

WORKPLAN FOR CONDUCTING SOIL BORINGS

TRUCKER'S FRIEND
1395 7th Street
Oakland, CA 94607

Prepared For:
MR. HENRY TRAN
1395 7th Street
Oakland, CA 94607

Submitted By:
BERNABE & BRINKER, INC.
2240 Wood Street
Oakland, CA 94606
(510) 451-3482

Prepared by:
Mark R. Varney
May 26, 1997

97 JUN -2 PM 1:35

PROTECTION

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57 JUN -2 PM 4:35

1.0 INTRODUCTION

The subject site is located at 1395 7th Street, in the City of Oakland in Alameda County, California (see Figure 1), and is occupied by Trucker's Friend (TF). The contact person for TF is Mr. Henry Tran, whose telephone number is (510) 465-6569.

In a March 3, 1997, letter to Mr. Tran (see Appendix A), the Alameda County Health Care Services Agency (ACHCSA) requested additional soil and groundwater investigation downgradient of the former waste oil tank and overexcavation site (see Figure 2).

This Workplan for Conducting Soil Borings (WP) presents a scope of work for conducting four soil borings to investigate the extent of soil and groundwater contamination at the subject site.

2.0 BACKGROUND

Bernabe & Brinker, Inc. (B&B) was contracted by Mr. Tran to remove a 520-gallon waste oil tank from the site (see Figure 2). On August 19, 1996, a 550-gallon waste oil tank was excavated and removed as documented in B&B's April 5, 1997, TANK CLOSURE REPORT. Soil contamination was noted in the bottom of the excavated area and on August 27, 1996, overexcavation of the tank pit was conducted at the request of the ACHCSA. The northwest and southwest walls were excavated an additional 5 to 6 feet in order to remove apparent hydrocarbon contamination. Overexcavation of the soil from the bottom of the excavation reached a maximum depth of about 10 feet, at which depth groundwater was seeping into the excavation.

After overexcavation activities were completed, 4 discrete soil samples were collected from the walls of the excavation. Samples SA-1 through SA-4 were collected at about 7.5 feet below ground surface, with the exception of SA-2, which was collected at about 7 feet below ground surface. Soil samples SP-A1 through SP-A4 were taken from the stockpiled soil for compositing.

All soil samples taken during overexcavation were analyzed for total petroleum hydrocarbons as gasoline (TPHG) by the United States Environmental Protection Agency (EPA) methods 5030/8015M; for total petroleum hydrocarbons as diesel (TPHD) by EPA methods 3550/8015M; for methyl t-butyl ether (MTBE) and benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA method 8020; and for total recoverable petroleum hydrocarbons as oil and grease (TRPH) by Standard Method 5520 C&F.

TPHG was detected in soil samples SA-2, SA-4 and the composite sample SP-A1,2,3,4 at concentrations of 3.7 ppm, 180 ppm and 28 ppm, respectively. TPHD was detected in soil samples SA-2, SA-4 and the composite sample SP-A1,2,3,4 at concentrations of 11 ppm, 2400 ppm, and 650 ppm, respectively; some or all BTEX chemicals were detected. Soil samples SA-1 and SA-3 were nondetect for TPHG, TPHD

and BTEX analysis. TRPH was detected in soil samples SA-4 and the composite sample SP-A1,2,3,4 at concentrations of 3200 ppm and 80 ppm, respectively.

Lead was detected in all soil samples. Analysis of the composite sample SP-A1,2,3,4 detected Lead at a concentration of 61 ppm.

Because of these results the ACHCSA requested further investigation to determine the extent of soil contamination and if groundwater had been affected (see Appendix A, March 27, 1997, Letter from ACHCSA).

