



Chevron U.S.A. Products Company

2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address PO Box 5004, San Ramon, CA 94583-0804

90 MAR 10 11 07 AM '93

March 8, 1993

Ms. Eva Chu
Alameda County Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re : Former Chevron Service Station No. 9-2621
7667 Amador Valley Blvd., Dublin, CA 94568

Dear Ms. Chu :

Enclosed is a work plan dated March 4, 1993 from Pacific Environmental Group, Inc. This work plan discusses the installation of four temporary monitoring wells at the above referenced site.

Please review and approve the enclosed work plan.

If you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

Kenneth Kan
Engineer

LKAN
MacFile 9-2621R1

Enclosure

cc : Mr. Richard Hiatt
RWQCB-S.F.Bay Region
2101 Webster Street, Suite 500
Oakland, CA 94612

Mr. Jerry Lemm
J. L. Lemm & Associates
5506 Sunol Blvd., Suite 203
Pleasanton, CA 94566-7779

Mr. Bill Scudder
Chevron U.S.A. Products Co.



PACIFIC
ENVIRONMENTAL
GROUP, INC.

March 4, 1993
Project 325-35.01

Mr. Kenneth Kan
Chevron U.S.A. Products Company
P.O. Box 5004
San Ramon, California 94583-0804

Re: Former Chevron Service Station
7667 Amador Valley Boulevard
Dublin, California

Dear Mr. Kan:

This letter presents a brief work plan prepared by Pacific Environmental Group, Inc. (PACIFIC) to investigate groundwater conditions beneath the site referenced above. The purpose of this investigation is to assess the extent to which groundwater beneath the site has been impacted by hydrocarbons. The proposed scope of work consists primarily of collection of groundwater samples at five on-site locations. Included in this letter is a brief discussion of site conditions, the proposed scope of work, and a time schedule. Field and analytical procedures are documented in Attachment A.

SITE BACKGROUND

The site is located on the northwest corner of Amador Valley Boulevard and Starward Drive in Dublin, California. Land use in the area is predominantly commercial to the south, west, and east of the site, and residential to the north of the site. A Chevron service station occupied the site from approximately 1960 to 1975. The underground fuel storage tanks were removed from the site in 1976. At the time of their removal there were no apparent leaks in the tanks, however, about 15 to 20 gallons of liquid spilled from the tanks into the tank excavation.

The liquid was removed from the excavation. The site is currently occupied by an optometry clinic.

Four exploratory borings (B-1 through B-4) were drilled and soil samples were collected and analyzed by RESNA Industries on October 15, 1992 (Figure 1). Depth to groundwater has ranged from approximately 9.04 to 9.46 feet below ground surface with groundwater flow to the east-southeast at a nearby Unocal Station at 7375 Amador Valley Boulevard.

Soil samples collected from the borings detected total petroleum hydrocarbons calculated as gasoline (TPH-g) in sample numbers B1-2 and B4-2 at concentrations of 11 parts per million (ppm) and 65 ppm, respectively. These samples also contained detectable levels of toluene, ethyl-benzene, total xylenes, and total petroleum hydrocarbons calculated as diesel (TPH-d). Benzene was detected in sample B1-2 at 0.018 ppm.

SCOPE OF WORK

In order to investigate the extent of impact to the groundwater beneath the site, PACIFIC proposes the following scope of work: (1) installation of five temporary groundwater monitoring wells, (2) collection and analysis of a groundwater sample from each temporary well, and (3) preparation of a report documenting the findings of the field work.

Drilling and Temporary Well Installation

The locations of the proposed wells are shown on Figure 1 and are discussed below:

- o Two temporary wells will be drilled near the northern site boundary adjacent to Starward Drive. One of these wells will be drilled next to the sidewalk on the corner of Amador Valley Boulevard and Starward Drive, while the other will be installed in the driveway that opens onto Starward Drive. These wells are designed to monitor groundwater down and across gradient from the location of the former tank complex.
- o One temporary well will be drilled near the location of the former waste oil tank. This well will monitor the groundwater

downgradient of the former waste oil tank and upgradient of the former tank complex.

- o Two additional temporary wells will be drilled on site near the site boundary along Amador Valley Boulevard next to the sidewalk. One of these wells will be drilled near the driveway to monitor the groundwater downgradient of the former tank complex and the former product islands. The other well will be installed near the southernmost corner of the site across gradient from both the former tank complex and the former product islands.

All proposed locations are approximate and may be modified based upon encroachment agreement conditions and overhead and underground utility clearance.

Groundwater Sampling

Groundwater samples will be collected from each temporary well and will be analyzed for TPH-g, TPH-d, and benzene, toluene, ethylbenzene, and xylenes (BTEX compounds).

Reporting

A letter report will be prepared documenting the field and laboratory procedures and findings of the proposed investigation.

TIME SCHEDULE

Field work will commence after well permits have been obtained from the Alameda County Water district. Field work will be scheduled within 2 weeks of obtaining the permits. A report documenting the findings of this investigation will be submitted 4 to 6 weeks after the completion of field work. The Alameda County Health Department will be notified prior to initiating field activities.

