CONESTOGA-ROVERS & ASSOCIATES

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www.CRAworld.com

TRANSMITTAL

DATE: March 7, 2013

REFERENCE NO.: 240523

PROJECT NAME: 4212 First Street, Pleasanton

TO: Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☐ Other

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QUANTITY	DESCRIPTION
1	Petroleum Hydrocarbon Mass Removal Event Work Plan

- ☐ As Requested
- ☐ For Your Use
- ☒ For Review and Comment
- ☐

COMMENTS:
If you have any questions regarding the contents of this document, please call Peter Schaefer at (510) 420-3319.

Copy to: Denis Brown, Shell Oil Products US (electronic copy)
Douglas E. & Mary M. Safreno (property owners), 1627 Vineyard Avenue, Pleasanton, CA 94566-6389 (electronic and hard copy)
Danielle Stefani, Livermore-Pleasanton Fire Department, 3560 Nevada Street, Pleasanton, CA 94566-6267
Clint Mercer (lessee), SC Fuels, 1800 West Katella Avenue, Orange, CA 92867
Colleen Winey, Zone 7 Water Agency (electronic copy)
Aaron O'Brien, Tamalpais Environmental Consultants (electronic copy)

Completed by: Peter Schaefer Signed: for Peter Schaefer

Filing: **Correspondence File**

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Shell Oil Products US
HSE - Environmental Services
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Fax (707) 865 2542
Email denis.l.brown@shell.com

Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Shell-branded Service Station
4212 First Street
Pleasanton, California
SAP Code 135782
Incident No. 98995840
ACEH Case No. RO0000360

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

Denis L. Brown
Senior Program Manager

PETROLEUM HYDROCARBON MASS REMOVAL EVENT WORK PLAN

SHELL-BRANDED SERVICE STATION
4212 FIRST STREET
PLEASANTON, CALIFORNIA

SAP CODE	135782
INCIDENT NO.	98995840
AGENCY NO.	RO0000360

Prepared by:
Conestoga-Rovers & Associates

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MARCH 7, 2013
REF. NO. 240523 (19)
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1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA), on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell), prepared this *Petroleum Hydrocarbon Mass Removal Event Work Plan*. Alameda County Environmental Health's (ACEH's) December 13, 2012 letter requested a corrective action plan (CAP) for the site. Per discussions in Shell's and CRA's January 23, 2013 meeting with the ACEH, CRA is submitting this work plan in lieu of a CAP.

2.0 SITE BACKGROUND

This Shell-branded service station is located on the southeastern corner of First Street and Vineyard Avenue in a mixed residential and commercial area of Pleasanton, California (Figures 1 and 2). The site layout includes three current fuel underground storage tanks (USTs), a former fuel UST complex, two fuel dispenser islands, a former waste oil UST, and a station building.

A summary of previous work performed at the site is presented in Appendix A. Additional background information on site geology and hydrology, potential preferential exposure pathways, and potential sensitive receptors is presented in CRA's May 8, 2012 *Air Sparge/Soil Vapor Extraction Pilot Test Work Plan* and April 12, 2012 *Dual-Phase Extraction Pilot Test Work Plan* and is not repeated herein.

3.0 PETROLEUM MASS REMOVAL WORK PLAN

The primary objective of the proposed petroleum hydrocarbon mass removal event detailed below is to reduce concentrations of petroleum hydrocarbons in the northerly portion of the site, removing as much residual hydrocarbon mass as practical. CRA will conduct air sparging (AS) into wells AS-1 and AS-10, soil vapor extraction (SVE) from wells EW-1 and SVE-1 through SVE-4, and dual-phase extraction (DPE) from wells EW-2, MW-1, MW-2, MW-4, and SVE-5 to remove petroleum hydrocarbon mass as detailed below.

3.1 PERMIT

CRA will obtain a permit from the Bay Area Air Quality Management District (BAAQMD) for the mass removal event.

3.2 HEALTH AND SAFETY PLAN (HASP)

CRA will prepare a HASP to protect site workers. The plan will be kept on site during field activities and will be reviewed and signed by each site worker.

3.3 REMEDIATION EQUIPMENT

CRA will use a Mako Industries, Ltd AS trailer (AS unit) with a rotary screw air compressor capable of approximately 28 cubic feet per minute (cfm) to a maximum pressure of 125 pounds per square inch (psi) to conduct AS. CRA will use a trailer-mounted thermal catalytic oxidizer (SVE unit) with an adequately sized blower for the expected conditions for SVE and extracted vapor abatement (Solleco® 500TCat or equivalent). A trailer-mounted portable diesel generator will be used to power the AS and SVE units. A propane tank will supply the SVE unit with supplemental fuel.

