Xtra Oil Company
2307 Pacific Avenue, Alameda, CA 94501
Tel (510) 865-9503, Fax (510) 865-1889

ALCO HAZMAT
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December 20, 1993

Mr. Scott Seary
Hazardous Materials Program
Department of Environmental Health
80 Swan Way, Room 200
Oakland, Ca. 94621

Regarding: 3495 Castro Valley Blvd. Castro Valley

Dear Mr. Seary,

Please find enclosed a workplan form P&D Environmental for offsite investigation in the vicinity of the subject site. If your have any questions, please call me at your convenience.

Sincerely,

Keith Simas

P & D ENVIRONMENTAL
300 Monte Vista, #101
Oakland, CA 94611
Telephone (510) 658-6916

December 10, 1993
Workplan 0014.W1

Mr. Scott Seery
Alameda County Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

SUBJECT: OFFSITE GROUNDWATER QUALITY INVESTIGATION WORKPLAN
XTRA OIL Company
3495 Castro Valley Blvd.
Castro Valley, CA

Dear Mr. Seery:

P&D Environmental (P&D) is pleased to present this workplan for offsite groundwater quality investigation in the vicinity of the subject site. To achieve this objective, P&D proposes to collect groundwater grab samples by driving temporary probes into the ground and collecting groundwater samples from the temporary probes. A Site Vicinity Map showing the proposed groundwater grab sample collection locations is attached with this workplan as Figure 1.

P&D proposes to perform the following tasks.

- Provide a rationale for the groundwater grab sample collection locations.
- Obtain offsite property access from XTRA OIL Company; obtain permits from the Alameda Water Agency, Zone 7; notify Underground Service Alert; and prepare a health and safety plan.
- Collection of groundwater grab samples from offsite locations.
- Arrange for laboratory analysis of the groundwater grab samples for Total Petroleum Hydrocarbons as Gasoline (TPH-G); Benzene, Toluene, Ethylbenzene and Xylenes (BTEX); and for Total Petroleum Hydrocarbons as Diesel (TPH-D).
- Report preparation documenting the results of the file review, sample collection procedures and the laboratory analytical results.

Each of these is discussed below in detail.

Sample Collection Location Rationale

File reviews were performed at the Alameda County Department of Environmental Health (ACDEH) offices on October 4, 1993 for the subject site; the trans-gradient Chevron station located on the south side of Castro Valley Boulevard located to the west of the subject site; the upgradient Unocal station located to the north of the subject site on the west side of Redwood Road; the upgradient Safeway property located directly to the north of the subject site and directly to the south of the Unocal station at the intersection of Redwood Road and Castro Valley Boulevard, on the west side of Redwood Road; and of the trans-gradient BP station located across Redwood Road, to the east of the subject site. A discussion of the findings of the file reviews is provided below.

Subject Site

Three groundwater monitoring wells are located at the subject site. Review of the boring logs for the wells indicates that the site is underlain by silt, clay and silty clay or clayey silt materials. Since 1990, groundwater has been

historically measured in the monitoring wells at depths ranging from 8.5 to 10.5 feet. Groundwater flow direction has historically been predominantly between the east-northeast and the southeast at the site. Total Petroleum Hydrocarbons as Gasoline (TPH-G); Benzene, Toluene, Ethylbenzene and Xylenes (BTEX); and Total Petroleum Hydrocarbons as Diesel (TPH-D) have been historically detected in all of the monitoring wells.

Chevron Site

Review of the Chevron site file for 3369 Castro Valley Boulevard revealed one Subsurface Environmental Investigation report prepared by RESNA, Inc., dated December 16, 1992; one June 5, 1993 Tank/Line Removal and Over-Excavation Report prepared by Touchstone Developments; and one letter dated June 29, 1993 from the ACDEH addressed to Mr. Kenneth Kan at Chevron.