March 4, 1993

Page 4

If you have any questions please do not hesitate to call.

Sincerely,

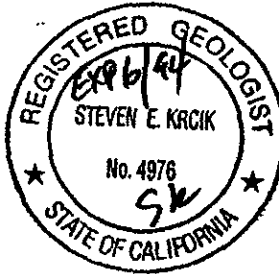
Pacific Environmental Group, Inc.

Charles Melancon / SK

Charles Melancon
Staff Geologist

Steve Krcik

Steve Krcik
Project Geologist
RG 4976



Attachments: Figure 1 - Proposed Well location Map
Attachment A - Field and Analytical Procedures



STARWARD DRIVE

SIDEWALK

APPROACH

LEGEND

- B-1 ● SOIL BORING LOCATION AND DESIGNATION
- B-4 ● → ANGLE BORING LOCATION AND DESIGNATION
- ⊕ PROPOSED TEMPORARY WELL LOCATION

FORMER WASTE OIL TANK

B-3

Handwritten note: Will analyze soil at existing tanks and soil provides for oil tank

EXISTING CLINIC

FORMER UNDERGROUND FUEL STORAGE TANKS

B-4

FORMER STATION BUILDING

APPROACH

B-2

B-1

FORMER PRODUCT ISLANDS

AMADOR VALLEY BOULEVARD

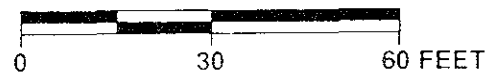
SIDEWALK

APPROXIMATE DIRECTION OF REGIONAL GROUNDWATER FLOW



PACIFIC ENVIRONMENTAL GROUP, INC.

SCALE



FORMER CHEVRON SERVICE STATION
7667 Amador Valley Boulevard at Starward Drive
Dublin, California

SITE MAP

FIGURE 1
PROJECT 325-35 01

ATTACHMENT A
FIELD AND ANALYTICAL PROCEDURES

ATTACHMENT A

FIELD AND ANALYTICAL PROCEDURES

Drilling and Well Construction Procedures

The soil boring for the temporary monitoring well will be drilled using 2-inch diameter hydraulically driven equipment and will be logged by a PACIFIC geologist using the Unified Soil Classification System and standard geologic techniques. Soil samples for logging and possible chemical analysis will be collected continuously, as part of the drilling process, by advancing a sampler with brass liners into undisturbed soil. Soil samples selected for possible chemical analysis will be retained in the brass liners, capped with Teflon and plastic end caps, and sealed in clean zip lock bags. These samples will be placed on ice for transport to the laboratory, accompanied by chain-of-custody documentation. All down-hole drilling and sampling equipment will be steam-cleaned following the completion of the soil boring. Down-hole sampling equipment removed from the boring will be washed in a TSP solution between samples.

The soil borings will be converted to temporary groundwater monitoring wells by the installation of 1 1/2-inch diameter, PVC casing with 0.020-inch factory slotted screen. Approximately 5 to 10 feet of screen will be placed in the upper portion of the first encountered water-bearing zone in each borehole, anticipated to be at a depth of approximately 15 feet. Boreholes are anticipated to be advanced to a total depth of approximately 20 feet. The drive casing will be removed from the water-bearing zone prior to sampling to allow horizontal flow of groundwater in to the temporary casing. Upon completion of sampling the temporary casing, will be removed and the borehole grouted from the bottom to the surface.

Organic Vapor Analysis Procedures

Soil samples collected in the field will be analyzed using a HNU Model PI 101 photo-ionization detector (or equivalent) with a 10.2 eV lamp. The test procedure involves measuring approximately 30 grams from an undisturbed soil sample, placing this sub-sample in a clean glass jar, and sealing the jar with aluminum foil secured under a ring-type threaded lid. The jar is warmed for approximately 20 minutes, then the foil is

pierced and the head-space within the jar tested for total organic vapor, measured in parts per million as benzene (ppm; volume/volume). The instrument will be previously calibrated using a 100 ppm isobutylene standard (in air) and a sensitivity factor of 0.55 which relates the photo-ionization sensitivity of benzene to the sensitivity of isobutylene. The results of these tests will be recorded on the boring logs.

Groundwater Sampling Procedures

The sampling procedure consist of first measuring the water level in the boring with an electronic water-level indicator, and checking the boring for the presence of separate-phase hydrocarbons using a clear Teflon bailer. If the recharge rate is high, the well will be purged of approximately four casing volumes of water using a bailer during which time temperature, pH, and electrical conductivity will be monitored to indicate that a representative sample is obtained. After purging, the water level in the well will be allowed to restabilize. A groundwater sample will then be collected using a Teflon bailer, placed into appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to the laboratory. All well development and purge water will be stored on site in DOT approved 55-gallon drums pending disposal.

Laboratory Analysis Procedures

The groundwater samples and selected soil samples will be analyzed for total petroleum hydrocarbons calculated as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and xylenes (BTEX compounds) by EPA Methods 5030/8015/8020. The samples will be examined using the purge and trap technique, with final detection by gas chromatography. The analysis will be performed by a state-certified laboratory.