1/27/99 - Also measure soil parameter: porosity, water content, TOC, bulk density from vadose zone

WORKPLAN
SOIL AND GROUNDWATER INVESTIGATION
FORMER ALCOPARK FUELING FACILITY
12TH STREET AND JACKSON STREET
OAKLAND, CALIFORNIA

Jan 98

prepared for

COUNTY OF ALAMEDA
GENERAL SERVICES AGENCY
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January 22, 1998
575-9G004

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STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

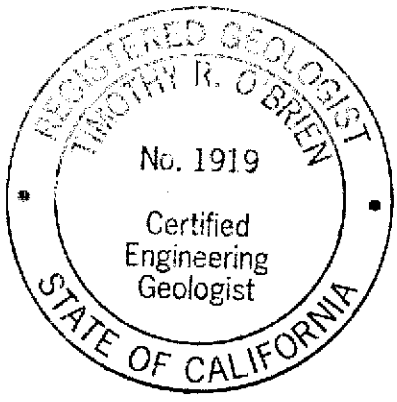
Information provided in this Workplan, prepared by Professional Service Industries, Inc. (PSI), is intended exclusively for the use of County of Alameda, General Services Agency, for the evaluation of subsurface conditions as it pertains to the subject site. The professional services provided have been performed in accordance with practices generally accepted by other geologists, hydrologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. As with all subsurface investigations, there is no guarantee that the work conducted will identify any or all sources or locations of contamination.

PSI reserves the right to deviate from the proposed scope of services outlined in this Workplan as needed to obtain the required information. If such deviation is necessary, PSI will make every attempt to seek prior approval from the client and the regulatory agency overseeing this project.

This Workplan is issued with the understanding that Alameda GSA is responsible for ensuring that the information contained herein is brought to the attention of the appropriate regulatory agency. This Workplan has been reviewed by a geologist who is registered in the State of California and whose signature and license number appear below.

Frank R. Poss
Senior Hydrogeologist

Timothy R. O'Brien, RG/CEG/CHG
Senior Geologist



1. INTRODUCTION

Professional Service Industries, Inc. (PSI) has been retained by the County of Alameda General Services Agency (Alameda GSA) to investigate soil and groundwater conditions at the Former Alcopark Fueling Facility located at the northeast corner of 12th and Jackson Streets in Oakland, California. The site location is presented on Figure 1.

Ms. Eva Chu of the Alameda County Health Care Services Agency (ACHCSA) requested additional delineation of soil and groundwater contamination identified in a previous study (ESE, 1993). This workplan describes the plan to delineate the previously detected contamination.

1.1 PROJECT GOALS

The project goals consist of the following:

- Estimate the groundwater flow direction and depth.
- Delineate the extent of impacted soil and groundwater at the site.
- Determine the site conditions relative to evaluation of the site as a "Low Risk" site as determined by RWQCB guidance documents (RWQCB, 1996).

1.2 SCOPE OF WORK

The scope of work consists of the following tasks:

- Prepare a site specific site health and safety plan and this workplan.
- Mark the drilling locations and notify Underground Service Alert 72 hours prior to initiating drilling activities.
- Drill three Geoprobe direct push soil borings to obtain soil and groundwater samples. Use a PID to screen the soil samples collected in the borings.
- Transport soil and groundwater samples to McCampbell Analytical Services of Pacheco, California, a California State certified laboratory.

- Analyze soil and groundwater samples for Total Petroleum Hydrocarbons as Gasoline (TPH-G) by EPA Method 8015M; Benzene, Toluene, Ethylbenzene, Total Xylenes (BTEX); and Methyl Tertiary Butyl Ether (MTBE) by EPA Method 8020. EPA Method 8260 may be used to confirm the existence of MTBE in a sample, if detected.

- Evaluate the site conditions with respect to site closure concerns.

- Prepare a report summarizing the findings of the investigation and an evaluation of the suitability of the site for administrative closure.

1.3 SITE BACKGROUND

The General Services Agency (GSA) closed two 10,000 gallon USTs in-place at the site in 1994. The USTs previously stored gasoline. The tanks had not been used since the early 1980s (GSA, 1999). Soil and groundwater samples collected in support of in-place closure indicated low concentrations of petroleum hydrocarbons in soil and measurable concentrations of petroleum hydrocarbons in groundwater (ESE, 1993). The analytical data collected in the soil and groundwater sample event is presented in Table 1-1. The boring locations are presented on Figure 2.

1.4 PROJECT SCHEDULE

The project schedule is presented on Table 1-2.