Critical components for conducting DPE include an extraction device, water storage, and a vapor treatment device. A mobile unit (Solleco® 500TCat or equivalent) will be used for the event. It will be equipped with a vacuum pump as the extraction device and a thermal/catalytic oxidizer to treat the extracted soil vapor. The TCat is equipped with a vapor-liquid separator to remove condensation from the extracted vapor stream. Accumulated condensation will be pumped from the separator to an on-site temporary storage tank through an aboveground hose. The TCat is equipped with controls to manage well flow, dilution air flow, pump vacuum, and well vacuum data. Down-well submersible pumps will be used to extract groundwater from the designated DPE wells. Extracted groundwater will be pumped directly into the storage tank. The extracted groundwater will be temporarily stored in the storage tank and subsequently transported off site for proper disposal. The anticipated equipment layout is shown in Figure 3. Conduits and hoses from wells outside the remediation system enclosure will be installed under temporary access ramps.

3.4 DATA COLLECTION EQUIPMENT

CRA will measure field vapor concentrations with a Horiba Model MEXA554J organic vapor analyzer (OVA) and/or a photoionization detector (PID). Vapor samples will be collected in 1-liter Tedlar® bags using a Thomas Industries model 907CDC18F vacuum pump or similar to confirm field-measured concentrations through laboratory analysis. A TSI model 8330 air velocity meter or similar will be used to measure vapor extraction velocity rates and temperatures. Air rotameters will be mounted on the AS trailer manifold for measuring the AS injected airflow. The applied vacuum to the extraction wells as well as induced vacuums and pressures in adjacent wells will be measured with a Dwyer digital manometer. Depth to groundwater (DTW) measurements in observation wells will be measured with a Solinst water level meter. A Kent C700 flow totalizing meter or similar will continuously measure extracted groundwater volumes.

3.5 AS/SVE/DPE PETROLEUM HYDROCARBON MASS REMOVAL EVENT PROCEDURE

CRA will initially conduct SVE from two to three wells (EW-1 and SVE-2 through SVE 4) while sparging into wells AS-1 and AS-10. As hydrocarbon mass removal rates from the SVE wells become negligible or significantly decline to asymptotic levels, CRA will conduct DPE from wells EW-2, MW-1, MW2, MW-4, and SVE-5.

Hydrocarbon vapor concentrations will be periodically field measured from the extraction wells to assess volatilization of hydrocarbons from groundwater and soils and overall mass removal rates. The actual length of the removal event from each well will depend on mass removal rates recovered from each well. AS, SVE, and DPE will continue until petroleum hydrocarbon mass recovery becomes negligible (based on field readings [confirmed by vapor sample laboratory analyses]) or until the end of the proposed mass removal event. Laboratory samples will be collected on a periodic basis to confirm and quantify VOC readings recorded by the OVA/PID. Vapor samples will also be periodically collected from the SVE effluent to confirm required destruction efficiencies are met.

CRA will run the AS, SVE, and DPE equipment approximately 10.5 hours per day to comply with local noise ordinances. Currently, the plan is to run the mass removal event for a minimum 5-day period, with a projected maximum extent of this initial mass removal event limited to four 5-day (Monday through Friday) periods. If near the end of this first week, mass removal rates are negligible and remediation is no longer cost effective, then the event will be terminated. The mass removal event will be continued

until total petroleum hydrocarbons as gasoline (TPHg) mass recovery is no longer cost effective or the end of the 4-week period, whichever occurs first. If TPHg mass removal rates continue to be substantial at the end of the 4-week period, CRA will consider a longer term application of AS/SVE and/or DPE at the site to remove any remaining residual hydrocarbon mass (either by conducting subsequent mass removal events or by installing a longer term remediation system).

3.6 DATA COLLECTION

Prior to mass removal activities, CRA will measure and record the water level in all extraction and observation wells. During the event, CRA will periodically measure and record the following AS/SVE/DPE operational and monitoring information: applied vacuum to the extraction well, applied pressure to the AS wells, induced vacuum or pressure at observation wells, AS flow into the formation, extraction well soil-vapor flow, dilution air flow (as applicable), extracted hydrocarbon-vapor concentrations, extracted groundwater volume, olfactory and visual observations, and groundwater levels in observation wells to estimate induced groundwater drawdown. This information will initially be collected every 30 minutes during system startup and after changes are made to the system. Measurements will be collected at longer intervals when operational data stabilizes. Vapor samples will be collected periodically from the extracted soil vapor and prior to system shutdown. Data will be collected on standard forms.

