Pacific Gas and Electric Company

Repair Facility
4525 Hollis Street
Emeryville, CA 94608-2999
510/649-3350

June 3, 1992

Ms. Susan Hugo
Alameda County Health Agency
Hazardous Material Management
80 Swan Way, Room 200
Oakland, CA 94621

Dear Ms. Hugo:

RE: PG&E - Emeryville Repair Facility, Tank Closure Report

Attached for your review is the initial tank sampling results and the Tank Closure Report for the underground tank discovered during construction activities at the Emeryville Repair Facility.

Initial sampling and analysis of the tank interior determined that the tank originally contained kerosene (see Attachment 1). A composite sample was taken of the soil beneath the tank and the results showed that no contamination was present for parameters tested.

As part of the closure plan even though the tank was determined to contain kerosene, analyses were performed for several metals, BTXE, gasoline, diesel, oil and grease.

The first round of sampling performed by an outside contractor (P.R.E) showed possible presence of kerosene, gasoline and oil and grease contamination using a DHS extraction method and EPA methods for evaluation. Subsequently, four feet of soil were removed and additional testing performed. The hydrocarbon levels decreased to non detectable. The levels for tested metals also decreased or remained the same.

A previously performed investigation on the entire Emeryville site verified the existence of possible contaminants and determined their distribution throughout the site. Since the tank was determined to contain kerosene, it is unclear where to attribute the presence of metals except to the existing backfill material. The levels for tested metals were far below Title 22 TTLC limits. The average heavy metal concentrations for the samples appear at levels similar or below on-site background conditions.

Based on the test results for the contents of the underground tank and the surrounding soil, the results show that any possible contamination has been removed and should not pose a hazard to public health or the environment.

If you have any questions regarding this submittal please contact Ms. Emelina Sandoval of my staff at (510) 649-3310. We look forward to meeting with you at your convenience to discuss the results and findings.

Sincerely,

Gary L. Fairbanks
Superintendent

GLF:kjm

Enclosure

cc: T. H. Smith

cc/enc: Emelina Sandoval

STAMCO, INC.
P.O. Box 150 • San Martin, CA 95046
(408) 683-2395 • (408) 268-1196 • FAX: 408-683-4771

January 14, 1992

Pacific Gas & Electric Company
1616 Webster Street - 6th Floor
Oakland, CA. 94612
Attention: Bill Utic

RE: TANK CLOSURE EMERYVILLE

Dear Bill:

Enclosed are copies of the data we accumulated during the tank removal project in Emeryville. Also enclosed is a Closure Plan, Permits, Analytical Reports, and Manifests.

It is required that copies of all this data be sent to the Alameda County Department of Health Services, Attention: Susan Hugo. It is our standard practice to send all data to the owner for review and let the owner attach a cover letter and forward the report to the Department of Health Services.

Our apologies for any inconveniences you experienced during this project, and be assured P.G.&E.'s service needs are top priority here at Stamco, Inc.

Please call me at (408)683-2399 if you have any questions.

Sincerely,

Lee Soares
Vice President, Operations

LS:dw

cc: Rich Camacho
file

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I. UNDERGROUND TANK CLOSURE PLAN

*Health and Safety Plan

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 415/271-4320

Project Specialist (print) SUSAN L. HUGO

ACCEPTED
DEPARTMENT OF ENVIRONMENTAL HEALTH
470 - 27th Street, Third Floor
Oakland, CA 94612
Telephone: (415) 874-7237

These plans have been reviewed and found to be acceptable and essentially meet the requirements of State and local health laws. Changes to your plans indicated by this Department are to assure compliance with State and local laws. The project proposed herein is now released for issuance of any required building permits for construction.

One copy of these accepted plans must be on the job and available to all contractors and craftsmen involved with the removal.

Any changes or alterations of these plans and specifications must be submitted to this Department and to the Fire and Building Inspection Department to determine if such changes meet the requirements of State and local laws. Notify this Department at least 48 hours prior to the following required inspections:

✓ Removal of Tank and Piping
✓ Sampling
✓ Final Inspection

Issuance of a permit to operate is dependent on compliance with accepted plans and all applicable laws and regulations.

THERE IS A FINANCIAL PENALTY FOR NOT OBTAINING THESE INSPECTIONS.

