

EDWARD T. SIMAS  
2307 PACIFIC AVE.  
ALAMEDA, CA. 94552  
(510)865-9503

5330 Foothill Blvd  
Oakland

January 25, 1995

① MWs are required.  
Recommend conducting B9 into  
MW.

② Add'l Sbs recommended  
on Ellwood St, within  
on SE corner of lot

Ms. Eva Chu  
Hazardous Materials Program  
Department of Environmental Health  
1131 Harbor Bay Pkwy. 2nd floor  
Alameda, Ca. 94502-6577

Per Paul Kang. This phase of  
investigation just to define  
extent of soil contains on-site.

Regarding: 5330 Foothill Blvd. Oakland

GW grab sample will be collected  
from proposed boring B9.

Dear Ms. Chu,

Also if B7+8 are advanced to  
GW, grab water samples will also be  
collected

Please find enclosed the subsurface investigation work plan in accordance with a request the Alameda County Department of Environmental Health dated November 6, 1994. Work will include recommendations in P&D's soil investigation report dated September 26, 1994. If you have any questions feel free to contact us.

P.16+B.13

Sincerely,

  
Keith Simas

cc: Mr. Kevin Graves, SWRCB  
Mr. Jorge Del Rio

# P & D ENVIRONMENTAL

4020 Panama Court  
Oakland, CA 94611  
Telephone (510) 658-6916

January 19, 1995  
Work Plan 0067.W1

Ms. Eva Chu  
Alameda County Department of Environmental Health  
1131 Harbor Bay Parkway  
Alameda, CA 94502

SUBJECT: SUBSURFACE INVESTIGATION WORK PLAN  
Former Service Station  
5330 Foothill Blvd.  
Oakland, CA

Dear Ms. Chu:

P&D Environmental (P&D) is pleased to present this Work Plan for the investigation of petroleum hydrocarbons in soil at the subject site. This Work Plan is prepared in accordance with a request from the Alameda County Department of Environmental Health (ACDEH) dated November 16, 1994 and recommendations set forth in P&D's Soil Investigation Report 0067.R1 dated September 26, 1994. The proposed scope of the investigation includes the drilling of three soil borings to evaluate the depth to groundwater and the extent of petroleum hydrocarbons in soil at the subject site. A Site Plan showing the proposed soil boring locations, designated as B7, B8 and B9, is attached with this work plan as Figure 1.

Based upon conversations with Mr. Edward T. Simas, it is P&D's understanding that a gasoline station was formerly located on the east side of Belvedere Street at the intersection of Foothill Boulevard and Belvedere Street, directly across Belvedere Street from the subject site. It is for this reason that P&D does not recommend investigation to the east of the former fuel tank pit at the subject site at this time.

All work will be performed under the direct supervision of an appropriately registered professional. This workplan is prepared in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.

## SCOPE OF WORK

The scope of work proposed by P&D entails the following activities.

- o Obtain property access from the present property owners; obtain permits from the Alameda Water Agency, Zone 7; notify Underground Service Alert; notify the Alameda County Department of Environmental Health (ACDEH) of the date of field activities, and prepare a health and safety plan.
- o Drilling of three soil borings to evaluate the depth to groundwater and subsurface distribution of petroleum hydrocarbons at the subject site. Soil samples will be collected from the boreholes at five foot intervals for borehole logging purposes. The samples will be evaluated with a Photoionization Detector (PID), and three soil samples will be selected from each borehole for laboratory analysis. One of the boreholes, B9, will be advanced until groundwater is encountered. One groundwater grab sample will be collected from this borehole with a Teflon bailer. The other two boreholes will be advanced until 15 feet of unimpacted soil is encountered, or until groundwater is encountered.

- o Arrange for laboratory analysis of the soil samples and the groundwater grab sample for Total Petroleum Hydrocarbons as Gasoline (TPH-G); and for Benzene, Toluene, Ethylbenzene and Xylenes (BTEX).
- o Report preparation documenting the results of the sample collection procedures and the laboratory analytical results.

Each of these is discussed below in detail.

#### Regulatory Agency Coordination

Following approval of this workplan, bids will be solicited from three different contractors for the scope of work set forth in this workplan to satisfy the requirements of the State Water Resources Control Board UST Cleanup Fund. After the bids have been received and the contract for the work has been awarded, a permit application will be submitted to the Zone 7 Water Agency for the installation of the borings.

