	78 - 122	6041615	04/09/06 20:17
Ethyl tert-Butyl Ether	50.0	50.1		ug/L	100%	64 - 141	6041615	04/09/06 20:17
Diisopropyl Ether	50.0	51.4		ug/L	103%	73 - 135	6041615	04/09/06 20:17
Methyl tert-Butyl Ether	50.0	47.1		ug/L	94%	66 - 142	6041615	04/09/06 20:17
Xylenes, total	150	161		ug/L	107%	79 - 130	6041615	04/09/06 20:17
Tertiary Butyl Alcohol	500	426		ug/L	85%	42 - 154	6041615	04/09/06 20:17
Surrogate: 1,2-Dichloroethane-d4	50.0	52.0			104%	70 - 130	6041615	04/09/06 20:17
Surrogate: 1,2-Dichloroethane-d4	50.0	52.0			104%	70 - 130	6041615	04/09/06 20:17
Surrogate: Dibromofluoromethane	50.0	54.6			109%	79 - 122	6041615	04/09/06 20:17
Surrogate: Dibromofluoromethane	50.0	54.6			109%	79 - 122	6041615	04/09/06 20:17
Surrogate: Toluene-d8	50.0	55.7			111%	78 - 121	6041615	04/09/06 20:17
Surrogate: Toluene-d8	50.0	55.7			111%	78 - 121	6041615	04/09/06 20:17
Surrogate: 4-Bromofluorobenzene	50.0	51.9			104%	78 - 126	6041615	04/09/06 20:17
Surrogate: 4-Bromofluorobenzene	50.0	51.9			104%	78 - 126	6041615	04/09/06 20:17
Purgeable Petroleum Hydrocarbons								
6041615-BS1								
Gasoline Range Organics	3050	3000		ug/L	98%	67 - 130	6041615	04/09/06 20:17
Surrogate: 1,2-Dichloroethane-d4	50.0	52.0			104%	70 - 130	6041615	04/09/06 20:17
Surrogate: Dibromofluoromethane	50.0	54.6			109%	70 - 130	6041615	04/09/06 20:17
Surrogate: Toluene-d8	50.0	55.7			111%	70 - 130	6041615	04/09/06 20:17
Surrogate: 4-Bromofluorobenzene	50.0	51.9			104%	70 - 130	6041615	04/09/06 20:17

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

PROJECT QUALITY CONTROL DATA

LCS Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Total Metals by EPA Method 6010B												
6041140-BSD1												
Lead		0.0474		mg/L	0.0500	95%	80 - 120	3	20	6041140		04/07/06 19:19

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

PROJECT QUALITY CONTROL DATA
Matrix Spike

Analyte	Orig. Val.	MS Val	Q	Units	Spike Conc	% Rec.	Target Range	Batch	Sample Spiked	Analyzed Date/Time
Total Metals by EPA Method 6010B										
6041140-MS1										
Lead	ND	0.0458		mg/L	0.0500	92%	75 - 125	6041140	NPD0226-02	04/07/06 19:28

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

PROJECT QUALITY CONTROL DATA

Matrix Spike Dup

Analyte	Orig. Val.	Duplicate	Q	Units	Spike Conc	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analyzed Date/Time
Total Metals by EPA Method 6010B												
6041140-MSD1												
Lead	ND	0.0464		mg/L	0.0500	93%	75 - 125	1	20	6041140	NPD0226-02	04/07/06 19:48

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

CERTIFICATION SUMMARY

TestAmerica Analytical - Nashville

Method	Matrix	AIHA	Nelac	California
CA LUFT GC/MS	Water			X
NA	Water			
SW846 6010B	Water	N/A	X	X
SW846 8260B	Water	N/A	X	X

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Road Nashville, TN 37204 * 800-765-0980 * Fax 615-726-3404

Client	Delta Env. Consultants (San Jose) / SHELL (13653)	Work Order:	NPD0517
	175 Bernal Rd., Suite 200	Project Name:	318 S Livermore Ave., Livermore, CA
	San Jose, CA 95119	Project Number:	SAP 135440
Attn	Heather Buckingham	Received:	04/06/06 08:00

NELAC CERTIFICATION SUMMARY

TestAmerica Analytical - Nashville does not hold NELAC certifications for the following analytes included in this report

Method	Matrix	Analyte
CA LUFT GC/MS	Water	Gasoline Range Organics
SW846 8260B	Water	Diisopropyl Ether

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM BC# NPD0517

Cooler Received/Opened On: April 6, 2006 @ 08:00

1. Indicate the Airbill Tracking Number (last 4 digits for Fedex only) and Name of Courier below: 3461

(Fed-Ex) UPS Velocity DHL Route Off-street Misc.

2. Temperature of representative sample or temperature blank when opened: 2.4 Degrees Celsius

(Indicate IR Gun ID#)

NA A00466 A00750 (A01124) 100190 101282 Raynger ST

3. Were custody seals on outside of cooler? ..... YES...(NO)...NA

a. If yes, how many and where: _____

4. Were the seals intact, signed, and dated correctly? ..... YES...NO...(NA)

5. Were custody papers inside cooler? ..... (YES)...NO...NA PM

I certify that I opened the cooler and answered questions 1-5 (initial) _____

6. Were custody seals on containers: YES (NO) and Intact YES NO (NA)

were these signed, and dated correctly? ..... YES...NO...(NA)

7. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Foam Insert

(Plastic bag) Paper Other _____ None

8. Cooling process: (Ice) Ice-pack Ice (direct contact) Dry ice Other None

9. Did all containers arrive in good condition (unbroken)? ..... (YES)...NO...NA

10. Were all container labels complete (#, date, signed, pres., etc)? ..... (YES)...NO...NA

11. Did all container labels and tags agree with custody papers? ..... (YES)...NO...NA

12. a. Were VOA vials received? ..... YES...NO...NA

b. Was there any observable head space present in any VOA vial? ..... DZ

I certify that I unloaded the cooler and answered questions 6-12 (initial) _____

13. a. On preserved bottles did the pH test strips suggest that preservation reached the correct pH level? YES...NO...(NA)

b. Did the bottle labels indicate that the correct preservatives were used ..... (YES)...NO...NA