3.0 PROPOSED WORKPLAN FOR THE CONDUCTING OF SOIL BORINGS

B&B proposes the following scope of work:

- . Obtain a permit for conducting soil borings from the Alameda County Flood Control and Water Conservation District Zone 7 and notify appropriate agencies prior to conducting field activities.
- . Drill four soil borings to further investigate the horizontal and vertical extent of vadose zone soil contamination.
- . Collect soil samples from each boring at approximately 5-foot depth intervals, at changes in lithology and at the occurrence of apparent soil contamination for construction of a boring log and for chemical analysis.
- . Analyze selected vadose zone soil samples from the boring for TPHG, TPHD, BTEX and TRPH concentrations.
- . Collect "grab" groundwater samples from each boring and analyze for TPHG, TPHD, BTEX and TRPH concentrations.
- . Seal the borings with neat cement.
- . Prepare a Site Assessment Report.

3.1 Predrilling Activities

Before commencing drilling activities, B&B will obtain a soil boring permit from the Alameda County Flood Control and Water Conservation District Zone 7 and visit the site to mark the soil boring locations.

B&B will conduct a subsurface utility survey by contacting Underground Service Alert (USA) to minimize the potential of encountering unexpected utilities while conducting soil boring activities.

3.2 Rationale for Location of the Soil Borings

The soil boring locations are based on groundwater flow direction and gradient data obtained from monitoring wells located onsite. Data gathered from quarterly groundwater monitoring reports indicate that groundwater flows to the southwest. The location of the proposed soil borings are shown in Figure 2. *ok*

The proposed soil borings will be located within 10 feet and in the downgradient direction of the overexcavated area in accordance with the California Regional Water Quality Control Board's "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites," dated August 10, 1990. Additionally, one of the borings will be drilled near the location of overexcavation sample (SA-4). *not shown*

3.3 Soil Boring and Sampling Procedures

The borings are proposed to be drilled to a depth of about 10 feet to intersect groundwater. Borings will be drilled by a State of California C-57 licensed water well driller using 8-inch diameter, hollow core, auger drilling equipment. The augers will be cleaned before drilling each boring to prevent cross-contamination between borings or the introduction of offsite contamination for the initial boring. Representative soil samples will be collected at approximately 5-foot depth intervals below the ground surface, at changes in lithology, and at occurrences of apparent contamination by advancing a California modified split-spoon sampler, equipped with 2-inch diameter by 6-inch long brass tubes, into the undisturbed soil beyond the tip of the augers. The sampling equipment will be cleaned before each sampling event by washing with a nonphosphate solution followed by a rinse in tap water.

The lateral extent of the groundwater contaminant plume will be investigated by collecting a "grab" groundwater sample from each of the four soil borings by introducing a clean polyethylene bailer down the auger stem to groundwater. Water samples will be stored in sterilized, 1-liter amber glass bottles and 40 milliliter glass vials having Teflon-lined screw caps; and labeled to include: date and time collected, sample name and location, project number, and sampler name. The samples will be immediately stored in an iced-cooler for transport to a California Department of Health Services (DHS) certified laboratory accompanied by chain-of-custody documentation.

All samples will be field-screened for apparent contamination by TPHG, TPHD, BTEX and TRPH. Field-screening methods include the detection of apparent soil contamination as evidenced by visible

hydrocarbon stains, odors, and headspace analyses of soil samples using a Hydrocarbon Vapor Tester (HVT).

Headspace analysis will be conducted by sealing a soil sample in a quart-size plastic bag and allowing hydrocarbons, if present, to volatilize into the headspace of the bag. The headspace will be tested by inserting the probe of the HVT into the headspace, while minimizing the entry of fresh air, and recording the response in ppm.

In the borings, soil samples having apparent contamination, as indicated by the above field-screening methods, will be collected for analysis for TPHG, TPHD, BTEX and TRPH. If no apparent contamination is detected in the borings, the vadose zone sample collected nearest to groundwater will be analyzed for the respective analytes.

