



May 2, 1996

Alameda County Health Department
Hazardous Materials Division
1131 Harbor Bay Parkway
Alameda, California 94502

Attention: Ms. Madhulla Logan

Subject: Work Plan for Preliminary Site Investigation
265 30th Street, Oakland, California
(CCI Project No. 12058-2)

ENVIRONMENTAL
PROTECTION
95 MAY 13 PM 1:03

Dear Ms. Logan:

On behalf of Mr. Warren Hagstrom of Hagstrom Properties, Compliance & Closure, Inc. (CCI) is pleased to present this Work Plan for the drilling of two soil borings on the southeast side of the former fuel tank area at the facility, located at 265 30th Street, in the City of Oakland, Alameda County, California, (Figure 1). This Work Plan is in response to the Alameda County Health Care Services Agency (County's) letter dated April 4, 1996.

Background

In September 1995, CCI retained an underground locating service in an attempt to locate possible fuel tanks that may have existed under the sidewalk area along 30th Street at the subject site. It was concluded that underground fuel tanks existed under the sidewalk area, however, the size of the tanks and quantity of tanks could not be determined. On behalf of Hagstrom properties, CCI obtained bids to have the fuel tanks removed. Hagstrom Properties selected TAC Environmental Services (TAC) of Cordelia, California as the lowest responsive bidder. After submitting a Work Plan and obtaining the proper permits, TAC schedule the tank removal for the first week of December, 1995. After exposing the fill ports in the sidewalk, it was determined that the fuel tanks consisted of two 8,000-gallon steel tanks. Approximately 400-gallons of tank rinsate was removed from the tanks by Erickson. On December 7, 1995, the two fuel tank were completely unearthed and removed from the excavation. Based on the visual inspection, the two tanks appeared to be in good condition. Both fuel tanks were transported by Erickson under manifest to its Richmond, California facility.

Approximately 335 cubic yards of soil were removed from the tank area, stockpiled and covered by plastic. Soil samples were collected from the areas of highest contamination and from approximately 3 feet below the bottom of the excavation. The Laboratory reported concentrations of total petroleum hydrocarbons as gasoline (TPHG) as high as 6,700 parts -per-million in soil samples collected from the hot spot areas. The soil samples collected below the excavation bottom were reported by the laboratory to be free of detectable petroleum hydrocarbons. The tank excavation was later backfilled and recompactd with clean, imported, 3/4-inch drain rock and Class 2 baserock.

Based on the levels of the data obtained during the tank removal, the County is requesting that two soil borings be drilled on site, near the former fuel tank area, to a depth of 30 feet or to first ground water.

Proposal

CCI is proposing the two soil borings be drilled on the southeast side (down slop) of the former fuel tank area at the subject site, (Figure 2). The purpose of the two borings is to profile the soil conditions to a depth of 30 feet or to groundwater in order to determine whether any soil below the former fuel tank area and groundwater have been impacted by petroleum hydrocarbon contamination. At the conclusion of this investigation, the data will be evaluated and the site reviewed for case closure.

SCOPE OF WORK

Soil borings

The two soil borings will be drilled with a truck-mounted, B-53 drill rig, using 8-inch outside diameter hollow stem augers, which will be cleaned prior to use. The borings will be drilled under approved permit from the Alameda County Flood Control and Water Conservation District (Zone 7). The borings will be advanced to the uppermost water bearing stratum, and advanced 5 feet into the aquifer or terminated in an aquitard underlying that stratum. A CCI geologist will log the borehole by collecting samples at 5-foot intervals, lithologic contacts of interest and any areas of obvious contamination. Upon retrieval, the sampler will be disassembled into its component parts. One of the selected brass liners will be selected for chemical analysis. The ends of the selected liner(s) will be sealed with aluminum foil, capped with plastic caps, labeled, logged on chain-of-custody forms and stored in a chilled chest containing ice for preservation in the field and during transport to the analytical laboratory. The boring will be logged using the Unified Soil Classification System. Drill cuttings will be placed on and covered by plastic and left at the site.

