ConocoPhillips
76 Broadway
Sacramento, California 95818

October 29, 2008

Ms. Barbara Jakub
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: **Additional Site Assessment Work Plan**
76 Service Station #6277
15803 East 14th Street
San Leandro, California
Fuel Leak Case No. RO00002969

Dear Ms. Jakub:

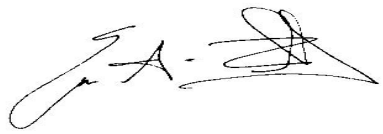
I declare under penalty of perjury that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions or need additional information, please call:

Ted Moise (Contractor)
ConocoPhillips
Risk Management & Remediation
76 Broadway
Sacramento, CA 95818

Phone: (510) 245-5162
Fax: (918) 662-4480

Sincerely,



Eric G. Hetrick
Site Manager
Risk Management & Remediation

Attachment

October 27, 2008

Ms. Barbara J. Jakub, PG
Hazardous Materials Specialist
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

RE: Additional Site Assessment Work Plan
First Phase
Fuel Leak Case No. RO00002969
Geotracker Global ID T0619718179
ConocoPhillips Site No. 256277
15803 East 14th Street
San Leandro, California

DELTA

Dear Ms. Jakub:

On behalf of Conoco Phillips Company (COP), Delta Consultants (Delta), has prepared this work plan as directed by the Alameda County Environmental Health (ACEH) in the letter dated June 26, 2008 (copy attached).

In September 2007, maximum concentrations of 15,000 micrograms per liter (µg/L) total petroleum hydrocarbons as diesel (TPHd) in ATC-1, 6,400 µg/L total petroleum hydrocarbons as gasoline (TPHg) in ATC-4, 60 µg/L benzene in ATC-4, 210 µg/L methyl tertiary butyl ether (MTBE) in ATC-2, 240 µg/L perchloroethene, and 16 µg/L tricholorethene in ATC-5 were detected in groundwater. TPHd and TPHg were detected in groundwater samples collected from all the borings advanced at the site.

Soil samples collected adjacent to the USTs and dispenser islands indicated that the lateral and vertical extent of the contamination is undefined. The maximum TPHd concentration in soil [310 milligrams per kilogram (mg/Kg)] was detected in ATC-3 at a depth of 12 feet below ground surface (bgs). The sample collected from 18 feet bgs also contained TPHd at a concentration of 18 mg/Kg.

The maximum TPHg concentration (1,000 mg/Kg) in soil was detected in ATC-5 from 5 ft bgs and the maximum MTBE concentration (0.83 mg/kg) in soil was detected in ATC -2 from 12 feet bgs.

Therefore, ACEH requested that the lateral and vertical extent of contaminants in soil and groundwater and the hydrogeologic conditions be determined.

In this **First Phase**, Delta is proposing the advancement of eight soil borings (Figure 1) to define the lateral extent of the shallow groundwater contamination and the lateral extent of soil contamination.

In a **Second Phase**, the vertical extent and magnitude of soil and groundwater contamination will be defined and consequently, the hydrogeologic conditions will be determined. A Work Plan to install a minimum of three groundwater monitoring wells will be submitted for approval to ACEH. Monitoring well locations will be determined based on Phase 1 results.

SITE DESCRIPTION

The site is an active service station located at 15803 East 14th Street in San Leandro, California. The site's current underground storage tanks (UST) system configuration includes two fuel 12,000-gallon USTs (unleaded and premium unleaded gasoline), one 520-gallon waste oil UST and two dispenser islands. All USTs are double walled, steel with fiberglass coating added on outside. The piping is also double walled fiberglass. The site is characterized by gently sloping, southwest trending topography, and is located approximately three miles northeast of the present shoreline of San Francisco Bay.

PREVIOUS ASSESSMENT

1969 - Reported site history indicates the site was first developed as a gas station from an empty lot in 1969.

1989 - Two 10,000-gallon gasoline underground storage tanks (USTs), one 550-gallon waste oil UST, and the product piping were removed from the site in March of 1989 during UST replacement activities. Kaprealian Engineering Inc. (KEI) work at the site began on March 6, 1989, when KEI was retained by Unocal to drill two exploratory borings (designated as SB-1 and SB-2 on Figure 1) at the site. The borings were drilled at the request of Alameda County. The borings were installed in order to explore for the possible presence of soil contamination in the vicinity of the pit for the proposed new underground storage tanks. The borings were drilled to depths of 10.5 and 13.5 feet below grade. Ground water was encountered in the borings at depths of 11 to 12 feet below grade.

The samples collected from the exploratory borings SB-1 and SB-2 were analyzed for total petroleum hydrocarbons (TPH) as gasoline and benzene, toluene, xylenes, and ethylbenzene (BTX&E). The analytical results of the soil samples collected at a depth of 5 feet below grade in the two borings indicated TPH as gasoline concentrations ranging from non-detectable to 2.1 ppm.

The analytical results of the soil samples collected at a depth of 10 feet below grade indicated TPH as gasoline concentrations ranging from 200 ppm to 620 ppm. Based on results of this preliminary investigation, KEI recommended that the contractor excavate the existing tank pit to a depth of approximately 13 feet below grade. KEI returned to the site on March 13, 1989. Water was encountered in the fuel tank pit at a depth of about 11 feet below grade, thus prohibiting the collection of any soil samples from immediately beneath the tanks. Six soil samples, labeled SW1 through SW6, were collected from the sidewalls of the fuel tank pit at depths of approximately 1 foot above the water table; and one soil sample, labeled W01, was collected from beneath the waste oil tank at a depth of about 10 feet below grade. Based on observations in the field, it was decided to excavate additional soil from three of the four tank pit sidewalls.

On March 14, 1989, four trenches were installed to define the limits of additional soil excavation needed. Four soil samples were then collected at depths of about 10 feet below grade. The soil sample point locations are shown (as green dots) on the attached Figure 1. The analytical results of the soil samples collected from the fuel tank pit indicated TPH as gasoline concentrations ranging from 24 ppm to 150 ppm. A sample collected adjacent to the existing building indicated 3,500 ppm of TPH as gasoline; however, the sample collected after excavating 2 feet of sidewall toward the building, indicated TPH as gasoline at concentration of 100 ppm. One analytical sample (SW2) indicated 390 ppm of TPH as gasoline. The analytical results of the soil samples collected from the waste oil tank pit indicated 280 and 41 ppm of TOG. The analytical results of the water sample (W1) collected from the old fuel tank pit indicated 19,000 ppb of TPH as gasoline and 230 ppb of benzene.

On March 23, 1989, KEI returned to the site for pipe trench soil sampling. Six soil samples, labeled P1, P2, P3, P4, P5, and P6, were collected from beneath the product lines at depths of about 3 to 3.5 feet below grade. The soil sample point locations are shown on the attached Figure 1. The analytical results of the soil samples (P1 through P6 – see location on Figure 1) collected from the pipe trenches indicated concentrations of TPH as gasoline ranging from 1.1 ppm to 6.8 ppm.

The fuel UST pit and the waste oil UST pit were over-excavated in order to remove hydrocarbon-impacted soil. The majority of the hydrocarbon-impacted soil appears to have been removed from the site, except for the capillary fringe in the vicinity of the former UST pit and the building.

On May 24, 1989, four two-inch diameter monitoring wells, designated as MW1 through MW4 on the attached Figure 1, were installed at the site. The four wells were each drilled and completed to total depths ranging from 24.5 to 25 feet below grade. Ground water was encountered at depths ranging from 11 to 12 feet beneath the surface during drilling.

The monitoring and sampling program was initiated in July of 1989, and these four wells and other two wells (MW-5 and MW-6) installed on March 9, 1993 have been monitored monthly and sampled on a quarterly basis until 1996. Groundwater flow has predominantly ranged from SW to N during the course of the investigation. Chlorinated solvents have consistently been detected in upgradient wells MW-3 and MW·4, and it appears that the chlorinated solvent impact at the Tosco site may be due to an unidentified source (or sources) located upgradient of the subject site, or is part of a regional chlorinated solvent contaminant plume. The perimeter wells have historically shown relatively low to non-detectable concentrations of TPH as gasoline (TPHg) and BTEX.

On February 1, 1990, well MW-2 was destroyed in preparation for additional soil excavation in the vicinity of this well. Soil was excavated to a depth corresponding to approximately 6 to 12 inches below the level of the ground water, which was encountered at a depth of about 11.5 feet below grade. After additional excavation, four soil samples were collected from the sidewalls of the excavation, each approximately 6 to 12 inches above ground water. Soil excavation activities were terminated due to the close proximity of the former and new underground storage tank pits and the property line of the site. The analytical results of three soil samples indicated concentrations of TPH as gasoline ranging from 140 ppm to 1,100 ppm, while concentrations of TPH as diesel ranged from non-detectable to 280 ppm. The analytical results also indicated non-detectable levels of EPA method 8010 constituents and TOG for all four samples, except for one sample which indicated a concentrations of TOG at 210 ppm. Soil excavation in the vicinity of well MW-2 was completed in April of 1990. Monitoring well MW-2 was then replaced with a new well (MW-2A) in March 1991.

1997 - Water sampled from well MW-1 continued to show the highest concentrations of fuel hydrocarbons throughout the duration of the investigation. As well MW-1 is the most downgradient of the wells at the site, an off-site study was conducted in March 1997 to assess any impacts in the downgradient direction.

Three Geoprobe boreholes (EB-3, -4, and -5) were advanced through E. 14th Street in a northerly transect from the site. The three borings were each drilled to total depths ranging from 11 to 15 feet below grade. Ground water was encountered at depths ranging from 10.5 to 15 feet below grade during drilling. No detectable target compounds were identified in either soil or ground water samples.

1998 – A "Case Closure Summary" was prepared by the Alameda County Environmental Protection Department. This document concluded that drinking water wells are not affected. It also documented the maximum contaminant concentrations – before and after cleanup as follows:

Contaminant	Soil (ppm)			Water (ppb)	
	Before	After		Before	After
TPH(Gas)	3500	1100		19,000	510
TPH(Diesel)	ND	6.2		NA	NA
Benzene	40	8		230	72
Toluene	280	43		79	ND
Xylene	600	230		1300	17
Ethylbenzene	100	37		ND	ND
MtBE	NA	NA		NA	390
Oil & Grease	7700	1300		NA	NA
Heavy Metals	NA	NA		NA	NA
Other HVOC TCE	0.063	ND	TCE	4.4	ND
			PCE	110	950
			1,2-DCA	2.8	ND

The "Case Closure Summary" concluded that "there are no known municipal or residential water wells or surface water bodies within 750' downgradient of the subject site that would be impacted by shallow groundwater from this site".

December 26, 2000 – Alameda County Health Care Services Agency issued a "Case Closure" letter.

2003 – Six groundwater monitoring wells destroyed. Groundwater was at 6-11 ft bgs.

2007- On September 25 and 26, 2007, six soil borings (ATC-1, ATC-2, ATC-3, ATC-4, ATC-5 and ATC-6) were advanced in the vicinity of the existing fuel and waste oil USTs and dispensers. Borings were advanced to total depths of approximately 20 feet bgs (ATC-2, ATC-3, ATC-4 and ATC-5) and 25 feet bgs (ATC-1 and ATC-6). Groundwater was initially encountered at depths ranging from 14 feet bgs to 24 feet bgs during drilling activities.

Groundwater samples were collected from borings ATC-1, ATC-2, ATC-3, ATC-4, ATC-5 and ATC-6 after each boring was advanced approximately less than one to seven feet into groundwater. A duplicate groundwater sample designated as "Duplicate B-1" was collected from boring ATC-1.

The lithology underlying the site generally consists of clay, silty clay and sandy clay from the ground surface to approximately 25 feet bgs, the maximum extent of exploration. PID readings from the screened soil samples ranged from 1.4 parts per million (ppm) to 2,272 ppm.