2. PRE-FIELD ACTIVITIES

2.1 DRILLING SOIL BORINGS

The rationale for selection of the soil boring locations is presented in Section 3.1. Prior to drilling the soil borings, the following tasks will be performed:

- Submit a Drilling Permit Application to Alameda County Public Works Agency, and a Street Use Permit Application to the City of Oakland Public Works Agency.
- Prepare a site specific health and safety plan.
- Notify the Alameda GSA representatives of the site activity schedule.
- Mark the borehole locations and inform Underground Service Alert of the planned drilling activities. A private utility locating company will be employed to clear the soil boring locations.

2.1.1 Soil Boring Permit Application

In accordance with drilling requirements in Alameda County, a drilling permit will be submitted to the Alameda County Public Works Department. Alameda County Public Works will be informed of the drilling schedule to allow grout inspection.

A street use permit will be obtained from the City of Oakland Public Works Department to allow drilling a soil boring in the public street.

2.1.2 Site Specific Health and Safety Plan

A site-specific Health and Safety Plan (HSP) will be developed in compliance with 29 CFR 1910.120. The HSP will address the potentially hazardous materials and physical hazards that may be encountered during field activities at the site.

2.1.3 Utility Clearance

Upon approval of this workplan, PSI will mark the drilling locations with white paint. At least 72 hours prior to drilling activities, PSI will contact Underground Service Alert (USA) to identify subsurface utilities that may exist in the areas of investigation. In addition, the boring locations will be cleared by a private underground utility locating service.

2.1.4 Groundwater Flow Direction

Groundwater flow direction has been estimated through interpretation of nearby groundwater conditions, topographic map, and contaminant distribution patterns. North-northeast groundwater flow direction was calculated at the Alcopark UST facility located at 13th and Jackson Streets (PSI, 1998).

Interpretation of the groundwater flow direction from the United States Geological Survey map titled, *Oakland West,* is consistent with the measurement. Review of the previously detected contaminant's aerial location with respect to the probable source areas is also consistent with the calculated measurement.

3. SUBSURFACE INVESTIGATION

The objectives of the subsurface investigation are to collect samples representative of site conditions to allow interpretation of soil and groundwater conditions. The work described in this section includes drilling soil borings to collect soil and grab groundwater samples.

3.1 SOIL BORINGS

Three soil borings will be drilled to investigate the soil and groundwater conditions at the site. The information collected in this investigation will build on the information collected previously (ESE, 1994). The borings will be advanced far enough to allow collection of grab groundwater samples or to a depth of 25 feet. One boring will be drilled upgradient of the USTs and remote fill lines. Two soil borings will be drilled downgradient of the USTs and remote fuel lines. The boring locations are presented on Figure 2.

Soil borings will be logged by a PSI geologist using the Unified Soil Classification System (USCS). The work will be performed under the supervision of a State of California Registered Geologist. Samples will be collected in two-foot long plastic sample liners. A portion of each soil sample will be placed into a plastic bag, labeled, and allowed to equilibrate. PID measurements will be collected by piercing the bag with the PID's steel probe. The PID measurements will be recorded on the boring logs.

3.1.1 Soil Sample Collection

One soil sample will be collected from each soil boring for the chemical analyses described in Section 4.0. Samples for chemical analysis will be selected based on field measured PID readings; the soil sample interval containing the highest concentration of total VOCs will be selected for submittal to the analytical laboratory. If no measurable concentration of VOCs is observed in the soil boring, a sample from the capillary fringe will be collected for chemical analysis.

Soil samples to be submitted to the analytical laboratory will be collected by cutting the interval for chemical analysis out of the plastic liners they were collected in and capping the ends with Teflon sheeting, plastic end caps, and duct tape. Samples will be labeled using a permanent marking pen identifying the sampler, boring name, sample collection depth, time, and date. Collected samples will be placed in a cooler containing ice and maintained under chain of custody protocol.

3.1.1.1 Chemical Analysis of Soil Samples

Soil samples will be chemically analyzed for the contaminants suspected of existing at that location. Because the USTs stored gasoline, samples will be analyzed for TPH-G, BTEX, and MTBE. If an elevated concentration of MTBE is detected in a sample and an elevated concentration of TPH-G also exists in the sample, the sample will be chemically analyzed by EPA Method 8260 to confirm the MTBE concentration as recommended by guidance documents (LLNL, 1998).