3.7 CHEMICAL ANALYSES FOR VAPOR SAMPLES

All laboratory samples will be analyzed by TestAmerica Laboratories, Inc., a State-of-California-certified laboratory. Vapor samples will be analyzed for TPHg, benzene, toluene, ethylbenzene, total xylenes, methyl tertiary-butyl ether, and tertiary-butyl alcohol by EPA Method 8260B. Groundwater samples will be collected on a continued semiannual basis and will not be collected as part of this mass removal event.

4.0 REPORT PREPARATION

After completion of the mass removal event, CRA will prepare a written report documenting the field procedures, methods utilized, and field and analytical results obtained. Based on the information collected from the event, CRA will include an

evaluation of whether additional mass removal events are warranted, and the feasibility and constructability of a dedicated remediation system at the site. If negligible or low asymptotic concentration levels of mass removal are obtained and remediation is no longer cost effective, CRA will submit an application for closure of the site under the State Water Resources Control Board's Low Threat Closure Policy, as secondary source removal will have been performed to the extent practicable.

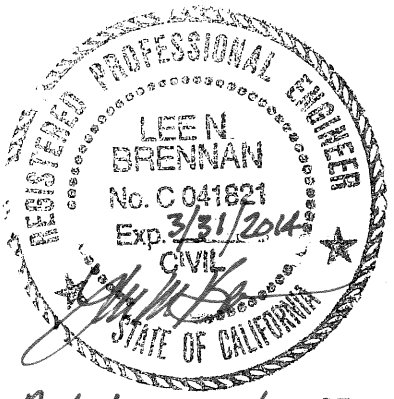
5.0 SCHEDULE

Upon receiving the ACEH's approval of this work plan and a permit from BAAQMD, CRA will schedule the petroleum hydrocarbon mass removal event.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES

for
Peter Schaefer, CEG, CHG

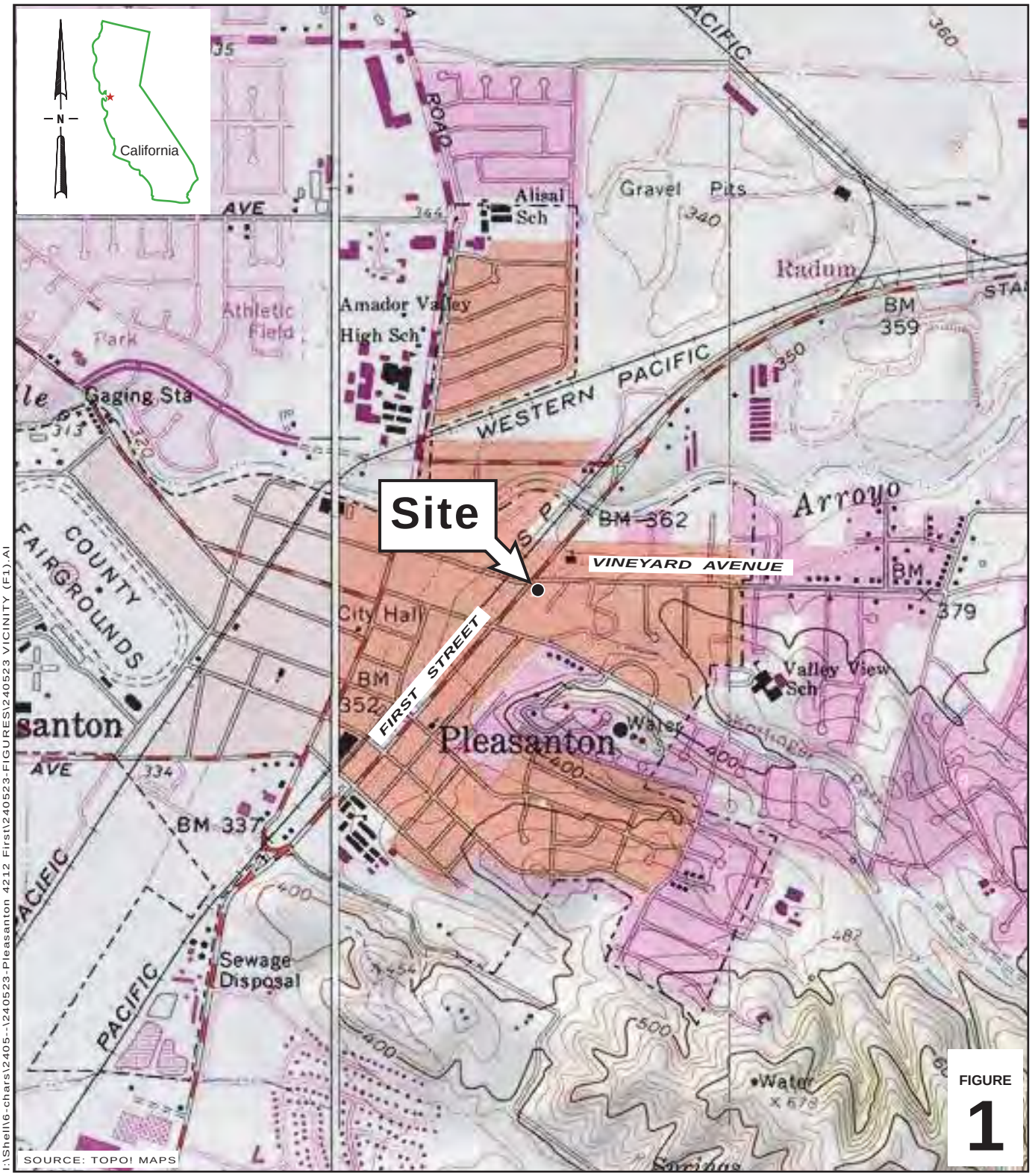
Lee Brennan, PE



Dated 3/07/2013

FIGURES

01/18/2011



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SCALE : 1" = 1/4 MILE

FIGURE 1

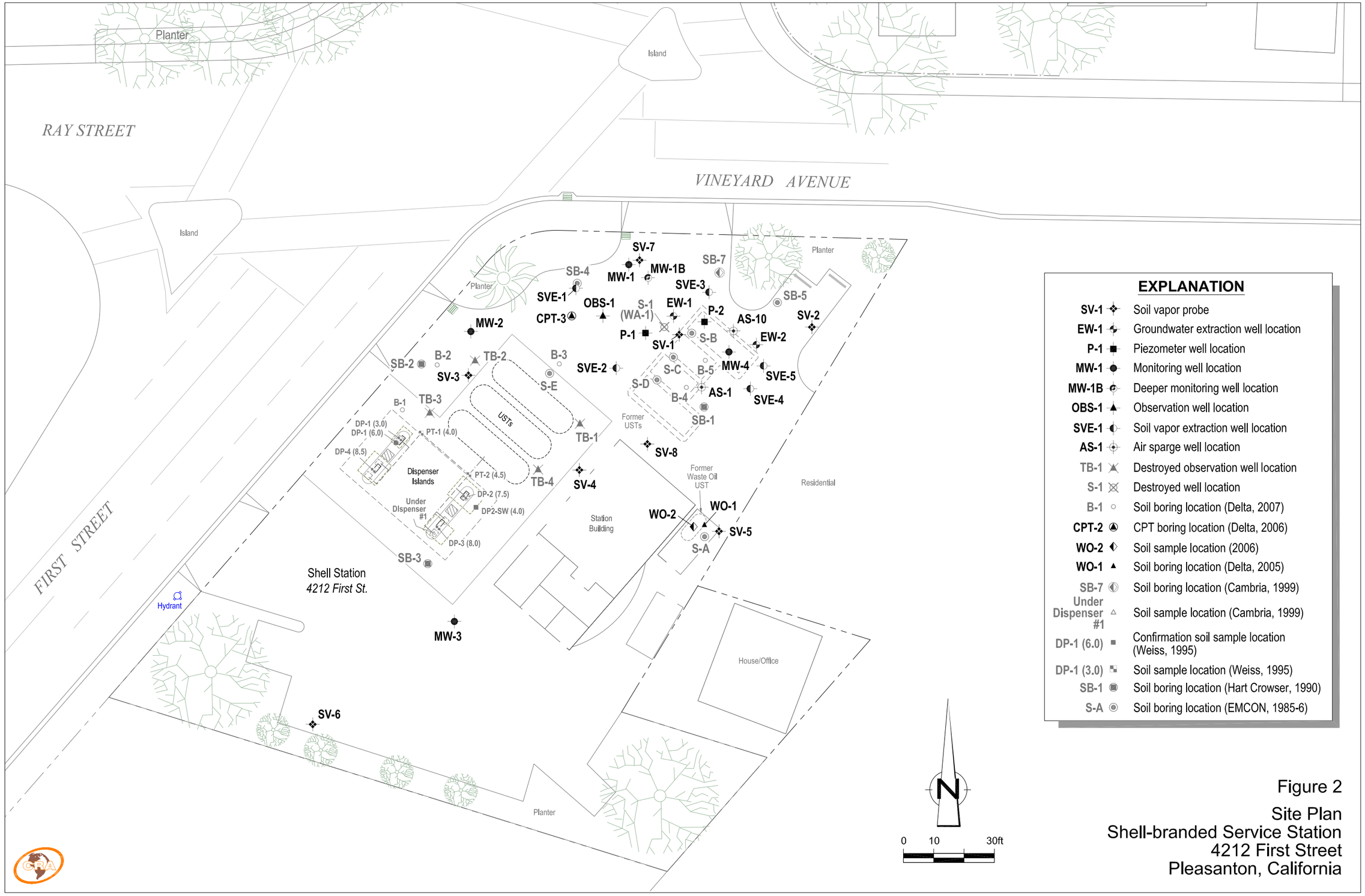
Shell-branded Service Station

4212 First Street

Pleasanton, California

CONESTOGA-ROVERS & ASSOCIATES

Vicinity Map



EXPLANATION

SV-1	Soil vapor probe
EW-1	Groundwater extraction well location
P-1	Piezometer well location
MW-1	Monitoring well location
MW-1B	Deeper monitoring well location
OBS-1	Observation well location
SVE-1	Soil vapor extraction well location
AS-1	Air sparge well location
TB-1	Destroyed observation well location