Susan L. Hugo
Please note changes made on pages 2, 3, 4 & 5.
10/23/91

UNDERGROUND TANK CLOSURE PLAN

*** * * Complete according to attached instructions * * ***

1. Business Name Pacific Gas and Electric Company
   Business Owner Same as Above
2. Site Address 4227 Hollis St.
   City Emeryville Zip 94608 Phone (510) [illegible]-7335
3. Mailing Address 4525 Hollis Street
   City Emeryville Zip 94608 Phone (510)
4. Land Owner Pacific Gas and Electric Company
   Address 4525 Hollis St Emeryville City, State CA Zip 94608
5. Generator name under which tank will be manifested
   Pacific Gas and Electric Company

   EPA I.D. No. under which tank will be manifested CAD 982 400 918

rev 12/90

6. Contractor P.R. ENVIRONMENTAL

Address 912 HARBOR WAY SOUTH

City RICHMOND Phone (510) 237-6552

License Type [redacted] ID# [redacted]

7. Consultant STPMCO

Address LOMAS ROAD

City SAN MARTIN Phone (408) 683-2395

8. Contact Person for Investigation

Name Robert Kelly Title PROJECT MGR

Phone (510) 237-6552

9. Number of tanks being closed under this plan 1

Length of piping being removed under this plan 0

Total number of tanks at facility 1

10. State Registered Hazardous Waste Transporters/Facilities (see instructions).

** Underground tanks are hazardous waste and must be handled ** as hazardous waste

a) Product/Residual Sludge/Rinsate Transporter

Name STPMCO EPA I.D. No. CAD063547996

Hauler License No. 0796 License Exp. Date 10/92

Address 1475 LOMAS ROAD

City SAN MARTIN State CA Zip 95046

b) Product/Residual Sludge/Rinsate Disposal Site

Name ERICKSON EPA I.D. No. CAD009466392

Address 255 PARR Blvd.

City Richmond State CA Zip 94801

rev 12/90

c) Tank and Piping Transporter

Name STAMCO EPA I.D. No. CAD063547996

Hauler License No. 0796 License Exp. Date NOV 92

Address 12475 LOMBARD Road

City SAN MARTIN State CA Zip 95046

d) Tank and Piping Disposal Site

Name Erickson EPA I.D. No. CAD009466392

Address 255 Parr Blvd.

City Richmond State CA Zip 94801

11. Experienced Sample Collector

Name PRECISION ANALYTICAL LAB - RICHMOND

Company PRECISION ANALYTICAL LAB.

Address 4036 LAKESIDE Dr

City Richmond State CA Zip 94806 Phone 510-222-3002

12. Laboratory

Name PRECISION ANALYTICAL LAB

Address 4036 LAKESIDE Dr

City Richmond State CA Zip 94806

State Certification No. 1750

13. Have tanks or pipes leaked in the past? Yes [ ] No [X]

If yes, describe. _____

14. Describe methods to be used for rendering tank inert

TANK WILL BE INERTED USING DRY ICE, A MINIMUM OF 300 POUNDS OF SOLID CARBON DIOXIDE FOR EACH 100 GALLONS OF TANK VOLUME

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. **It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.**

15. Tank History and Sampling Information

Tank		Material to be sampled (tank contents, soil, ground-water, etc.)	Location and Depth of Samples
Capacity	Use History (see instructions)		
~500 GALLONS	P.G.&E. HAD NO KNOWLEDGE THAT TANK EXISTED. TANK WAS INSTALLED BY PREVIOUS OWNER WITHOUT DOCUMENTING ITS EXISTENCE. P.G.&E. FROM POSSESSION OF THE PROPERTY IN 1955. TANK IS CURRENTLY EMPTY AND HAS NEVER BEEN USED BY P.G.&E.	SOIL BENEATH TANK OR groundwater if present	2' BELOW BOTTOM OF TANK ~5' One sample must be collected from each end of tank at the bottom, no deeper than 2 feet at the native soil/backfill interface.