3.1.2 Grab Groundwater Sampling

Upon encountering groundwater in the borings, grab groundwater samples will be collected. The grab groundwater samples will be collected using disposable polyethylene tubing equipped with a check valve lowered through the drill stem to collect groundwater samples. Field work for groundwater sampling will be conducted in accordance with the procedures outlined in Appendix A. Samples will be stored in a cooler containing ice and maintained under chain of custody protocol.

3.1.2.1 Chemical Analysis of Groundwater Samples

Groundwater samples will be chemically analyzed for the contaminants suspected of existing at that location. Because the USTs stored gasoline, samples will be analyzed for TPH-G, BTEX, and MTBE. If an elevated concentration of MTBE is detected in a sample and elevated concentration of TPH-G also exists, the sample will be chemically analyzed by EPA Method 8260 to confirm the MTBE concentration as recommended by guidance documents (LLNL, 1998).

3.1.3 Groundwater Elevation Measurements

Depth to groundwater will be measured from the ground surface in each soil boring. Upon collection of the groundwater samples, the borings will be grouted with neat cement. Grout inspection will be scheduled with the ACHCSA and Alameda County Public Works Agency.

3.1.4 Decontamination Procedures

To minimize the possibility of contaminant cross-contamination between sampling locations most of the sampling equipment is disposable. To further minimize the possibility of cross-contamination, all re-usable sampling equipment will be cleaned with a non-phosphate detergent and rinsed twice with deionized water prior to use at a new sampling location. Sampling equipment includes:

- Stainless-steel sample barrel and tubes
- Drilling equipment
- Groundwater sampling equipment and sounders

3.1.5 Storage and Disposal of Generated Wastes

A small amount of soil and liquid waste will be generated in this investigation. Soil will be generated in the Geoprobe drilling activities; liquid will be generated in the drilling and sampling tool decontamination procedures.

3.1.5.1 Solid Waste

All soil cuttings will be stored in a five-gallon DOT approved shipping container. The container will be labeled indicating the date of generation, the contents, and a PSI contact telephone number. The container will be stored on-site in a location minimizing impact to site operations. The disposition of the cuttings will be determined upon receipt of laboratory analytical results.

3.1.5.2 Liquid Waste

All liquid waste will be stored in a five-gallon DOT approved shipping container. The container will be labeled indicating the date of generation, the contents, and a PSI contact telephone number. The container will be stored on-site in a location minimizing impact to site operations. The disposition of the liquid waste will be determined upon receipt of laboratory analytical results.

4. LABORATORY ANALYSIS PROGRAM

The soil and groundwater samples collected during this investigation will be submitted to McCampbell Analytical Services of Pacheco, California. McCampbell Analytical is a State of California Department of Health Services certified hazardous waste laboratory. A summary of the analytical methods is presented below.

Soil and groundwater samples will be analyzed for the following constituents by the indicated methods:

- Total Petroleum Hydrocarbons as Gasoline (TPH-G) in accordance with Environmental Protection Agency (EPA) Method 8015-m.
- BTEX and MTBE by EPA Method 8020.
- MTBE by EPA Method 8260 (if needed as described in Sections 3.1.1.1 and 3.1.2.1).

Rationale for selection of chemical analyses for specific samples is presented in Sections 3.1.1.1 and 3.1.2.1. Sample containers will be supplied by the laboratory. Sample container types and sample mass required for the planned analyses is presented in Table 4-1.

5. FIELD QUALITY ASSURANCE/QUALITY CONTROL

The following Quality Assurance/Quality Control (QA/QC) program describes equipment calibration and field documentation procedures that will be implemented.

5.1 SAMPLE IDENTIFICATION

Soil samples collected in the field will be labeled according to standard protocol, as described in Appendix A.

5.2 CHAIN OF CUSTODY PROCEDURES

Chain of custody records will be used to document sample handling and shipping procedures. Chain of custody records will trace the samples from collection, through any custody transfers to the analytical laboratory. Information recorded on the Chain of custody records will include location of sample collection, sample identification (I.D.) number, date and time of collection, number and type of sample containers and analyses requested. The shipping conditions will also be described on the Chain of custody records. The name of the sampler(s) as well as the name of the person relinquishing the samples will be documented.

5.3 FIELD INSTRUMENTS

The following instruments will be used in the field for health and safety, as well as site assessment purposes.

5.3.1 Organic Vapor Analyzer (OVA)

An organic vapor analyzer with a photo ionization detector (PID) will be calibrated daily using a reference calibration gas. Calibration gas is pre-bottled by a laboratory supply house and has a listed calibration value in parts per million for each specific gas. The field OVA will be used as an indicator of total petroleum hydrocarbons in soil samples and for health and safety purposes.