If preservation in-house was needed, record standard ID of preservative used here _____

14. Was residual chlorine present? ..... YES...NO...(NA)

I certify that I checked for chlorine and pH as per SOP and answered questions 13-14 (initial) DZ

15. Were custody papers properly filled out (ink, signed, etc)? ..... (YES)...NO...NA

16. Did you sign the custody papers in the appropriate place? ..... (YES)...NO...NA

17. Were correct containers used for the analysis requested? ..... (YES)...NO...NA

18. Was sufficient amount of sample sent in each container? ..... DZ

I certify that I entered this project into LIMS and answered questions 15-18 (initial) DZ

I certify that I attached a label with the unique LIMS number to each container (initial) DZ

19. Were there Non-Conformance issues at login YES NO Was a PIPE generated YES NO #_____

Revised 3/9/06

BIS = Broken in shipment
Cooler Receipt Form

LP-1
End of Form

SHELL Chain Of Custody Record

LAB: Test America STL Other

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

Shell Project Manager to be invoiced: Denis Brown

- ☑ ENVIRONMENTAL SERVICES
- ☐ TECHNICAL SERVICES
- ☐ GRMT HOUSTON

☐ NOT FOR ENV. REMEDIATION - NO ETIM - SEND PAPER INVOICE

NPD0517
04/16/06 17:00

INCIDENT NUMBER (ESONE): 9 7 4 6 4 7 0 9

SAP or CRMT NUMBER (CS/CRMT):

DATE: 4/3/06

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.: 060403-TC1		
PROJECT CONTACT (Hardcopy or PDF Report to): Michael Ninokata		SAMPLER NAME(S) (Print): R. Cornish	LAB USE ONLY
TELEPHONE: 408-573-0555	FAX: 408-573-7771	E-MAIL: mninokata@blainetech.com	BTS #

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 ☐

RECEIPT VERIFICATION REQUESTING ☑

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING 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 (8260B) (REQ'D)	Ethanol (8260B)	Methanol (8015M)	Total Lead (6010B)	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
	MW-5	4/3/06	1034	W	3	X		X	X						X	X				NPD0517-01
	MW-6		1108		3	X		X	X						X	X				-02
	MW-7		1000		3	X		X	X						X	X				-03
	MW-8		1142		3/4	X		X	X						X	X				-04
	MW-9		1158		4	X		X	X						X	X			X	-05

TEMPERATURE ON RECEIPT C°

Relinquished by: (Signature)	Received by: (Signature)	Date: 4/3/06	Time: 1540
Relinquished by: (Signature)	Received by: (Signature)	Date: 4/4/06	Time: 1722
Relinquished by: (Signature)	Received by: (Signature)	Date: 4/4/06	Time: 1820

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

T 4/06/06

C&Q Graphic (714) 898-9702

10/18/00 Revision

COURIER PICK-UP (CLIENT ADDRESS)

Date Requested:	09/15/05 8:10AM	**Delivery/Pickup Date:**	04/04/06 Anytime
Requested By:	Blaine Tech Services	**Client Contact:**	Mike Ninokata
Client Address:	Blaine Tech Services	**Client Phone#:**	x.202
	1680 Rogers Ave	**Created By:**	Lisa Race
	San Jose, CA 95112	**Project Manager:**	Theresa Allen

Miscellaneous Items Requested:

Cooler(s):	Ice:	COC's:	Misc Items:
None	None	None	None

Comments:

Cross Streets/Driving Directions: None Supplied

Comments: No Comments

Request Saved As: Blaine Tech routine Pu for BP It was last revised on 12/19/2005 1:17:12PM by .

WELLHEAD INSPECTION CHECKLIST

Client Shell Date 4/3/06

Site Address 318 S. Livermore Ave., Livermore

Job Number 060403-R1 Technician D. Kornish

Well ID	Well Inspected - No Corrective Action Required	WELL IS SECURABLE BY DESIGN (12"or less)	WELL IS MARKED WITH THE WORDS "MONITORING WELL" (12"or less)	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	X							X
MW-6	X	X	X							
MW-7	X	X	X							
MW-8		X	X	X						X
MW-9	X	X	X							

NOTES:

Repair Data Sheet

Client Shell Date 3-8-06

Site Address 318 S. Livermore Ave, Livermore

Job Number 060308AA1 Technician Andrew Adinolfi

Inspection Point (Well ID or description of location)	Well Inspected, Cleared, Labeled - No Further Corrective Action Required	Replaced Cap	Replaced Lock	Replaced Lid Seal	Check Indicates deficiency: Casing	Annular Seal	Tabs / Bolts	Box Structure	Apron	Trip Hazard	Below Grade	Not Securable by Design (>12" diameter or less)	Lid was marked with words "MONITORING WELL"	Other Deficiency	Not Securable by Design (greater than 12" diameter)	Well Not Inspected (explain in notes)	Deficiency Logged on Repair Order	Deficiency Remains Uncorrected/Logged on Site Inspection Checklist	Partial Repair Completed/Outstanding Deficiency Logged on Repair Order	All Repairs Completed
MW-5									X								X			
Notes: apron badly cracked, tag well replace wellbox needs Sono tube																				
MW-6	X																			
Notes: Tag well																				
MW-7	X																			
Notes: Tag well																				
MW-8									X								X			
Notes: apron badly cracked, tag well replace wellbox, needs Sono tube																				
MW-9	X																			
Notes: Tag well																				
Notes:																				

WELL GAUGING DATA

Project # 020403-PC1 Date 4/3/06 Client Shell

Site 318 S. Livermore Ave., 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-5	2					21.31	55.14	TOC	
MW-6	2					22.09	53.54		
MW-7	2					20.05	51.21		
MW-8	2					21.40	51.11		
MW-9	4					22.35	31.80		