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Excavated/Stockpiled Soil	
Stockpiled Soil Volume (Estimated) ~ 5 YDS	Sampling Plan 1 COMPOSITE SAMPLE FROM FOUR LOCATIONS IN PILE

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
TPH G	GC-FID (5030)	5030 5030	1.0 ppm (soil)
TPH D	GC-FID (3550)	3550 3550	1.0 ppm (soil)
~~TPH Mixed~~		~~8015~~	
O&G	5520 DGF	5520 DGF	50 ppm (soil)
BTXE	8240 or 8020	8220 or 8240	0.005 ppm (soil)
Cl HC	8010 or 8240	8010 or 8240	
Metals- Cd, Cr, Pb, Zn, Ni	ICAP or AA		
PCB POP PNA Creosote	8270		

17. Submit Site Health and Safety Plan (See Instructions)

18. Submit Worker's Compensation Certificate copy

Name of Insurer Hanson & Higgins of Oregon

19. Submit Plot Plan (See Instructions)

20. Enclose Deposit (See Instructions)

21. **Report any leaks or contamination to this office within 5 days of discovery.** The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions)

22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions.

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true.

I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections.

Signature of Contractor

Name (please type) Robert F. Kelly Richard Contractor Robert F. Kelly

Signature

Date 10/23/91 10-23-91

Signature of Site Owner or Operator

Name (please type) Gerald Bartell

Signature

Date 10-17-91

rev 12/90

ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION
Acknowledgement of Refund Recipient for Site Account
DEPOSITOR FILLS OUT PER SITE
-- REQUIRED --

The depositor will use this form to acknowledge that the property owner or his or her designee will receive any refund due at the completion of all deposit/refund projects at the site listed below.

SITE NUMBER/ADDRESS:

4227 Hollis St.
Site Number

P.G.&E.
Company Name

4525 Hollis St.
Street Address

Emeryville, CA. 94608
City Zip Code

REFUND RECIPIENT-PROPERTY OWNER

Same
Owner's Name

Same
Owner's Address

Same
Owner's City State Zip

I have read the description of the project Deposit/Refund Procedure, and have had an opportunity to ask questions about it. I understand that regardless of who deposits money into the site account, any deposit money remaining at the completion of all projects being conducted at this site will be refunded solely to the property owner or his or her designee.

Robert F. Kelly
Signature of Depositor

10-17-91
Date

Robert F. Kelly
Depositor Name

P.R Environmental
Company Name

912 Harbour Way So.
Street Address

Richmond, CA. 94804
City / Zip

RETURN FORM TO: Alameda County, Hazardous Materials Div.
80 Swan Way, Rm 200
Oakland, CA 94621-1439
phone (510) 271-4320

Health and Safety Plan
Tank Removal and
Soil Sampling Activities
Pacific Gas & Electric Project Site
4227 Hollis Street
Emeryville, California

October 16, 1991

Prepared for:
Pacific Gas and Electric
4227 Hollis Street
Emeryville, California

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FIGURE 1: SITE LOCATION AND HOSPITAL ROUTE

APPENDIX A: CHEMICAL DESCRIPTIONS

OSHA NOTICE

October 16, 1991

Health and Safety Plan
Tank Removal and
Soil Sampling Activities
Pacific Gas & Electric Project Site
4227 Hollis Street
Emeryville, California

1.0 INTRODUCTION

This Health and Safety Plan ("HSP") addresses the hazards associated with the planned field activities at the Pacific Gas & Electric Project Site, 4227 Hollis Street, Emeryville, California ("the Site"; Figure 1). It presents baseline health and safety requirements for establishing and maintaining a safe working environment during the course of work. The planned field activities at the Site include soil sample collection and excavation of affected soil under the supervision of Plant Reclamation Environmental personnel.

If work plan specifications change during or after the preparation of this HSP, or if site conditions differ as the result of more information, the Plant Reclamation Environmental Health and Safety Director shall be informed immediately and appropriate changes shall be made to this HSP.

At a minimum, all contractor/subcontractor personnel working on site must:

- have read and understood the specifications of this HSP
- have completed all training requirements in 29 Code of Federal Regulations (CFR) 1910.120
- provide their own health and safety equipment as indicated in this HSP, and comply with the minimum requirements established by this HSP. If the contractor/subcontractor has prepared his/her own HSP, it must minimally meet requirements contained herein and all applicable Federal, State, and local health and safety requirements.

This HSP shall be read and approved by the Plant Reclamation Environmental Health and Safety Director, the Plant Reclamation Environmental Project Manager, and a Plant Reclamation Environmental Quality Assurance Reviewer.

A copy of this HSP shall be kept on site, easily accessible to all employees and government inspectors, and another in Plant Reclamation Environmental files.