6. DATA MANAGEMENT

A daily activities log will be completed by on-site personnel for each day in the field. The log will include the following items listed below:

- Project number;
- Project name and location;
- Name, Title and Company of person performing the work;
- Date work is being performed;
- Actual begin and end times of work;
- Description of work being performed;
- Equipment utilized on site; and
- Change orders issued during site activities.

6.1 DATA STORAGE

Project correspondence, field notes, maps, and data will be filed within the main Project File at PSI's Hayward, California office. Chemical data will be entered onto a spreadsheet program for ease of organization, review, and presentation of data in the report. Hard copy files within the main Project File may include, but not be limited to:

- Basic Data: Soil boring logs, field procedures, forms, maps, analytical data.
- Project Field Logs: The project notebook and all field memorandums.
- Correspondence: All written correspondence and telephone conversation records.
- Data Presentation: All maps and tables generated from basic data analyses.
- Data Verification: Documentation that all tables, maps and texts using basic information have been reviewed.

7. REPORT PREPARATION

Upon completion of the project activities described in this workplan, an investigation report will be prepared presenting the investigation methodology, analytical results, measurements collected, and conclusions. The final report will be reviewed and approved by a California Registered Geologist. The report will include the following elements:

- Title sheet,
- Signature page,
- Table of contents,
- Investigative summary,
- Introductory narrative of the project,
- Investigative methods,
- Investigative results and field observations,
- Data evaluation and discussion,
- Graphs, Tables and Figures,
- Summary table (s) indicating laboratory results,
- Contaminant concentrations, analytical methods, and detection limits,
- Copies of original laboratory documentation,
- Field procedure forms, and chain of custody records,
- Conclusions

REFERENCES

ESE, 1993, Subsurface Investigation for USTs at Jackson and 12th Streets, 165 13th Street, Oakland, California, prepared for Alameda County General Services Agency, April 19.

EPA, 1989, Seminar Publication, Transport and Fate of Contaminants in the Subsurface, prepared for Technology Transfer, September.

GSA, 1999, Request For Proposal (RFP) for Groundwater Services, January 8.

LLNL, 1995a, Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks, October 16.

LLNL, 1995b, California Leaking Underground Fuel Tank Historical Case Analyses, November 16.

LLNL, 1998, An Evaluation of MTBE Impacts to California Groundwater Resources, prepared for California State Water Resources Control Board, June 11.

PSI 1998a, Groundwater Monitoring Report, Third Quarter, 1998, Alcopark Fueling Facility, prepared for Alameda GSA, August 12.

RWQCB, 1996, Supplemental Instruction to State Water Board December 8, 1995 Interim Guidance on Required Cleanup at Low Risk Fuel Sites, January 5.

USGS, 1980, Oakland West, California, topographic map.

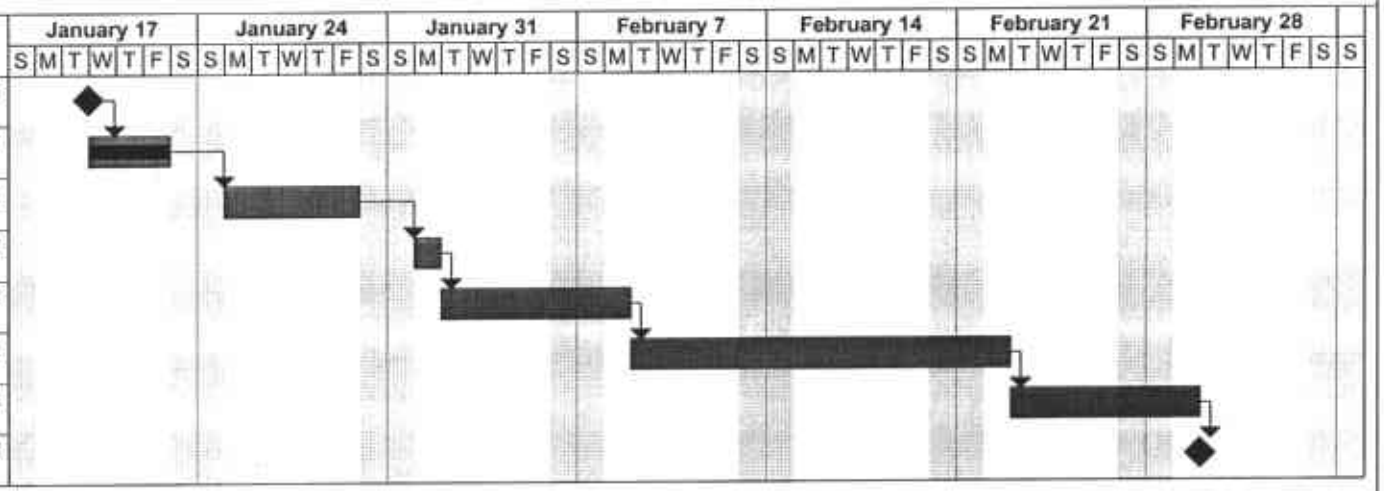
TABLE 1-1
SUMMARY OF HISTORIC ANALYTICAL DATA
FORMER ALCOPARK FUELING FACILITY
12TH and JACKSON STREETS, OAKLAND, CA