SHELL WELL MONITORING DATA SHEET

BTS #: 060403-PC1	Site: 97464709
Sampler: RC	Date: 4/3/06
Well I.D.: MW-5	Well Diameter: ② 3 4 6 8 ____
Total Well Depth (TD): 55.14	Depth to Water (DTW): 21.31
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]: 28.08	

Purge Method: Bailer, Disposable Bailer, ↑Positive Air Displacement, Electric Submersible, Waterra, Peristaltic, Extraction Pump, Other_____

Sampling Method: ↑Bailer, Disposable Bailer, Extraction Port, Dedicated Tubing, Other: _____

5.4 (Gals.) X 3 = 16.2 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
1010	65.1	7.4	1065	>1000	5.5	brown, silty
1016	65.1	7.4	1067	>1000	11	"
1024	64.9	7.5	1066	>1000	16.2	"

Did well dewater? Yes (No) Gallons actually evacuated: 16.2

Sampling Date: 4/3/06 Sampling Time: 1034 Depth to Water: 20.35

Sample I.D.: MW-5 Laboratory: STL Other TA

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

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 #: 060403-PC1	Site: 97464709
Sampler: PC	Date: 4/3/06
Well I.D.: MW-6	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 53.54	Depth to Water (DTW): 22.09
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]: 28.38	

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

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

1 Case Volume		Specified Volumes		Calculated Volume
5.0 (Gals.)	X	3	=	15 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
1042	64.1	7.7	947	390	5	cloudy
1048	64.9	7.5	932	21000	10	↓
1055	64.6	7.4	933	594	15	↓

Did well dewater? Yes (No) Gallons actually evacuated: 15

Sampling Date: 4/3/06 Sampling Time: 1108 Depth to Water: 20.81

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

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 #: 060403-PC	Site: 9746 4709
Sampler: PC	Date: 4/3/06
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 51.21	Depth to Water (DTW): 20.05
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]: 26.28	

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

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

5 (Gals.) X 3 = 15 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 (uS))	Turbidity (NTUs)	Gals. Removed	Observations
(0915) 915	64.8	7.3	1118	>1000	5	brown, silty
922	65.6	7.3	1154	>1000	10	"
930	63.9	7.4	1189	>1000	15	"

Did well dewater? Yes (No) Gallons actually evacuated: 15

Sampling Date: 4/3/06 Sampling Time: 1000 Depth to Water: 20.42

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

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 #: 050703-PC1	Site: 97464709
Sampler: PC	Date: 4/3/06
Well I.D.: MW-8	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 51.11	Depth to Water (DTW): 21.40
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]: 27.34	

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

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

4.8 (Gals.) X 3 = 14.4 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

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

Time	Temp (°F)	pH	Cond. (mS or µS)	Turbidity (NTUs)	Gals. Removed	Observations
1122	64.8	7.5	1039	>1000	5	brown, cloudy
1130	65.3	7.5	1040	931	10	" "
1136	64.4	7.6	1044	485	14.5	clearing

Did well dewater? Yes (No) Gallons actually evacuated: 14.5

Sampling Date: 4/3/06 Sampling Time: 1142 Depth to Water: 20.21

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

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

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 #: 060403-PC1	Site: 97464709
Sampler: PC	Date: 4/03/06
Well I.D.: MW-9	Well Diameter: 2 3 (4) 6 8 ____
Total Well Depth (TD): 31.80	Depth to Water (DTW): 22.35
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]: 24.24	

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

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

1 Case Volume	Specified Volumes	Calculated Volume
6.1 (Gals.) X	3	= 18.3 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
950	65.9	6.9	932	220	6	cloudy
952	66.9	6.9	977	71000	12	brown
	well dewatered					
1158	63.0	6.9	908	111		

Did well dewater? (Yes) No Gallons actually evacuated: 14

Sampling Date: 4/3/06 Sampling Time: 1158 Depth to Water: 20.11

Sample I.D.: MW-9 Laboratory: STL Other (TA)

Analyzed for: TPH-G BTEX MTBE TPH-D Other: see COC

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

ATTACHMENT B

HISTORICAL SOIL ANALYTICAL DATA TABLES

Table 1
Soil Analytical Data from Tank Pull
Shell-branded Service Station Incident #97464709
318 South Livermore Ave, Livermore CA

Sample Designation	Date Sampled	Time Sampled	Depth of Sample	MTBE (ug/Kg)	TPH-G (ug/Kg)	Benzene (ug/Kg)	Ethyl benzene (ug/Kg)	Toluene (ug/Kg)	Total xylenes (ug/Kg)	Total Lead (ug/Kg)	OTHER (8260B FULL LIST and metals)
P1	12/11/2003	14:18	30 inches	<5.0	<1000.0	<2.0	<5.0	<5.0	<5.0	380,000.0	
P2	12/11/2003	14:00	46 inches	<25.0	4900.0	<25.0	59.0 *110.0	150.0 *200.0	430.0 *840.0	<5000.0	56.0 n-B; 160.0 N; 54.0 n-P; 530.0 T; 160.0 T2
P3	12/11/2003	14:05	44 inches	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0 *7.0	<5000.0	21.0 N; 10.0 T
P4	12/11/2003	14:28	30 inches	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	<5000.0	
P5	12/11/2003	14:32	26 inches	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	<5000.0	
P3@100"	12/11/2003	15:01	100 inches	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	<5000.0	
1A	12/10/2003	16:10	16 feet	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	6,300.0	110.0 Ac;
1B	12/10/2003	16:15	16 feet	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	5,300.0	
2A	12/10/2003	16:43	16 feet	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	6,300.0	16.0 TBA;
2B	12/10/2003	16:18	16 feet	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	3,700.0	
3A	12/10/2003	16:45	16 feet	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	6,000.0	
3B	12/10/2003	16:20	16 feet	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	3,900.0	
4A	12/10/2003	16:25	10 feet	<5.0	<1000.0	<5.0	<5.0	7.0	7.8	3,900.0	46,000 Cr; 170,000 Ni; 64,000 Zn
Stockpile 1	12/10/2003	14:35	n/a	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	6,400.0	
Stockpile 2	12/10/2003	14:45	n/a	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	29,000.0	51.0 Ac;
Stockpile 3	12/10/2003	15:00	n/a	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	6,000.0	
Waste Oil Stockpile	12/10/2003	15:20	n/a	<5.0	<1000.0	<5.0	<5.0	<5.0	<5.0	17,000.0	54,000 OG; 5,100 TPH-D; 38,000 Cr; 95,000 Ni; 42,000 Zn

