ALAMEDA COUNTY **HEALTH CARE SERVICES** AGENCY

DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH State Water Resources Control Board Division of Clean Water Programs UST Local Oversight Program 80 Swan Way, Pm 200 Oakland, CA 94621

(510) 271-4530

StID# 3770

June 7, 1993

Rich Hiett RWOCB 2101 Webster St., Suite 500 Oakland CA 94612

Re: Review of Results of Subsurface Investigation at 8401 Baldwin St., Oakland CA 94621

Dear Rich:

This is another site which seemingly had a minor release of gasoline and BTEX which was detected in a grab groundwater sample after the tank pull. I was asked by the RP to speak with you about the site to perhaps avoid the consultant's need to prepare a Closure Report. I would like to summarize the site history and then discuss your conclusion and/or recommendations.

This site is located on a small lot on the corner of Baldwin St. and McClary Ave. On November 28, 1990 a 1000 gallon UST which formerly held leaded gasoline was removed from the site. soil samples were taken at each end of the tank. One end had piping and a dispenser which extended about five feet from the initial tank pit. The soil sample from this end was taken under the piping while the other soil sample was taken above the soil/groundwater interface at the depth of 7 feet and 6 feet respectively. The stockpiled soils were appropriately disposed and the tank pit filled with clean fill. A grab water sample was also taken at this time. The results were:

Concentration	in ppm	ТРНд	В	T	E	x
	1128-01	63.0	2.4	5.1	1.4	12.0
	1128-02	nd	nd	nd	nd	nd
	1128-03	7.6	nd	nd	0.014	0.022

A work plan for subsurface investigation was provided by Brunsing Associates, Inc. This work plan, which I approved, called for the installation of four borings, one within the former tank backfill and three which triangulated the site. Two of the three borings outside the pit were converted into piezometers and the confirmed downgradient boring was converted into a monitoring The construction of the "piezometers" appears to be identical to that of the monitoring well, MW-1.

Mr. Rich Hiett June 7, 1993 StID # 3770 8401 Baldwin St. Page 2.

The soil borings were sampled and analyzed for TPHg and BTEX at five and ten feet except for the borings from within the former tank pit which were taken at 7.5. 15.0 and 19.5 feet. The soils results found only 0.033, 0.007 and 0.0051 ppm benzene, ethylbenzene and xylene in the 7.5 boring from within the pit. The deeper samples from 15.0 and 19.5 feet were nd for TPHg and BTEX. The well and piezometers were advanced to a depth of 17 feet through clayey silt which extended from surface to about 10 feet and through silty sand, the water bearing layer, which extended to the end of the boring. Groundwater was encountered from 7-10 feet bgs and equilibrates at approximately 5 feet bgs.

The piezometers and the monitoring well were drilled on October 17, 1991 and sampled on October 24, 1991. This initial sampling and three subsequent monitoring events yielded non-detectable results for TPHg and BTEX. These monitoring events occurred on 7/7/92, 10/6/92 and 2/12/93. Three of the four monitoring events indicated that the gradient was in the regional direction, westerly-northwesterly and that MW-1 was indeed downgradient. However, the 10/6/92 monitoring event indicated a southerly gradient. Monitoring well MW-1 lies within two feet of the former excavation, unlike P-1 and P-2 which lie 10-15 feet from the former tank pit, therefore groundwater elevation may skewed. In any event, MW-1 is so close to the former tank pit that contamination would likely diffuse towards MW-1 even if it wasn't directly downgradient.

Therefore, it appears that soil contamination was removed and a groundwater monitoring well was installed within ten feet of the former tank pit in the verified downgradient or crossgradient direction. Four monitoring events yielded non-detectable concentrations of TPHg and BTEX. It appears that this site may be recommended for site closure.

Please let me know if you are missing any of the reports for this site which include the following:

- * October 4, 1991 Brunsing Associates, Inc. Workplan for Subsurface Soil and Groundwater Investigation
- * October 16, 1991 Report of Findings for MW and Piezometer Installations (Actually labelled Workplan for Subsurface Soil and Groundwater Investigation)

Mr. Rich Hiett June 7, 1993 StID # 3770 8401 Baldwin St. Page 3.

* Quarterly Monitoring Reports for the 7/7/92, 10-6-92 and 2-12-93 Monitoring Events

Please contact me when you've had time to review this site so we can discuss if any additional work is needed.

