BP OIL

BP Oil Company
Bldg. B, Suite 100
33305 First Way South
Federal Way, Washington 98003-6529
(206) 838-2121

18th May. '92

Brian,

Please find enclosed a photocopy of the Work Plan for Phase I investigation for BP Site No. 11117 at 73rd & Bancroft, Oakland, as discussed in our meeting of the 15th May '92, for your information.

I have begun the process of disseminating your comments to the appropriate parties in BP Oil and am sure that they will prove exceptionally useful in our combined efforts at remediation within Alameda County.

Yours faithfully,

P.E.Reith

PAULINE REITH

BP OIL

BP Oil Company
Aetna Bldg., Suite 360
2868 Prospect Park Drive
Rancho Cordova, California 95670-6020
(916) 631-0733

91 NOV 15 AM 8:49

November 11, 1991

Mr. Barney Chan
Alameda County Dept. of Environmental Health
80 Swan Way
Alameda, CA 95621

RE: BP FACILITY #11117
73RD & BANCROFT 7210 Bancroft.
OAKLAND, CALIFORNIA

Dear Mr. Chan,

Attached please find the Workplan for the completion of a Phase I Investigation at the above referenced facility.

Please call me at 916/631-6919 with any questions regarding this submission.

Respectfully,

Peter J. DeSantis
Environmental Resources Management

PJD:lk

Attachment

cc: Richard Hiett - RWQCB, San Francisco Bay Region
Dave Baker - Mobil Oil Corporation
J. R. Rocco - BP Oil, Cleveland
Site file

HYDRO ENVIRONMENTAL TECHNOLOGIES, INC.

2363 Mariner Square Drive, Suite 243
Alameda, CA 94501
Tel (510) 521-2684
Fax (510) 521-5078

1-800-347-HETI
Massachusetts
New York

November 8, 1991

Mr. Peter DeSantis
BP Oil Company
2868 Prospect Park Drive, Suite 360
Rancho Cordova, CA 95670

RE: BP Service Station No. 11117
73rd. Avenue & Bancroft, Oakland, CA

Dear Mr. DeSantis:

The following is a Workplan for the completion of a Phase 1 Environmental Investigation at the above referenced location. The recommended distribution for this report is listed on the last page.

Background

The subject facility is located on the northern corner of the intersection of 73rd. Avenue and Bancroft Avenue in Oakland, California (Figure 1). As diagrammed on Figure 2, the BP site is currently configured as a fuel-only convenience store. Fuel stored and dispensed on site includes leaded gasoline, unleaded gasoline and diesel fuel. The site was previously operated by Mobil Oil Company as a service station, and was configured a bit differently. The Mobil station layout is also shown on Figure 2.

The site is constructed on an out-parcel of a shopping mall, with stores located approximately 150 feet behind the rear of the BP property. The owners of the mall installed a ground water monitoring well adjacent to the BP site (date of installation and construction details will be made available shortly), apparently in order to monitor the quality of the water beneath their property. A sample of water collected from this well reportedly tested positive for hydrocarbon constituents (laboratory data will also be made available shortly).

In order to establish the characteristics of the subsurface in the vicinity of the convenience store, BP has initiated a Phase 1 Environmental Investigation.

Scope of Work

The proposed scope of work has been developed based on information obtained during a HETI site visit in October, 1991. HETI is prepared to conduct this work in accordance with technical instructions set forth by BP Oil Company and the requirements of the coordinating lead agencies: the Alameda County Department of Health Services and the San Francisco Bay Area Regional Water Quality Control Board (SFB-RWQCB). The proposed scope of work is as follows:

Task 1. Monitoring Well Installation, Soil Sampling, Well Development

HETI proposes to install two on-site monitoring wells to collect limited data on the local subsurface. The approximate locations of these wells are shown on Figure 3.

Two soil borings will be drilled per BP specifications using 8 3/4-inch outside diameter hollow-stem augers. Each boring will be hand dug and tested to a depth of four feet at the start of each set up to check for any underground piping, conduits or structures. All borings will be advanced 8-10 feet into the water table (present at approximately 30 feet below grade, based on measurements collected from the mall monitoring well).