*** Indicates values taken from analysis done by 8260B full list (ug/Kg)**

n-B = n-Butylbenzene
N = Naphthalene
n-P = n-Propylbenzene
T =1,2,4-Trimethylbenzene
T2 = 1,3,5-Trimethylbenzene
OG = Oil and Grease
TPH-D = Diesel
TBA = tert-Butyl alcohol
Ac = Acetone
Cr = Chromium
Ni = Nickel
Zn = Zinc

Table 1
Summary of Soil Boring Analytical Data
Former Shell Service Station
318 South Livermore Avenue, Livermore, California

Sample Designation	Date Sampled	Depth (feet)	TPH-G (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylene (mg/kg)	MTBE (mg/kg)	TBA (mg/kg)	EDB (ug/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
Boring Advancements												
B-1@5'	6/2/2005	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.070	<0.005	3.8
B-1@10'	6/2/2005	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.068	<0.005	4.9
B-1@15'	6/2/2005	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.070	<0.005	6.9
B-1@20'	6/2/2005	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.067	<0.005	8.2
B-1@25'	6/2/2005	25	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.068	<0.005	7.1
B-1@30'	6/2/2005	30	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.069	<0.005	4.4
B-1@35'	6/2/2005	35	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.070	<0.005	7
B-2@5'	6/2/2005	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.068	<0.005	3.9
B-2@10'	6/2/2005	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.069	<0.005	4.4
B-2@15'	6/2/2005	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.069	<0.005	5.8
B-2@20'	6/2/2005	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.070	<0.005	6.8
B-2@25'	6/2/2005	25	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.069	<0.005	5.7
B-2@30'	6/2/2005	30	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.067	<0.005	4.7
B-3@5'	6/2/2005	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.069	<0.005	4.4
B-3@10'	6/3/2005	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.067	<0.005	17
B-3@15'	6/3/2005	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.069	<0.005	7.7
B-3@20'	6/3/2005	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.070	<0.005	7.4
B-3@25'	6/3/2005	25	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.070	<0.005	6.5
B-3@30'	6/3/2005	30	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.068	<0.005	4.3
B-3@35'	6/3/2005	35	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.070	<0.005	7
B-3@40'	6/3/2005	40	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.068	<0.005	7
B-3@45'	6/3/2005	45	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.070	<0.005	6.5
MW-9 Well Installation												
MW-9@5'	9/15/2005	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	12
MW-9@10'	9/15/2005	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	5
MW-9@15'	9/15/2005	15	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	9
MW-9@20'	9/15/2005	20	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	8.4
MW-9@25.5'	9/15/2005	25.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	6.5
MW-9@30'	9/15/2005	30	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	8.1
MW-9@35'	9/15/2005	35	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01	<0.005	<0.005	7.5

Table 1
Summary of Soil Boring Analytical Data
Former Shell Service Station
318 South Livermore Avenue, Livermore, California

Sample Designation	Date Sampled	Depth (feet)	**TPH-G** (mg/kg)	**Benzene** (mg/kg)	**Toluene** (mg/kg)	**Ethyl-benzene** (mg/kg)	**Xylene** (mg/kg)	**MTBE** (mg/kg)	**TBA** (mg/kg)	**EDB** (ug/kg)	**1,2-DCA** (mg/kg)	**Lead** (mg/kg)

Notes:
mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram
TPH-G = Total petroleum hydrocarbons as gasoline
MTBE = Methyl tert-butyl ether
TBA = Tert-butanol
EDB = Ethylene Dibromide
1,2-DCA = 1,2-Dichloroethane

Table 1
Summary of Soil Analytical Data
Pothole and Over-Excavation Samples
Former Shell Service Station
318 South Livermore Avenue, Livermore, California

Sample Designation	Date Sampled	Depth (feet)	TPH-G (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylene (mg/kg)	MTBE (mg/kg)	EDB (ug/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
Over-Excavation Confirmation Samples											
S-1 @ 5 FEET	5/4/2005	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	3.4
S-2 @ 5 FEET	5/4/2005	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	3.4
S-3 @ 5 FEET	5/4/2005	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	11
S-4 @ 5 FEET	5/4/2005	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	8
S-5@10'	5/4/2005	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	4.4
S-6@10'	5/4/2005	10	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	3.2
S-7@3.5'	5/4/2005	3.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	560
S-8@3.25'	5/4/2005	3.25	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	390
S-9@3.0'	5/4/2005	3	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	84
S-10@3.5'	5/4/2005	3.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	6.5
S-11@2.5'	5/4/2005	2.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	76
S-12@2.5'	5/4/2005	2.5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	140
S-13 @ 6 ft	5/18/2005	6	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	3.23
S-14 @ 2.8 ft	5/18/2005	2.8	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	474
S-15 @ 1.9 ft	5/18/2005	1.9	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	313
S-16 @ 3 ft	5/18/2005	3	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	49.9
S-17 @ 1.9 ft	5/18/2005	1.9	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	202
S-18 @ 5 ft	5/18/2005	5	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	5.02
SS-1@2.5'	8/9/2005	2.5	NA	NA	NA	NA	NA	NA	NA	NA	4.3
SS-2@3'	8/9/2005	3	NA	NA	NA	NA	NA	NA	NA	NA	5.1
SS-3@2.5'	8/9/2005	2.5	NA	NA	NA	NA	NA	NA	NA	NA	480
SS-4@2.5'	8/9/2005	2.5	NA	NA	NA	NA	NA	NA	NA	NA	340
SS-5@2.5'	8/9/2005	2.5	NA	NA	NA	NA	NA	NA	NA	NA	76
SS-6@3'	8/9/2005	3	NA	NA	NA	NA	NA	NA	NA	NA	49
SS-7@3'	8/9/2005	3	NA	NA	NA	NA	NA	NA	NA	NA	89
SS-8@6'	8/9/2005	6	NA	NA	NA	NA	NA	NA	NA	NA	3.7
SS-9@6'	8/9/2005	6	NA	NA	NA	NA	NA	NA	NA	NA	3.6
SS-10@6'	8/9/2005	6	NA	NA	NA	NA	NA	NA	NA	NA	4.2
SS-11@6'	8/9/2005	6	NA	NA	NA	NA	NA	NA	NA	NA	3.7
SS-12@1.8FT	10/24/2005	1.8	NA	NA	NA	NA	NA	NA	NA	NA	14
SS-13@2.0FT	10/24/2005	2	NA	NA	NA	NA	NA	NA	NA	NA	480
SS-14@2.0FT	10/24/2005	2	NA	NA	NA	NA	NA	NA	NA	NA	27