Each soil sample collected for chemical analysis will be quickly covered with Teflon sheeting and capped with plastic end-caps. Each tube will be labeled to show site address, project number, sample name and depth, date and time collected and sampler name. Each sample will be stored in an individual plastic bag in an iced-cooler while being transported to a DHS certified laboratory accompanied by chain-of-custody documentation.

Detailed boring logs will be prepared from auger return material and split-spoon samples. The soil will be logged according to the Unified Soil Classification System by a field geologist under the direction of a California Registered Civil Engineer.

Drill cuttings will be stored on site, contained 55-gallon steel drums. The stored cuttings will be labeled to show contents, date stored, suspected chemical contaminant, expected date of removal, company name, contact person and telephone number. Disposal of the cuttings and drums is the responsibility of the client. After the cuttings are characterized by chemical analysis, B&B will provide recommendations to the client and, upon their request, assist them in remediation or disposal of the cuttings and drums, or both in an appropriate manner as an additional work item. Maintenance of the drums containing the soil is the responsibility of the client.

3.3.1 Chemical Analyses

All soil samples and groundwater grab samples are proposed to be analyzed for TPHG by the DHS Method 8015M, for BTEX by the Modified EPA Method 8020, for TPHD by EPA methods 3550/8015M and for TRPH by the Standard Method 5520 C&F. In addition, samples collected from the boring near the location of the overexcavation sample SA-4 will be analyzed for semi-volatile organic compounds (SVOC) by the EPA method 8270.

4.0 SITE ASSESSMENT REPORT

After completing the above scope of work, B&B will prepare a report documenting the results of the investigation. The report will include: copies of all required permits, an area map, a detailed site map providing the locations of the soil borings, graphic boring logs, a table summarizing results of chemical analysis, and copies of certified analytical reports and chain-of-custody documentation.

Recommendations for further action or site closure will be developed based on the results of this investigation.

5.0 SITE SAFETY PLAN

A Site Safety Plan for conducting work under this workplan is included in Appendix B.

6.0 TIME SCHEDULE

The projected time schedule for implementation of the activities described in this workplan is presented below. The schedule reflects a relatively problem-free program. However, delays in the workplan review, permitting or laboratory analysis could lengthen the project schedule. Access difficulties, adverse weather, and regulatory agency review could also delay the proposed time schedule. B&B will make every effort to adhere to the project schedule.

- Week 1: Client Submits WP for Regulatory Approval.
- Week 3: Regulator Approval Received.
- Week 4: Conduct Soil Borings.
- Week 6: Receive Chemical Analyses.
- Week 8: Submit Report to Client.

7.0 REFERENCES

California Regional Water Quality Control Board, TRI-REGIONAL RECOMMENDATIONS FOR PRELIMINARY EVALUATION AND INVESTIGATION OF UNDERGROUND TANK SITES, August 10, 1990.

Eberle, Jennifer, ACHCSA LETTER TO MR. HUNG TRAN, March 3, 1997.

Juncal, Robert, and Taggart, Gary B., MONITORING WELL INSTALLATION, Chevron Service Station, Cypress and 7th Streets, Oakland, California, September 10, 1985.

Juncal, Robert, and Taggart, Gary B., PRELIMINARY SITE ASSESSMENT, Chevron Service Station, Cypress and 7th Streets, Oakland, California, September 24, 1985.

Varney, Mark R., 1997, TANK CLOSURE REPORT, Truckers Friend, 1395 7th Street, Oakland, CA 94607, April 5, 1977.

This report has been prepared for Bernabe and Briker, Inc. under the direction of a Registered Civil Engineer whose seal and signature appears hereon.

The findings, recommendations, specifications or professional opinions are presented, within the limits of, and in accordance with, generally accepted professional engineering and geologic practice. We make no other warranty, either expressed or implied.