This HSP was prepared using the following documents:

- 29 CFR 1910 -- Occupational Safety and Health Standards, 1990
- 29 CFR 1926 -- Safety and Health Regulations for Construction
- 29 CFR 1910.1000 -- OSHA Air Contaminants - Permissible Exposure Limits, 1990
- Title 8, California Code of Regulations, Occupation Health and Safety Standards.
- American Conference of Governmental Industrial Hygienists (ACGIH). Threshold Limit Values and Biological Exposure Indices for 1990 - 1991. Cincinnati, Ohio, ACGIH.
- California Department of Health Services (DHS), Toxic Substances Control Division (TSCD), Technical and Support Unit, Region 3, Los Angeles, California, August 1988. Site Safety Plan Guidance Document.
- National Institute for Occupational Safety and Health (NIOSH); Occupational Safety and Health Administration (OSHA); U.S. Coast Guard (USCG); U.S. Environmental Protection Agency (EPA), October 1985. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities. Washington D.C.: U.S. Government Printing Office.
- NIOSH/OSHA, 1981. Occupational Health Guidelines for Chemical Hazards.
- Sax, N. Irving, 1984, Dangerous Properties of Materials, 6th edition, Van Nostrand Reinhold Company, Inc., New York, New York.
- U.S. EPA, Office of Emergency and Remedial Response, Hazardous Response Support Division, November 1984. Standard Operating Safety Guides.

2.0 SITE CHARACTERISTICS

Site Name: Pacific Gas & Electric Project Site
Site Address: 4227 Holllis Street, Emeryville, California

2.1 Background

An underground storage tank (UST) was uncovered under the Pacific Gas & Electric facility located at 4227 Hollis Street in Emeryville, California. The UST was reportedly installed by the previous owner of the building prior to 1955. The UST was exposed while construction crews were reinforcing footings in the building during the second week of October, 1991.

3.0 WORK DESCRIPTION

Tasks to be performed at the Site include underground tank removal and soil sampling activities.

Work activities are planned in the following order (some activities may be performed concurrently):

- removing underground storage tank
- trenching and soil sampling
- backfilling excavations

4.0 KEY PERSONNEL AND RESPONSIBILITIES

4.1 Site Safety Personnel

Name	Responsibilities
[redacted]	[redacted]
[redacted]	[redacted]
[redacted] Kara	[redacted] Director

4.2 Plant Reclamation Environmental Personnel and Responsibilities

The responsibilities of the Plant Reclamation Environmental personnel listed in Section 4.1 are outlined below.

4.2.1 Plant Reclamation Environmental Project Manager

The Plant Reclamation Environmental Project Manager, Fred Glueck, has the ultimate responsibility for the health and safety of Plant Reclamation Environmental personnel on site. As part of his duties, Mr. Glueck shall be responsible for:

- keeping the Plant Reclamation Environmental Health and Safety Director informed of project developments
- ensuring that on-site Plant Reclamation Environmental personnel receive the proper training, and are informed of potential hazards anticipated at the Site and procedures and precautions to be implemented on the job
- ensuring that contractors and subcontractors are informed of the expected hazards and appropriate protective measures at the Site. (Subcontractors should also be given a copy of Plant Reclamation Environmental's HSP for review.)
- ensuring that resources are available to provide a safe and healthy work environment for Plant Reclamation Environmental personnel.

4.2.2 Plant Reclamation Environmental Health and Safety Director

The Plant Reclamation Environmental Health and Safety Director, Michael Kara, shall be responsible for:

- monitoring the health and safety impacts of this project for on-site Plant Reclamation Environmental personnel
- assessing the potential health and safety hazards at the Site
- recommending appropriate safeguards and procedures
- modifying the HSP, when necessary
- approving changes in safeguards used or operating procedures employed at the Site.

The Plant Reclamation Environmental Health and Safety Director shall have the authority to:

- require that additional safety precautions or procedures be implemented
- order an evacuation of the Site, or portion of the Site, or shut down any operation, if she believes a health or safety hazard exists
- deny unauthorized personnel access to the Site
- require that any worker obtain immediate medical attention
- approve or disallow any proposed modifications to safety precautions or working procedures.

4.2.3 Site Safety Officer

The Plant Reclamation Environmental Site Safety Officer (SSO), Richard Camacho, has fulfilled the 40-hour health and safety training requirements pursuant to 29 CFR 1910.120.

The SSO, or a trained designated alternate, will be present at the Site during work activities. The SSO shall be notified of and approve activities in which persons may be reasonably expected to be exposed to contaminated soils and/or ground water.