Table 1
Summary of Soil Analytical Data
Pothole and Over-Excavation Samples
Former Shell Service Station
318 South Livermore Avenue, Livermore, California

Sample Designation	Date Sampled	Depth (feet)	TPH-G (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylene (mg/kg)	MTBE (mg/kg)	EDB (ug/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
Over-Excavation Confirmation Samples (Continued)											
SS-15@2.0FT	10/24/2005	2	NA	NA	NA	NA	NA	NA	NA	NA	**110**
SS-16@5.5FT	10/24/2005	5.5	NA	NA	NA	NA	NA	NA	NA	NA	**6.6**
SS-17@5.5FT	10/24/2005	5.5	NA	NA	NA	NA	NA	NA	NA	NA	**3.7**
SS-18@5.5FT	10/24/2005	5.5	NA	NA	NA	NA	NA	NA	NA	NA	**3.7**
SS-19@2.1FT	10/24/2005	2.1	2,000	<0.5	<0.5	3.1	24	<0.5	<500	<0.5	**150**
SS-20@1.9FT	10/24/2005	1.9	NA	NA	NA	NA	NA	NA	NA	NA	**7.8**
SS-21@2.1FT	10/24/2005	2.1	<1.0	<0.005	<0.005	<0.005	<0.005	<0.005	<5	<0.005	**170**
SS-22@2.0FT	10/24/2005	2	NA	NA	NA	NA	NA	NA	NA	NA	**7.2**
SS-23@5'	2/23/2006	5	NA	NA	NA	NA	NA	NA	NA	NA	<10
SS-24@5'	2/23/2006	5	NA	NA	NA	NA	NA	NA	NA	NA	<10
SS-25@5'	2/23/2006	5	NA	NA	NA	NA	NA	NA	NA	NA	<10
SS-26@2'	2/23/2006	2	NA	NA	NA	NA	NA	NA	NA	NA	<10
SS-27@2'	2/23/2006	2	NA	NA	NA	NA	NA	NA	NA	NA	**17**
SS-28@2'	2/23/2006	2	NA	NA	NA	NA	NA	NA	NA	NA	**28**
SS-29@2'	2/23/2006	2	NA	NA	NA	NA	NA	NA	NA	NA	<10
SS-30@5'	2/23/2006	5	NA	NA	NA	NA	NA	NA	NA	NA	<10
SS-31@2'	2/23/2006	2	NA	NA	NA	NA	NA	NA	NA	NA	**83**
SS-32@2'	2/23/2006	2	NA	NA	NA	NA	NA	NA	NA	NA	**71**
Pothole Soil Samples											
PH-1@2.5'	6/7/2005	2.5	NA	NA	NA	NA	NA	NA	NA	NA	**12.3**
PH-2@3'	6/7/2005	3	NA	NA	NA	NA	NA	NA	NA	NA	**4.62**
PH-3@2.5'	6/7/2005	2.5	NA	NA	NA	NA	NA	NA	NA	NA	**4.97**
PH-4@3'	6/7/2005	3	NA	NA	NA	NA	NA	NA	NA	NA	**1,040**
PH-5@2'	6/7/2005	2	NA	NA	NA	NA	NA	NA	NA	NA	**5.09**
PH-6@5'	6/7/2005	5	NA	NA	NA	NA	NA	NA	NA	NA	**5.21**
PH-7@3.0'	8/8/2005	3	NA	NA	NA	NA	NA	NA	NA	NA	**3.62**
PH-7@5.0'	8/8/2005	5	NA	NA	NA	NA	NA	NA	NA	NA	**2.79**
PH-7@7.0'	8/8/2005	7	NA	NA	NA	NA	NA	NA	NA	NA	**13.3**
PH-8@3.0'	8/8/2005	3	NA	NA	NA	NA	NA	NA	NA	NA	**4.68**
PH-9@3.0'	8/8/2005	3	NA	NA	NA	NA	NA	NA	NA	NA	**8.87**
PH-10@2.5'	8/8/2005	2.5	NA	NA	NA	NA	NA	NA	NA	NA	**5.72**
PH-11@2.5'	8/8/2005	2.5	NA	NA	NA	NA	NA	NA	NA	NA	**4.89**

Table 1
Summary of Soil Analytical Data
Pothole and Over-Excavation Samples
Former Shell Service Station
318 South Livermore Avenue, Livermore, California

Sample Designation	Date Sampled	Depth (feet)	TPH-G (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylene (mg/kg)	MTBE (mg/kg)	EDB (ug/kg)	1,2-DCA (mg/kg)	Lead (mg/kg)
Pothole Soil Samples (Continued)											
PH-12@3.0'	8/8/2005	3	NA	NA	NA	NA	NA	NA	NA	NA	**3.7**
PH-13@3.0'	8/8/2005	3	NA	NA	NA	NA	NA	NA	NA	NA	**3.06**
PH-14@5.0'	8/8/2005	5	NA	NA	NA	NA	NA	NA	NA	NA	**7.73**
PH-14B@2.5'	8/9/2005	2.5	NA	NA	NA	NA	NA	NA	NA	NA	**5**