Hydropunch Groundwater Sampling

In addition to collecting soil samples at 5 foot intervals, grab water samples will also be colleted from the two soil borings,

using a Hydropunch groundwater sampling device. The technique used to collect the water samples is described as follows:

The Hydropunch groundwater sampler is constructed almost entirely of stainless steel and Teflon, Vitron O-rings and a polyvinyl chloride (PVC) screen. It is just over 4-1/2 feet long, with an outside diameter (O.D.) of 2-inches and weighs approximately 25 pounds. After drilling to the desired depth, a 48-inch long PVC screen is placed inside the Hydropunch, attached to a drive point, and sealed inside the sampler's stainless steel body. The sampler is attached to the drill rod, lowered to the bottom of the boring and driven to the desired depth. As the sampler is pushed or driven through the soil, the PVC screen is shielded in a watertight housing that prevents contaminated soil or groundwater from entering the sampler. The shape of the sampler and its smooth exterior surface prevent the downward transport of soil and liquid as the tool is advanced. When the desired sampling depth is reached, the stainless steel body is withdrawn approximately 45-inches, leaving the point in the ground and exposing the screen so that groundwater can enter.

A 1-inch PVC bailer can then be lowered through the hollow-stem of the drive casing and the Hydropunch body into the PVC screen to collect groundwater samples. The water samples will then be transferred to the appropriate laboratory-supplied bottles that will be labeled, logged on a chain-of-custody form, and placed in a chilled ice chest for transport to the analytical laboratory for analysis. After sampling is completed, the Hydropunch body will be removed from the borehole, leaving behind the drive point and screen. The borehole will then be backfilled with neat cement grout.

Laboratory Analysis

It is anticipated that up to 10 soil and two water samples will be analyzed. All samples will be analyzed for total petroleum hydrocarbons as Gasoline (TPHG), benzene, toluene, ethylbenzene and total xylenes (BTEX), using GC/FID 5030 and 8020 for soil and GC/FID 5030 and 602 for water. In addition, the samples will be analyzed for methyl tertiary butyl ether (MTBE). Since no poly nitro aromatics were detected in soil samples collected under the former tank area, CCI is requesting the PNA analysis be waived for this investigation. The samples will be analyzed on a normal (10 working day) turnaround time frame.

REPORT PREPARATION

A written report on the two soil borings will be prepared upon receipt of the analytical test results. The report will include the exploratory boring logs, chemical data, site map, and report narrative, with conclusions and recommendations, for submittal to the Alameda County Health Care Agency.

Work Plan
Hagstrom Properties
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If you have any questions concerning this Work Plan, Please call our office at (510) 426-5395.

Sincerely,
Compliance & Closure, Inc.



Gary R. Mulkey, R.G. 5842



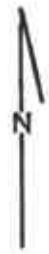
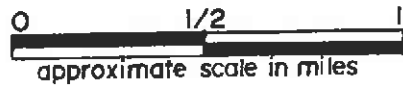
CC: Mr. Warren Hagstrom, Hagstrom Properties