Sincerely,

Barney M. Chan

Hazardous Materials Specialist

cc: S. Dwyer, 46 Bantala Place, Castle Rock, CO 80104

E. Howell, files

csc18401

RAFAT A. SHAHID, Assistant Agency Director

May 15, 1992 STID # 3770 DEPARTMENT OF ENVIRONMENTAL HEALTH Hazardous Materials Division 80 Swan Way, Rm. 200 Oakland, CA 94621 (510) 271-4320

Mr. Steven J. Dwyer Dwyer Properties 13275 East Fremont Place Suite 300 Englewood, Colorado 80112

Re: Groundwater Investigation at Dwyer Properties, 8401 Baldwin Street, Oakland CA 94621

Dear Mr. Dwyer:

It has come to our office's attention that you require direction subsequent to the initial installation of the monitoring well and two piezometers at the above site. Our office has reviewed the report of findings in the October 16, 1991 report issued by Brunsing Associates, Inc. Although the initial water sample from MW-1 indicates no gasoline or benzene, toluene, ethyl benzene and xylenes (BTEX), you must continue to sample and analyze the groundwater and take groundwater elevations on the piezometers for a period of at least one year. This will enable you to establish reliable groundwater gradient and present a minimum of four quarters of non-detectable analytical results, which is a requirement for recommendation for site closure.

You may contact me at (510) 271-4320 should you have any questions regarding this letter.

Sincerely,

Barney M. Chan

Hazardous Materials Specialist

cc: M. Thomson, Alameda County District Attorney Office

R. Hiett, RWQCB

parney Wella

J. Stivers, Brunsing Associates, Inc., 1607 Industrial Way, Belmont, CA 94002

8401 Baldwin



RAFAT A. SHAHID, Assistant Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH Hazardous Materials Division 80 Swan Way, Rm. 200 Oakland, CA 94621 (510) 271-4320

May 1, 1992 `

Susan K. Dwyer 13275 E. Fremont Place, Suite 300 Englewood, CO 80112

Re: Underground Storage Tank, 8401 Baldwin Street, Oakland CA 94621

Dear Ms. Dwyer:

As you requested we have searched our files, for this site, concerning any notification given of the underground storage tank permit requirements of California law which our Department administers. These requirements are contained in the California Health and Safety Code, Division 20, Chapter 6.7, Underground Storage of Hazardous Substances and the California Code of Regulations, Title 23, Division 3, Chapter 16, the Underground Tank Regulations.

The first information in our files that there was an underground storage tank at this site was on or about October 12, 1990, when a Underground Tank Closure/Modification Plan was submitted. This plan was signed by Jeannette Giles of JOTCO Construction and Stephen Dwyer.

All the other records in the file for this site are dated after October 12, 1990, and concern the tank removal and related contamination.

I hope this information is of help to you. Please contact me at (510) 271-4320 if I can be of any other assistance.

Sincerely.

Edgar B. Howell, III, Chief Hazardous Materials Division

BHOWELLE



Telephone Number: (415)

October 8, 1991

Mr. Steven Dwyer Dwyer Properties 13275 East Fremont Place, Suite 206 Englewood, Colorado 80112

Re: Work Plan for Subsurface Soil and Ground Water Investigation at Dwyer Properties, 8401 Baldwin, CA 94621

Dear Mr. Dwyer:

This letter is to inform you that our division has received the work plan for the above referenced site as submitted by your consultants, Brunsing Associates, Inc. The work plan is generally acceptable and work may commence immediately with the provision that the following items, discussed with Mr. Jeffrey Stivers of Brunsing, be addressed:

- 1. The use of MW-1 for all sampling and water quality determination is dependent on its location being able to be verified to be downgradient and within ten (10) feet of the former tank location.
- 2. The soil and water samples should be run for Total Petroleum Hydrocarbons as gasoline (TPH-g), Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) and Total Lead. As was discussed with Mr. Stivers, if the Total Lead concentration does not exceed ten times the Soluble Threshold Limit Concentration (STLC) then this is justification to discontinue analysis for this parameter in future samplings.
- 3. In my conversation with Mr. Stivers, he stated that the slit width in the monitoring well will be 0.020 inch. He also stated that the normal screen interval would be five (5) feet above and a minimum of ten (10) feet into the saturated zone.

Please also be aware that Cynthia Chapman is no longer handling your case and that it has been reassigned to Barney Chan. You may contact the undersigned at (510) 271-4320 should you have any questions.