The SSO shall be responsible for:

- ensuring that on-site Plant Reclamation Environmental personnel comply with the requirements of the HSP
- limiting access to the Site

- reporting unusual or potentially hazardous conditions to the Plant Reclamation Environmental Health and Safety Director and the Plant Reclamation Environmental Project Manager

- reporting injuries, exposures, or illnesses to the Plant Reclamation Environmental Health and Safety Director and the Plant Reclamation Environmental Project Manager

- communicating proposed changes in work scope or procedures to the Plant Reclamation Environmental Health and Safety Director for approval

- recommending to the Plant Reclamation Environmental Health and Safety Director and the Plant Reclamation Environmental Project Manager additional safety procedures or precautions that might be implemented.

The SSO shall have the authority to:

- order an evacuation of the Site, or portion(s) of the Site, or shut down any operation if he believes a health or safety hazard exists

- deny site access to unauthorized personnel

- require that any worker, including the contractor's or subcontractor's personnel, obtain immediate medical attention.

5.0 HAZARD ANALYSIS

Potential chemical, physical and general safety hazards during the drilling and excavating/soil sampling program at the Site include the following:

- Chemical hazards
  - respiratory (exposure to volatile organic compounds [VOCs])
  - dermal (contact with petroleum products)

- Physical hazards
  - excavation instability
  - noise
  - electric shock
  - heavy equipment
  - drill rig equipment
  - auto traffic
  - fire and explosion

Work procedures to protect workers from chemical and physical hazards are discussed in Section 6.0.

5.1 Chemical Hazards

The primary chemical hazard is exposure to chemical compounds from the diesel-affected soil and water. Of particular concern is the potential for workers to be exposed to aromatic petroleum compounds in the vicinity of the trench and soil excavations. These hydrocarbons include the components of diesel (the light aliphatic hydrocarbons) and the common minor components of diesel (benzene, toluene, ethylbenzene, and xylenes).

5.1.1 Chemical Description of Diesel

Diesel fuel is a gas oil fraction available in various grades as required by different engines. Composition of diesel varies in ratios of predominantly aliphatic, olefinic, cycloparaffinic, and aromatic hydrocarbons, and additives.

5.1.2 Effects of Exposure to Diesel

Ingestion of diesel can lead to systemic effects such as gastrointestinal irritation, vomiting, diarrhea, and in severe cases drowsiness and central nervous system depression, progressing to coma and death. Aspiration of diesel fuel can cause hemorrhaging and pulmonary edema, progressing to pneumonitis and renal involvement.

Appendix A includes chemical descriptions for other chemicals of concern.

5.2 Physical Hazards

The potential physical hazards at the Site during the planned activities stem from heavy machinery use and the hazardous nature of excavation work. The potential physical hazards are listed under Section 5.0.

6.0 WORK REQUIREMENTS

6.1 Respiratory Protection

Field operations will be initiated in Level D. The primary route of potential exposure for chemicals is inhalation. Inhalation hazards due to volatilization will be monitored using a photoionization detector (PID) to measure concentrations of VOCs in the breathing zone. If ambient air concentrations of VOCs in the breathing zone reach 25 ppm or greater, Sensidyne brand low-range benzene detector tubes (0.25 to 12 ppm, catalog number 121L with pump model 800) will be used to detect the presence of benzene. If benzene is detected, a temporary stop work will take place and the area will be ventilated and monitored until no benzene is detected in the breathing zone. If no benzene is detected, then half-facepiece air-purifying respirators will be worn by all personnel in the exclusion zone.

Respirators must be kept available during drilling and trenching-excavation activities. Respirators will be equipped with NIOSH-approved high efficiency particulate/organic vapor combination cartridges (such as North 7600).

6.2 Dermal Protection

Unless adequate precautions are taken, chemicals may contact the skin or clothing. Potential physical contact with chemicals of concern are possible under the following circumstances:

- well destruction
- sampling soil during trenching and excavation.