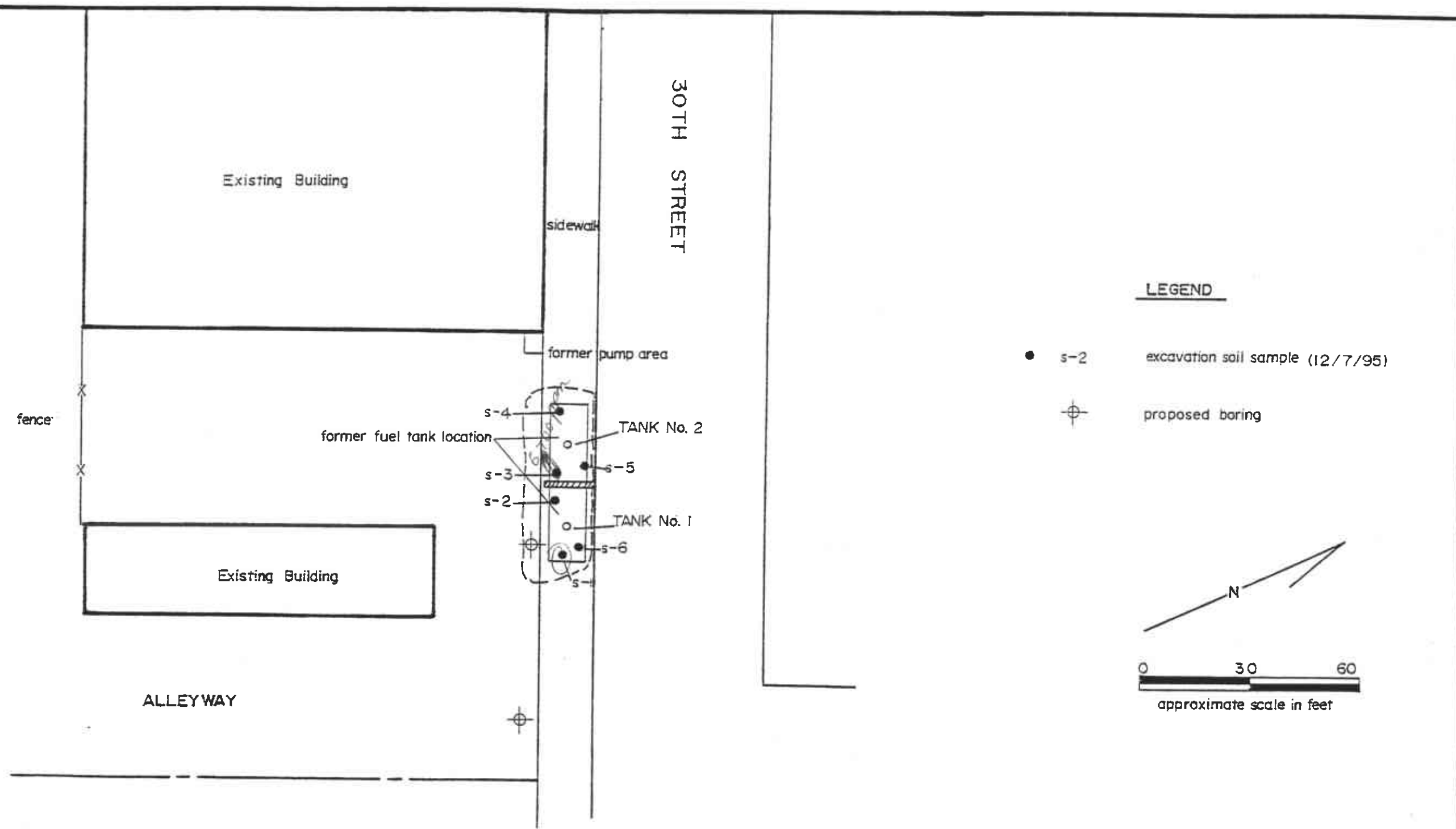
LEGEND





site location



reviewed by:	VICINITY MAP HAGSTROM PROPERTIES 265 30TH STREET OAKLAND, CALIFORNIA	 Compliance & Closure, Inc.
approved by:		
drawn by: GM		
job no. 12058-1	date: 12/19/95	drawing no. FIG. 1



REVIEWED BY:	SITE MAP		 Compliance & Closure, Inc.
	HAGSTROM PROPERTIES		
APPROVED BY:	265 30TH STREET		JOB # 12058-2
	OAKLAND, CALIFORNIA		DATE: 5/3/96
			DRAWN BY: GM
			DRAWING #: FIG. 2

COMPLIANCE & CLOSURE, INC.

SITE SAFETY PLAN

FOR

HAGSTROM PROPERTIES

AT

265 30TH STREET, OAKLAND, CALIFORNIA

Project No. 12058-2
May 1996

C O N T E N T S

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SITE SAFETY PLAN
FOR
HAGSTROM PROPERTIES

PURPOSE AND SCOPE

This Site Safety Plan (SSP) establishes the basic safety guidelines and requirements for the Preliminary Site Assessment project at the property located at 265 30th Street in the City of Oakland, California. The SSP addresses hazards that may be encountered during this project. Field activities are scheduled to begin in June 1996, and are expected to end approximately 1 day after the start date.

The provisions set forth in this SSP shall apply to Compliance & Closure, Inc. (CCI) employees and any subcontractors working for CCI at the job site. All personnel working for CCI must read this SSP and sign the attached Compliance Agreement before entering the work area.