Laboratory analytical results for the **soil samples** selected for analysis indicate the following:

• Toluene was detected at a concentration of 1.2 milligrams per kilogram (mg/kg) in the soil sample collected at approximately five feet bgs from boring ATC-5

• Ethylbenzene was detected at concentrations of 0.016 mg/kg, 8.8 mg/kg, 0.82 mg/kg, 11 mg/kg and 6.2 mg/kg in the soil samples collected at approximately 12 feet bgs from borings ATC-1, ATC-2 and ATC-3 and five feet bgs from borings ATC-4 and ATC-5, respectively.

• Total xylenes were detected at concentrations of 0.029 mg/kg, 48 mg/kg, 2.93 mg/kg, 43 mg/kg, 25.2 mg/kg and 0.007 mg/kg in the soil samples collected at approximately 12 feet bgs from borings ATC-1, ATC-2 and ATC-3, five feet bgs from borings ATC-4 and ATC-5 and 20 feet bgs from boring ATC-5, respectively.

• Tetrachloroethene (PCE) was detected at concentrations of 0.013 mg/kg and 0.033 mg/kg in the soil samples collected at approximately 20 feet bgs from borings ATC-4 and ATC-5, respectively.

• Methyl tert butyl ether (MTBE) was detected at concentrations of 0.024 mg/kg, 0.83 mg/kg, 0.011 mg/kg and 0.015 mg/kg in the soil samples collected at approximately 12 feet bgs from borings ATC-1 and ATC-2 and 20 feet bgs from borings ATC-2 and ATC-4, respectively.

• t-Butyl alcohol was detected at a concentration of 0.19 mg/kg in the soil sample collected at approximately 12 feet bgs from boring ATC-1.

• SVOCs were also detected.

• TPH-GRO was detected at concentrations of 100 mg/kg, 560 mg/kg, 27 mg/kg, 59 mg/kg, 1,000 mg/kg and 220 mg/kg in the soil samples collected at 12 feet bgs from borings ATC-1, ATC-2, ATC-3 and ATC-6 and five feet bgs from borings ATC-4 and ATC-5, respectively.

• TPH-DRO was detected at concentrations of 57 mg/kg, 51 mg/kg, 310 mg/kg, 18 mg/kg and 170 mg/kg in the soil samples collected at 12 feet bgs from borings ATC-1, ATC-2 and ATC-3, 18 feet bgs from boring ATC-3 and five feet bgs from boring ATC-4, respectively.

• Chromium was detected at concentrations of 58.2 mg/kg and 44.8 mg/kg in the soil samples collected at approximately 12 and 15 feet bgs from boring ATC-6, respectively.

• Lead was detected in all of the soil samples submitted for analysis. Nickel was detected at concentrations of 57.8 mg/kg and 45.5 mg/kg in the soil samples collected at approximately 12 and 15 feet bgs from boring ATC-6, respectively.

• Zinc was detected at concentrations of 52.9 mg/kg and 42.2 mg/kg in the soil samples collected at approximately 12 and 15 feet bgs from boring ATC-6, respectively.

Laboratory analytical results for the **groundwater samples** collected from borings ATC-1 (including Duplicate B-1), ATC-2, ATC-3, ATC-4, ATC-5 and ATC-6 indicated the following:

• Benzene was detected at concentrations of 39 micrograms per liter (µg/L), 60 µg/L and 33 µg/L in the groundwater samples collected from borings ATC-2, ATC-4 and ATC-5, respectively.

• Toluene was detected at concentrations of 120 µg/L and 64 µg/L in the groundwater samples collected from borings ATC-4 and ATC-5, respectively.

• Ethylbenzene was detected at concentrations of 27 µg/L, 160 µg/L, 300 µg/L and 110 µg/L in the groundwater samples collected from borings ATC-2, ATC-3, ATC-4 and ATC-5, respectively.

• Total xylenes were detected at concentrations of 7 µg/L, 12 µg/L, 117 µg/L, 630 µg/L, 1,040 µg/L and 400 µg/L in the groundwater samples collected from borings ATC-1 (including Duplicate B-1), ATC-2, ATC-3, ATC-4 and ATC-5, respectively.

• Trichloroethylene (TCE) was detected at concentrations of 12 µg/L, 11 µg/L, 15 µg/L, 9 µg/L, 14 µg/L, 16 µg/L and 12 µg/L in the groundwater samples collected from borings ATC-1 (including Duplicate B-1), ATC-2, ATC-3, ATC-4, ATC-5 and ATC-6, respectively.

• Tetrachloroethene (PCE) was detected at concentrations of 100 µg/L, 96 µg/L, 100 µg/L, 29 µg/L, 230 µg/L, 240 µg/L and 100 µg/L in the groundwater samples collected from borings ATC-1 (including Duplicate B-1), ATC-2, ATC-3, ATC-4, ATC-5 and ATC-6, respectively.

• cis-1,2-dichloroethene was detected at a concentration of 8 µg/L in the groundwater sample collected from boring ATC-2.

• MTBE was detected at concentrations of 7 µg/L, 13 µg/L, 210 µg/L, 37 µg/L and 6 µg/L in the groundwater samples collected from borings ATC-1 (including Duplicate B-1), ATC-2, ATC-4 and ATC-5, respectively.

• Phenanthrene was detected at a concentration of 5 µg/L in the groundwater sample collected from boring ATC-6.

• Total TPH was detected at a concentration of 2,500 µg/L in the groundwater sample collected from boring ATC-6.

• TPH-GRO was detected at concentrations of 140 µg/L, 140 µg/L, 860 µg/L, 3,700 µg/L, 6,400 µg/L, 2,500 µg/L and 93 µg/L in the groundwater samples collected from borings ATC-1 (including Duplicate B-1), ATC-2, ATC-3, ATC-4, ATC-5 and ATC-6, respectively.

• TPH-DRO was detected at concentrations of 15,000 µg /L, 1,100 µg /L, 5,200 µg /L, 8,100 µg /L, 1,900 µg /L, 810 µg /L and 910 µg /L in the groundwater samples collected fron1 borings ATC-1 (including Duplicate B-1), ATC-2, ATC-3, ATC-4, ATC-5 and ATC-6, respectively.

• TPH-ORO was detected at a concentration of 1,600 µg/L in the groundwater sample collected from boring ATC-6.

FILE REVIEWS

Due to the regular occurrence of PCE, TCE and 1,2-DCA in sampled ground water, a review of records documenting historic site activities was performed in 1991-1993.

In 1991, file reviews to determine whether there were any upgradient sources contributing to the contamination at the Unocal site were conducted by KEI at the Regional Water Quality Control Board (RWQCB). This review focused on three sites with monitoring wells located within a half-mile of the Unocal station. The three sites had been previously identified during a well survey carried out by KEI, using data from the Alameda County Flood Control and Water Conservation District.

Site #1: The Okada property, located at 16109 Ashland Avenue, contained in 1991 three monitoring wells that were installed after an underground fuel storage tank removal project. This site is located approximately 1,000 feet southeast of the Unocal site. Based on reports prepared by Terra Vac of San Jose, California, as of March 1990, the ground water flow direction had been consistently to the west for the three previous quarters. In addition, TPH as gasoline had been detected in ground water at concentrations up to 280 ppb, and TPH as diesel at concentrations up to 1,100 ppb. Benzene had been detected at concentrations less than 0.5 ppb.

Site #2: A former USA Petroleum station is located at 15120 Hesperian Boulevard, approximately 2,300 feet west of the Unocal site. Based on a letter report prepared by Aqua Engineers of San Ramon, California, and dated May 24, 1989, underground fuel storage tanks were removed in May 1989, and TPH as gasoline was detected in the soil samples at concentrations of up to 9,670 ppm.

Site #3: The third site within a half-mile of the Unocal site that contains monitoring wells is reportedly owned by Kaufman and Broad, and is located at 1630-162nd Avenue, approximately 1,800 feet east-southeast of the Unocal site. No files were available in 1991 at the RWQCB for this location.

Based on the west and northwest flow directions at the Okada property and the Unocal site, respectively, and the distances between the Okada property, the former USA Petroleum station, and the Unocal site, in 1991 it was concluded that "it appears unlikely that contamination from these sites has commingled".

KEI reviewed the Unocal real estate file and the available general arrangement plans for the subject site. The general arrangement plans did not show any potential on-site sources of chlorinated solvent contamination in the vicinity of wells MW3 and MW4.

Unocal pre-construction photographs show a former Richfield service station located on the property now occupied by the SpeeDee Oil Change shop. Aerial photographs from the same period show one definite and possibly two auto wrecking yards located to the southeast of the site. The confirmed wrecking yard in the aerial photos was located behind the former ABC Auto Repair and appeared to be part of their operations. The other possible wrecking yard was located approximately 500 feet southeast of the subject site.

In December 1992, a KEI representative visited the subject site to determine land use and the types of businesses in the area. The vicinity surrounding the site was a mixed commercial/residential area. East of the site, across the East 14th Street and 159th Avenue intersection, was a SpeeDee oil Change shop, and to the southeast existed a closed auto repair shop that was formerly ABC Auto Repair. Various other businesses, including a sign shop and a recreational vehicle storage lot, existed to the southeast of the Unocal site along East 14th Street. In 1992, the Unocal site was surrounded on the southwest, west, and northwest by an apartment complex. To the northeast of the Unocal site, across E. 14th Street, was a vacant lot.

In 1992, a file review was conducted at the ACHCS. Four sites with existing or former underground storage tanks were located through the file review. These sites are as follows: 1.) Narou Properties, 1500 Thrush Avenue; 2.) ABC Auto Repair, 15960 East 14th Street; 3.) Petsas Property, 16035 East 14th Street, and; 4.) SpeeDee oil change, 15900 East 14th Street.

In the 1991-1993 the California Environmental Protection Agency, Department of Toxic Substances Control (DTSC), identified regional chlorinated solvent contamination of the upper aquifer in the San Leandro area.

Based upon information obtained from the report "Interim Groundwater Contamination Report for Central San Leandro" dated January 20, 1993, by Woodward-Clyde Consultants of Oakland, California, in 1992 DTSC was conducting investigations at three State Superfund sites in the San Leandro area, and a regional hydropunch ground water sampling program throughout the "San Leandro Plume" area. However, the Unocal site was located outside the study area (approximately 1/2-mile to the southeast).

In summary, in 1993, based on the results of the site history research, site reconnaissance, and file review, and based upon the fact that no evidence of an on-site solvent source area in the vicinity of MW3 and MW4 was evident, it was concluded that there was no likely on-site source of the HVOC impact identified.

The potential for an off-site HVOC source is further supported by the fact that the highest HVOC concentrations have been found in samples collected from wells MW-3 and MW-4, located on the upgradient side of the subject site, close to property margins. Hence, HVOCs detected in these wells are likely coming from a source upgradient of the site.

Water Well Survey

A detailed review of available information on producing water wells and ground water monitoring wells adjacent to the subject site was performed by KEI in 1991. The well survey focused on the area within a one-half mile radius of the subject site, and is based upon data obtained in 1991 from the Alameda County Flood Control and Water Conservation District. The information reviewed revealed the presence of 15 producing wells within the study area. All of the located producing wells are designated as irrigation wells and have depths ranging from 20 to 440 feet below grade. Three sites with existing monitoring wells were located within the study area; the closest one was approximately 1,000 feet from the subject site. The Alameda County Flood Control and water Conservation District records suggested that the status of many of the irrigation wells is unknown. In the 1991 survey, it was stated that "no producing wells that could possibly influence the ground water flow direction at the subject site were located". The closest irrigation well (148 ft deep) was noted in the North corner of East 14th Street and 159th Avenue. The County records suggested that the status of many of the irrigation wells is unknown.