Notes:
mg/kg = milligrams per kilogram
ug/kg = micrograms per kilogram
TPH-G = Total petroleum hydrocarbons as gasoline
MTBE = Methyl tert-butyl ether
NA = not analyzed
EDB = Ethylene Dibromide
1,2-DCA = 1,2-Dichloroethane
sample over-excavated

ATTACHMENT C

MONITORING WELL DESTRUCTION PERMITS
(ZONE 7)

ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

100 NORTH CANYONS PARKWAY, LIVERMORE, CA 94551 PHONE (925) 454-5000

April 20, 2006

Ms. Heather Buckingham
Delta Environmental Consultants
175 Bernal Road, Suite 200
San Jose, CA 95119

Dear Ms. Buckingham:

Enclosed is drilling permit 26062 for the destruction of monitoring wells 3S/2E-9N4 to 3S/2E-9N7 and 3S/2E-9N10 (MW-5 to MW-9) at 318 S. Livermore Avenue in Livermore for Shell Oil Products. Drilling permit applications can be downloaded from our web site (www.zone7water.com) for future projects.

Please note that permit condition A-2 requires that a well destruction report be submitted after completion of the work. The report should include a description of methods and materials used to destroy the wells, location sketch, date of destruction, and permit number. Please submit the original of your completion report. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact me at extension 5056 or Matt Katen at extension 5071.

Sincerely,

Wyman Hong

Wyman Hong
Water Resources Specialist

Enc.

P:\WRE\GPOs\GPO1\GPO1.DESTRUCTION.wpd

ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 454-5728

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 318 S. Livermore Ave. Livermore, CA

California Coordinates Source _____ Accuracy± _____ ft.
CCN _____ ft. CCE _____ ft.
APN 97-108-9-3

CLIENT
Name Shell Oil Products U.S.
Address 20945 S. Wilmington Ave Phone 707-865-0251
City Carson, CA Zip 90810

APPLICANT
Name Delta Env Consultants
Fax 408-225-8506
Address 175 Bernal Rd, St. 200 Phone 408-224-1846
City San Jose Zip 95119

TYPE OF PROJECT:

Well Construction	☐	Geotechnical Investigation	☐
Well Destruction	☒	Contamination Investigation	☐
Cathodic Protection	☐	Other _____	☐

PROPOSED WELL USE:

Domestic	☐	Irrigation	☐
Municipal	☐	Remediation	☐
Industrial	☐	Groundwater Monitoring	☐
Dewatering	☐	Other _____	☐

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Hollow Stem Auger	☒
Cable Tool	☐	Direct Push	☐	Other _____	☐

DRILLING COMPANY Test America
DRILLER'S LICENSE NO. 614548

WELL SPECIFICATIONS: See attached well construction details
Drill Hole Diameter 8 in. Maximum Depth 20 ft.
Casing Diameter 4 in. Number 5 wells
Surface Seal Depth 5 ft. (MW-5 to MW-9) to be destroyed

SOIL BORINGS:
Number of Borings _____ Maximum
Hole Diameter _____ in. Depth _____ ft.

ESTIMATED STARTING DATE April 19, 2006
ESTIMATED COMPLETION DATE April 20, 2006

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.
APPLICANT'S SIGNATURE Heather Buchy Date 4/10/06

ATTACH SITE PLAN OR SKETCH

FOR OFFICE USE

PERMIT NUMBER 26062
WELL NUMBER 3S/2E-9N4 to 9N7 & 9N10
APN 097-0108-009-03

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal diameter is four inches greater than the well casing diameter.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
3. Grout placed by tremie.
4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
5. A sample port is required on the discharge pipe near the wellhead.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
3. Grout placed by tremie.

D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

(F.) WELL DESTRUCTION. See attached.

G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

Approved Wyman Hong Date 4/17/06
Wyman Hong

April 17, 2006

Zone 7
Water Resources Engineering
Groundwater Protection Ordinance

Shell Oil Products
318 S. Livermore Avenue
Livermore
Wells 3S/2E-9N4 (MW-5), 3S/2E-9N5 (MW-6), 3S/2E-9N6 (MW-7),
3S/2E-9N7 (MW-8) and 3S/2E-9N10 (MW-9)
Permit 26062

Destruction Requirements:

1. Sound the well as deeply as practicable and record for your report.

2. Drill out the well so that the casing, seal, and gravel pack are removed to the bottom of the well.

3. Fill the remaining hole to grade or original ground, whichever is the lower elevation, with neat cement sealing material, using a tremie pipe.

P:\WRE\GPOs\Destruct Specs\Drillout.wpd

ATTACHMENT D

WELL COMPLETION REPORTS
(MW-5 THROUGH MW-8)

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

ATTACHMENT E

REGIONAL WATER QUALITY CONTROL BOARD – SAN FRANCISCO REGION
ENVIRONMENTAL SCREENING LEVELS

TABLE A. ENVIRONMENTAL SCREENING LEVELS (ESLs)
Shallow Soils (≤3m bgs)
Groundwater IS Current or Potential Source of Drinking Water