The RESNA, Inc. December 16, 1992 report states that unconsolidated sediments beneath the site consist primarily of silty clay and clay, and that groundwater was encountered at 11 to 12 feet below grade. The Touchstone Developments June 5, 1993 report documents the removal of approximately 7,500 cubic yards of soil to depths of 11 to 15 feet from the site and the remaining presence of TPH-G concentrations in soil ranging up to 990 parts per million.

The June 29, 1993 letter from the ACDEH addressed to Chevron states that, "Brown, free-phase product and product "sheen" was observed on groundwater encountered where the former generation UST pit was exposed."

Unocal Site

Review of the Unocal site file for 20405 Redwood Road revealed numerous reports documenting subsurface investigation and quarterly monitoring and sampling of monitoring wells. Review of the most recent quarterly monitoring and sampling report dated July 1993 prepared by BSK & Associates indicated that groundwater is encountered at depths of 10 to 12 feet and that flow direction has been to the southwest since December 1989. However, the report states that, "seasonal precipitation appears to result in more southerly flow, a flatter gradient, and 1 to 2 feet higher water levels in early spring."

Chlorinated solvents were encountered in one of the monitoring wells downgradient of the site. The solvents were attributed to a dry cleaner located directly between the Unocal Site and the Safeway site which is located directly to the south of the Unocal site. The further characterization of the contaminant plume is recommended in the report.

Safeway Property

Review of the Safeway property file revealed a Phase I Environmental Site Assessment performed by ERM-West, Inc. dated December 1, 1991 for the Safeway property, and several letters from attorneys for the Safeway and adjacent properties. In a letter addressed to the ACDEH from Pillsbury, Madison & Sutro dated February 22, 1993 the results of the Phase I Environmental Site Assessment are discussed. In part, the letter states that, "In 1991, Safeway performed a Phase I environmental investigation of its property. Based on this assessment, it is apparent that neither present nor past uses of the property could have resulted in hydrocarbon or chlorinated solvent releases. Safeway constructed the building in 1969, and has operated there since that time. Prior to 1969, site uses included open space and residential properties. At one time, a portion of the site supported a commercial building which is believed to have been a grocery store. To the best of Safeways (sic) knowledge, there have never been underground tanks at the site, nor have fuel or solvents ever been used at the site."

No record of subsurface investigation was encountered in the file, and subsurface lithology, depth to groundwater, groundwater flow direction and groundwater quality are not known for the site.

BP Site

Review of the BP site file for 3519 Castro Valley Boulevard revealed two reports. The first report consisted of a Preliminary Site Assessment Report prepared by Environmental Science & Engineering, Inc. dated November 23, 1992. The report documented the drilling of exploratory borings and the construction of five groundwater monitoring wells at the site. Subsurface materials encountered in soil borings consisted primarily of clayey materials. Groundwater was encountered at depths of approximately 7 to 9 feet, and groundwater flow direction was reported to be easterly. TPH-G and BTEX were detected in soil and groundwater at the site, however TPH-D was not detected.

The second report consisted of a Groundwater Monitoring and Sampling report prepared by Alisto Engineering Group dated June 18, 1993. The depth to groundwater at the site was reported to be approximately 7 to 9 feet, and the groundwater flow direction was reported to be to the southeast. TPH-G was detected in all of the monitoring wells at the site.

Recommended Sample Collection Locations

Based upon review of the files at the ACDEH, the subsurface materials in the vicinity of the subject site are predominantly fine grained, with clay, silt and mixtures of silt and clay having been reported. Although monitoring wells have not been installed at the Chevron site, groundwater contamination was observed in the tank pit and petroleum hydrocarbon contamination was reported to still be present in the soil. Groundwater contamination with petroleum hydrocarbons has also been documented at the Unocal and BP sites. The consultant for the Unocal site has recommended that the extent of the contaminant plume be defined for the site, and the extent of contamination at the BP site is unknown. Based upon groundwater flow directions at the Unocal site, the BP site and the subject site, the groundwater flow direction in the vicinity of the subject site appears to be predominantly to the southeast, ranging between east and southwest.