Field personnel may deviate from the safety provisions set forth in this SSP, but only to upgrade or increase the safety requirements. If changes in site or working conditions require changes in safety procedures, appropriate amendments to this SSP will be provided by the CCI Project Manager.

I. FACILITY BACKGROUND/WORK PLAN

Site Description and History

In September 1995, CCI retained an underground locating service in an attempt to locate possible fuel tanks that may have existed under the sidewalk area along 30th Street at the subject site. It was concluded that underground fuel tanks existed under the sidewalk area, however, the size of the tanks and quantity of the tanks could not be determined. On behalf of Hagstrom Properties, CCI obtained bids to have the fuel tanks removed. Hagstrom Properties selected TAC Environmental Services (TAC) of Cordelia, California as the lowest responsive bidder. After submitting a Work Plan and obtaining the proper permits, TAC schedule the tank removal for the first week of December, 1995. On December 7, 1995, two 8,000-gallon fuel tanks were removed from the site. Approximately 335 cubic yards of soil was excavated and removed from the tank area. Soil samples collected from the area of

highest contamination and from approximately 3 feet below the bottom of the excavation. The laboratory reported concentrations
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of total petroleum hydrocarbons as gasoline (TPHG) as high as 6,700 parts-per-million (ppm) in soil samples collected from the hot spot area. Based on these levels, the Alameda County Health Care Agency is requesting a soil and ground water investigation of the site.

II. KEY SAFETY PERSONNEL AND RESPONSIBILITIES

All personnel working for CCI at the job site are responsible for project safety. The operational and health and safety responsibilities of pertinent CCI personnel are identified below.

Project Manager: Mr. Gary Mulkey

The Project Manager is responsible for the provisions and submittal of this SSP to the Site Safety Officer and for advising the Site personnel on health and safety matters. He has the authority to provide for the auditing of compliance with the provisions of this SSP, to suspend or modify work practices, and to recommend disciplinary action for individuals whose conduct does not meet the provisions presented in this SSP. The Project Manager reports to the Office Safety Coordinators. Mr. Mulkey can be reached at (510) 426-5395

Site Safety Officer: Mr. Gary Mulkey

The Site Safety Officer is responsible for the dissemination of the information contained in this SSP to all CCI personnel working at the job site and to the responsible representative(s) of each subcontractor firm working for CCI at the job site.

The Site Safety Officer is responsible for ensuring the following items are adequately addressed:

- o Safety Supplies and Equipment Inventory
- o Medical Surveillance Program/Physical Examinations
- o Training Programs/Hazard Communication
- o Accident/Incident Reporting Procedures
- o Decontamination/Contamination Reduction Procedures

The Site Safety Officer has the authority to suspend work anytime he or she determines the safety provisions set forth in this SSP are inadequate to ensure worker safety.

The Site Safety Officer will be present during the field work operations.

III. JOB HAZARD ANALYSIS

The major contaminants that may be encountered are Gasoline and its hazardous components.

The primary routes of exposure for the petroleum hazard are inhalation and ingestion. These hazards will be mitigated by air monitoring with an OVM and avoiding dust. If the action level, as noted in the table below, is exceeded, the site will be vacated until the levels are reduced

CHEMICALS AND CHARACTERISTICS

Chemical	Symptoms	UEL/LEL	PEL	CONC.	AL
TPH as Gas	Irritant to eyes, noise, lungs, central nervous system	7.6%-1.4%	N/A	6,700 ppm	N/A
Benzene	Irritant to eyes, noise, respiratory system, headaches, Carcinogen	7.1%	1.3%	1ppm	N/A 150ppm
Toluene	Fainting, headaches, dizziness, and dilated pupils.	7.1%	1.3%	100ppm	35ppm 150ppm
Ethyl Benzene	Irritant to eyes, nose, throat, skin, constriction of chest.	6.7%	1.0%	100ppm	25ppm 150ppm
Xylenes	Irritant to eyes, nose, throat	6.0%	1.0%	100ppm	67ppm 150ppm

UEL = upper Explosive limit, LEL = lower explosive limit
 PEL = permissible exposure limits, Conc = maximum concentration in soil

Fire Hazards

The potential for fire or explosion exists whenever flammable liquids or vapors are present above lower explosion limit (LEL) concentrations and sufficient oxygen is present to support combustion. These potential fire hazards are addressed below:

- o General excavation operations in materials containing flammable substances may pose a fire hazard. A fire extinguisher will be located in the drill rig at the site.