Wells located during the well survey in 1991 are shown on the attached copy of Figure 6 (source KEI, 1993). Data for the production wells are listed in a copy of Table 7 (source KEI, 1993), and data for sites with existing monitoring wells are listed in a copy of Table 8 (source KEI, 1993).

Agency Receptor Survey - 2008

The agency receptor survey was completed to identify all water supply wells within a half-mile radius of the site referenced above. The survey entailed a request to the California Department of Water Resources (DWR) office in Sacramento to provide well log records. DWR well log records were reviewed in order to determine the location of any water-supply wells in the vicinity of the subject site. Using the DWR well logs, a total of 5 wells had verifiable addresses within a half-mile radius of the site. Water supply well locations located within the survey area are shown on Figure 5. The data for wells within the survey area are presented in Table 1.

Historic Sites Activities in the Immediate Surroundings

A request for file review was submitted to DTSC; however, in a letter dated October 14, 2008, Ms. Lule Varela, Regional Records Coordinator with DTSC indicated that "no such records exist pertaining to the sites referenced (E 14th St, E 159th St, Thrush St.)". On October 17, 2008, the existing files for the immediate surrounding properties listed on Geotracker were reviewed at the Alameda County Health Care Services Agency. A few inspection notes were available only for the adjacent site to the East, immediately across the intersection between East 14th Street and 159th Avenue - "City Auto Service" 15900 East 14th Street:

1) "Notice of Failure to Return to Compliance" – dated August 13, 2008
   Failure to submit the hazardous materials/waste compliance documentation

2) "Hazardous Waste Generator Inspection Checklist" – dated June 3, 2008

   Hazardous Waste determination not done.
   Containers not labeled
   Containers not closed/sealed
   Storage area not inspected weekly
   Training non-compliance

   Two photographs (see attached) taken on 6/3/08 show oil staining from a leaking auto.

3) "Inspection Report Summary / Summary of Violations" – dated September 7, 2007,

   Notes: "General housekeeping needs to improve"
   Summary of violations: Illegal disposal of hazardous waste, HMBP not submitted, spills not cleaned up immediately, training not documented, used oil tank open and label not filled out.

   Eleven (11) photographs are attached to this Inspection Report showing spills, spill migrating towards storm drain inlet, spill in driveway not cleaned up, spill on floor not cleaned up, spill below waste oil tank not cleaned up, etc.

4) "Hazardous Materials Inspection Form" – dated April 20, 1993

   No major violations; mentioned that solvents are removed each 8 weeks by "Safety Kleen",

Preferential Pathways

While no direct evidence from the investigation indicates that a preferential pathway exists to facilitate direct chemical migration, this transport mechanism has not been discounted. A preferential pathway is a more permeable pathway through the native material. Trench backfill for the buried sanitary sewer, storm sewer, water lines, gas lines, and other underground utilities (including wells) can contain more sand or gravel and may constitute potential pathways for groundwater flow.

The closest irrigation well (148 ft deep) installed in 1949, was noted in the KEI 1993 Report in the North corner of East 14th Street and 159th Avenue. The County records suggested that the status of the irrigation wells is unknown. In 1993 this site was vacant land; now a "Walgreens" store exists in that area.

Attached please see two maps showing underground utilities at the subject site and in the surrounding areas (Figures 7 and 8). The approximate location and direction of offsite underground utilities shown on these maps are based on information/maps provided by Alameda County Public Works and PG&E. The approximate location of onsite utilities was provided by ConocoPhillips.

Based on the data obtained, trench backfill material ranges from native soil to trench sand. The minimum cover above identified utilities in the area was reported to be 2.5 feet. Based on the information obtained, the depths of the utility trenches in the immediate surrounding areas do not exceed 5 feet.

Based on the historical depth to groundwater (between 5.85 ft. and 11.34 ft bgs, but 14-24 ft bgs in 2007) and underground utilities direction and depths (see Figures 7 and 8, attached), it is unlikely that any utility trench extending less than 5 feet bgs would provide a direct conduit for groundwater migration between the site and the surrounding area.

However, stains and spills have been documented at the adjacent site to the eastof the site, including staining from a leaking auto, spills not cleaned up immediately, a spill migrating toward a storm drain inlet, a spill in the driveway not cleaned up, and a spill beneath the waste oil tank was not appropriately addressed. Moreover, it is documented that solvents were used at this adjacent site in 1993 and based on that site history, it appears that solvents have been used at that site for decades. It should be mentioned that a release at a neighboring site could, by lateral transport, dispersion, and dissolution, reach aquifer material in the surrounding areas.

PROPOSED ACTIVITIES

Permitting, Utility Notification, and Borehole Clearance

Before commencing field activities Delta will prepare a Health and Safety Plan in accordance with state and federal requirements for use during on-site assessment activities. Prior to drilling, Underground Service Alert (USA) and a private utility locator will be notified as required to clear the proposed drilling locations for underground utilities.

Soil Borings

Based on previous analytical results, Delta proposes to advance eight soil borings, designated B1 through B8 at those locations shown in Figure 1, utilizing geoprobe drilling equipment.

In 2007, groundwater was encountered at depths ranging from 14 feet bgs to 24 feet bgs during drilling activities. Therefore, each soil boring will be advanced approximately five feet below the first encountered groundwater. Continuous soil samples will be logged using the Unified Soil Classification System (USCS) for lithologic interpretation and field screened for the presence of volatile organic compounds by headspace analysis using a pre-calibrated photo-ionization detector (PID). Soil samples will be collected for analysis at 5 ft bgs and immediately above the soil-groundwater interface (above the capillary fringe). However, any other obviously contaminated soils (as determined in the field by an experienced geologist and by using a PID) will be sampled and analyzed. A grab groundwater sample will be acquired using a clean bailer. All soil and grab groundwater samples collected will be properly labeled and placed on ice and submitted for analysis. A chain-of-custody will accompany the samples during transportation to the laboratory.

Groundwater samples and soil samples collected will be analyzed by a California Department of Public Health (CDPH) certified laboratory for: fuel oxygenates and halogenated volatile organic compounds (HVOC) - including benzene, toluene, ethylbenzene and total xylenes [BTEX]) using Environmental Protection Agency (EPA) Method 8260B, for total petroleum hydrocarbons (TPH) in the gasoline and diesel range (TPH-GRO and TPH-DRO, respectively) and TPH-oil range organics (ORO) using EPA Method 8015B Modified, and for Total: Cadmium, Chromium, Lead, Nickel and Zinc using (TTLC) EPA Method 6010B.

Silica Gel Cleanup

Occasionally, naturally occurring organic material may be detected by the TPHd method.

Polar compounds such as animal and plant fats, proteins, and small biological molecules may be improperly identified as petroleum constituents. The silica gel cleanup will be performed to remove naturally occurring biogenic materials (animal- and vegetable derived hydrocarbons - polar non-petroleum hydrocarbons such as esters and fatty acids) that could potentially generate false positive analytical results for petroleum hydrocarbons.

Therefore, the samples to be analyzed for extractable hydrocarbons will be cleaned by the laboratory using a silica gel column cleanup (U.S. EPA method 3630C)

Although most non-petroleum hydrocarbons can be removed by silica gel treatment, terpenes, which are found in conifers, citrus oils, and eucalyptus are not removed and can cause false positives.

Once the sampling has been completed, the boring will be backfilled the same day to the surface with neat cement.

The sealing material will be a neat cement grout composed of one sack of Portland Type I/II Cement (94 lbs.) to five gallons of clean water or a sand-cement slurry with a minimum of eleven sacks of Portland Type I/II Cement per cubic yard. The sand-cement slurry will be mixed at a batch plant; mixing of sand-cement slurries onsite will not be allowed. If standing water is present or if there is more than a 30 foot length to be sealed, the sealing material will be placed by means of a tremie pipe (maximum diameter of 3 inches) lowered to within 3 feet of the underlying layer of material or bottom of the well. The sealing material will be placed in one continuous operation until the borehole is filled. If a tremie pipe is used, the end of the tremie pipe will remain in place in the sealing material until placement is complete.

Down-hole drilling tools will be decontaminated between borings to avoid cross contamination. The decontamination process will consist of multiple wash and rinse cycles using potable water and a non-phosphate detergent.

Disposal of Drill Cuttings and Wastewater

Drill cuttings and decontamination water generated during the soil boring advancement will be placed into properly labeled 55-gallon Department of Transportation (DOT) approved steel drums and temporarily stored on the property. Samples of the drill cuttings and wastewater will be collected, properly labeled and placed on ice for submittal to a CDPH-certified laboratory and analyzed for TPPH, BTEX, and MTBE by EPA Method 8260B and total lead by EPA Method 6010B. A chain-of-custody will accompany the samples during transportation to the laboratory. Subsequent to receiving the laboratory analytical results, the drummed drill cuttings and wastewater will be profiled, transported, and disposed of at a COP approved facility.

Reporting

Following completion of the field work and receipt of analytical results, a site investigation report will be prepared and submitted within 60 days. The report will present the details of the boring activities and copies of disposal documents. Required electronic submittals will be uploaded to the State Geotracker database.

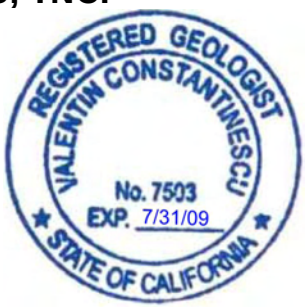
REMARKS / SIGNATURES

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 will be 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 project, please contact me at (916) 503-1265 or Mr. Ted Moise of ConocoPhillips at 510-245-5162.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.



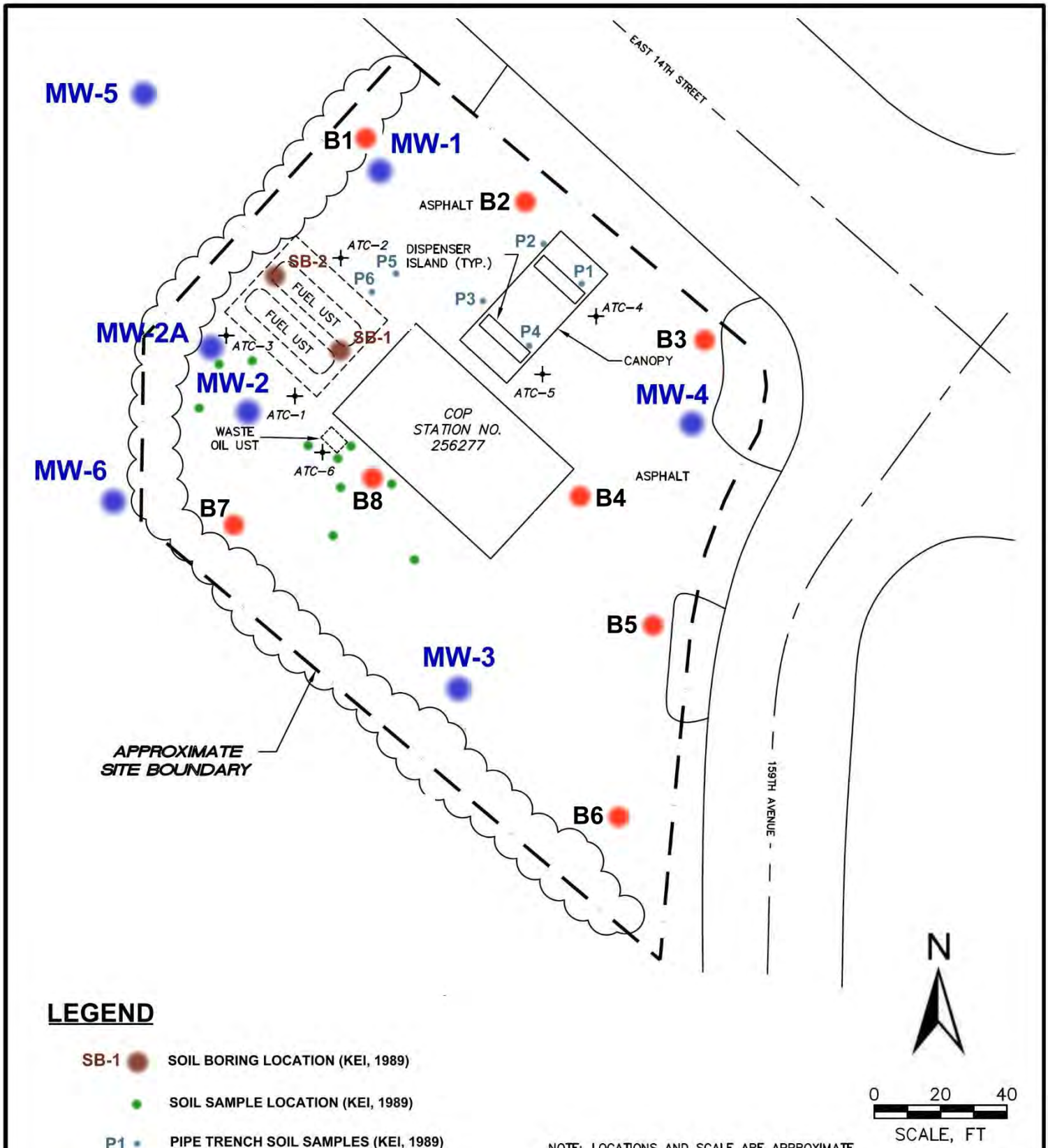
Valentin Constantinescu, P.G., R.E.A.
Senior Project Manager
California-Registered Professional Geologist No. 7503