	[1]Shallow Soil		
CHEMICAL PARAMETER	[2]Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	[3]Groundwater (ug/L)
ACENAPHTHENE	1.6E+01	1.6E+01	2.0E+01
ACENAPHTHYLENE	1.3E+01	1.3E+01	3.0E+01
ACETONE	2.4E-01	2.4E-01	7.0E+02
ALDRIN	2.9E-02	1.0E-01	2.0E-03
ANTHRACENE	2.8E+00	2.8E+00	7.3E-01
ANTIMONY	6.3E+00	4.0E+01	6.0E+00
ARSENIC	5.6E+00	5.6E+00	3.6E+01
BARIUM	7.5E+02	1.5E+03	1.0E+03
BENZENE	4.4E-02	4.4E-02	1.0E+00
BENZO(a)ANTHRACENE	3.8E-01	1.3E+00	2.7E-02
BENZO(b)FLUORANTHENE	3.8E-01	1.3E+00	2.9E-02
BENZO(k)FLUORANTHENE	3.8E-01	1.3E+00	2.9E-02
BENZO(g,h,i)PERYLENE	2.7E+01	2.7E+01	1.0E-01
BENZO(a)PYRENE	3.8E-02	1.3E-01	1.4E-02
BERYLLIUM	4.0E+00	8.0E+00	2.7E+00
BIPHENYL, 1,1-	6.5E-01	6.5E-01	5.0E-01
BIS(2-CHLOROETHYL)ETHER	1.8E-04	1.8E-04	1.4E-02
BIS(2-CHLOROISOPROPYL)ETHER	5.4E-03	5.4E-03	5.0E-01
BIS(2-ETHYLHEXYL)PHTHALATE	6.6E+01	6.6E+01	4.0E+00
BORON	1.6E+00	2.0E+00	1.6E+00
BROMODICHLOROMETHANE	1.2E-02	3.9E-02	1.0E+02
BROMOFORM	2.2E+00	2.2E+00	1.0E+02
BROMOMETHANE	2.2E-01	3.9E-01	9.8E+00
CADMIUM	1.7E+00	7.4E+00	2.2E+00
CARBON TETRACHLORIDE	1.2E-02	3.5E-02	5.0E-01
CHLORDANE	4.4E-01	1.7E+00	4.0E-03
CHLOROANILINE, p-	5.3E-02	5.3E-02	5.0E+00
CHLOROBENZENE	1.5E+00	1.5E+00	2.5E+01
CHLOROETHANE	6.3E-01	8.5E-01	1.2E+01
CHLOROFORM	9.8E-02	2.7E-01	1.0E+02
CHLOROMETHANE	2.9E-01	4.2E-01	2.7E+00
CHLOROPHENOL, 2-	1.2E-02	1.2E-02	1.8E-01
CHROMIUM (Total)	5.8E+01	5.8E+01	5.0E+01
CHROMIUM III	7.5E+02	7.5E+02	1.8E+02
CHROMIUM VI	1.8E+00	1.8E+00	1.1E+01
CHRYSENE	3.8E+00	1.3E+01	2.9E-01
COBALT	4.0E+01	8.0E+01	3.0E+00
COPPER	2.3E+02	2.3E+02	3.1E+00
CYANIDE (Free)	1.0E+02	5.0E+02	1.0E+00
DIBENZO(a,h)ANTHTRACENE	1.1E-01	3.8E-01	8.5E-03
DIBROMOCHLOROMETHANE	1.9E-02	5.8E-02	1.0E+02
1,2-DIBROMO-3-CHLOROPROPANE	1.1E-03	1.1E-03	2.0E-01
DIBROMOETHANE, 1,2-	3.3E-04	3.3E-04	5.0E-02
DICHLOROBENZENE, 1,2-	1.1E+00	1.1E+00	1.0E+01

TABLE A. ENVIRONMENTAL SCREENING LEVELS (ESLs)
Shallow Soils (≤3m bgs)
Groundwater IS Current or Potential Source of Drinking Water

	[1]Shallow Soil		
CHEMICAL PARAMETER	[2]Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	[3]Groundwater (ug/L)
DICHLOROBENZENE, 1,3-	7.2E-01	7.2E-01	6.3E+00
DICHLOROBENZENE, 1,4-	4.7E-02	1.3E-01	5.0E+00
DICHLOROBENZIDINE, 3,3-	7.7E-03	7.7E-03	2.9E-02
DICHLORODIPHENYLDICHLOROETHANE (DDD)	2.4E+00	1.0E+01	1.0E-03
DICHLORODIPHENYLDICHLOROETHYLENE (DDE)	1.7E+00	4.0E+00	1.0E-03
DICHLORODIPHENYLTRICHLOROETHANE (DDT)	1.7E+00	4.0E+00	1.0E-03
DICHLOROETHANE, 1,1-	2.0E-01	2.0E-01	5.0E+00
DICHLOROETHANE, 1,2-	4.5E-03	4.5E-03	5.0E-01
DICHLOROETHYLENE, 1,1-	1.0E+00	1.0E+00	6.0E+00
DICHLOROETHYLENE, Cis 1,2-	1.9E-01	1.9E-01	6.0E+00
DICHLOROETHYLENE, Trans 1,2-	6.7E-01	6.7E-01	1.0E+01
DICHLOROPHENOL, 2,4-	3.0E-01	3.0E-01	3.0E-01
DICHLOROPROPANE, 1,2-	5.2E-02	1.2E-01	5.0E+00
DICHLOROPROPENE, 1,3-	3.3E-02	5.9E-02	5.0E-01
DIELDRIN	2.3E-03	2.3E-03	1.9E-03
DIETHYLPHTHALATE	3.5E-02	3.5E-02	1.5E+00
DIMETHYLPHTHALATE	3.5E-02	3.5E-02	1.5E+00
DIMETHYLPHENOL, 2,4-	6.7E-01	6.7E-01	1.0E+02
DINITROPHENOL, 2,4-	4.0E-02	4.0E-02	1.4E+01
DINITROTOLUENE, 2,4-	8.5E-04	8.5E-04	1.1E-01
1,4 DIOXANE	1.8E-03	1.8E-03	3.0E+00
DIOXIN (2,3,7,8-TCDD)	4.5E-06	1.8E-05	5.0E-06
ENDOSULFAN	4.6E-03	4.6E-03	8.7E-03
ENDRIN	6.5E-04	6.5E-04	2.3E-03
ETHYLBENZENE	3.3E+00	3.3E+00	3.0E+01
FLUORANTHENE	4.0E+01	4.0E+01	8.0E+00
FLUORENE	8.9E+00	8.9E+00	3.9E+00
HEPTACHLOR	1.4E-02	1.4E-02	3.8E-03
HEPTACHLOR EPOXIDE	1.5E-02	1.5E-02	3.8E-03
HEXACHLOROBENZENE	2.7E-01	9.6E-01	1.0E+00
HEXACHLOROBUTADIENE	1.0E+00	1.0E+00	2.1E-01
HEXACHLOROCYCLOHEXANE (gamma) LINDANE	4.9E-02	4.9E-02	8.0E-02
HEXACHLOROETHANE	2.4E+00	2.4E+00	7.0E-01
INDENO(1,2,3-cd)PYRENE	3.8E-01	1.3E+00	2.9E-02
LEAD	2.0E+02	7.5E+02	2.5E+00
MERCURY	2.5E+00	1.0E+01	1.2E-02
METHOXYCHLOR	1.9E+01	1.9E+01	1.9E-02
METHYLENE CHLORIDE	7.7E-02	7.7E-02	5.0E+00
METHYL ETHYL KETONE	3.9E+00	3.9E+00	4.2E+03
METHYL ISOBUTYL KETONE	2.8E+00	2.8E+00	1.2E+02
METHYL MERCURY	1.2E+00	1.0E+01	3.0E-03
METHYLNAPHTHALENE (total 1- & 2-)	2.5E-01	2.5E-01	2.1E+00
METHYL TERT BUTYL ETHER	2.3E-02	2.3E-02	5.0E+00
MOLYBDENUM	4.0E+01	4.0E+01	3.5E+01