Physical Hazards

The potential physical hazards expected at the job site are addressed below:

- o The potential for physical injury exists from the operation of machinery such as the drill rig. Use of steel-toed boots, hard hats, and safety glasses will be required when in the work area.
- o The potential for noise hazards exists at the site from the operation of the drill rig. It is not expected that noise levels will exceed the acceptable CAL-OSHA permissible exposure level of 90 dB. However, workers should be aware of the presence of these hazards and take steps to avoid them. Ear/noise protection, although not required, shall be available to all personnel within the job site in the event noise levels exceed worker comfort or protection levels.
- o Personnel should be cognizant of the fact that when protective equipment such as respirators, gloves, and protective clothing are worn, visibility, hearing, and manual dexterity are impaired.

Heat Stress

The anticipated weather conditions for the field portion of the project are sunny skies, with moderate temperatures. Though not anticipated, the potential exists for heat stress. Some signs and symptoms of heat stress are presented below:

- o Heat rash may result from continuous exposure to heat or humid air.
- o Heat cramps are caused by heavy sweating with inadequate electrolyte replacement. Signs and symptoms include:
 - muscle spasms
 - heavy sweating
 - dizziness
 - nausea
 - fainting
- o Heat exhaustion occurs from increased stress on various body organs, including inadequate blood circulation due to cardiovascular insufficiency or dehydration. Signs and symptoms include:
 - pale, cool, moist skin
 - heavy sweating
 - dizziness
 - nausea
 - fainting
- o Heat stroke is the most serious form of heat stress. Temperature regulation fails, and the body temperature rises to critical levels. Immediate action must be taken to cool the body before serious injury or death occur. Competent medical help must be obtained. Signs and symptoms are:
 - red, hot, unusually dry skin
 - lack of or reduced perspiration
 - dizziness and confusion
 - strong, rapid pulse
 - coma

Preventing heat stress is particularly important, because a person who suffers from heat stroke or exhaustion may be predisposed to additional heat injuries.

IV. JOB HAZARD SUMMARY

In summary, the expected potential hazards to personnel in the work area are:

1. fire or explosion from the drill rig.
2. physical injury from equipment operated at the job site.
3. heat stress.

As described in Section III, these potential hazards have been mitigated for the protection of the worker's health and safety. The proposed work does not appear to present any potential health risk to workers, the surrounding community, or the environment if the provisions of this SSP are properly implemented.

V. EXPOSURE MONITORING PLAN

All personnel working for CCI at the job site shall be monitored for heat stress. Because workers at the job site are expected to wear permeable clothing (e.g., standard cotton or synthetic work clothes), monitoring for heat stress will consist of personnel constantly observing each other for any of the heat stress symptoms discussed in Section V.

No dust monitoring shall be performed because none of the tasks in this project are expected to generate large quantities of dust.

No noise monitoring shall be performed because none of the tasks in this project are expected to generate enough noise to exceed 90 dB CAL-OSHA permissible exposure limit or the 85 dB action level for noise monitoring. However, ear and noise protection shall be made available to all personnel at the job site in the event noise levels exceed worker comfort levels.

VI. PERSONAL PROTECTIVE EQUIPMENT

Level D protection will be required for this project. The following lists summarize the personal protective equipment that shall be available to all field personnel in the work area.

Level D Protection

- o Steel-toed boots
- o Safety glasses
- o Hard hat
- o Gloves

VII. SITE CONTROL

The site is predominantly a vacant lot with some maintenance buildings. The work zones shall be marked with caution tape.

VII. DECONTAMINATION MEASURES

Field personnel shall wash hands and face before entering a clean area. Additional decontamination measures are discussed under General Safe Work Practices (Section IX).