During drilling, soil samples will be collected at approximate 5-foot intervals by driving a split-spoon sampler into the undisturbed soil, though boring MW-1 will be continuously cored to enable a detailed examination of shallow stratigraphy. The 5-foot samples will be collected in brass liners, covered with aluminum foil, capped, taped and chilled in an insulated container until delivery to the contract laboratory. An additional set of 5-foot samples will be collected in brass liners and analyzed on-site (head-space analysis) with a portable organic vapor analyzer (OVA). Samples for lab analysis will be immediately documented, labeled and entered onto a chain-of-custody form.

All borings will be logged by a HETI geologist. Split-spoon samples and drill cuttings will be observed and descriptions will be recorded. Information regarding drilling characteristics, lithologic changes, color, odor, moisture content and depth to first encountered ground water will be noted on the boring logs. The soil samples will be submitted to PACE Labs for analysis, an analytical laboratory certified by the State Department of Health Services (DHS). Soil samples from 5, 15 and 25 feet below grade will be analyzed for total low to medium boiling point petroleum hydrocarbons (TPHg), and benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA methods 8015 and 8020 (DHS modified). The samples will also be tested for TPH as diesel (TPHd) and organic lead. If the lab results of samples analyzed indicate a need for a more detailed assessment of hydrocarbons in soil, the remaining samples collected will be forwarded to the lab for analysis.

Drill cuttings will be segregated during drilling based on OVA readings and sampling intervals in order to enable the separation of clean soil from soil containing hydrocarbons. All cuttings will be temporarily stored on-site in appropriate containers pending removal by BP or an authorized agent. Any hazardous material generated will be properly documented, manifested and transported to an appropriate disposal site.

Wells will be constructed of factory cleaned, Schedule 40, flush-joint, threaded PVC pipe, with 0.01-inch machine-slotted well screen. Well casing will extend from the surface to 25 feet below grade. The screened interval will start at 25 feet below grade and extend to a depth of 40 feet. A filter pack of No. 2/12 sand will be placed in the annulus of the well boring to approximately 2 feet above the screened interval. A 1-foot thick seal of bentonite pellets will be placed above the sand pack and hydrated with steam-distilled water. The remaining annular space will be grouted to the surface with a neat cement grout. Each wellhead will be fitted with a locking expansion cap assembly and traffic box with a locking lid.

The monitoring wells will be developed using a combination of well surging and bailing by a development rig. Development will continue until each well is relatively free of turbidity. The development bailer will be equipped with a

check valve on the bottom of the intake to prevent any backflushing. The development equipment will be washed with a trisodium phosphate solution between wells to minimize the potential for cross-contamination. Development water from the wells will be placed in labeled 55-gallon drums and left on-site for subsequent disposal.

Task 2. Surveying, Ground Water Monitoring and Sample Collection

The top-of casing elevations and selected local landmarks will be surveyed with standard level and rod (accurate to 0.01 feet) methods by HETI. Ground water elevations in on- and off-site monitoring wells will be measured with a interface meter, accurate to 0.01 feet.

HETI personnel will collect ground water samples from the 3 wells (2 BP wells and the mall well). Prior to sampling, each well will be purged of at least 3 well volumes of water using a clean PVC bailer. After purging, a period of stabilization will be allowed for the wells to recover to a minimum of 70 percent of original levels. After stabilization, samples will be collected using a dedicated Teflon bailer assigned to each well. The dedicated bailer will be rinsed with water from its corresponding well before each sample was collected. Water samples collected will be transferred to the appropriately sized and preserved containers and forwarded under chain of custody control to PACE Labs for analysis. Types of analysis requested will be the same as the soil analytical program.

Task 3. Data Analysis/Interpretation, and Report Preparation

A report of investigation will be presented following receipt of the analytical data from monitoring well samples. The report will include a description of the local stratigraphic column, an assessment of water quality beneath the subject site, a presentation of patterns of local ground water movement, and other pertinent data.

HYDRO
ENVIRONMENTAL
TECHNOLOGIES, INC.

The suggested distribution for this document is listed below. If you have questions or comments regarding this project, please do not hesitate to contact me.