6.2.1 Personal Protective Equipment

Plant Reclamation Environmental and contractor/subcontractor personnel will wear the following protective clothing on site:

- hard hats
- steel-toed/steel-shank boots
- inner and outer disposable PVC gloves
- safety glasses
- uncoated Tyvek coveralls (if the potential for splashing exists)

6.3 Action Levels

6.3.1 Action Levels for a Temporary Stop Work

The SSO shall impose a temporary stop work and contact the Plant Reclamation Environmental Health and Safety Director immediately if the following conditions are observed, or if there is a question about site conditions:

- uncontrolled dust generation
- indications of heat stress
- changes in the general health profile of on-site personnel, including symptoms discussed in Appendix A and headaches, dizziness, breathing difficulties, irritation to the eyes, nose, throat, and hands
- vapors detected in excess of 10 percent of the lower explosive limit (LEL) of gasoline. Depending on the grade of gasoline, the LEL is 1.2 to 1.5 percent. The action level for stop work and site withdrawal will be 1,200 ppm
- detection of benzene in the breathing zone.

6.3.2 Action Level for Upgrade to Level C Protection

The action level to upgrade to Level C protection is the detection of ambient air concentrations of VOCs in the breathing zone at 25 ppm or greater without the presence of benzene.

6.4 Protection Against Physical Hazards

6.4.1 Excavation Instability

The limits of excavation and method(s) of shoring side walls proposed by the contractor shall be approved by the engineer before the excavation begins. Workers will not enter excavations deeper than 4 feet. All requirements pursuant to 29 CFR 1926.651 and 652, Excavations, Trenching and Shoring, shall be observed.

6.4.2 Noise

Noise results primarily from concrete-breaking and excavation equipment, drilling equipment and other machinery. Workers will wear ear plugs when operating heavy machinery to avoid

noise that may exceed the 85 decibel Threshold Limit Value (TLV) established by the American Conference of Governmental Industrial Hygienists. However, based on previous field experience, expected noise level should not exceed 85 decibels.

6.4.3 Electric Shock

All electrical equipment to be used during field activities will be suitably grounded and insulated.

6.4.4 Heavy Equipment

Hazards related to drilling, trenching, excavating and compacting equipment will necessitate securing the work area. All relevant requirements pursuant to 29 CFR 1926.602 and Subpart W, Rollover Protective Structures; Overhead Protection, shall be observed during the course of excavation and drilling and trenching activities.

All field personnel not directly involved in the excavation work will be kept at safe distances from areas where heavy equipment are in use. Unauthorized visitors will not be permitted near areas where heavy equipment are in use regardless of whether the area has been designated as an exclusion zone.

6.4.5 General Safety

All Plant Reclamation Environmental and contractor/subcontractor personnel will wear approved head protection while working around heavy equipment in the site area. Fire hydrants, electrical and underground lines and pipes will be identified before drilling operations begin. Two 10-pound fire extinguishers will be kept on site near the exclusion zone.

6.5 Entry Procedures

At a minimum, all visitors entering the exclusion zone must wear the protective clothing and equipment worn by Plant Reclamation Environmental and contractor/subcontractor personnel. Permission to enter the work area must be obtained from at least one of the personnel named in Section 4.0. Each visitor's name and purpose of visit will be recorded in the field notes.

7.0 WORK ZONE AND DECONTAMINATION PROCEDURES

A site must be controlled to reduce the possibility of exposure to any contaminants present and to limit their transport from the site by personnel or equipment.

7.1 Control

A control system is required to ensure that personnel and equipment working on hazardous waste sites are subjected to appropriate health and safety surveillance and site access control.

The possibility of exposure or translocation of contaminants can be reduced or eliminated in a number of ways, including:

- setting security or physical barriers at control points to regulate access to and/or exclude unnecessary personnel from the general area
- minimizing the number of personnel and equipment on site consistent with effective operations
- establishing work zones within the site
- conducting operations in a manner which will reduce the exposure of personnel and equipment
- minimizing the airborne dispersion of contaminants (utilizing dust control procedures)
- implementing appropriate decontamination procedures for both equipment and personnel.

7.2 Field Operations Work Areas

Work areas (zones) will be established based on anticipated contamination. Within these zones, prescribed operations will occur utilizing appropriate Personal Protective Equipment (PPE). Movement between areas will be controlled ct checkpoints. The planned zones are:

- Exclusion (contaminated)
- Contamination Reduction
- Support (noncontaminated).

7.2.1 Exclusion Zone

The Exclusion Zone is the innermost area of the three concentric rings and is considered contaminated, dirty, or "hot." Within this area, the prescribed protection must be worn by any personnel upon entering. An entry checkpoint will be established at the periphery of the exclusion zone to control the flow of personnel and equipment between contiguous zones, and to guarantee that the procedures established to enter and exit the zones are followed.