Mark R. Varney
Project Geologist



Frederick G. Moss
Registered Civil Engineer (No. 35162)



Expiration Date 9/31/97

429-8088

FIGURES

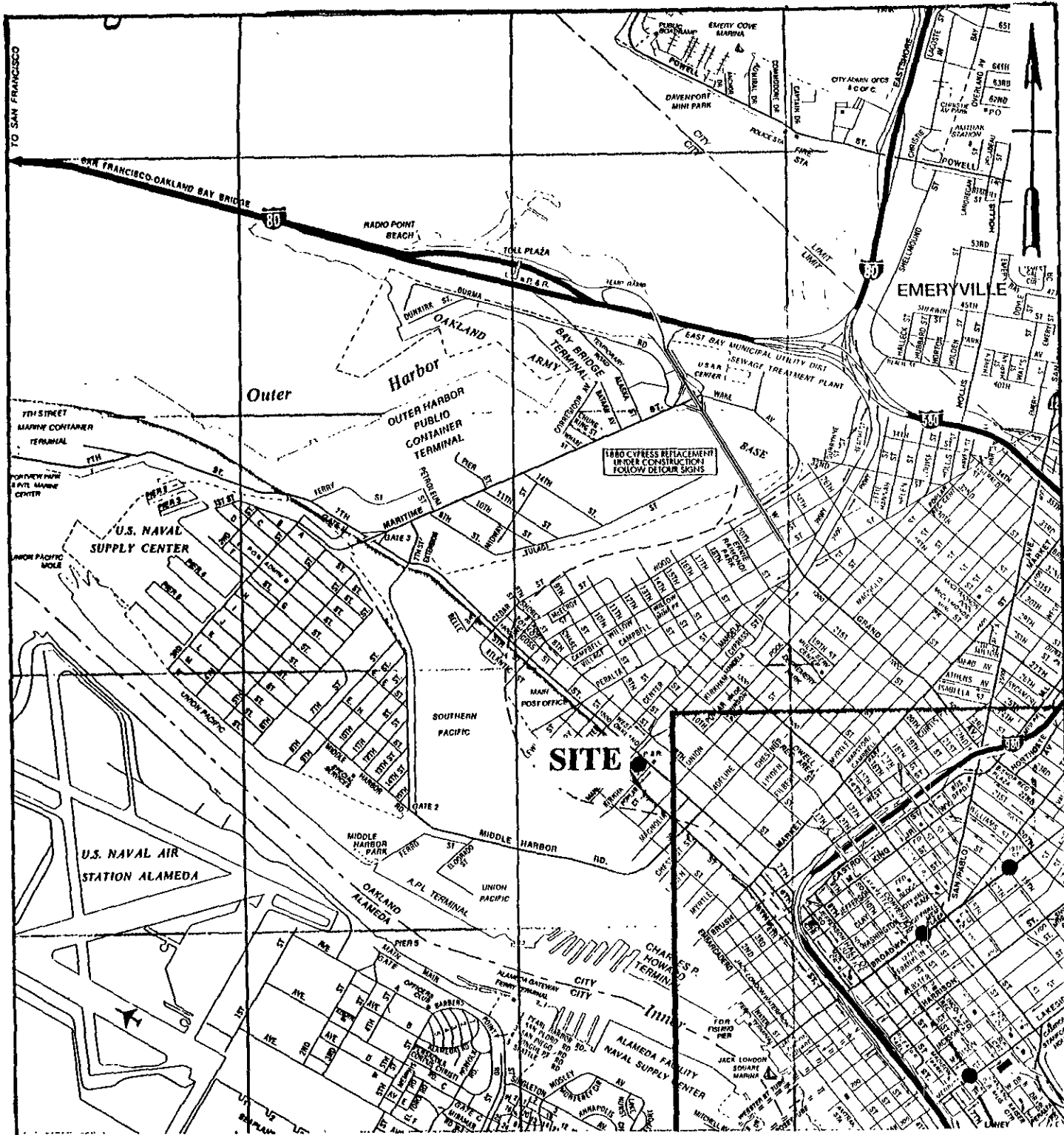
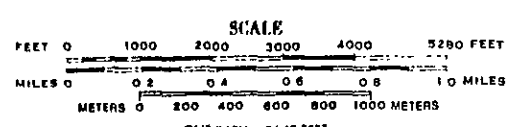


FIGURE 1.