IX. GENERAL SAFE WORK PRACTICES

The project operations shall be conducted in accordance with the following minimum safety requirement:

- o Eating, drinking, and smoking shall be restricted to a designated clean area.
- o Gross decontamination and removal of all disposable personal protective equipment shall be performed prior to exiting the facility. Contaminated disposable clothing and other disposable equipment will be removed and collected on-site in a drum for disposal. No contaminated equipment will be removed from the site.
- o Shaking or blowing of potentially contaminated clothing or equipment to remove dust or other materials is not permitted.
- o The Site Safety Officer shall be responsible to take necessary steps to ensure that employees are protected from physical hazards, which could include:
 - Falling objects such as tools or equipment
 - Falls from elevations
 - Tripping over hoses, pipes, tools, or equipment
 - Slipping on wet or oily surfaces
 - Insufficient or faulty protective equipment
 - Insufficient or faulty operations, equipment, or tools
 - Noise
- o All personnel shall wash hands and face before eating, drinking, or smoking.

- o Field personnel shall be cautioned to inform each other of non-visual effects of the presence of toxins, such as:
 - Headaches
 - Dizziness
 - Nausea
 - Blurred vision
 - Cramps
 - Irritation of eyes, skin, or respiratory tract
 - Changes in complexion or skin discoloration
 - Changes in apparent motor coordination
 - Changes in personality or demeanor
 - Excessive salivation or changes in pupillary response
 - Changes in speech ability or pattern

- o Field personnel shall be cautioned to observe each other for any of the symptoms of heat stress. A detailed description of the symptoms of heat stress is presented in Section III.

X. SANITATION

The site contains potable water and washing facilities.

XI. EMERGENCY RESPONSE PLAN

In the event of an accident resulting in physical injury, first aid will be administered and the injured worker will be transported to Peralta Hospital for emergency treatment. A hospital site location map is attached to this safety plan.

In the event of a fire or spill, the Project Manager shall be notified. If necessary, local fire or response agencies will be called by dialing 9-1-1.

Emergency Telephone Numbers:

Fire and Police.....9-1-1

Peralta Hospital.....(510) 541-4900
450 30th Street
Oakland, Ca 94609

Directions to Hospital: See attached Site Location and Hospital Location Maps

Fire extinguisher, will be on-site during all field operations.

Additional Contingency Telephone Numbers:

Mr. Warren Hagstrom(510) 254-2814
Compliance & Closure, Inc.....(510) 426-5395

All cases where an accident has occurred will require filling out an incident/accident report and submitting it to the appropriate agencies and individuals within 48 hours of the accident.