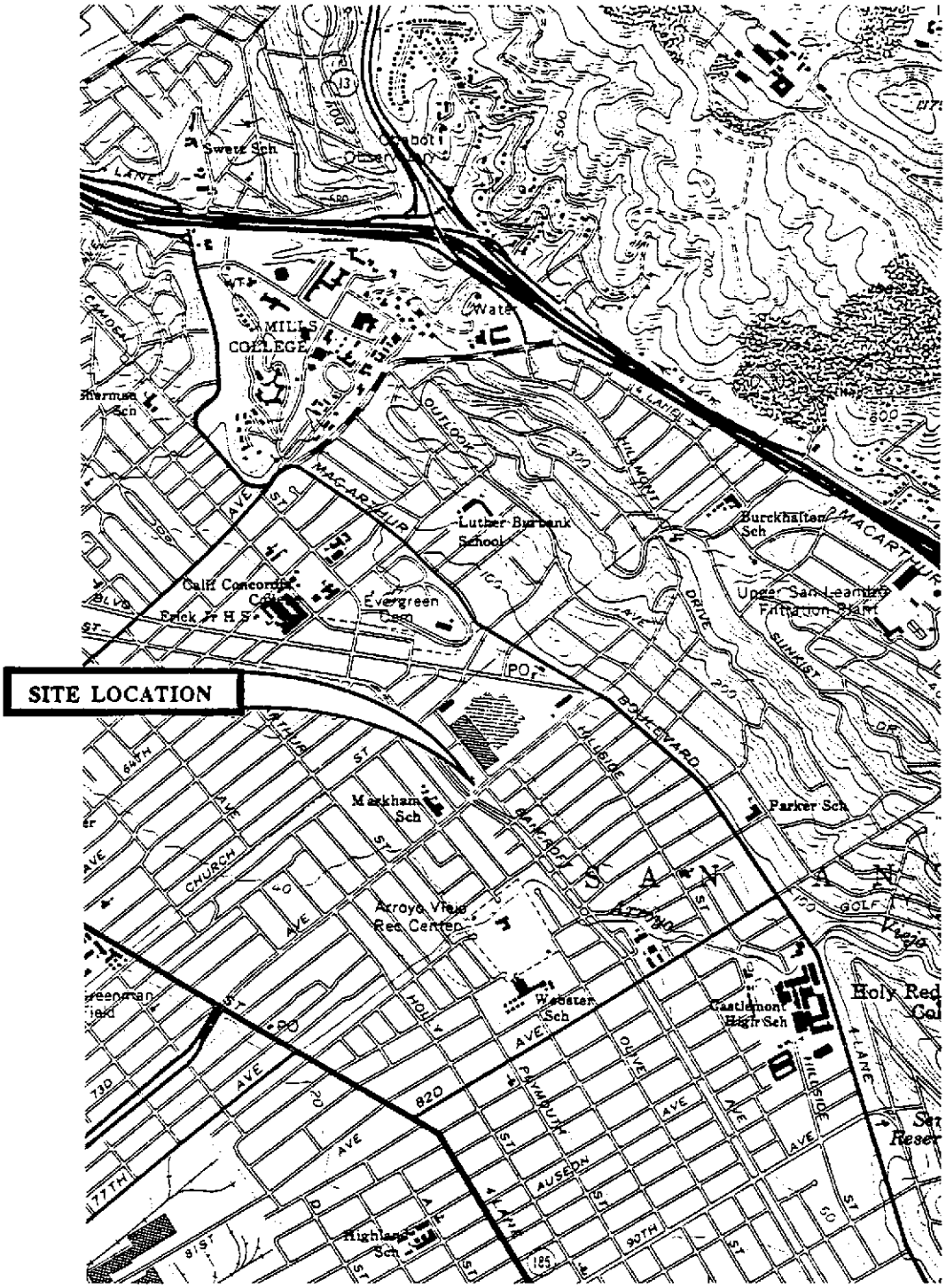
Sincerely,
HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

Markus B. Niebanck
Project Manager

Suggested Distribution:

Mr. Barney Chan
Alameda County Department of Environmental Health
80 Swan Way
Alameda, CA 94621

Mr. Richard Hiett
RWQCB
2101 Webster Street
Oakland, CA 94612



Source: U.S.Geological Survey
7.5 Minute Topographic Map of the
"Oakland East, California" Quadrangle
1959 - Photorevised 1980

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.