SITE LOCATION MAP

1395 7TH STREET, OAKLAND



ONE INCH = 2640 FEET
 CARTOGRAPHIC DEPARTMENT
 COPYRIGHT 1998 BY
 CALIFORNIA STATE AUTOMOBILE ASSOCIATION

BERNABE & BRINKER, INC.

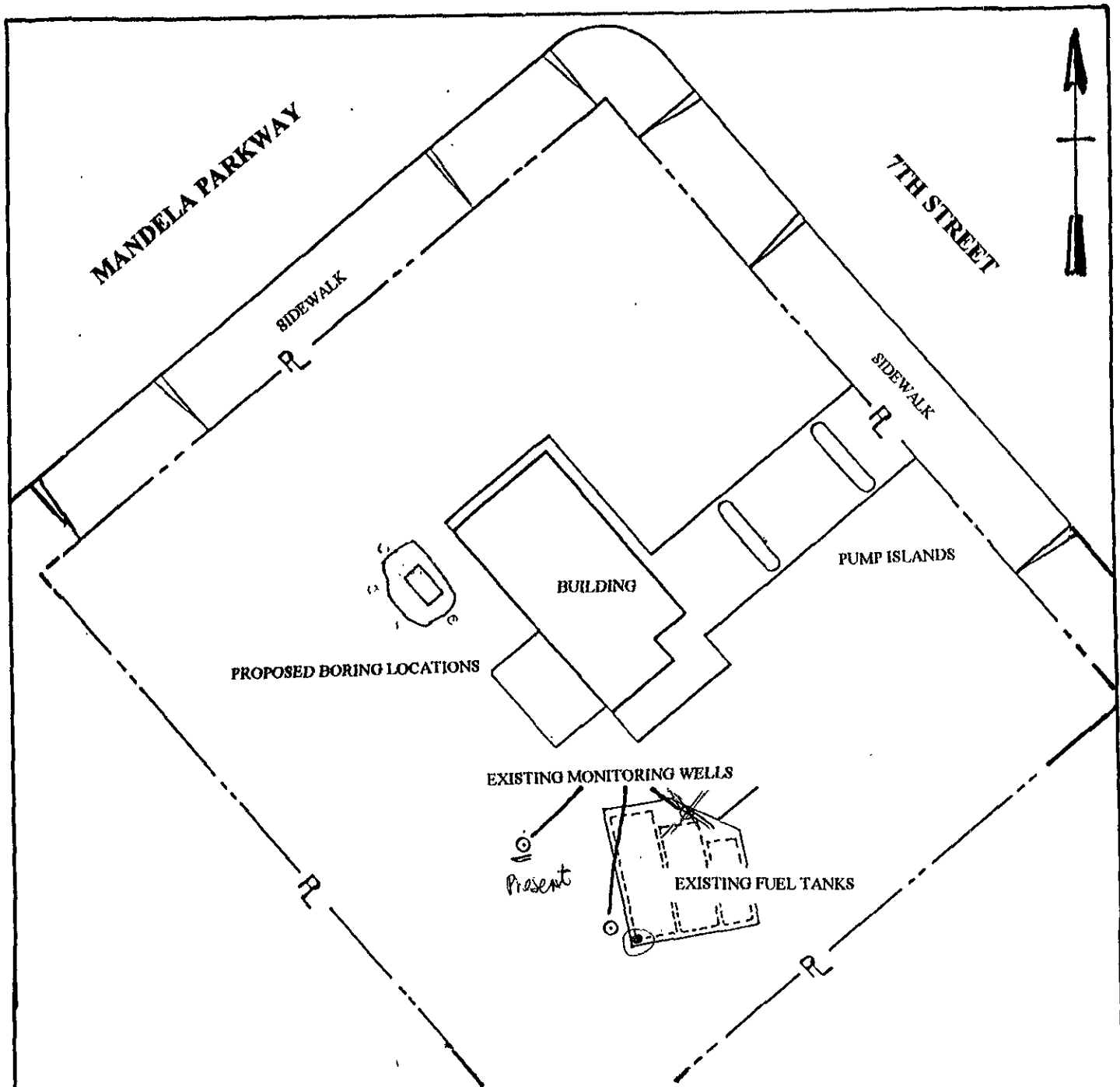
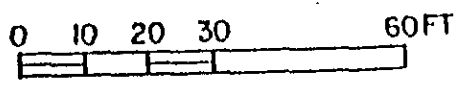