XII. TRAINING REQUIREMENTS

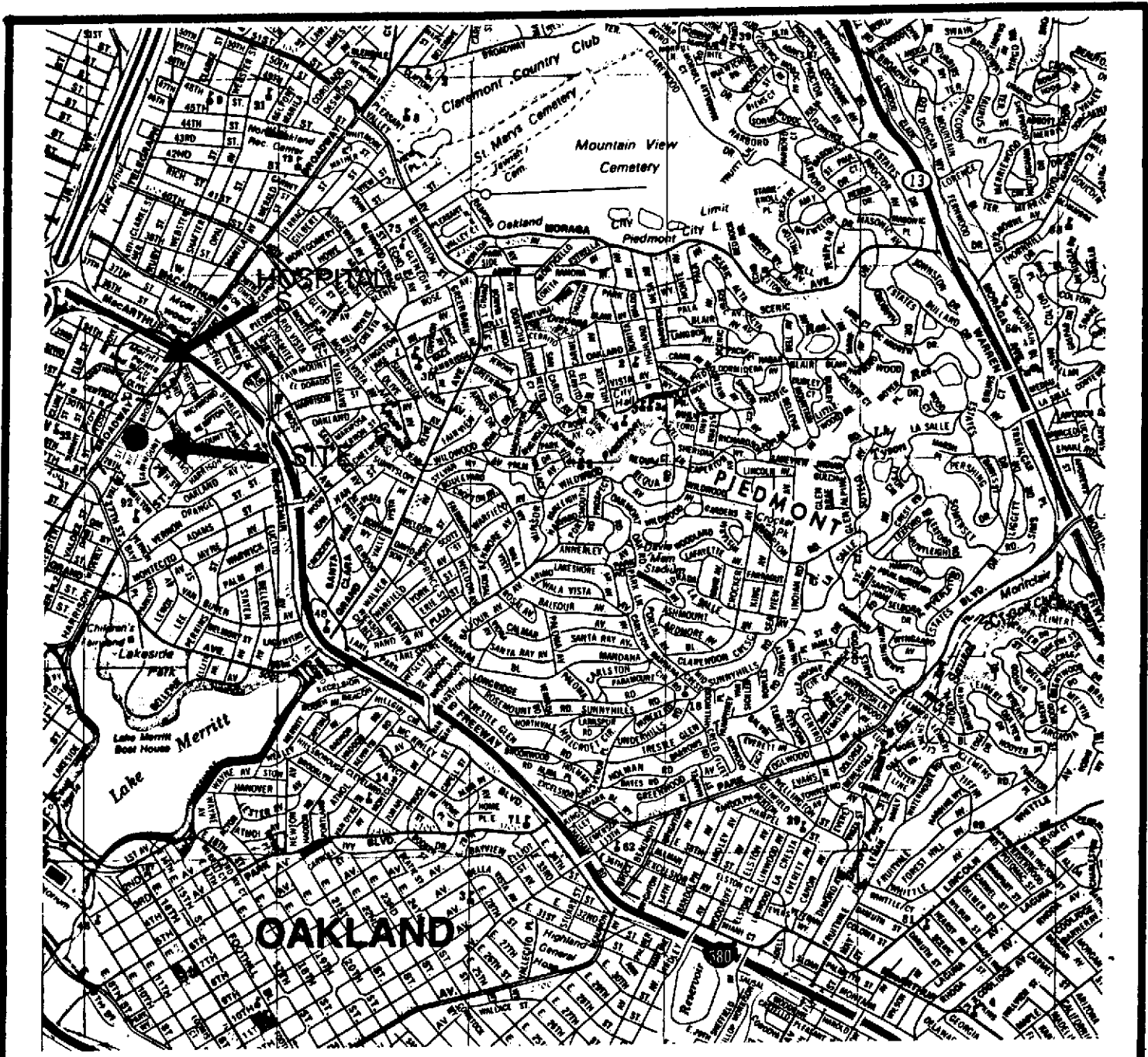
All site personnel will be required to have completed the 40 hours of basic OSHA-SARA training for personnel assigned to hazardous waste sites in compliance with OSHA Standard 29 CFR 1910.120, and GISO 5192 Hazardous Waste Operations and Emergency Response, and all are required to participate in the annual OSHA-SARA 8-hour refresher courses.

XIII. MEDICAL SURVEILLANCE PROGRAM

CCI personnel and subcontractors engaged in field operations shall be participants in the Medical Surveillance Program, and must be cleared by the examining physician(s) to wear respiratory protection devices and protective clothing for working with hazardous materials. The applicable requirements under the California Code of Regulations (CCR) Title 8, Section 5261, which is available at the CCI office for review, shall be observed. No project-specific medical surveillance is required.

XIV. DOCUMENTATION

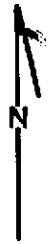
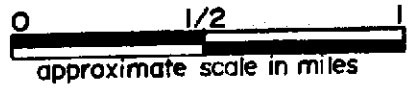
Daily documentation shall be provided by a daily log, completed by the Site Safety Officer. The Site Safety Officer shall record entry and exit times and dates of all personnel working for CCI and any site visitor(s). Turnover of the Site Safety Officer responsibility shall be noted in the daily log. He or she shall also record accidents, incidents of safety infractions by field personnel, and other safety-related matters.




LEGEND



site location



reviewed by:	HOSPITAL LOCATION MAP PERALTA HOSPITAL 450 30TH STREET OAKLAND, CALIFORNIA
approved by:	
drawn by: GM	
job no. 12058-1	



**Compliance
&
Closure, Inc.**

date: 12/19/95	drawing no. FIG. 1
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SIGN-OFF PAGE

I have read the Site Safety Plan and fully understand the hazards associated with the drilling project at the Hagstrom Property located at 265 30th Street in the City of Oakland, California.

I will comply with the minimum safety requirements set forth in the Site Safety Plan. I agree to notify the responsible employee of CCI should I witness any unsafe acts on this site.

Print Name	Signature	Date

Safety Plan approved by:

Project Manager/Site Safety Officer