SITE LOCATION MAP
BP OIL COMPANY
SERVICE STATION Nº 11117
73RD. & BANCROFT
OAKLAND, CALIFORNIA

Job No.
9-029
Figure
1

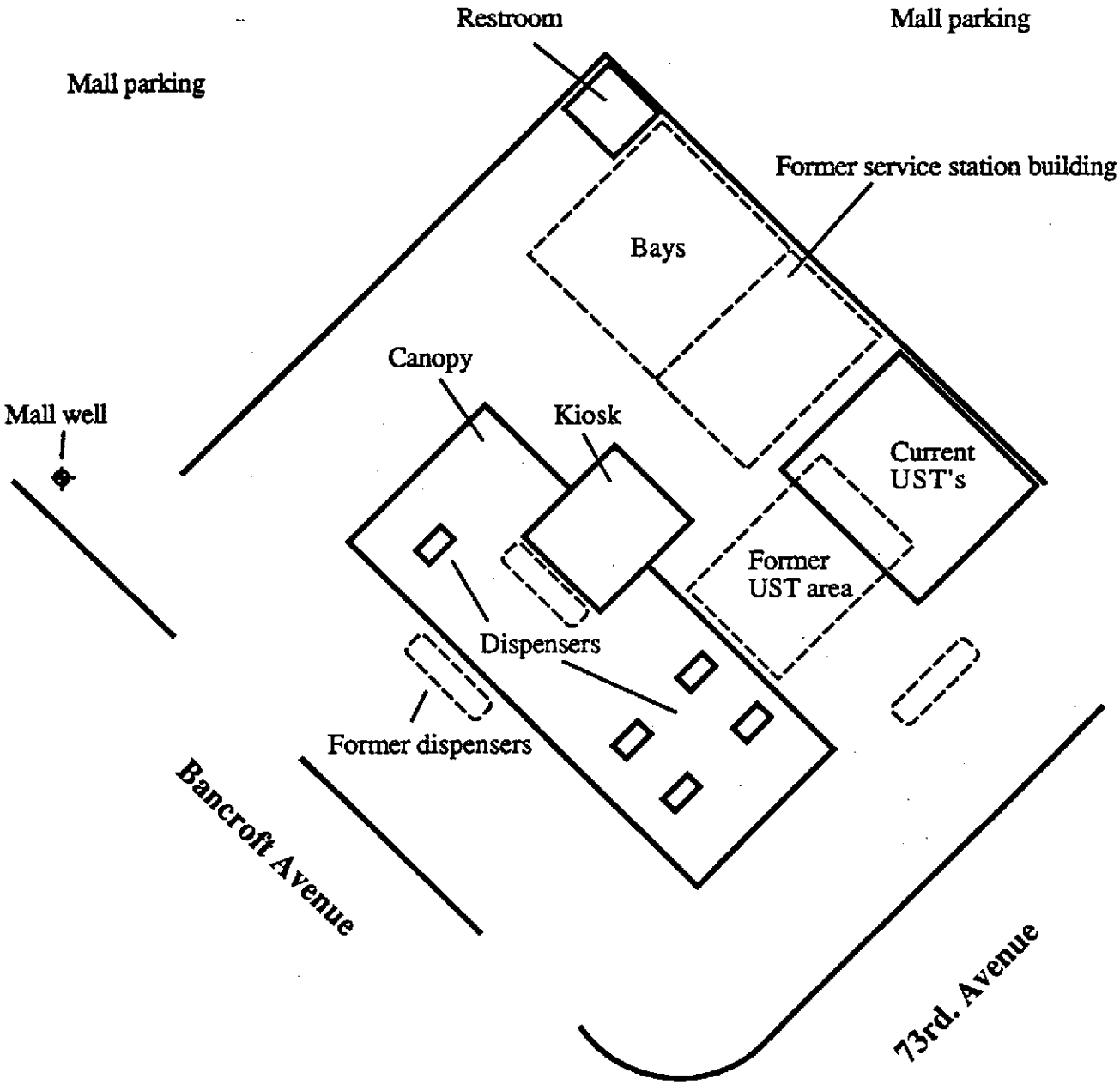


Figure is not to scale
Former service station layout is shown by dashed lines

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.	**SITE MAP** BP OIL COMPANY SERVICE STATION Nº 11117 73RD. & BANCROFT OAKLAND, CALIFORNIA	Job No. **9-029** Figure **2**