S-1	Destroyed well location
B-1	Soil boring location (Delta, 2007)
CPT-2	CPT boring location (Delta, 2006)
WO-2	Soil sample location (2006)
WO-1	Soil boring location (Delta, 2005)
SB-7	Soil boring location (Cambria, 1999)
Under Dispenser #1	Soil sample location (Cambria, 1999)
DP-1 (6.0)	Confirmation soil sample location (Weiss, 1995)
DP-1 (3.0)	Soil sample location (Weiss, 1995)
SB-1	Soil boring location (Hart Crowser, 1990)
S-A	Soil boring location (EMCON, 1985-6)

Figure 2

Site Plan
Shell-branded Service Station
4212 First Street
Pleasanton, California

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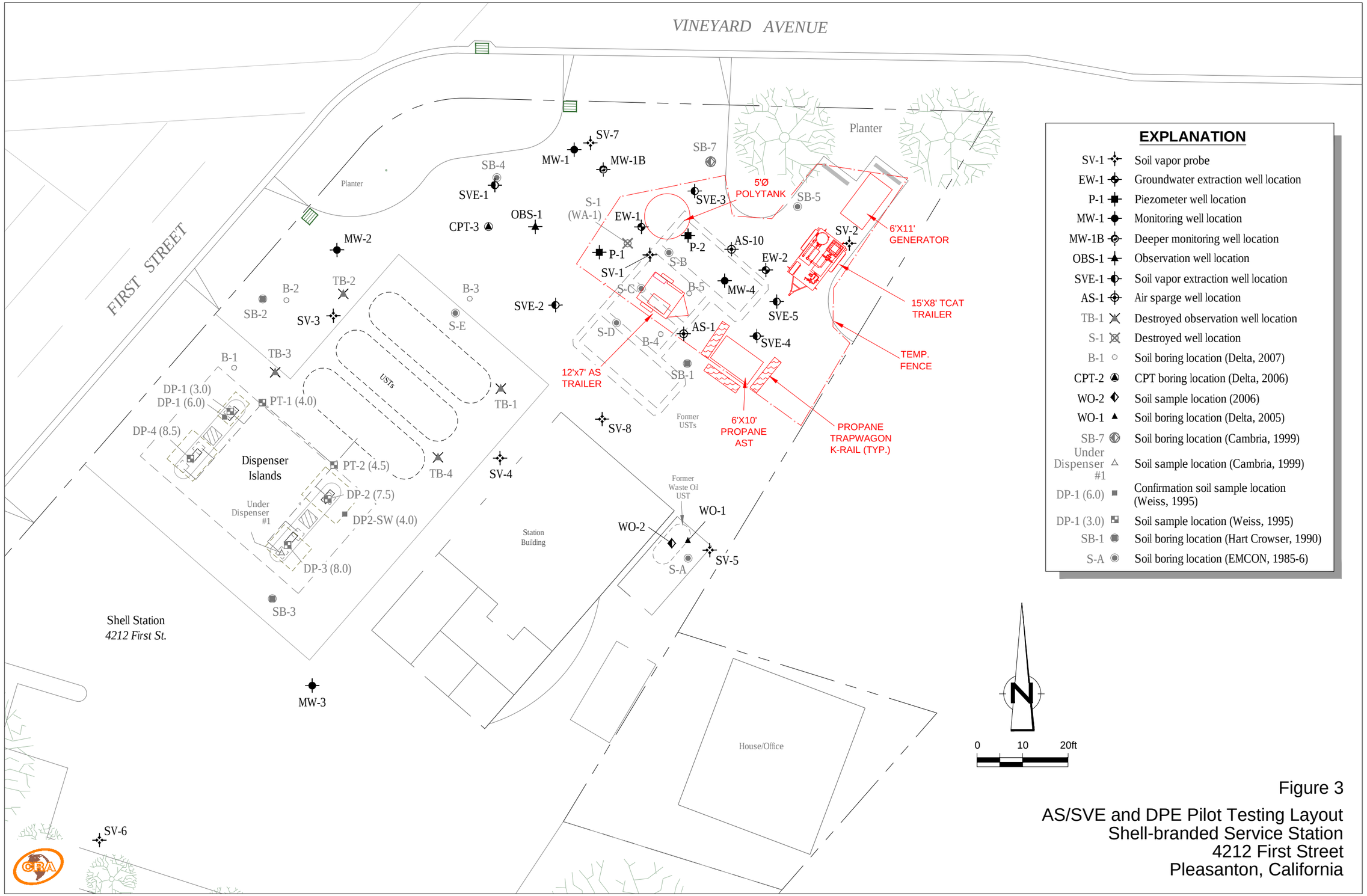