Attachments:

Figure 1 – Site Map
Figure 2 – Estimated Distribution of PCE in Groundwater – July 1992
Figure 3 - Estimated Distribution of PCE in Groundwater – October 1992
Figure 4 - Estimated Distribution of PCE in Groundwater – January 1993
Figure 5 – Agency Receptor Survey 2008 – Well Data
Figure 6 – Well Survey (source KEI, 1991)
Figure 7 – Preferential Pathway Investigation – Site Area
Figure 8 – Preferential Pathway Investigation – Site and Surroundings
Tables – Lists of Production Wells (source KEI, 1993)
Inspection notes, violations, and photographs at 15900 East 14th Street.

cc: Mr. Ted Moise, ConocoPhillips (electronic copy only)

FIGURES



LEGEND

- SB-1 — SOIL BORING LOCATION (KEI, 1989)
- SOIL SAMPLE LOCATION (KEI, 1989)
- P1 — PIPE TRENCH SOIL SAMPLES (KEI, 1989)
- MW-1 — GROUNDWATER MONITORING WELL (DESTROYED OR ABANDONED)
- ATC-1 — SOIL BORING (ATC, 2007)
- B1 — PROPOSED SOIL BORING LOCATION AND DESIGNATION

BASE MAPS: KEI, 1989 , 2003
ATC AND ASSOCIATES, 2007

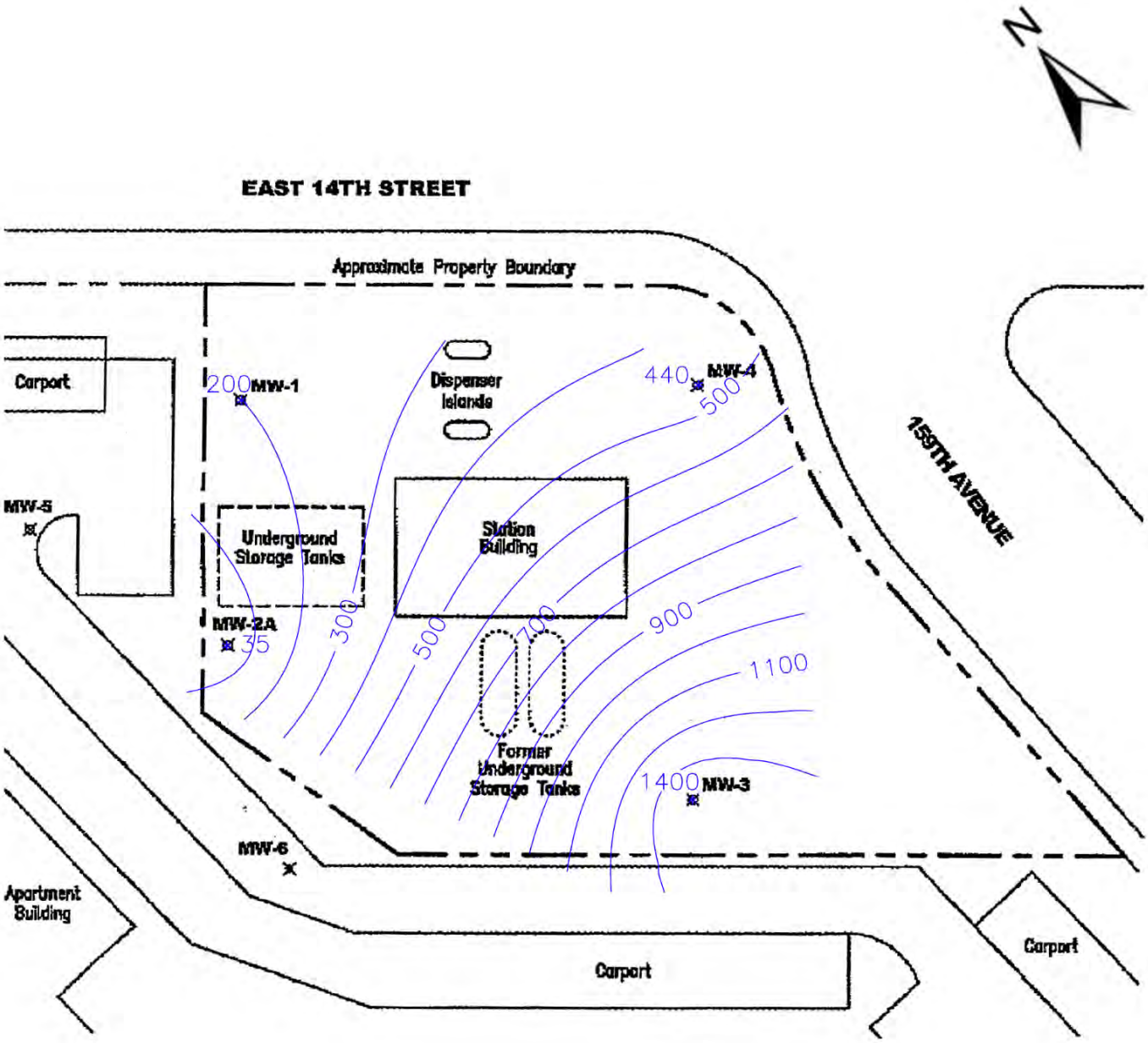
NOTE: LOCATIONS AND SCALE ARE APPROXIMATE

FIGURE 1

PROPOSED SOIL BORING LOCATIONS
CONOCOPHILLIPS SITE NO. 256277
15803 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. 256277	DRAWN BY V.C.
FILE NO. 6277	PREPARED BY V.C.
REVISION NO. 1	REVIEWED BY K.T.

DELTA



NOTE: LOCATIONS AND SCALE ARE APPROXIMATE

LEGEND

MW-1 ⊠ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

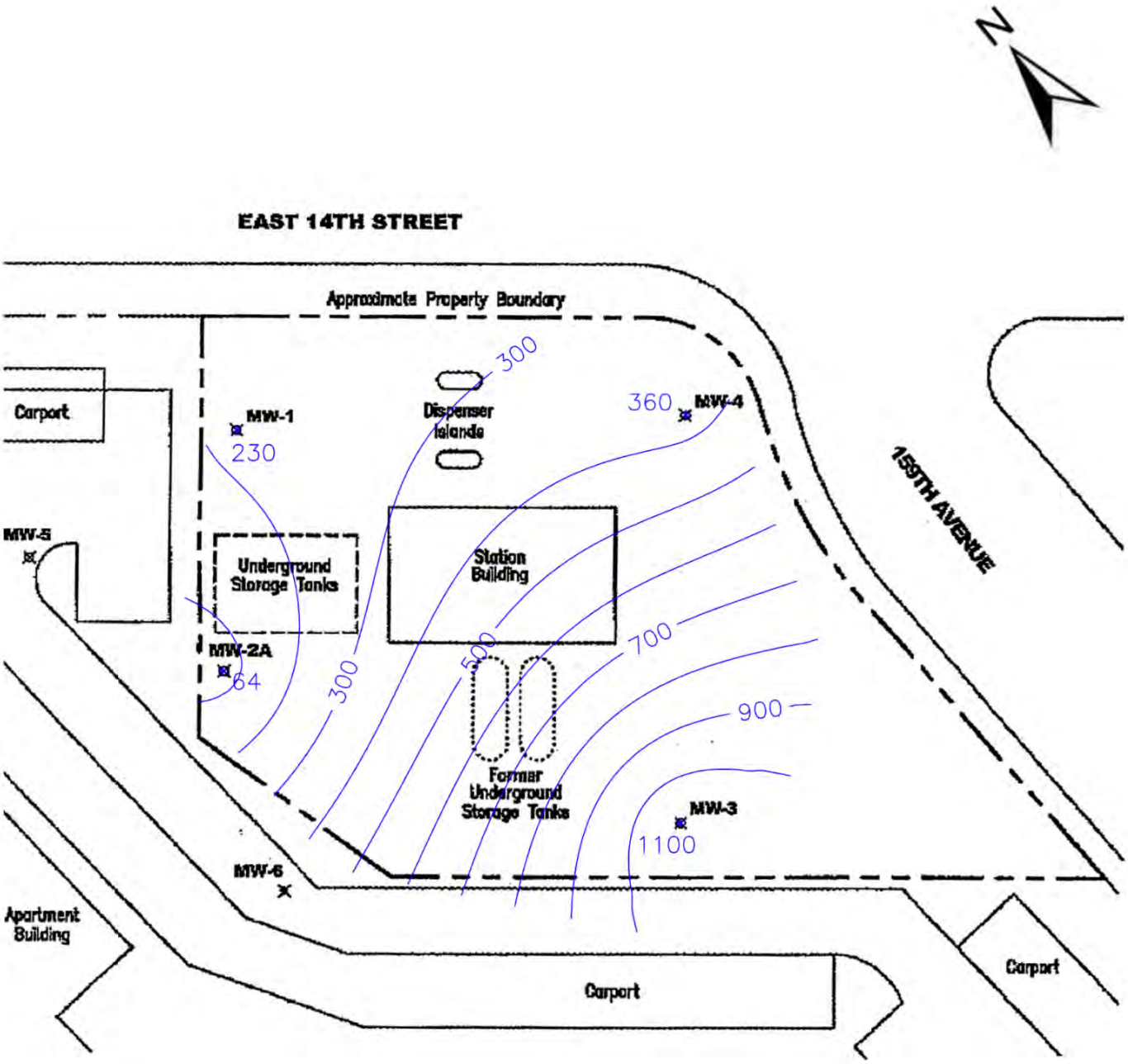
Note: All values in micrograms/liter

NOTE: BASE MAP GETTLER-RYAN, INC - 2003

FIGURE 2
ESTIMATED DISTRIBUTION OF PCE IN GROUNDWATER - JULY 1992
CONOCOPHILLIPS SITE NO. 256277
15803 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. 256277	DRAWN BY V.C.
FILE NO. 6277	PREPARED BY V.C.
REVISION NO. 1	REVIEWED BY K.T.