Sincerely,

Baney molla

Barney M. Chan, Hazardous Materials Specialist

cc: Gil Jensen, Alameda County District Attorney Office

E. So, RWQCB

J. Stivers, Brunsing Associates, Inc.

M. and G. Corniola, 6537 E. Castro Valley Blvd., Castro Valley, CA 94546

8401BaldwinWP

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

December 24, 1990

DEPARTMENT OF ENVIRONMENTAL HEALTH Hazardous Materials Program 80 Swan Way, Rm. 200 Oakland, CA 94621 (415)

Mr. Steve Dwyer Dwyer Construction Company 8401 Baldwin St. Oakland, CA 94621

Dear Mr. Dwyer:

The Alameda County Hazardous Materials Division has reviewed the Pace, Inc., laboratory analyses report for samples taken during the underground tank removal at 8401 Baldwin Street.

The report indicates that one sample was taken from each end of the tank and a water sample was also taken. The results indicate that the water sample contained 63,000 ppb of total petroleum hydrocarbons as gasoline (TPHg), benzene at 2,400 ppb, Ethylbenzene at 1,400 ppb, toluene at 5,100 ppb, and xylenes at 12,000 ppb. Soil sample 1128-02 did not have detectable amounts of TPH or BTEX, and soil sample 1128-03 had 7.6 ppm of TPHg, 0.014 ppm ethylbenzene, and 0.022 ppm of xylenes. Because there were detectable levels of petroleum hydrocarbons in the water, Dwyer Construction needs to perform a soil/groundwater investigation to determine how groundwater at the site has been impacted. Based on the results of the laboratory analyses, I have completed an Underground Storage Tank Unauthorized Release Report, and have enclosed your copy in this letter.

You are required to complete a workplan that provides information on how the subsurface investigation will proceed. Please submit this workplan to our office within 45 days of the date of this letter. Our office will be the lead agency overseeing the soil and groundwater investigation at this site. The San Francisco Bay Regional Water Quality Control Board (RWQCB) has delegated the handling of this case to our Division. We will be in contact with the RWQCB in order to provide you with guidance concerning the RWQCB's investigation requirements. However, please be aware that you are responsible for diligent actions to protect the waters of the State. A format for the workplan and items to address is outlined on the following pages.

I. INTRODUCTION

- A. Statement of Scope of Work
- B. Site location
- C. Background
- D. Site History

Provide a brief description of the historic site use and ownership information, type of business and associated activities that take place at the site. Provide a history of the use of the underground tank, its contents, and include the date of installation.

II. SITE DESCRIPTION

- A. Provide a map which shows streets, site buildings, underground tank locations, subsurface conduits and utilities, on-site and nearby wells, and nearby streams or water bodies.
- B. Provide a description of the hydrogeologic setting of the site and surrounding area. Include a description of any subsurface work previously done at the site.

III. PLAN FOR DETERMINING EXTENT OF SOIL CONTAMINATION ON SITE

- A. Describe how the extent of soil contamination associated with the former underground tanks will be determined.
- B. Describe the sampling methods and procedures to be used. If soil samples are to be collected for contamination delineation, consult the RWQCB guidelines for soil sampling protocols. During drilling of all boreholes and monitoring wells, undisturbed soil samples are to be collected at a minimum of every five feet in the unsaturated zone and at any changes in lithology for logging and analytical purposes. Borings and wells are to be permitted through Alameda County Flood Control and Water Conservation District, Zone 7. Their number is 415/484-2600. Borings and wells are to be logged from undisturbed soil samples. Logs shall include observed soil odors; blow counts shall be expressed in blows per 6 inches of drive.

If a soil gas survey is planned, the location of survey points must be identified along with the analytical methods and techniques to be used. A quality assurance plan for field analyses must be submitted.