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S-A	Soil boring location (EMCON, 1985-6)

Figure 3

AS/SVE and DPE Pilot Testing Layout
Shell-branded Service Station
4212 First Street
Pleasanton, California

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APPENDIX A

SITE HISTORY

SITE HISTORY

1985 Subsurface Investigation: In September 1985, Emcon Associates (Emcon) drilled one soil boring (S-A) adjacent to the waste oil underground storage tank (UST), and drilled three soil borings (S-B through S-D) and installed one groundwater monitoring well (S-1) adjacent to the gasoline USTs. Soil samples contained up to 1,300 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as gasoline (TPHg), 9.6 mg/kg toluene, and 260 mg/kg xylenes and ethylbenzene. Benzene was not detected in the soil samples. The monitoring well was dry. Emcon's November 12, 1985 letter presents investigation details.

1986 Subsurface Investigation: In March 1986, one soil boring (S-E) was drilled adjacent to product lines. No TPHg, benzene, toluene, ethylbenzene, or total xylenes (BTEX) were detected in soil samples.

1986 *UST Removal:* In May 1986, Blaine Tech Services (Blaine) collected soil samples following removal of four gasoline USTs and one waste oil UST. Soil samples from the gasoline UST excavation contained up to 240 mg/kg TPHg. Hydrocarbons were not detected in a soil sample collected from the waste oil tank excavation. Three 10,000-gallon, double-walled, fiberglass tanks were installed at a location closer to the dispenser islands.

1988 Gasoline Spill: In August 1988, approximately 40 gallons of gasoline were spilled in the area of the pump islands. Impacted soil was removed to a depth of 1 to 2 feet below grade (fbg).

1990 Subsurface Investigations: In March 1990, Hart Crowser, Inc. (Hart) drilled three soil borings (SB-1 through SB-3) and destroyed one groundwater monitoring well (S-1). Following the well destruction, Hart continued drilling a boring (WA-1) below the depth of the monitoring well. Soil samples contained up to 380 mg/kg TPHg, 2.2 mg/kg benzene, 2.7 mg/kg toluene, 5.3 mg/kg ethylbenzene, and 32 mg/kg xylenes. Hart's April 23, 1990 *Report of Supplemental Site Assessment* provides details of this investigation.

In July 1990, Hart drilled two additional soil borings (SB-4 and SB-5) down gradient from the former UST complex. Soil samples contained up to 820 mg/kg TPHg, 65 mg/kg benzene, 3.7 mg/kg toluene, 6.5 mg/kg ethylbenzene, and 65 mg/kg xylenes (SB-5 at 35 fbg). Hart's December 11, 1990 *Supplemental Site Assessment* presents the soil boring investigation details.

1995 Dispenser and Piping Replacement: In September 1995, Paradiso Mechanical of San Leandro, California removed the product lines and replaced the dispensers and piping. Weiss Associates (Weiss) collected soil samples from beneath the gasoline product piping (PT-1 and PT-2) and dispensers (DP-1 through DP-4). Soil samples contained up to 120 mg/kg TPHg, 0.038 mg/kg ethylbenzene, and 0.19 mg/kg xylenes. Benzene and toluene were not detected in the soil samples. Approximately 40 cubic yards of soil were over-excavated at the direction of the Pleasanton Fire Department. Weiss' December 21, 1995 *Dispenser Replacement Sampling* report presents soil sampling locations and results.

1998 Facility Upgrade: In July 1998, Cambria Environmental Technology, Inc. (Cambria) inspected the waste oil tank remote-fill piping during its removal by Gettler-Ryan of Dublin, California. No hydrocarbon impact was observed during the site visit, and, therefore, no sampling was required. A pea gravel sample contained 27 mg/kg total petroleum hydrocarbons as diesel (TPHd). Cambria's September 2, 1998 *1998 Upgrade Site Inspection Report* provides inspection details.