DELTA



0 40

Scale in Feet

NOTE: LOCATIONS AND SCALE ARE APPROXIMATE

FIGURE 3
ESTIMATED DISTRIBUTION OF PCE IN GROUNDWATER - OCTOBER 1992
CONOCOPHILLIPS SITE NO. 256277
15803 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

LEGEND

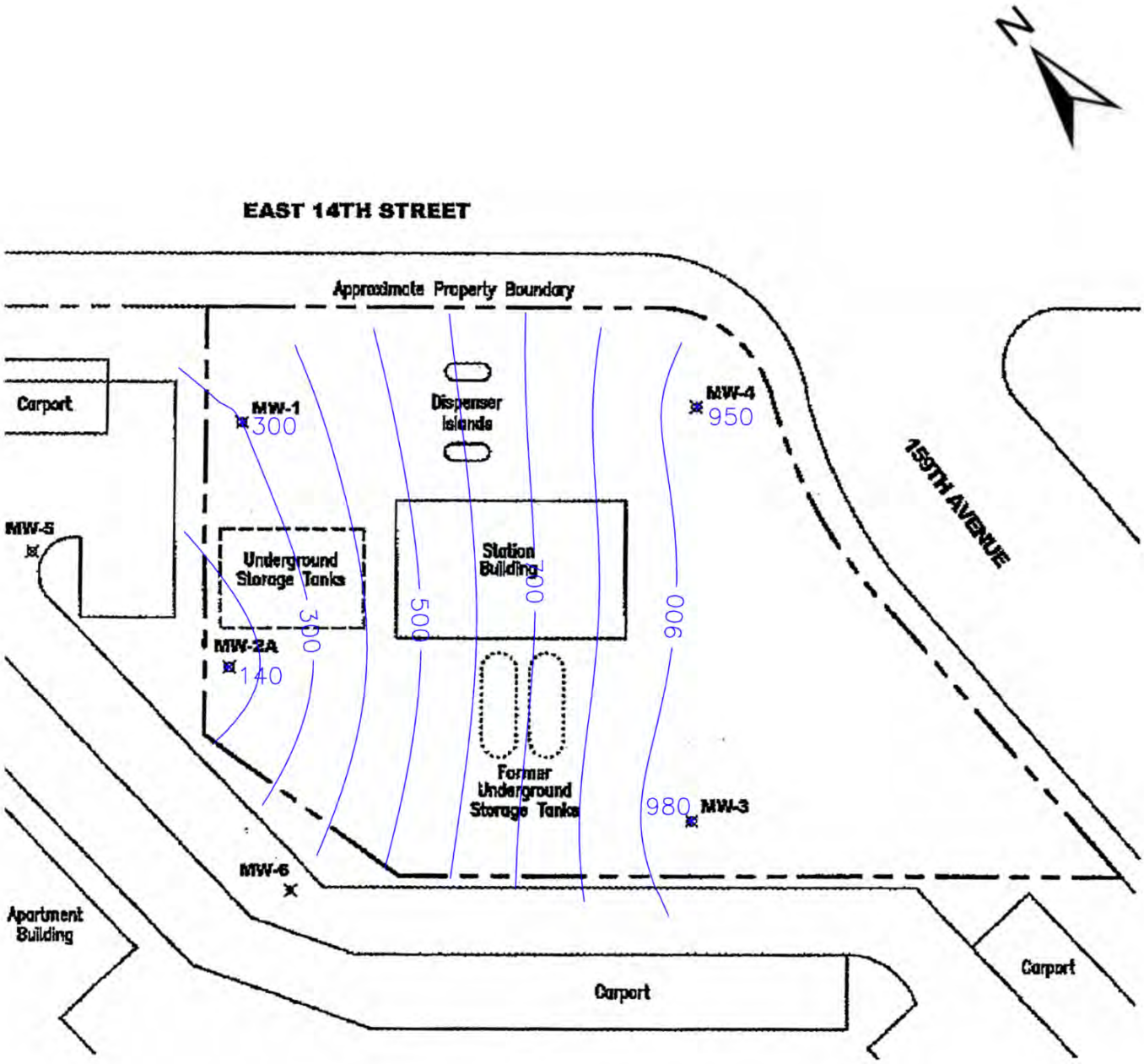
MW-1 ⊠ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

Note: All values in micrograms per liter

NOTE: BASE MAP GETTLER-RYAN, INC - 2003

PROJECT NO. 256277	DRAWN BY V.C.
FILE NO. 6277	PREPARED BY V.C.
REVISION NO. 1	REVIEWED BY K.T.

DELTA



NOTE: LOCATIONS AND SCALE ARE APPROXIMATE

LEGEND

MW-1 ⊠ GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION

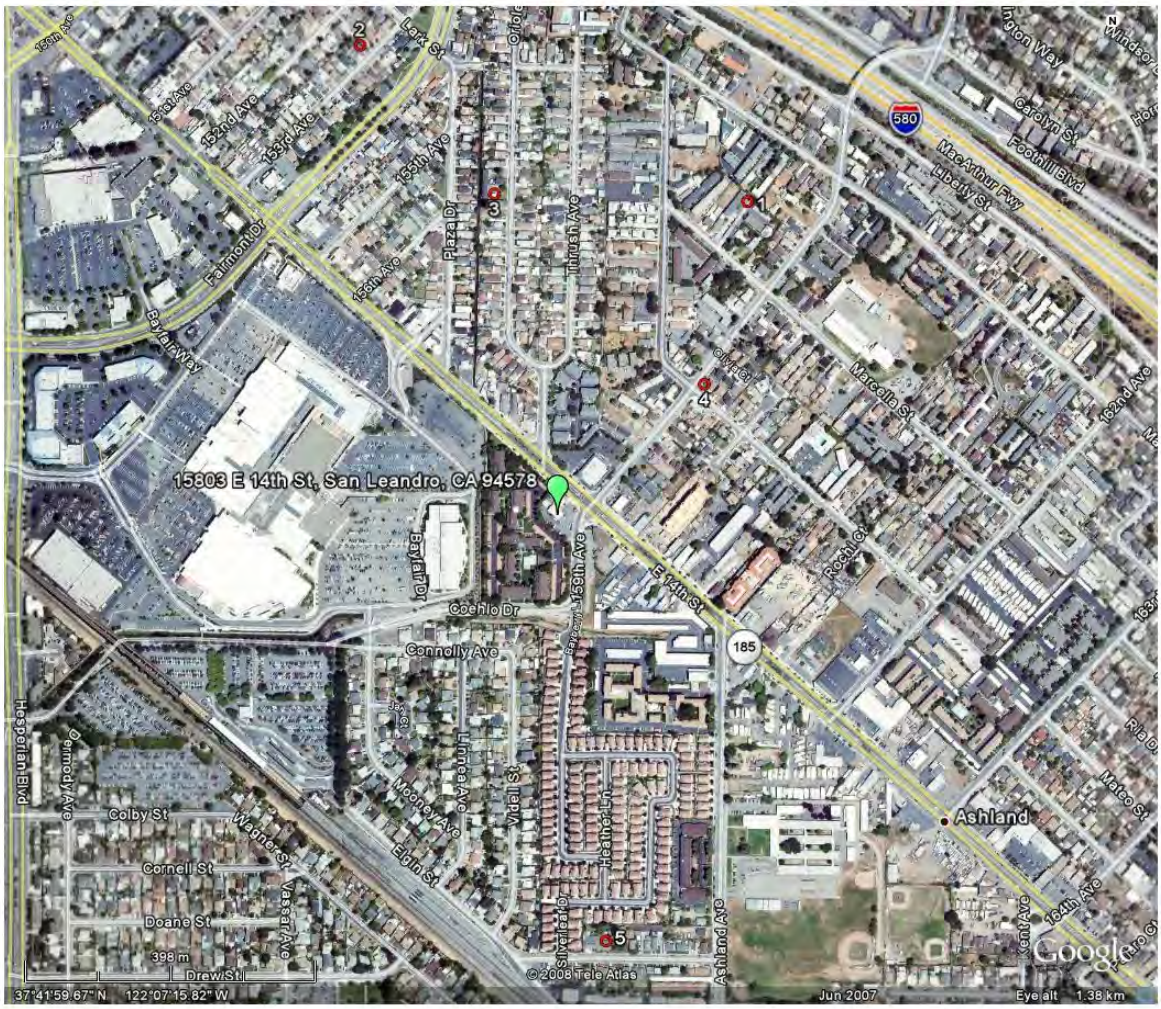
Note: All values in micrograms per liter

NOTE: BASE MAP GETTLER-RYAN, INC - 2003

FIGURE 4
ESTIMATED DISTRIBUTION OF PCE IN GROUNDWATER - JANUARY 1993
CONOCOPHILLIPS SITE NO. 256277
15803 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. 256277	DRAWN BY V.C.
FILE NO. 6277	PREPARED BY V.C.
REVISION NO. 1	REVIEWED BY K.T.

DELTA



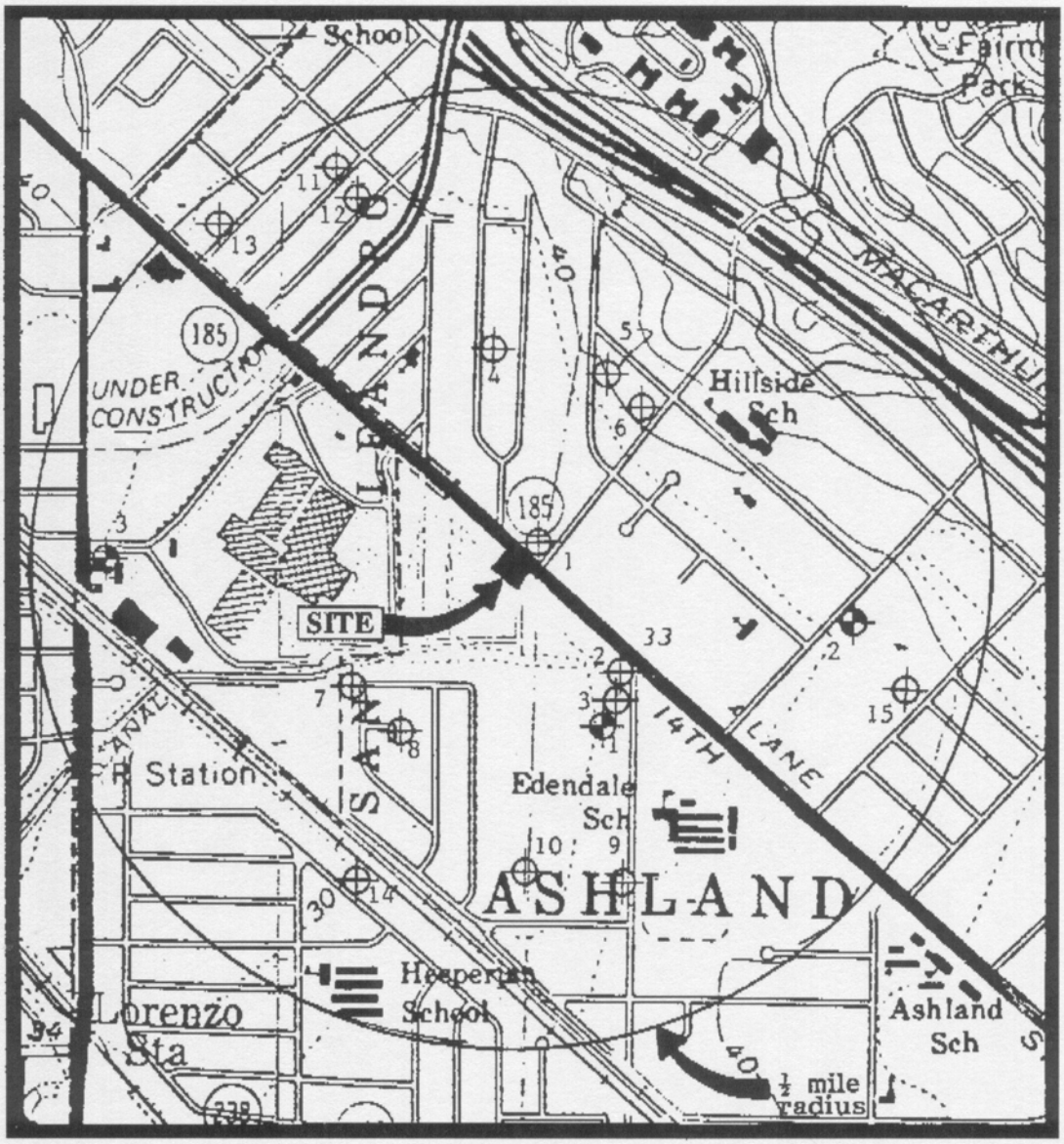
NOTE: LOCATIONS AND SCALE ARE APPROXIMATE

FIGURE 5
AGENCY RECEPTOR SURVEY - 2008
WELL LOCATION MAP
CONOCOPHILLIPS SITE NO. 256277
15803 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. 256277	DRAWN BY V.C.
FILE NO. 6277	PREPARED BY V.C.
REVISION NO. 1	REVIEWED BY K.T.