FIGURE 2.

PROPOSED SOIL BORING LOCATIONS

1395 7TH STREET, OAKLAND



BERNABE & BRINKER, INC.

APPENDIX A

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

March 3, 1997
STID 5007
page 1 of 2

Mr. Hung Tran
Trucker's Friend Inc.
1395-7th St.
Oakland CA 94607

RE: Waste Oil Underground Storage Tank (UST), Trucker's Friend Inc., 1395-7th St.,
Oakland CA 94607

Dear Mr. Tran,

As per our telephone conversation today, this office is allowing a 90-day extension on the items requested in my last letter (12/16/96). This extension is being given due to the difficulties you have encountered with your contractor, Jim Brinker. As per today's conversation, you indicated that you paid Mr. Brinker in full, and showed him my 12/16/96 letter, and he indicated he would "take care of everything." To date, none of the items requested in that letter have been submitted.

I contacted Mr. Phil Briggs of Chevron, and he has supplied our office with documents pertaining to your site. These documents date back to 1985, and have been copied and included for your files. Please keep them in a safe place, because any future consultants you employ will want to review these documents. I have doubled-sided them to save paper. They include: 2/10/97 letter from Chevron, 4/85 tank tightness test reports, 10/8/85 cover letter from Chevron to the Regional Board with the 9/10/85 "Monitoring Well Installation Report," prepared by Groundwater Technology Inc., 9/24/85 "Preliminary Site Assessment," prepared by Groundwater Technology Inc., 9/25/85 Glass Armor guarantee certificate, and 10/85 tank tightness test report.

These documents indicate that the well closest to the former waste oil UST is approximately 60 feet to the southeast (well #3). Unfortunately, this well would be too far away to be representative of groundwater conditions from the waste oil UST. Therefore, you are still required to submit a workplan for a Soil and Water Investigation (SWI). The new deadline adds 90 days to February 16, 1997, and is May 16, 1997.

As requested in the last letter, Tank Closure Report is still due; the new deadline adds 90 days to January 16, 1997, and is April 16, 1997.

In addition, legible disposal documentation must be submitted for the stockpiled soil by April 16, 1997. As stated above, it is my understanding that Mr. Brinker disposed of this soil. Please note that this office has not received any disposal documentation.

March 3, 1997
STID 5007
page 2 of 2
Mr. Hung Tran

There are state funds available for remediation of UST sites. These funds reimburse responsible parties, such as yourselves, for the costs associated with remediation. I have enclosed a brochure outlining this program. Included are phone numbers for people at the State to help you with this process.

Please note that the UST CleanUp Fund specifies bidding requirements and deductibles. Please direct questions re the Fund to Christopher Stevens (916-227-4519) or Jim Munch (916-227-4430) of the State Water Resources Control Board, UST CleanUp Fund.

If you have any questions, please contact me at 510-567-6700, ext 6761; our fax number is 510-337-9335. Please submit a cover letter with your consultant's reports.