The Exclusion Zone boundary will be established initially on the presence of the contaminant(s) within the area. Subsequent to initial operations, the boundary may be readjusted based on observations and/or measurement. The boundary will be physically secured and posted.

7.2.2 Contamination Reduction Zone

Between the Exclusion and the Support Zone is the Contamination Reduction Zone. The purpose of this zone is to provide an area to prevent or reduce the transfer of contaminants which may have been picked up by personnel or equipment returning from the Exclusion Zone. All decontamination activities occur in this area. The boundary between the Support Zone and the Contamination Reduction Zone is the contamination control line. This boundary separates the potentially contaminated area from the clean area. Entry into the Contamination Reduction Zone from the clean area will be through an access control point. Personnel entering at this station will be wearing the prescribed PPE for working in the Contamination Reduction Zone. Exiting the Contamination Reduction Zone to the Clean Area requires the removal of any suspected or known contaminated PPE, and compliance with the established decontamination procedures.

7.2.3 Support Zone

The Support Zone is the outermost of the three rings and is considered decontaminated, or Clean Area. It contains the Command Post (CP) for field operations and other elements necessary to support site activities. Normal street or Level D work clothes are the appropriate apparel to be worn in this area.

7.3 Zone Dimensions

Considerable judgement is needed to ensure safe working distances for each zone, balanced against practical work considerations. Physical and topographical barriers may constrain ideal locations. Field/laboratory measurements combined with meteorological conditions and air dispersion calculations will assist in establishing the control zone distances. When not working in areas that require the use of chemical-resistant clothing, work zone procedures may still need to limit the movement of personnel and retain adequate site control.

7.4 Decontamination Procedures

As part of the system to prevent or reduce the physical transfer of contaminants by people and/or equipment from the site, procedures will be instituted for decontaminating anything leaving the Exclusion Zone and Contamination Reduction Zone. These procedures include the decontamination of personnel, protective equipment, monitoring equipment, clean-up equipment, etc. Unless otherwise demonstrated, everything leaving the Exclusion Zone should be considered contaminated. In general, decontamination at the site consists of rinsing equipment with detergent/water solution. Reusable decontaminated PPE will be stored for air drying.

Decontamination is addressed in two ways: the physical arrangement and control of contamination zones, and the effective use of decontamination procedures.

The decontamination process uses cleaning solutions, followed by rinse solutions. Used solution, brushes, sponges, and containers must be properly disposed of.

Decontamination Solution

Description	Usage
3 cups Alconox 1 cup sodium carbonate 5-8 gallons water	Light contamination
Commercial Detergent - Full strength or diluted	Organic contaminants

As with all alkaline cleaners, continuous or repeated contact with the skin should be avoided. If an employee's skin becomes contaminated, he/she will move to the decontamination area and remove contaminated clothing, and wash with a mild soap/detergent and water to remove any contaminant from the skin. He/she will then see a physician for possible medical treatment.

A rinse solution will be used to remove the contamination solution and neutralize any excess decontamination solution.

All personnel will follow these decontamination procedures:

1. When returning from the Exclusion Zone, remove heavy soil, as necessary, from boots, gloves, and clothing by using a towel or hose before entering the Contamination Reduction Zone.

2. At the decontamination area, step into decontamination tub(s) and brush boots and gloves clean.

3. Remove disposable suit and discard in proper container.

4. Step into rinse tub(s), then remove boots.

5. Remove outer gloves and dispose of properly.

6. Remove respirator and hard hat.

7. Remove inner gloves and dispose of properly.

Decontamination procedures may be modified, if necessary, with the approval of the Site Safety Officer.

7.4.1 Personal Decontamination During Medical Emergencies

In the event of personal injury, first-aid personnel must decide if the victim's injuries are potentially the type that would be aggravated by movement. If there is any doubt, or if the victim is unconscious and cannot respond, no attempt should be made to move the victim to the decontamination area. Only off-site paramedics may move such victims. If the paramedics approve, the victim's PPE will be cut off in the Decontamination Reduction Zone. If the decision is made not to remove the victim's protective clothing, he/she will be wrapped in a tarp or similar object to protect the ambulance and crew during transportation. If the victim is contaminated

with materials that threaten to cause additional injury or immediate health hazards, the PPE will be carefully removed and the victim washed appropriately.

8.0 EMERGENCY PROCEDURES

8.1 General Injury

- Step 1: Use first-aid kit on site, if appropriate.
- Step 2: Use off-site help and/or assistance if appropriate.
- Step 3: Notify SSO, Project Manager and Health and Safety Director.