DELTA

Note: See Tables for well description.



LEGEND

- Approximate well location (located from A.C.F.C.D. data)
- Site with one or more monitoring wells

0 1000 2000

Approx. scale feet

LOCATION MAP FOR WELL SURVEY		
KAPREALIAN ENGINEERING INCORPORATED	UNOCAL SERVICE STATION #6277 15803 EAST 14TH STREET SAN LEANDRO, CALIFORNIA	FIGURE 6

Note: See Tables for well description.

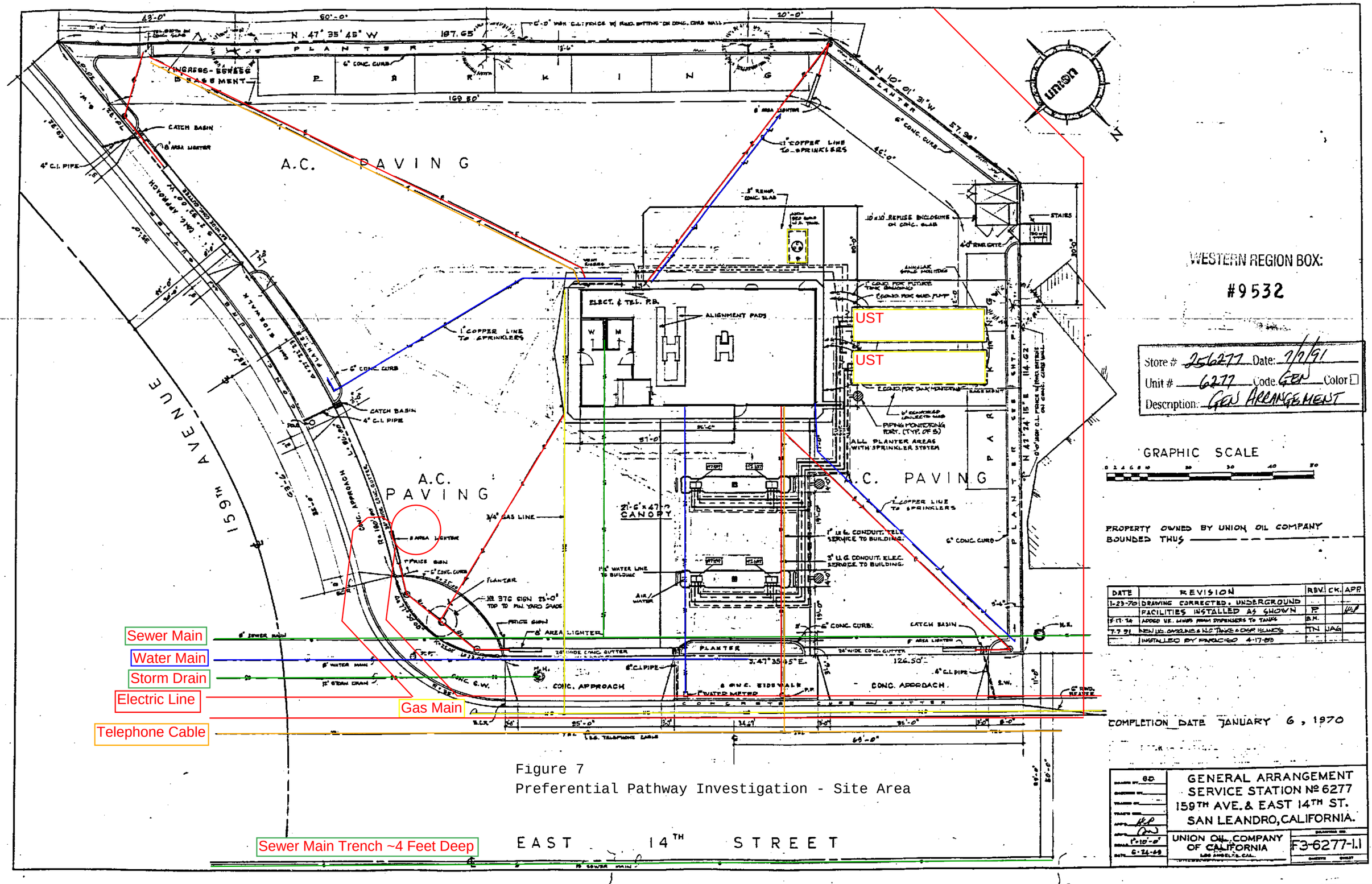


Figure 7
Preferential Pathway Investigation - Site Area

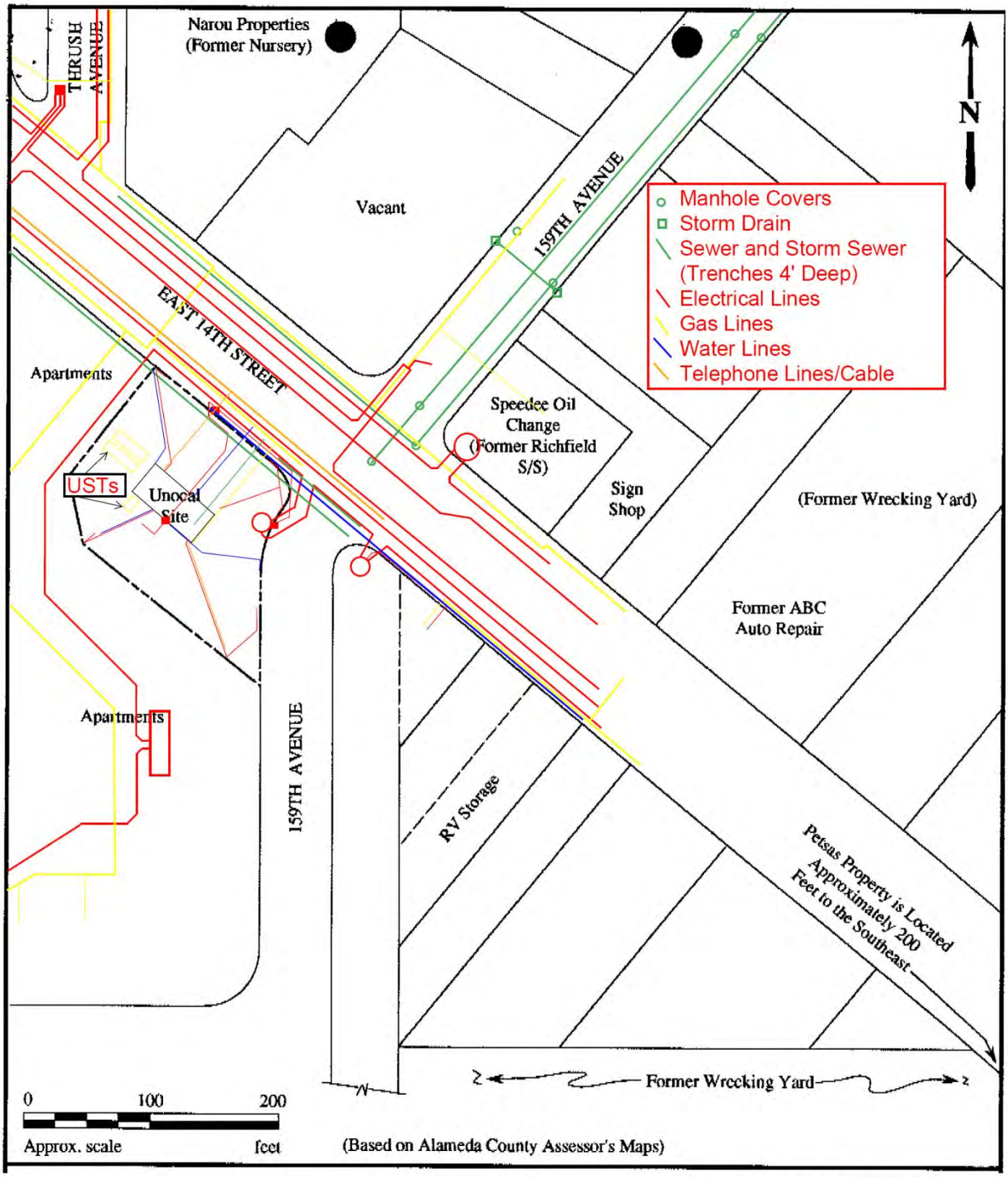


FIGURE 8

PREFERENTIAL PATHWAY INVESTIGATION
SITE AND SURROUNDINGS

CONOCOPHILLIPS SITE NO. 256277
15803 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

PROJECT NO. 256277	DRAWN BY V.C.
FILE NO. 6277	PREPARED BY V.C.
REVISION NO. 1	REVIEWED BY K.T.

DELTA

TABLES

WELL DATA - 1991-1993 AND 2008

KEI-P89-0301.R9
May 10, 1993

TABLE 7

PRODUCTION WELLS LOCATED WITHIN STUDY AREA

Survey No.	State No.	Date Drilled	Owner	Use	Depth (feet)	Location
1	35,2W,6K1	8/49	Lee Dugan	Irrigation	148	Corner of E.14th and 159th Avenue
2	35,2W,6J1	1910	Manuel Rose	Irrigation	52	16053 Ashland Avenue
3	35,2W,6R2	10/47	Okada Brothers, Inc.	Irrigation	440	16109 Ashland Avenue
4	35,2W,6G2	--	Harwood	Irrigation	--	1584 Oriole
5	35,2W,6H2	1927	Magnaini	Abandoned (Not destroyed)	40	1570 Mond Avenue
6	35,2W,6H1	1924	Mary Welsh	Irrigation	32	1575 159th Avenue
7	35,2W,6K2	1957	Walsh	Irrigation	15	877 Mooney Avenue at Connolly
8	35,2W,6Q2	1952	T. D. Sexton	Irrigation	15	825 Jan Court
9	35,2W,6R1	1940	J. Fildelgo	Irrigation	70	16239 Ashland Avenue
10	35,2W,6R4	10/90	Okada Brothers Nursery	Irrigation	304	16100 Bertrero Avenue
11	35,2W,6B1	1957	Allen	Irrigation	40	1571 152nd Avenue

NOTE: SEE WELL LOCATIONS ON FIGURE 6

TABLE 7 (Continued)

PRODUCTION WELLS LOCATED WITHIN STUDY AREA

Survey No.	State No.	Date Drilled	Owner	Use	Depth (feet)	Location
12	35,2W,6B4	--	Paul Fearon	Irrigation	30	1573 153rd Avenue
13	35,2W,6C2	1954	Fredin	Irrigation	25	1479 151st Avenue
14	35,2W,6P2	1958	F. Chimente	Irrigation	20	15508 Wegner Street
15	35,2W,5N3	1939	Namura Nursery	Irrigation	50	1501 163rd Avenue