Sincerely,



Jennifer Eberle
Hazardous Materials Specialist

cc: John Alt, Epigene International, 38750 Paseo Padre Pky, Suite A-11, Fremont CA 94536
Jim Brinker, 1281-30th St., Oakland CA 94608
Jennifer Eberle/file

je.5007-A

APPENDIX B

BERNABE & BRINKER, INC.

SITE SAFETY PLAN

Site 1395 7th ST. OAKLAND Project# _____

Original Site Safety Plan: Yes (X) No () Revision# _____

Plan Prepared by MARK R. VARNEY Date 5/27/97

Plan Approved by _____ Date _____

Please respond to each item as completely as possible.
Where an item is not applicable, please mark "N/A."

1. KEY PERSONNEL AND RESPONSIBILITIES

(Include name, telephone number, health and safety responsibilities, i.e., project manager - Joe Smith - responsible for supervision of all site activities.)

Project Manager JAMES E. BRINKER

Site Safety Manager ERNIE F. BERNABE, JR.

Alternate Site Safety Manager JAMES BRINKER

Field Team Members MARK R. VARNEY

Agency Reps: [Please specify by one of the following symbols: Federal:(F), State:(S), Local:(L), Contractor(s):(C)]

B&B SITE SAFETY PLAN

2. JOB HAZARD ANALYSIS:

Hazard Level: High() Moderate() Low() Unknown ()

Hazard Type: Liquid() Solid() Sludge() Vapor/Gas()

Known or suspected hazardous materials present on site:

TPHG, TPND, BTEX, TRPA, SVOC

Characteristics of hazardous materials included above:

(Complete for each chemical present:)

MATERIAL #1: Corrosive() Ignitable() Toxic()
Reactive() Volatile() Radioactive()
Biological Agent()

Exposure Routes: Inhalation() Ingestion() Contact()

MATERIAL #2: Corrosive() Ignitable() Toxic()
Reactive() Volatile() Radioactive()
Biological Agent()

Exposure Routes: Inhalation() Ingestion() Contact()

MATERIAL #3: Corrosive() Ignitable() Toxic()
Reactive() Volatile() Radioactive()
Biological Agent()

Exposure Routes: Inhalation() Ingestion() Contact()

MATERIAL #4: Corrosive() Ignitable() Toxic()
Reactive() Volatile() Radioactive()
Biological Agent()

Exposure Routes: Inhalation() Ingestion() Contact()

B&B SITE SAFETY PLAN

2.2 JOB-SPECIFIC HAZARDS

For each labor category, specify the possible hazards based information available (i.e., Task-driller, Hazards-trauma from drill rig accidents, etc.) For each hazard, indicate steps to be taken to minimize the hazard.

DRILLING RIG ACCIDENTS

AVOID CONTACT W/ AUGERS, USE
EARPLUGS, CONE OFF SITE

The following additional hazards are expected on site (i.e., snake-infested area, extreme heat, etc.):

Measures to minimize the effects of the additional hazards are:

3. MONITORING PLAN

3.1 (a) Air Monitoring Plan

Action levels for implementation of air monitoring. Action levels should be based on published data available on contaminants of concern. Action levels should be set by persons experienced in industrial hygiene.

Level (i.e., .5ppm)	Action Taken (i.e., commence perimeter monitoring)
<u>NA</u>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

B&B SITE SAFETY PLAN

(b) Air Monitoring Equipment

Outline the specific equipment to be used, calibration method, frequency of monitoring, locations to be monitored, and analysis of samples (if applicable):

HVT - HYDROCARBON VAPOR TESTER

If air monitoring is not to be implemented for this site, explain why:

3.2 Personnel Monitoring
(Include hierarchy of responsibilities in decision-making on the site).

JAMES E. BRINKER, MARK R. VARNEY

3.3 Sampling Monitoring

(a) Techniques used for sampling

SOIL SAMPLING - BRASS TUBES, CAL. SPLIT SPOON

WATER SAMPLING - BAILER, 40 ml VOAS, LITER BOTTLES

B&B SITE SAFETY PLAN

6. DECONTAMINATION PROCEDURE

List the procedures and specific steps to be taken to decontaminate equipment and PPE.