1999 Subsurface Investigation: In April 1999, Cambria drilled two soil borings (SB-6 and SB-7) and converted SB-6 to monitoring well MW-1. Soil samples contained up to 83 mg/kg TPHg, 0.10 mg/kg benzene, 0.37 mg/kg toluene, 0.26 mg/kg ethylbenzene, and 0.26 mg/kg xylenes. Methyl tertiary-butyl ether (MTBE) was not detected in soil samples. Grab groundwater samples contained up to 10,000 micrograms per liter (µg/l) TPHg, 4,500 µg/l benzene, 3.4 µg/l ethylbenzene, and 2.9 µg/l xylenes. Toluene and MTBE were not detected in the grab groundwater samples. Cambria's August 12, 1999 *Subsurface Investigation Report* presents investigation details.

2000 Subsurface Investigation: In January 2000, Cambria installed two wells (MW-2 and MW-3) to determine whether groundwater had been impacted by petroleum hydrocarbons. No petroleum hydrocarbons or MTBE were detected in soil samples. Cambria's June 23, 2000 *Subsurface Investigation Report* presents well installation details.

2004 Well Survey: In May 2004, Toxichem Management Systems, Inc. (Toxichem) conducted a well survey, which identified a municipal well (3S/1E-21B1) and a well of unknown use (3S/1E-21B) approximately 900 feet northeast of the site and another municipal well (3S/1E-16P1) approximately 1,200 feet north of the site. The locations of the wells could not be field verified.

2005 UST Upgrades: In January 2005, Town and Country Contractors, Inc. (T & C) upgraded the gasoline USTs.

2005 Tank Backfill Well Destructions: In January 2005, T & C destroyed four tank backfill wells (TB-1 through TB-4).

2005 Waste Oil UST Investigation: In January 2005, an unknown liquid was likely poured into a port on the waste oil UST which led directly into the pea gravel surrounding the UST. Based on this observation, Shell submitted a UST Unauthorized Release (Leak)/Site Contamination Report on January 19, 2005. Able Maintenance (Able) and Service Station Systems sealed the UST port with epoxy and excavated pea gravel around the UST. Toxichem collected pea gravel samples which contained 1.4 mg/kg TPHg, 1,400 mg/kg TPHd, and 10,000 mg/kg total petroleum hydrocarbons as oil and grease. In June 2005, Delta Consultants (Delta) drilled one soil boring (WO-1) adjacent to the waste oil UST to determine if the liquid poured into the pea gravel had impacted soils. Petroleum hydrocarbons were not detected in the soil samples. Delta's July 11, 2005 *Soil and Water Investigation Report* provides investigation details.

2005 Receptor Survey: In September 2005, Delta conducted a well survey which located an old water tower in the area of the wells identified in Toxichem's 2004 well survey and identified a water supply well (3S/1E-21C1) and an irrigation well (3S/1E-21C4) approximately 1,000 feet northwest of the site and another irrigation well in Kottinger Park, approximately 800 feet east of the site. Delta identified the nearest surface water as Arroyo del Valle Creek located approximately 1,130 feet northwest of the site.

2006 Waste Oil UST Removal: In July 2006, Wayne Perry Inc. removed a 550-gallon waste oil UST. Cambria collected a soil sample from the bottom of the UST excavation (WO-2) which contained 26 mg/kg oil and grease, 5.5 mg/kg TPHd, 0.021 mg/kg MTBE, 40.7 mg/kg chromium, 6.00 mg/kg lead, 46.9 mg/kg nickel, and 52.5 mg/kg zinc. Based on these concentrations, Shell submitted a UST Unauthorized Release (Leak)/Site Contamination Report on July 28, 2006. Cambria's September 21, 2006 *UST Removal Report* details the UST removal and sampling.

2006 Subsurface Investigation: In August and September 2006, Delta installed two monitoring wells (MW-1B and MW-4) and drilled two cone penetrometer test (CPT) borings (CPT-2 and CPT-3). Well MW-4 was installed in first-encountered groundwater, and well MW-1B was installed in a deeper water-bearing zone. Soil samples from well boring MW-4 contained up to 380 mg/kg TPHg, 1.2 mg/kg ethylbenzene, 1.6 mg/kg xylenes, and 0.59 mg/kg MTBE. TPHg, BTEX, MTBE, and tertiary-butyl alcohol (TBA) were not detected in soil samples from MW-1B, and benzene, toluene, and TBA were not detected in soil samples from MW-4. Grab groundwater samples from off-site CPT boring CPT-2 contained up to

0.99 µg/l benzene, 47 µg/l MTBE, and 27 µg/l TBA. Grab groundwater samples from on-site CPT boring CPT-3 contained up to 700 µg/l TPHg, 0.78 µg/l ethylbenzene, 2.1 µg/l xylenes, 79 µg/l MTBE, and 2,000 µg/l TBA. Delta's October 31, 2006 *Soil and Groundwater Investigation Report* provides well installation and CPT investigation details.