				All concentrations in mg/kg (PPM)				
Soil Boring	Sample Depth	Date	Matrix	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes
SB-1	15	10/27/92	Soil	<1	0.019	0.019	0.011	0.042
SB-1	21.5	10/27/92	Soil	6.3	0.41	0.68	0.1	0.70
SB-2	15	10/27/92	Soil	<1	<0.005	<0.005	<0.005	<0.005
SB-2	22	10/27/92	Soil	1.8	0.21	0.19	0.034	0.20
SB-3	15	10/28/92	Soil	<1	<0.005	<0.005	<0.005	<0.005
SB-3	22	10/28/92	Soil	<1	<0.005	<0.005	<0.005	<0.005
SB-4	15	10/28/92	Soil	<1	<0.005	<0.005	<0.005	<0.005
SB-4	22	10/28/92	Soil	<1	<0.005	<0.005	<0.005	<0.005
Soil Boring	Sample Depth	Date	Matrix	TPH-G	Benzene	Toluene	Ethylbenzene	Xylenes
SB-1	NA	10/27/92	Groundwater	51	2.4	9.4	1.4	8.4
SB-2	NA	10/27/92	Groundwater	8.2	0.56	0.93	0.36	0.62
SB-3	NA	10/28/92	Groundwater	0.072	0.00071	<0.0005	0.0005	0.0024
SB-4	NA	10/28/92	Groundwater	<0.050	<0.0005	<0.0005	<0.0005	<0.0005

Notes:
TPH-G denotes Total Petroleum Hydrocarbons as Gasoline
mg/kg denotes milligrams per kilogram (ppm)
< denotes less than detection limit.
Data from ESE Report of Findings dated April 19, 1993 prepared for Alameda GSA.

TABLE 1-2
PROJECT SCHEDULE

ID	Task Name	Duration
1	Project Award	0d
2	Prepare Workplan	3d
3	Regulatory Review	5d
4	Drill Soil Borings	1d
5	Laboratory Analysis	5d
6	Prepare Report	10d
7	Client Review	5d
8	Issue Final Report	0d



Project: Former Alcopark Fueling Fac
Date: 1/21/99

Task
Progress
Milestone
Summary
Rolled Up Task
Rolled Up Milestone
Rolled Up Progress

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TABLE 4-1
SAMPLING SCHEDULE AND CONTAINER REQUIREMENTS
FORMER ALCOPARK FUELING FACILITY
12TH AND JACKSON STREETS, OAKLAND, CA

Soil Boring	SOIL SAMPLES		GROUNDWATER SAMPLES	
	Collect At:	Sample Containers TPH-G/BTEX/MTBE	Collect At:	Sample Containers TPH-G/BTEX/MTBE
SB-5	Collect at five foot intervals, record PID. Select sample for analysis based on highest PID or from capillary fringe.	one (1) 10-inch long sleeve	Collect from first encountered saturated zone.	six (6) 40ml VOAs
SB-6	Collect at five foot intervals, record PID. Select sample for analysis based on highest PID or from capillary fringe.	one (1) 10-inch long sleeve	Collect from first encountered saturated zone.	six (6) 40ml VOAs
SB-7	Collect at five foot intervals, record PID. Select sample for analysis based on highest PID or from capillary fringe.	one (1) 10-inch long sleeve	Collect from first encountered saturated zone.	six (6) 40ml VOAs