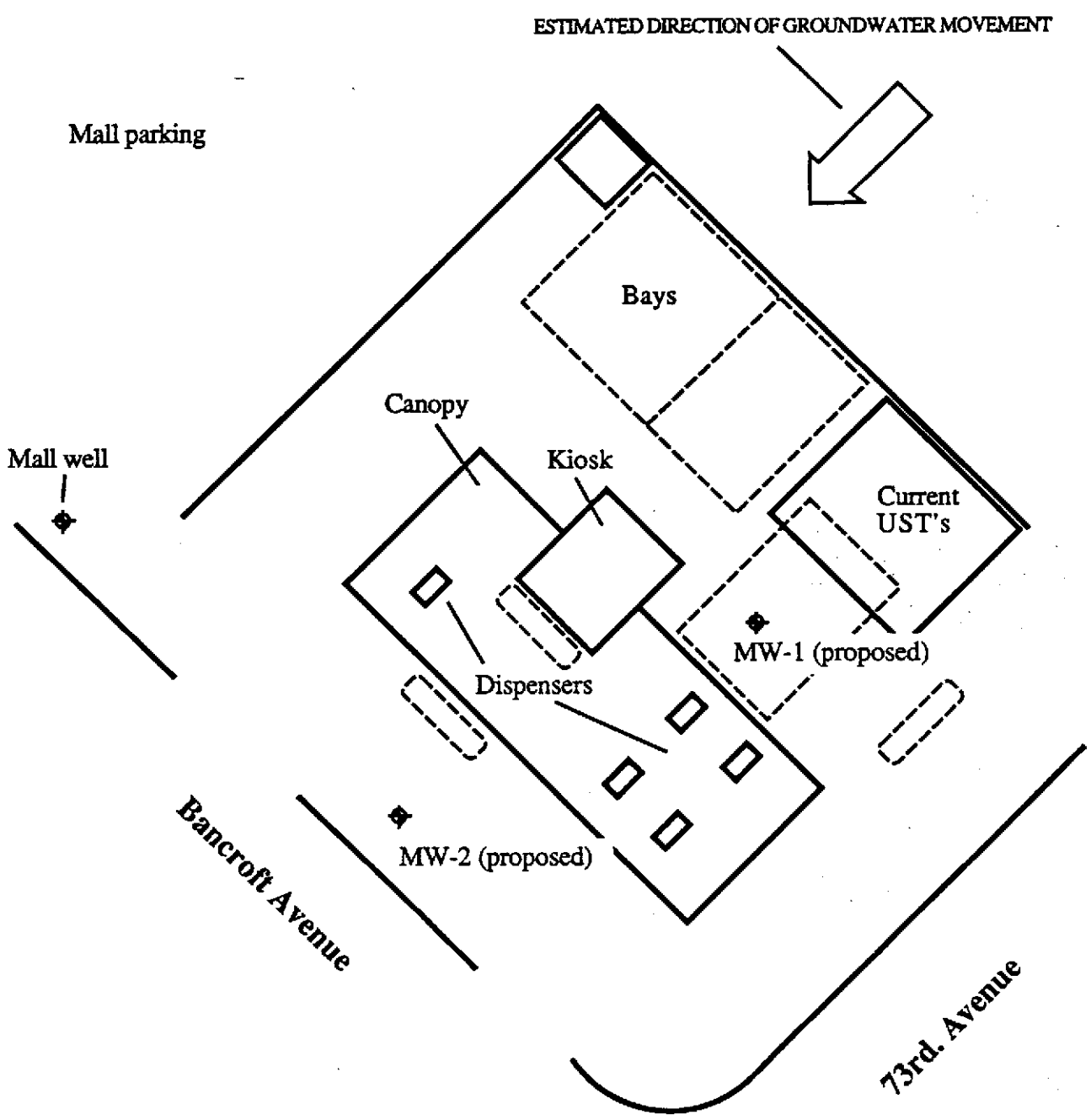


Figure is not to scale
Former service station layout is shown by dashed lines

HYDRO-ENVIRONMENTAL TECHNOLOGIES, INC.	**PROPOSED WELL LOCATIONS** BP OIL COMPANY SERVICE STATION Nº 11117 73RD. & BANCROFT OAKLAND, CALIFORNIA	Job No. **9-029** Figure **3**