NOTE: SEE WELL LOCATIONS ON FIGURE 6

KEI-P89-0301.R9
May 10, 1993

TABLE 8

SITES WITH ONE OR MORE MONITORING WELLS WITHIN STUDY AREA

Survey No.	State No.	Owner	Location	Depth to Ground Water at Site (feet)
1	35,2W,6J4-5	Okada Property	16109 Ashland Avenue	5
2	35,2W,5M3-4	Kaufman & Broad	1630 162nd Avenue	14-16
3	35,2W,6E7-11	Shell Oil	15120 Hesperian Boulevard	9-11
	35,2W,6E12-17	Westfield, Inc.	15120 Hesperian Boulevard	9-11

NOTE: SEE WELL LOCATIONS ON FIGURE 6

VIOLATIONS AND INSPECTION NOTES
ADJACENT SITE - 15900 EAST 14TH STREET

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Inspection Form

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Site ID #2992 Site Name SpeeDee Today's Date 4/20/93

Site Address 15900 E 14th St

City San Leandro Zip 94578 Phone 276-3886

____ MAX AMT stored > 500 lbs, 55 gal., 200 cft.? → San Leandro HMMP juris.

Inspection Categories:
- ✓ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- ___ II. Business Plans, Acute Hazardous Materials
- ___ III. Underground Tanks

• Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

II.A BUSINESS PLANS (Title 19)

___	1. Immediate Reporting	2703
___	2. Bus. Plan Stds.	25503(b)
___	3. RR Cars > 30 days	25503.7
___	4. Inventory Information	25504(a)
___	5. Inventory Complete	2730
___	6. Emergency Response	25504(b)
___	7. Training	25504(c)
___	8. Deficiency	25505(a)
___	9. Modification	25505(b)

II.B ACUTELY HAZ. MAT'LS

___	10. Registration Form Filed	25533(a)
___	11. Form Complete	25533(b)
___	12. RMPP Contents	25534(c)
___	13. Implement Sch. Req'd? (Y/N)	___
___	14. OffSite Conseq. Assess.	25524(c)
___	15. Probable Risk Assessment	25534(d)
___	16. Persons Responsible	25534(g)
___	17. Certification	25534(f)
___	18. Exemption Request? (Y/N)	25536(b)
___	19. Trade Secret Requested?	25538

III. UNDERGROUND TANKS (Title 23)

General

___	1. Permit Application	25284 (H&S)
___	2. Pipeline Leak Detection	25292 (H&S)
___	3. Records Maintenance	2712
___	4. Release Report	2651
___	5. Closure Plans	2670

Monitoring for Existing Tanks

___ 6. Method
1) Monthly Test
2) Daily Vadose
Semi-annual gndwater
One time soils
3) Daily Vadose
One time soils
Annual tank test
4) Monthly Gndwater
One time soils
5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
6) Daily Inventory
Annual tank testing
Cont pipe leak det
7) Weekly Tank Gauge
Annual tank tsting
8) Annual Tank Testing
Daily Inventory
9) Other _____

___	7. Precis Tank Test Date: _____	2643
___	8. Inventory Rec.	2644
___	9. Soil Testing.	2646
___	10. Ground Water.	2647

New Tanks

___	11. Monitor Plan	2632
___	12. Access. Secure	2634
___	13. Plans Submit Date: _____	2711
___	14. As Built Date: _____	2635

Rev 6/88

Comments:

- Crushed oil filters drained for 1-2 days - stored in 3 55-gal drums by dumpster - covered, fenced area. Picked up by Filco ✓

- Antifreeze drum (55gal) sub level - Waste label Picked up by Antifreeze Envir Srvc Mostly Recycled on site.

- 3 ~400 gall holding tanks used oil (above gnd). Pumped Regularly by PRC Patterson ✓

Rag service by Aratex

Floors of top & sub layer clean. Dumpster lid opened w/ greasy rags & greasy gaskets on top

Solvents - by Safety Kleen each 8 wks

Filtered & put back in car radiator.

II, III

Contact: Ratten Vohra

Title: OWNER

Signature: R.K.Vohra

Inspector: Melanie K. Kilian / Paul Smith ✓

Signature: Melanie F. Kilian

ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH
Certified Unified Program Agency (CUPA)

INSPECTION REPORT SUMMARY / SUMMARY OF VIOLATIONS
NARRATIVE

Facility Name: City Auto Service
Facility Address: 15960 E. 14th St., San Leandro

This business started in this location in Jan. 2007.
The business owner, Leonel Barcenas was present during this inspection. Used oil is stored in 3- 500 gal above ground tanks. General housekeeping needs to ~~be~~ improve. Clean up spills immediately and dispose of properly empty containers. One above ground tank storing transmission fluid and six for motor oil.
Summary of Violations:

1) Illegal disposal of hazardous waste - Waste absorbant used to clean up a used oil spill cannot be disposed of into the dumpster. It is a hazardous waste, and must be disposed of as such.

2) Hazardous Materials Business Plan has not been submitted to Environmental Health - Complete the Business Plan application given to you today and return to Environmental Health by 10/8/07. The following must be included on your plan: used oil (1,500 gal), transmission fluid (110 gal) and motor oil (3,860 gal).

3) Spills not cleaned up immediately - clean spills immediately after it is discovered.

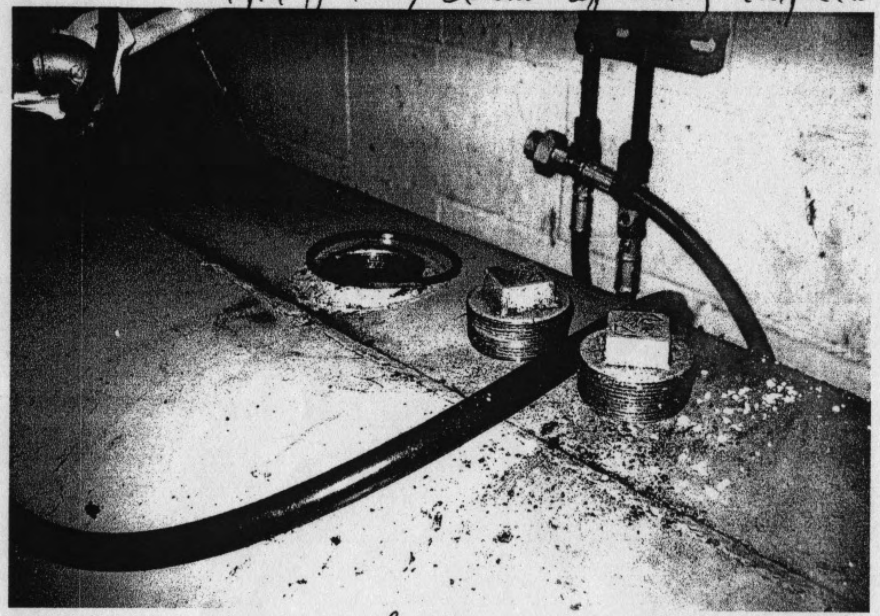
4) Employee training not documented - document employee training.

5) Used oil tank logs and labels not filled out - close tank and fill out Hazardous Waste label.

Date of Inspection	Inspector	Signature of Facility Representative
9-7-07	Carry Seto	

City Auto Service
15900 E. 14th St.
San Leandro 9-07-07 L.S.

Spill partially cleaned up during inspection

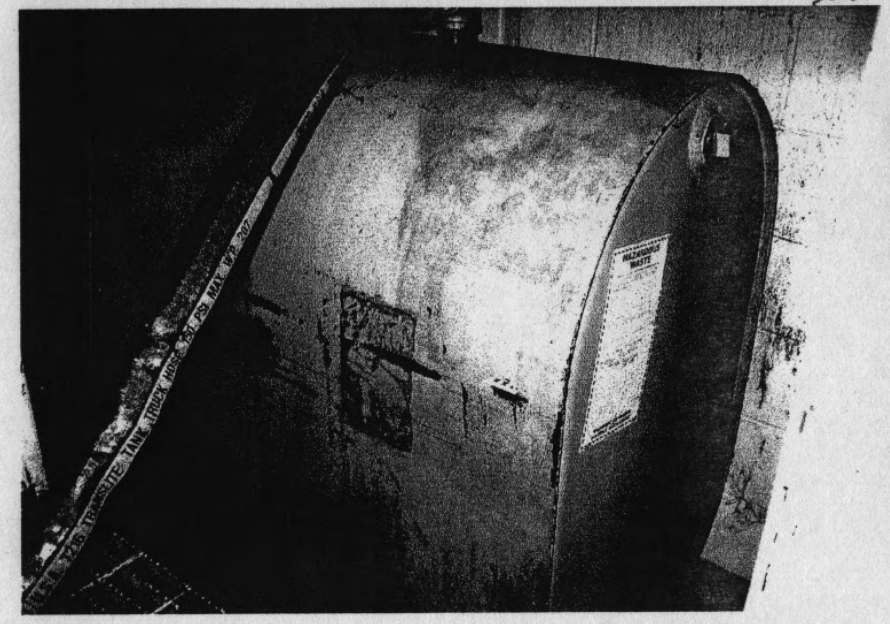


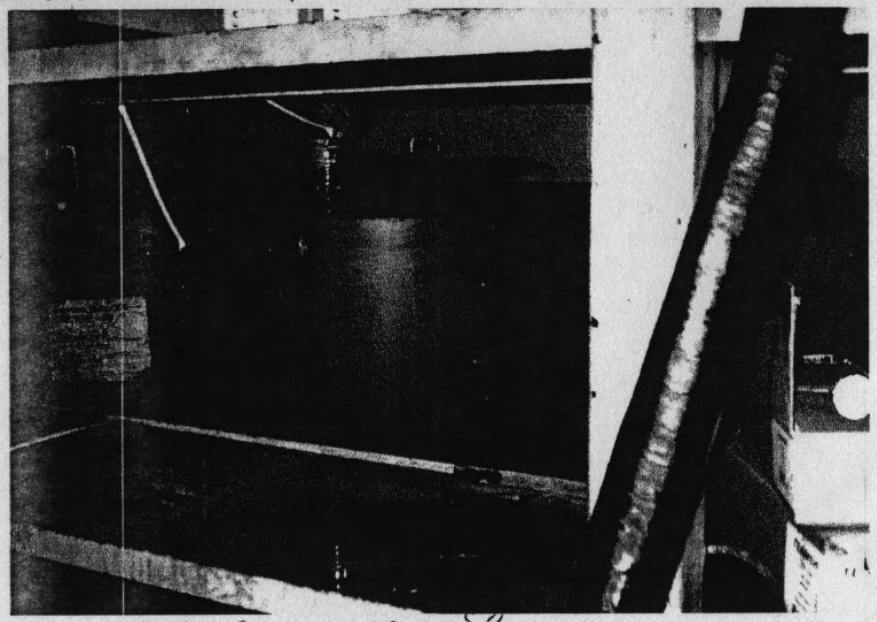
open used oil tank

Spill migrating towards storm drain inlet

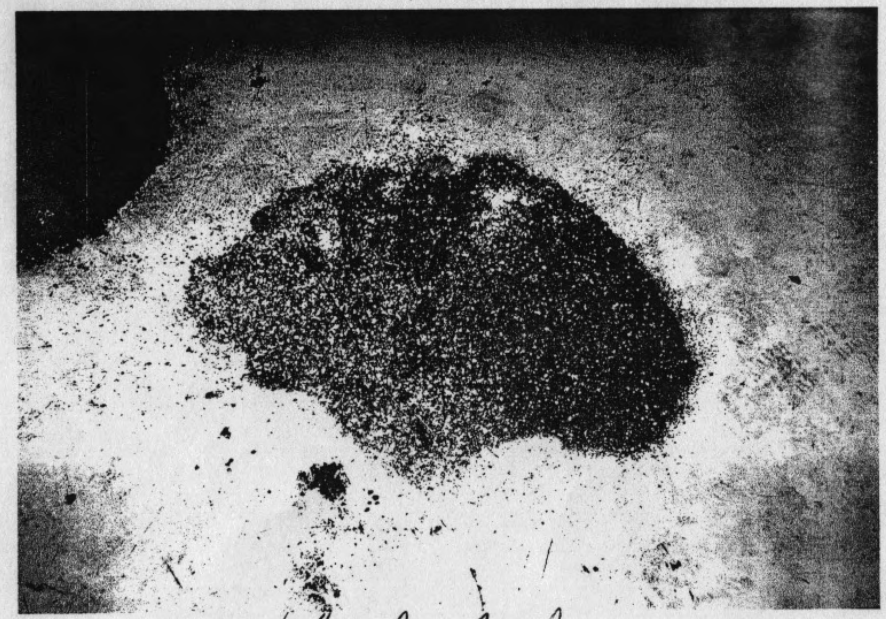
City Auto Service
15900 E. 14th St.
San Leandro

9-7-07 C.S.