TABLE A. ENVIRONMENTAL SCREENING LEVELS (ESLs)
Shallow Soils (≤3m bgs)
Groundwater IS Current or Potential Source of Drinking Water

	[1]Shallow Soil		
CHEMICAL PARAMETER	[2]Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	[3]Groundwater (ug/L)
NAPHTHALENE	4.2E+00	4.2E+00	2.1E+01
NICKEL	1.5E+02	1.5E+02	8.2E+00
PENTACHLOROPHENOL	4.4E+00	5.0E+00	1.0E+00
PERCHLORATE	7.0E-03	7.0E-03	7.0E-01
PHENANTHRENE	1.1E+01	1.1E+01	4.6E+00
PHENOL	7.6E-02	7.6E-02	5.0E+00
POLYCHLORINATED BIPHENYLS (PCBs)	2.2E-01	7.4E-01	1.4E-02
PYRENE	8.5E+01	8.5E+01	2.0E+00
SELENIUM	1.0E+01	1.0E+01	5.0E+00
SILVER	2.0E+01	4.0E+01	1.9E-01
STYRENE	1.5E+00	1.5E+00	1.0E+01
tert-BUTYL ALCOHOL	7.3E-02	7.3E-02	1.2E+01
TETRACHLOROETHANE, 1,1,1,2-	2.4E-02	2.4E-02	1.3E+00
TETRACHLOROETHANE, 1,1,2,2-	9.0E-03	1.8E-02	1.0E+00
TETRACHLOROETHYLENE	8.8E-02	2.5E-01	5.0E+00
THALLIUM	1.0E+00	1.3E+01	2.0E+00
TOLUENE	2.9E+00	2.9E+00	4.0E+01
TOXAPHENE	4.2E-04	4.2E-04	2.0E-04
TPH (gasolines)	1.0E+02	1.0E+02	1.0E+02
TPH (middle distillates)	1.0E+02	1.0E+02	1.0E+02
TPH (residual fuels)	5.0E+02	1.0E+03	1.0E+02
TRICHLOROBENZENE, 1,2,4-	7.6E+00	7.6E+00	2.5E+01
TRICHLOROETHANE, 1,1,1-	7.8E+00	7.8E+00	6.2E+01
TRICHLOROETHANE, 1,1,2-	3.3E-02	7.0E-02	5.0E+00
TRICHLOROETHYLENE	2.6E-01	4.6E-01	5.0E+00
TRICHLOROPHENOL, 2,4,5-	1.8E-01	1.8E-01	1.1E+01
TRICHLOROPHENOL, 2,4,6-	1.7E-01	1.7E-01	5.0E-01
VANADIUM	1.1E+02	2.0E+02	1.5E+01
VINYL CHLORIDE	6.7E-03	1.9E-02	5.0E-01
XYLENES	1.5E+00	1.5E+00	1.3E+01
ZINC	6.0E+02	6.0E+02	8.1E+01

TABLE A. ENVIRONMENTAL SCREENING LEVELS (ESLs)
Shallow Soils (≤3m bgs)
Groundwater IS Current or Potential Source of Drinking Water

CHEMICAL PARAMETER	[1]Shallow Soil		[3]Groundwater (ug/L)
	[2]Residential Land Use (mg/kg)	Commercial/ Industrial Land Use Only (mg/kg)	
Electrical Conductivity (mS/cm, USEPA Method 120.1 MOD)	2.0	4.0	not applicable
Sodium Adsorption Ratio	5.0	12	not applicable

Notes:

1. Shallow soils defined as soils less than or equal to 3 meters (approximately 10 feet) below ground surface.
2. Category "Residential Land Use" generally considered adequate for other sensitive uses (e.g., day-care centers, hospitals, etc.)
3. Assumes potential discharge of groundwater into a freshwater, marine or estuary surface water system.

Source of soil ESLs: Refer to Appendix 1, Tables A-1 and A-2.
Source of groundwater ESLs: Refer to Appendix 1, Table F-1a.
Soil data should be reported on dry-weight basis (see Appendix 1, Section 6.2).
Soil ESLs intended to address direct-exposure, groundwater protection, ecologic (urban areas) and nuisance concerns under noted land-use scenarios. **Soil gas data should be collected for additional evaluation of potential indoor-air impacts at sites with significant areas of VOC-impacted soil. See Section 2.6 and Table E.**
Groundwater ESLs intended to be address drinking water, surface water, indoor-air and nuisance concerns. **Use in conjunction with soil gas screening levels to more closely evaluate potential impacts to indoor-air if groundwater screening levels for this concern approached or exceeded (refer to Section 2.6 and Appendix 1, Table F-1a).**
Aquatic habitat goals for bioaccumulation concerns not considered in selection of groundwater goals (refer to Section 2.7).
Refer to appendices for summary of ESL components.
TPH -Total Petroleum Hydrocarbons. TPH ESLs must be used in conjunction with ESLs for related chemicals (e.g., BTEX, PAHs, oxidizers, etc.). See Volume 1, Section 2.2 and Appendix 1, Chapter 5.