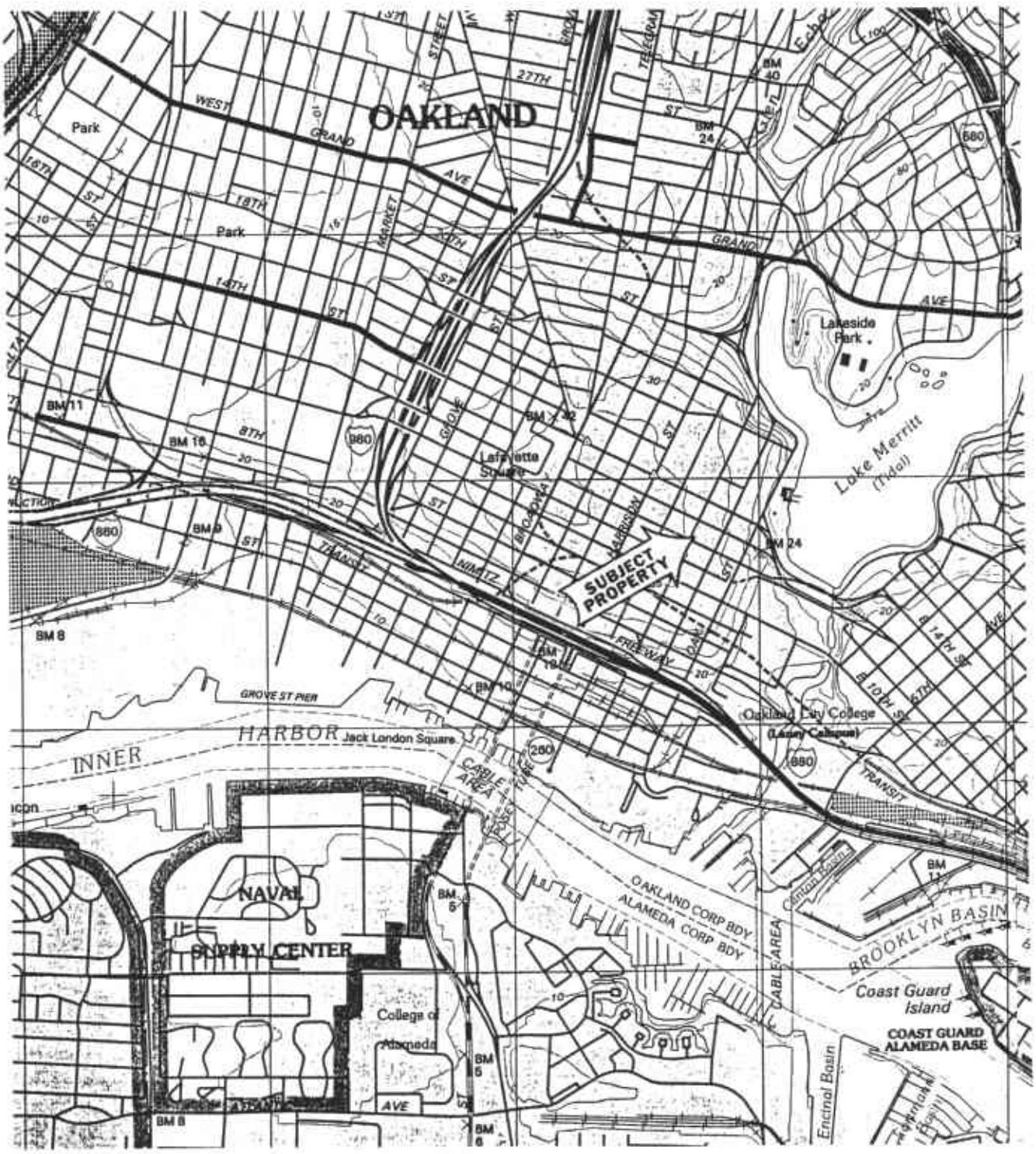

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FIGURE 1 - SITE LOCATION MAP