EQUIPMENT AND PERSONNEL WASHED
WITH TSP OR ALCONOX AND RINSED
WITH WATER.

7. TRAINING REQUIREMENTS

Prior to mobilization at the job site, employees will be attend a safety briefing. The briefing will include the nature of the wastes and the site, donning personal protection clothes and equipment, decontamination procedures and emergency procedures.

8. MEDICAL SURVEILLANCE REQUIREMENTS

If any task requires a very high personnel protection level, personnel shall provide assurances that they have received a physical examination and they are fit to do the task. Also, personnel will be instructed to look for any symptom of heat stress, heat stroke, heat exhaustion, or any other unusual symptom. If there is any report of that, it will be immediately be followed through, and appropriate action will be taken.

9. STANDARD OPERATION PROCEDURES

Bernabe & Brinker, Inc. is responsible for all Bernabe & Brinker, Inc. employees on the site. Each contractor shall provide all the equipment necessary to meet safe operation practices and procedures for their personnel on site, and be responsible for the safety of their workers.

A. "Three Warning" system is utilized to enforce compliance with Health and Safety procedures practices which will be implemented at the site for worker safety:

*Eating, drinking, chewing gum, or tobacco, and smoking will be allowed only in designated areas.

B&B SITE SAFETY PLAN

*Wash facilities will be utilized by workers in the work areas before eating, drinking, or use of toilet facilities.

*Containers will be labeled, identifying them as waste, debris, or contaminated clothing.

*All excavation/drilling work will comply with regulatory agencies requirement.

*All site personnel will be required to wear hard hats and advised to take adequate measures for self-protection.

*Any other action which is determined to be unsafe by the site safety officer.

10. CONFINED SPACE ENTRY PROCEDURES

No one is allowed to enter any confined space operation without proper safety measures. Specifically, in case of an excavated Tank Pit no one should enter at no time.

11. EMERGENCY RESPONSE PLAN

Fire extinguisher(s) will be on site prior to excavation. Relevant phone numbers are:

Person	Title	Phone Number
<u>JAMES E. BRINKER</u>	Project Manager	<u>510-451-3482</u>
<u>OAKLAND FIRE DEPT.</u>	Fire	911 or <u>510-238-3856</u>
<u>OAKLAND POLICE DEPT.</u>	Police	911 or <u>510-238-3481</u>
<u>ACME AMBULANCE</u>	Ambulance	911 or <u>510-653-6622</u>
_____	Poison Control Center	(800) 523-2222
<u>NONE</u>	Site Phone	_____
<u>BERNABE & BRINKER</u>	Nearest Off-Site Number	<u>510-451-3482</u>
<u>MEDINA BERNABE LVN</u>	Medical Advisor	<u>510-569-2252</u>
_____	Client Contact	_____

B&B SITE SAFETY PLAN

U.S. EPA - ERT.....(201) 321-6660
Chemtrec.....(800) 424-9300
Centers for Disease Control.....Day:
(404) 329-3311
Night:
(404) 329-2888
National Response Center.....(800) 424-8802
Superfund/RCRA Hotline.....(800) 424-8802
TSCA Hotline.....(800) 424-9065
National Pesticide Information Services....(800) 845-7633
Bureau of Alcohol, Tobacco, and Firearms...(800) 424-9555

**HEALTH AND SAFETY
COMPLIANCE STATEMENT**

I, ERNESTO F. BERNABE JR., have received and read a copy of the project Health and Safety Plan.

I understand that I am required to have read the aforementioned document and received proper training under the occupational Safety and Health Act (29 CFR, Part 1910.120) prior to conducting site activities at the site.


Signature

5-28-97
Date

NEAREST HOSPITAL

SUMMIT

TEL. NO.

510-655-4000