After the permits have been approved, Underground Service Alert will be notified for underground utility location and a date scheduled for the installation of the soil borings and the collection of the groundwater grab sample. The date for field work will be set for the earliest possible date available, and the ACDEH will be notified of the date by telephone as soon as it has been set. Prior to the beginning of field work, a health and safety plan will be prepared.

#### Soil Boring Installation

Three soil borings, designated as B7, B8 and B9, are proposed to evaluate the depth to groundwater and the extent of petroleum hydrocarbons in soil at the subject site. P&D recommends that the boreholes be drilled during the late summer months, after the elevated groundwater levels associated with the rainy season have been allowed to decline. A Site Plan showing the proposed soil boring locations is attached with this work plan as Figure 1.

The boreholes will be drilled using six or eight-inch outside diameter truck-mounted hollow stem augers. The hollow stem augers will be steam cleaned prior to use in each borehole. Borehole B9 will be advanced to three feet below the first encountered groundwater at the site. One groundwater grab sample will be collected from the borehole. The location of borehole B9 is approximately in the assumed downgradient direction from the former fuel tank pit. The other two boreholes will be advanced until 15 feet of unimpacted soil is encountered, or until groundwater is encountered.

Soil samples will be collected from the boreholes into brass tubes at a maximum of five foot intervals, at changes in lithology and at any areas of obvious contamination using a Modified California split-spoon sampler lined with brass tubes. Blow counts will be recorded every six inches. The soil samples will be logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System.

The soil samples will be evaluated with a Photoionization Detector (PID), and three soil samples will be selected from each borehole for laboratory analysis, based upon the PID evaluation results. One of the boreholes, B9, will be advanced until groundwater is encountered. One groundwater grab sample will be collected from this borehole with a Teflon bailer. The other two boreholes will be advanced until 15 feet of unimpacted soil is encountered, or until groundwater is encountered.

The soil samples retained for laboratory analysis will be handled in the following manner. The ends of the brass tubes for the samples will be successively covered with aluminum foil and plastic endcaps. The brass tubes will then be labeled, placed into a ziplock baggie, and stored in a cooler with ice pending delivery to McCampbell Analytical Laboratory in Pacheco, California, a State-accredited hazardous waste testing laboratory. Chain of custody procedures will be observed for all sample handling.

The groundwater grab sample will be handled in the following manner. The water sample will be transferred from the bailer to 40-milliliter Volatile Organic Analysis bottles (VOAs). The VOAs will be overturned and tapped to assure that air bubbles are not present. The sample bottles will then be labeled and placed into a cooler with ice pending delivery to the State-certified hazardous waste testing laboratory. Chain of custody procedures will be observed for all sample handling.

Following completion of the soil borings, the borings will be filled with neat cement grout to the ground surface.

Soil generated during drilling will be stored in DOT-approved 55-gallon drums pending appropriate disposal. Water generated during steam cleaning of the augers will be stored in DOT-approved 55-gallon drums pending appropriate disposal.

#### Laboratory Analysis

The soil and groundwater grab samples collected from the boreholes will be analyzed for TFH-G and BTEX.

#### 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 drilling of the boreholes and collection of the soil and groundwater grab samples; boring logs for the boreholes; a discussion of the local geology and hydrogeology; a map showing the soil boring locations; copies of the laboratory analytical results and chain of custody documentation; a tabulated summary of the laboratory analytical results; 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 following schedule addresses elements identified in this workplan.

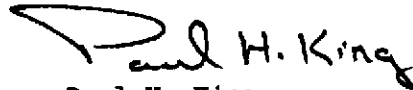
<u>Activity</u>	<u>Working Days</u>
Workplan submittal.....	Day 0
Workplan approval.....	Day 7
Solicitation of bids for work.....	Day 17
Award contract for work.....	Day 32
Permit application and site access request submittals.....	Day 37
Permit application and site access request approvals.....	Day 44
Set date for field activities.....	Day 46
Soil boring and grab groundwater sample collection.....	Day 56
Receipt of soil and groundwater sample results.....	Day 66
Submittal of draft report to XTRA OIL Company for review.....	Day 76
Submittal of final report to City of Berkeley.....	Day 91

January 19, 1995  
Work Plan 0067.W1

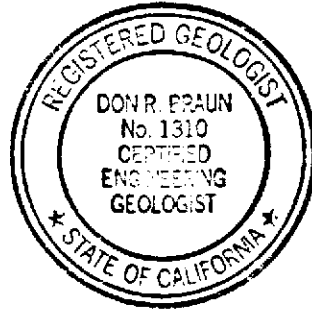
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Should you have any questions, please do not hesitate to contact us at  
(510) 658-6916.