Former Alcopark Fueling Facility
Jackson and 12th Streets
Oakland, California

PROJECT NO.:
9G004

SOURCE:
USGS Topographic Maps
Oakland West, CA
Oakland East, CA

DATE:
Photorevised 1993

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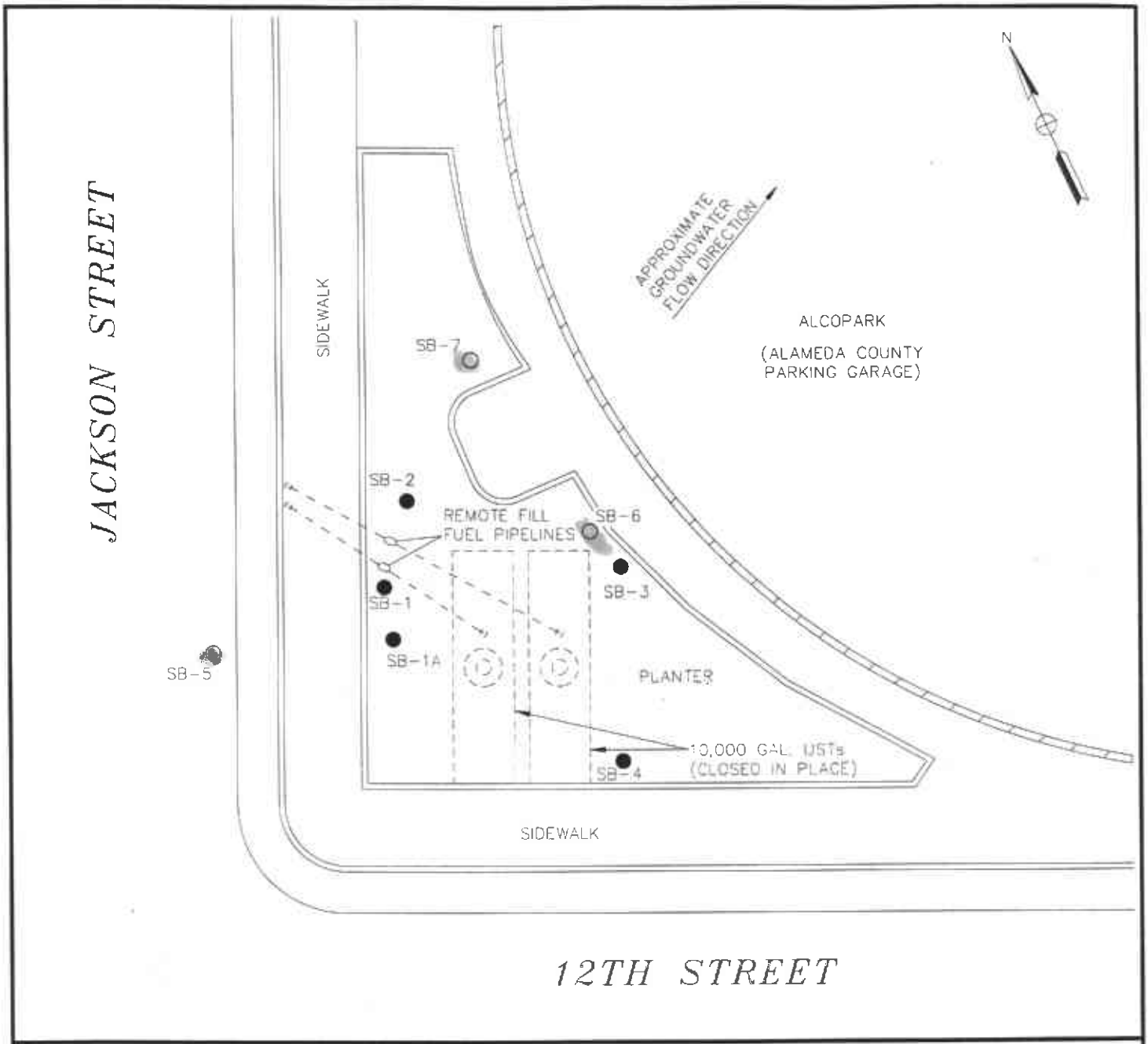

LEGEND

SB-1 ● SOIL BORING

◎ PROPOSED SOIL BORING

REMOTE FILL PORTS

0 10 20

SCALE IN FEET

NOTE:
SITE MAP FROM ESE REPORT OF FINDINGS, DATED APRIL 19, 1993.

psi ENVIRONMENTAL GEOTECHNICAL CONSTRUCTION
CONSULTING • ENGINEERING • TESTING

SITE PLAN
FORMER ALCOPARK FUELING FACILITY
12TH AND JACKSON STREETS
OAKLAND, CALIFORNIA
PROJECT NUMBER: 575-9G004

DATE: 1/21/99	CKD BY: JO	FIGURE NO.: 2
FILE NO: 9G004-2		DRAWN BY: S.BOWERS

APPENDIX A

STANDARD FIELD PROCEDURES

STANDARD FIELD PROCEDURES

I. DRILLING OF SOIL BORINGS AND COLLECTION OF SOIL SAMPLES

The following procedures will be used for the drilling and sampling of the soil borings drilled at the site:

1. Drilling will be conducted by a licensed drilling subcontractor under the supervision of PSI. Drilling equipment will be pressure washed at the beginning of the day and between soil borings.

2. Prior to the commencement of drilling activities at the site, Underground Service Alert (USA) will be contacted to identify underground utilities in the areas that the borings will be located.