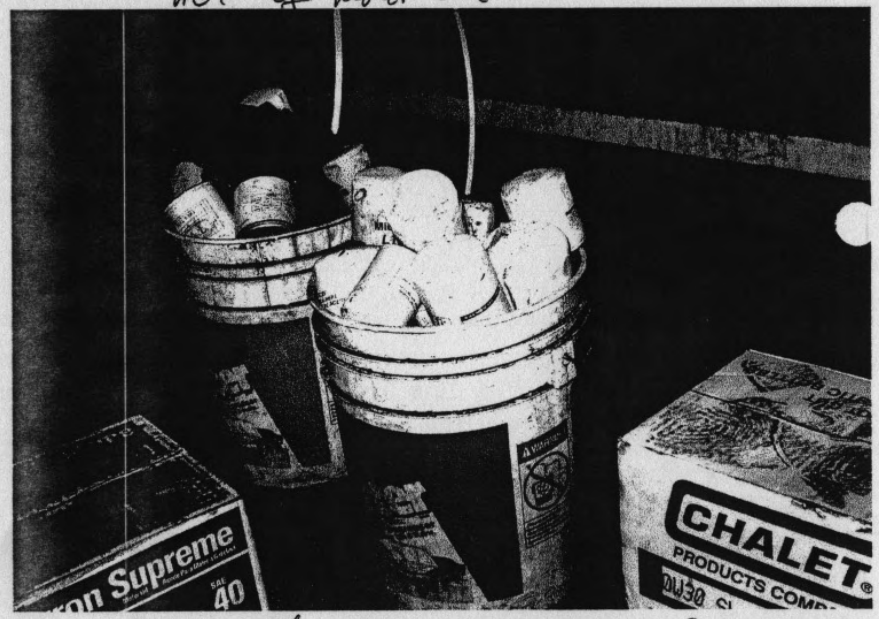




AST of used oil



Spilled not cleaned up



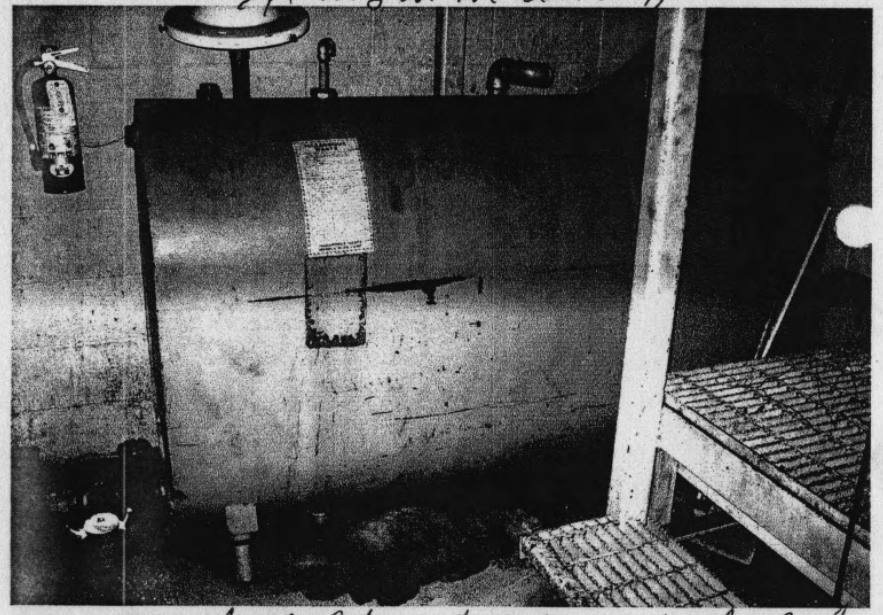
oil filters not properly stored

City Auto Service
15900 E. 14th St.
San Leandro

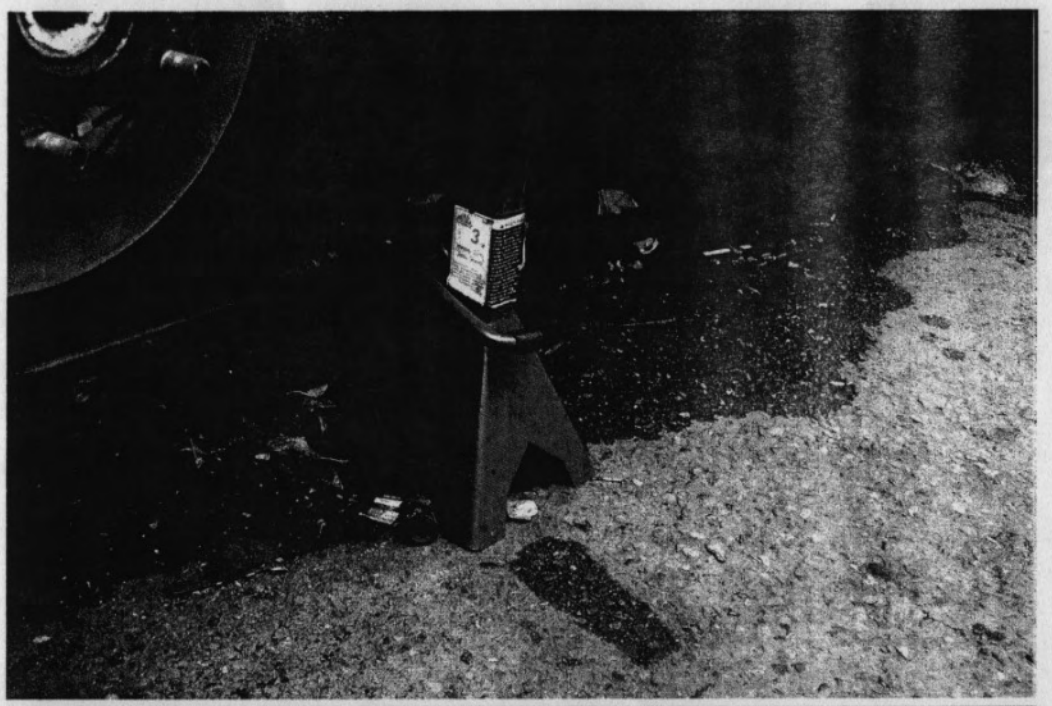
9-7-07 C.S.

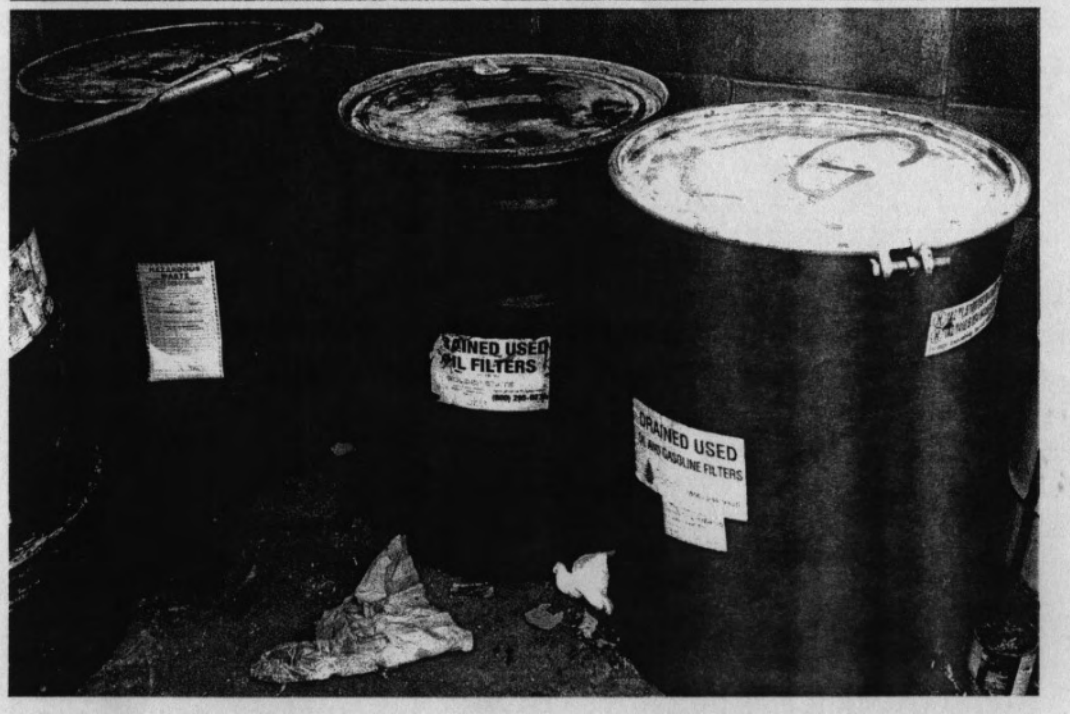
Spill in driveway not cleaned up

Spill on floor not cleaned up



Used oil tank, spill below tank not cleaned up





City Auto Service 6-3-08
oil staining from leaking
auto - cleaned up during inspection

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

August 13, 2008 7006 3450 0000 0503 2582

Certified Mailer Number:

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

Mr. Leonel Barcenas
15900 E. 14th St.
San Leandro, CA 94578

Final Notice

Notice of Failure to Return to Compliance

Re: City Auto Service, 15900 E. 14th St., San Leandro, CA 94578

Prior Notices: April 28, 2008, June 24, 2008

Prior Due Dates: May 28, 2008, July 24, 2008
Final Due Date: September 13, 2008

Dear Mr. Barcenas:

Past Due Return to Compliance Verification:
You are hereby advised that Alameda County Department of Environmental Health (ACDEH) has not received your proof of compliance to noted violations of hazardous materials and hazardous waste laws and/or regulations. Your proof of compliance was due to our office on June 19, 2008.

Final Deadline:
You have been granted a **final 30 day extension** to satisfy your hazardous materials/waste submittal requirements. **Your final due date is September 13, 2008.** Failure to submit your hazardous materials/waste compliance documentation will result in enforcement action and penalty assessment against your business.

Penalty For Non-compliance:
If you fail to submit your hazardous materials/waste compliance documentation, you will be:

- **subject to administrative civil penalties of up to $25,000/day for each day you are delinquent.**

Authority: California Health and Safety Code 6.5, Section 25187.8 (g)

Please contact me at (510) 567-6780 or Barney Chan at (510) 567-6765 if you have any questions.

Sincerely,

Susan Hugo
Supervising Hazardous Materials Specialist

cc: Ariu Levi, DEH Director
Barney Chan, Senior HMS -CUPA Enforcement
Ken Mifsud, Alameda County District Attorney Office
file