Sincerely,  
P&D Environmental



Paul H. King  
Hydrogeologist



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

Attachment: Site Plan - Figure 1

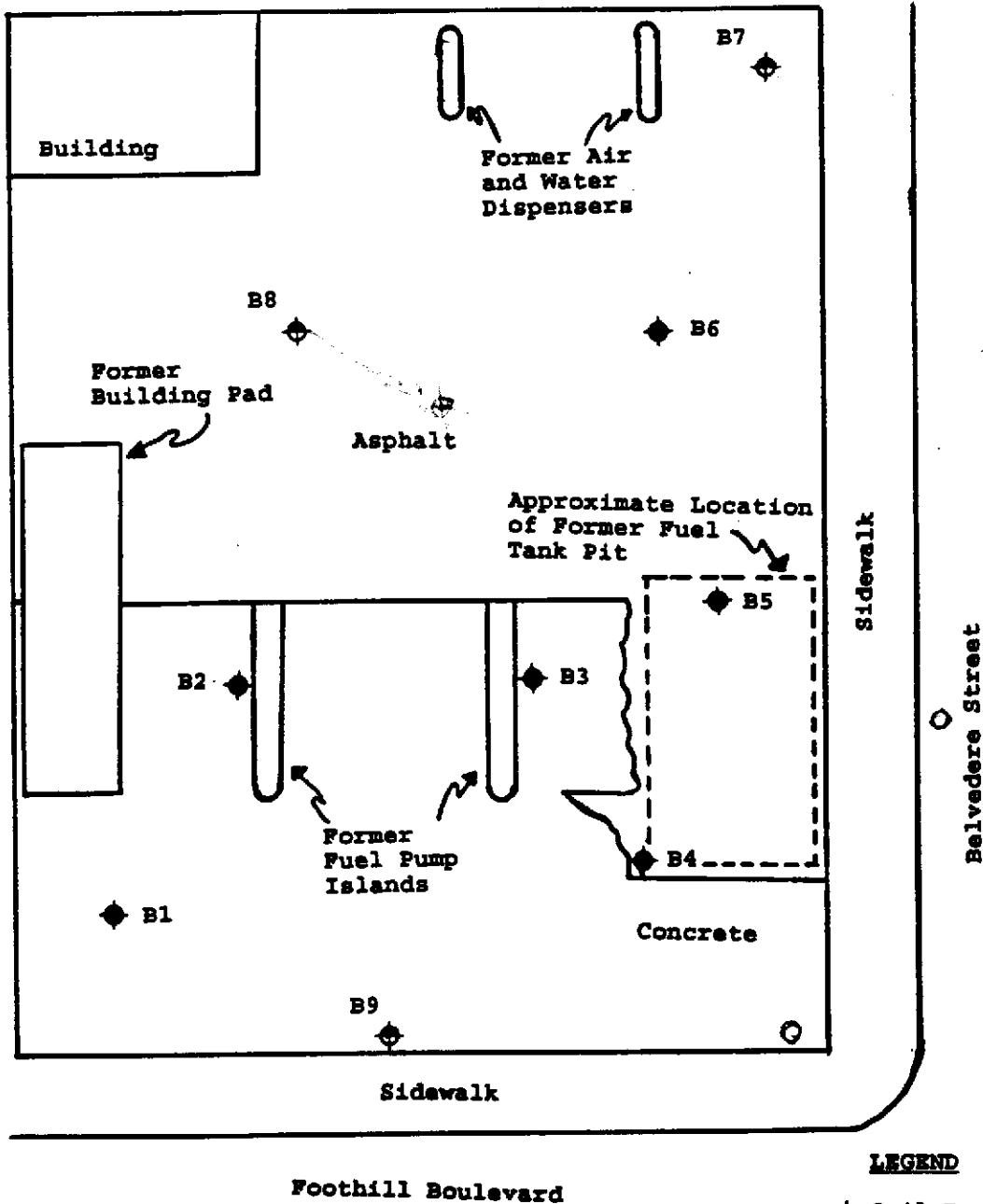
cc: Mr. Edward T. Simas

PHK  
0067.W1

P & D ENVIRONMENTAL

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4020 Panama Court  
Oakland, CA 94611  
Telephone (510) 658-6916



Base Map From  
P&D Environmental  
August, 1994



0 10 20  
Scale in Feet

Figure 1  
SITE PLAN  
Former Service Station  
5330 Foothill Blvd.  
Oakland, California

*recommended wells*  
*o recommended borings*