It is P&D's understanding that based upon discussions between XTRA OIL Company and Mr. Scott Seery at the ACDEH, the present investigation will only be performed on the South side of Castro Valley Boulevard and the West side of Redwood Road. Based upon review of the files discussed in this workplan, P&D recommends that nine locations be investigated. The proposed locations are identified as P1 through P9 on Figure 1. The locations are intended to evaluate potential trans-gradient sources and to evaluate the extent of petroleum hydrocarbons to the south and southwest of the subject site, while minimizing the number of property owners who must be contacted to obtain property access for this investigation.

Property Access and Permitting

Following approval of this workplan, P&D will request XTRA OIL Company to obtain offsite property access from the appropriate property owners; obtain permits from the Alameda Water Agency, Zone 7; notify Underground Service Alert for buried utility location; and prepare a health and safety plan.

Groundwater Grab Sample Collection

Based upon the results of the file review, P&D will collect groundwater grab samples from nine locations. The proposed locations of the groundwater grab samples, designated as P1 through P9, are shown on Figure 1.

Groundwater grab samples will be obtained by drilling through the surface cover materials and driving a one inch diameter galvanized steel pipe to a depth of approximately 12 feet. The lower 5 feet of the galvanized pipe will be perforated. Groundwater samples will be collected from the pipe by means of a micro-bailer.

The groundwater grab samples will be transferred to 40-milliliter Volatile Organic Analysis (VOA) vials and one-liter amber glass bottles and capped with Teflon-lined screw caps. The bottles will be labeled and stored in a cooler with ice pending delivery to McCampbell Analytical, Inc. in Pacheco, California. McCampbell is a State-accredited hazardous waste testing laboratory. Following groundwater grab sample collection, the steel pipe will be removed from the ground and the probeholes will be filled with neat cement. The method of groundwater grab sample collection described in this proposal does not produce soil or water which require disposal as a result of the investigation.

Probes will not be used more than once, eliminating the need to steam clean the probes between uses. The micro-bailers will be cleaned prior to each use with an Alconox solution wash followed by a clean water rinse.

Laboratory Analysis

The groundwater grab samples will be analyzed for TPH-G, BTEX, and for TPH-D on a normal (5 working day) turnaround basis.

Report Preparation

Upon receipt of the laboratory analytical results, a report will be prepared. The report will contain documentation of field activities associated with the collection of the groundwater grab samples; copies of the laboratory analytical results and chain of custody documentation; a tabulated summary of the laboratory analytical results; a discussion of the local geology and hydrogeology; a discussion of the results and recommendations based upon the laboratory analytical results; and the signature and stamp of an appropriately registered professional.

SCHEDULE

The actual start date for this investigation will be dependent upon ACDEH workplan approval and XTRA OIL Company successfully obtaining offsite access permission. Following notification from XTRA OIL Company of permission for offsite access, P&D will complete the work set forth in this workplan in accordance with the following schedule.

Mobilization..... 7 Days
Sample Collection..... 2 Days
Report Submittal.....45 Days

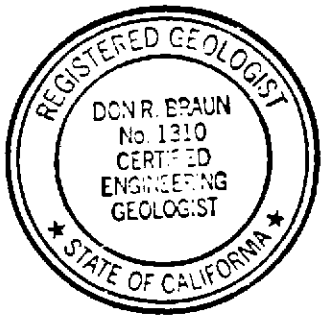
Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental

Paul H. King

Paul H. King
Hydrogeologist



Don R. Braun

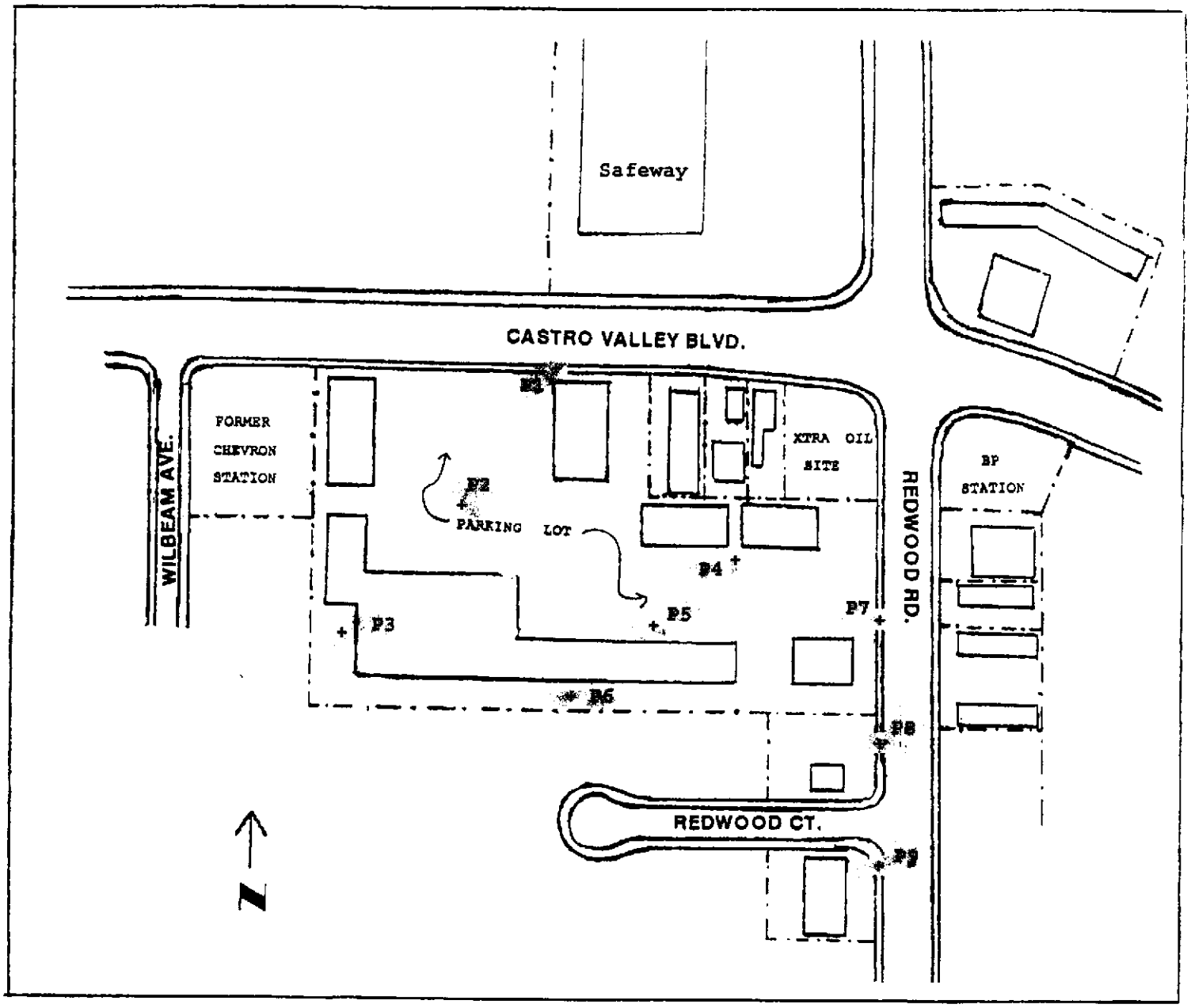
Don R. Braun
Certified Engineering Geologist
Registration No. : 1310
Expires: 6/30/94

Attachment: Site Vicinity Map - Figure 1

PHK
0014.W1

P & D ENVIRONMENTAL

300 Monte Vista, #101
Oakland, CA 94611
Telephone (510) 658-6916



LEGEND

-•- Property Lines

▭ Buildings/Structures

\+ Proposed Sample Location

0 100 200

Scale In Feet

Base Map From
XTRA OIL Company
November, 1993

Figure 1
SITE VICINITY MAP
XTRA OIL Company
3495 Castro Valley Blvd.
Castro Valley, California