C. Soil samples are to be analyzed by a California State Certified Laboratory for the appropriate constituents.

IV. DETERMINATION OF GROUNDWATER QUALITY

- A. A minimum of three monitoring wells must be installed to determine the groundwater gradient. If the verified down-gradient location has been established, then complete gradient data must be submitted and one monitoring well will be required in the down-gradient direction.
- B. Monitoring wells shall be designed and constructed to be consistent with the RWQCB guidelines and to permit entrance of any free product into the wells. Filter pack and slot sizes for all wells should be based on particle analysis from each stratigraphic unit in at least one boring on the site and on the types of groundwater contaminants present. The well screen must be situated to intercept any floating product from both the highest and lowest ground water levels. All wells shall be surveyed to mean sea level to an established benchmark to 0.01 foot.
- C. Monitoring wells must be sampled for dissolved and floating constituents. Any free product is to be measured with an optical probe or by another method shown to have equivalent accuracy.
- D. A groundwater gradient map shall be developed for every water level data set. If the gradient fluctuates, water level measurements must continue to be made monthly until a gradient pattern is established. Fluctuations in groundwater levels due to tidal action must also be documented.
- E. Sample monitoring wells monthly for three consecutive months. Water levels and free product thicknesses shall be measured in all wells for each sampling event before any purging or sampling activities are begun. After three consecutive months of sampling, all monitoring wells must be sampled at least quarterly for one year. Groundwater levels and quality must be monitored quarterly for a minimum of one year, even if no contamination is identified.

F. Groundwater samples are to be analyzed by a California State Certified Laboratory for the appropriate constituents.

V. INTERPRETATION OF HYDROGEOLOGIC DATA

- A. Water level contour maps showing groundwater gradient direction and free and dissolved product plume definition maps of each contaminant constituent should be prepared routinely and submitted with other sampling results.
- B. The hydrogeologic characteristics of the aquifer must be described.
- C. The cross sections, groundwater gradients (horizontal and vertical) should be interpreted to explain pollution migration patterns.

VI. DETERMINATION OF THE TYPES OF BENEFICIAL USES OF THE GROUNDWATER

At some point in the investigation it may be necessary to characterize the beneficial uses of the groundwater. The State has defined all San Francisco Bay Area water as having beneficial uses; however, the types of beneficial uses vary and must be determined in order to establish appropriate cleanup levels. Beneficial uses include drinking water, irrigation, groundwater recharge, wild life habitat, contact and non-contact recreation, fish migration, etc. A drinking-water beneficial use "aquifer" is defined as an aquifer yielding water of less than 3,000 units of total dissolved solids and yielding water at a rate of at least 200 gallons per day.

VII. SITE SAFETY PLAN

VIII. REPORTING

A. A technical report must be submitted, within 30 days of completion of the investigation, which presents and interprets the information generated during the initial subsurface site investigation. At a minimum, the report must include the following items: Site history information, boring and well construction logs, records of field observations and data, chain-of-custody forms, water level data, water level contour map showing groundwater gradient direction, contaminant plume maps, tabulations of soil and

groundwater contaminant concentrations, status of soil contamination characterization, description of any remedial work performed, laboratory-originated analytical results for all soil and groundwater samples analyzed, copies of TSDF-to-Generator manifests for any hazardous wastes hauled off-site, a description on where non-hazardous contaminated soils went, and any recommendations for additional investigative or remedial work.

- B. All reports and proposals must be signed by a California-Certified Engineering Geologist, California-Registered Geologist or a California-Registered Civil Engineer. A statement of qualifications should be included in all reports. Borehole and monitoring well installation and logging, and impact assessments will require the signature of such a professional.
- C. The technical report must be submitted with a cover letter from Dwyer Construction and received in this office by the established due date. The letter must be signed by a principal executive officer or by an authorized representative of the company.

Any stockpiled soil associated with tank removal activities or investigation activities must be sampled to determine the proper disposition of the soil. The number of samples collected from the stockpile(s) must be adequate to characterize the soil for the appropriate soil handling method.

All proposals, reports and analytical results pertaining to this investigation and remediation must be sent to our office and to the RWQCB to the attention of Lester Feldman. The address is:

Regional Water Quality Control Board 1800 Harrison Street, Suite 700 Oakland, CA 94612

You should be aware that this Division is working in conjunction with the RWQCB and that this is a formal request for technical reports pursuant to California Water Code Section 13267 (b). Any extensions of agreed upon time deadlines must be confirmed in writing by either this Division or the RWQCB.

We will require a deposit/refund for reviewing the work plan and for oversight of your case. Please remit \$600.00, payable to Alameda County.

Should you have any questions concerning the contents of this letter or the status of this case, please feel free to contact me at 415/271-4320.

Sincerely,

Cynthia Chapman

Cynthia Chapman

Hazardous Materials Specialist

c: Mr. Lester Feldman, RWQCB

Mr. Jeff Michelson, Jotco