2007 Subsurface Investigation: In March 2007, Delta drilled five soil borings (B-1 through B-5) in or near on-site source areas. Soil samples from the soil borings contained up to 710 mg/kg TPHg, 2.3 mg/kg ethylbenzene, 16 mg/kg xylenes, 0.78 mg/kg MTBE, and 0.80 mg/kg TBA. Delta's June 25, 2007 *Site Investigation and Interim Remediation Report* provides details of this investigation.

2007 Mobile Groundwater Extraction (GWE): From June through August 2007, Delta extracted approximately 4,226 gallons of groundwater from MW-4. Delta's June 25, 2007 *Site Investigation and Interim Remediation Report* and November 2, 2007 *Draft Corrective Action Plan (CAP)* provide remediation details.

2009 Dual-Phase Extraction (DPE) Pilot Test: In January 2009, Delta conducted a 5-day DPE pilot test on MW-4 and 4-hour DPE pilot tests on MW-1 and MW-2. Prior to conducting the DPE pilot tests, Delta conducted step drawdown tests in MW-1 and MW-4. Delta calculated hydraulic conductivities of 3.59×10^{-5} centimeters per second (cm/sec) in MW-1 at a pumping rate of 0.48 gallons per minute (gpm) and 3.17×10^{-5} cm/sec in MW-4 at a pumping rate of 0.40 gpm. Based on the results of the DPE pilot test, Delta calculated a theoretical radius of influence of 26 feet for soil vapor extraction and estimated that 286.3 pounds of hydrocarbons were removed from the vadose zone. An estimated 0.23 pounds of dissolved hydrocarbons were removed along with 2,748 gallons of groundwater. Delta concluded that while GWE results indicated it was likely not a viable remediation strategy, soil vapor extraction (SVE) could be a viable remediation alternative. Delta's February 12, 2009 *DPE Pilot Test Report* provides pilot test data.

2009 Dispenser Repairs: In January 2009, Able replaced the faulty pan beneath the south dispenser on the pump island closest to the station building. Delta collected a soil sample (Under Dispenser #1) from the dispenser excavation. No TPHg, TPHd, BTEX, fuel oxygenates, or lead scavengers were detected in the soil sample. Delta's March 6, 2009 *Dispenser Repair Report* presents details of the repair and soil sampling.

2010 Subsurface Investigation: In January 2010, Delta installed one observation well (OBS-1), one air sparging (AS) well (AS-1), and four SVE wells (SVE-1 through SVE-4). Delta's June 7, 2010 *2010 AS Pilot Test Report* provides well installation details.

2010 AS Pilot Test: In January 2010, Delta conducted an AS pilot test using well AS-10. Delta calculated an air sparging radius of influence of 31 feet; however, Conestoga-Rovers & Associates' (CRA's) subsequent analysis of the pilot test data determined that the test was flawed and therefore inconclusive. Delta's June 7, 2010 *2010 AS Pilot Test Report* details pilot testing results.

2011 Subsurface Investigation: In June 2011, CRA attempted to install two off-site wells across Vineyard Avenue from the site. CRA abandoned the well installation attempts because there were no other locations in the sidewalk where the wells could be installed safely due to the interference of underground utilities. CRA's July 28, 2011 letter provides investigation details.

2012 Subsurface Investigation: In August and September 2012, CRA installed and sampled eight soil vapor probes. No constituents of concern were detected in any soil vapor samples, with the exception of up to 53 micrograms per cubic meter toluene. All toluene concentrations are below residential environmental screening levels. CRA's October 3, 2012 *Subsurface Investigation Report* presents soil vapor investigation results.

2012 AS/SVE and DPE Pilot Testing: In September 2012. CRA conducted AS/SVE and DPE pilot tests in the area of MW-4 and the former USTs. Based on the results of these pilot tests, neither AS/SVE nor DPE remedial technologies removed significant quantities of benzene or MTBE. CRA's October 30, 2012 *Air Sparge and Soil Vapor Extraction and Dual-Phase Extraction Pilot Test Reports* presents pilot testing details.

Groundwater Monitoring Program: Groundwater monitoring and sampling began in June 1999. The depth to first-encountered groundwater typically ranges between 31 to 34 fbg. Groundwater flow is generally northwesterly.