3. Boring logs for the soil borings drilled at the site will be prepared under the supervision of a State of California Registered Geologist. The soil cuttings observed during drilling will be described in accordance with the Unified Soil Classification System.

4. Soil samples will be collected using a stainless steel sampler lined with plastic inserts. Undisturbed soil samples are collected by pushing the sampler into the subsurface using a hydraulic press or percussion hammer.

5. Once the sample tool has been retrieved, an interval will be selected for chemical analysis. The selected interval will be cut out of the core section using a hand saw or similar tool. The ends of the sample tube will be covered with Teflon sheets and capped with polyethylene end caps. The sample will be labeled and placed in a zip-lock bag in a chilled cooler pending delivery to the laboratory for analysis.

6. Soil samples will be labeled indicating sample matrix, depth, and boring name. For example, "S-4-B1," indicates a soil sample was collected at a depth of 4 feet in Boring B1. The samples will also be labeled with the sampling designation, depth, date, and project number.

7. Sampling tools will be washed between sampling intervals with Alconox soap followed by two deionized-water rinses.

8. Chain of custody procedures using chain of custody forms will be used to document sample handling and transportation.

9. A photo ionization detector (PID) will be used to monitor volatile organic compounds (VOCs) in the ambient air during drilling at the site in accordance with the site health and safety plan. VOC concentrations in the soil will be measured and recorded on the boring logs for depths that soil samples were collected. VOCs in the soil will be

measured at the sampling depths by punching holes in the sample tubes and inserting the PID probe into the hole or by placing sample material in a zip-lock bag and allowing it to equilibrate. PID measurements will be collected by puncturing the bag with the PID probe. PID measurements will be recorded on the boring log.

10. Soil cuttings and wash water generated during drilling activities at the site will be contained in Department of Transportation (DOT) approved containers. The containers will be labeled with the contents, date, well or boring number, client name, PSI telephone number, and project number.

II FIELD DOCUMENTATION OF SAMPLING PROCEDURES

The following describes the documentation procedures to be followed in performing sampling activities.

1. Sampling procedures will be documented in a field notebook that will contain:

    1. Sample collection procedures
    2. Date and time of collection
    3. Date of shipping
    4. Sample collection location
    5. Sample identification number(s)
    6. Intended analysis
    7. Quality control samples
    8. Sample preservation
    9. Name of sampler
    10. Any pertinent observations

2. Samples will be labeled with the following information:

    1. Sample number
    2. Well number
    3. Date and time sample was collected
    4. Sampler's name
    5. Sample preservatives (if required)

3. The following is the sample designation system for the site:

Soil samples will be labeled indicating sample matrix, depth, and boring name. For example, "S-4-B1," indicates a soil sample was collected at a depth of 4 feet in Boring B1.

Groundwater samples will be labeled indicating sample matrix and boring name. For example, "W-B1," indicates a water sample collected from Boring B1.

3. Handling of the samples will be recorded on a chain of custody form which shall include:

    1. Site name
    2. Signature of Collector
    3. Date and time of collection
    4. Sample identification number
    5. Number of containers in sample set
    6. Description of sample and container
    7. Name and signature of persons, and the companies or agencies they represent, who are involved in the chain of possession
    8. Inclusive dates and times of possession
    9. Analyses to be completed

III. GROUND-WATER SAMPLING

The following procedures will be used for ground water sampling:

1. All equipment shall be washed prior to entering the well with an Alconox solution, followed by two tap water rinses and a deionized water rinse.

2. Prior to purging wells, depth-to-water will be measured using an Solinst water-interface probe to an accuracy of approximately 0.01 foot. The measurements will be made to the top of the well casing on the north side.

4. Free floating product thickness and depth-to-ground water will be measured in wells containing free floating product using a Solinst oil-water interface probe to an accuracy of approximately 0.003 meters (0.01 foot). The measurements will be made to the top of the well casing on the north side.

5. Water samples will be collected with a polyethylene or Teflon disposable bailer. In the case of grab groundwater sampling, samples will be collected with a disposable Teflon lined plastic tube equipped with a check valve. The water collected will be immediately decanted into laboratory-supplied vials and bottles. The containers will be overfilled, capped, labeled, and placed in a chilled cooler, prior to delivery to the laboratory for analysis.

6. Chain of custody procedures, including chain of custody forms, will be used to document water sample handling and transport from collection to delivery to the laboratory for analysis.

7. Ground-water samples will be delivered to a State-certified hazardous waste laboratory within approximately 24 hours of collection.