8.2 Specific Treatments

- Eye Exposure: flush eye with eye wash, call ambulance.
- Skin Exposure: wash immediately with soap and water; call ambulance, if necessary.
- Fire (localized): use fire extinguisher and activate alarm system, if necessary.
- Fire (uncontrolled): call Fire Department.
- Chemical Spill: call Fire Department and National Response Center for Toxic Chemical and Oil Spills.
- Explosion: call Fire Department if potential for additional explosions or fire danger exists.
- Inhalation: move affected person(s) to fresh air and cover source of vapors, if appropriate.
- Swallowing: call ambulance.

8.3 Emergency Phone Numbers

Medical/General Service Numbers

Police Department	911
Fire Department	911
Ambulance	911

Hospital

Herrick Hospital (510) 845-0130
2001 Dwight Way
Berkeley, California

Figure 1 shows the route from the Site to the hospital. From the Site, proceed east on Ashby Avenue and turn left onto Shattuck Street. Proceed north on San Pablo Avenue and turn right onto Dwight Way. Herrick Hospital is located at 2001 Dwight Way on the right side of the road.

Hazardous Materials Response/Reporting

National Emergency Response Center	(800) 424-8802
California State Office of Emergency Services	(800) 852-7550
Regional Water Quality Control Board	(510) 464-1255

8.4 Accident Reporting Procedures

In the event of an emergency, contact the following:

Plant Reclamation Environmental:	(510) 233-6558
Michael Kara (Health and Safety Director)	Pager (510) 488-1959
Fred Glueck (Project Manager)	
[redacted]	

If an exposure or injury occurs, work shall be temporarily halted until the SSO, in consultation with the Health and Safety Director, decides it is safe to continue work.

9.0 DOCUMENTATION

The SSO will record field observations of health and safety procedures by workers conducting the planned activities outlined in Section 3.0, including deviations from the recommended health and safety procedures.

10.0 MEDICAL MONITORING

Appropriate medical monitoring will be required of Plant Reclamation Environmental personnel to:

- Meet requirements of 29 CFR 1910.120 (f).
- Meet requirements for respirator use.
- Meet other legal requirements.

A signed physician's statement qualifying the individual for the work to be performed will be required as part of the medical monitoring program.

11.0 TRAINING PROGRAM

1. The Plant Reclamation Environmental SSO shall have fulfilled all appropriate training requirements indicated by 29 CFR 1910.120 (e), including the 40-hour training requirement and required refresher courses.

2. A tailgate session to discuss this HSP will be held before field activities begin. All Plant Reclamation Environmental personnel and contractor/subcontractor employees shall receive, at a minimum, the following information:

- the names of personnel and alternates responsible for site safety and health
- safety, health, and other hazards at the Site
- instruction in the use of personal protective equipment
- action levels
- employee work practices to minimize risks from on-site hazards
- instruction in the safe use of engineering controls and equipment on site
- site control measures
- emergency plans
- Proposition 65 warnings.

12.0 PROPOSITION 65

Under California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), individuals who may be exposed in the work place to chemicals that may cause cancer or birth defects must be warned of such hazards pursuant to California Health and Safety Code (HSC) Section 25249.6. At this Site, the chemicals that may cause cancer or reproductive abnormalities, and their respective warnings, are listed below.

12.1 Carcinogens and Reproductive Toxicants

Chemicals known to the State of California to cause cancer, as listed in Title 22, California Code of Regulations (CCR) Section 12000(b), which may be present at the Site include benzene. Chemicals known to the State of California as reproductive toxicants, as listed in Title 22, CCR Section 12000(b), which may be present at the Site include lead.

12.2 Warnings

Pursuant to HSC Section 25249.6 and CCR Sections 12601(c)(3)(A) and 12601(c)(3)(B), the following warnings must be made:

"This area contains chemicals known to the State of California to cause cancer."

13.0 SIGNATURES

13.1 Plant Reclamation Environmental Personnel

This HSP for soil sample collection and excavation of affected soil to be conducted at 4227 Hollis Street, Emeryville, California, is approved by the following Plant Reclamation Environmental personnel:

Michael Kara Health and Safety Director	Date
Fred Glueck Project Manager	Date
Richard Camacho Site Safety Officer	Date

13.2 Contractor and Subcontractor Personnel

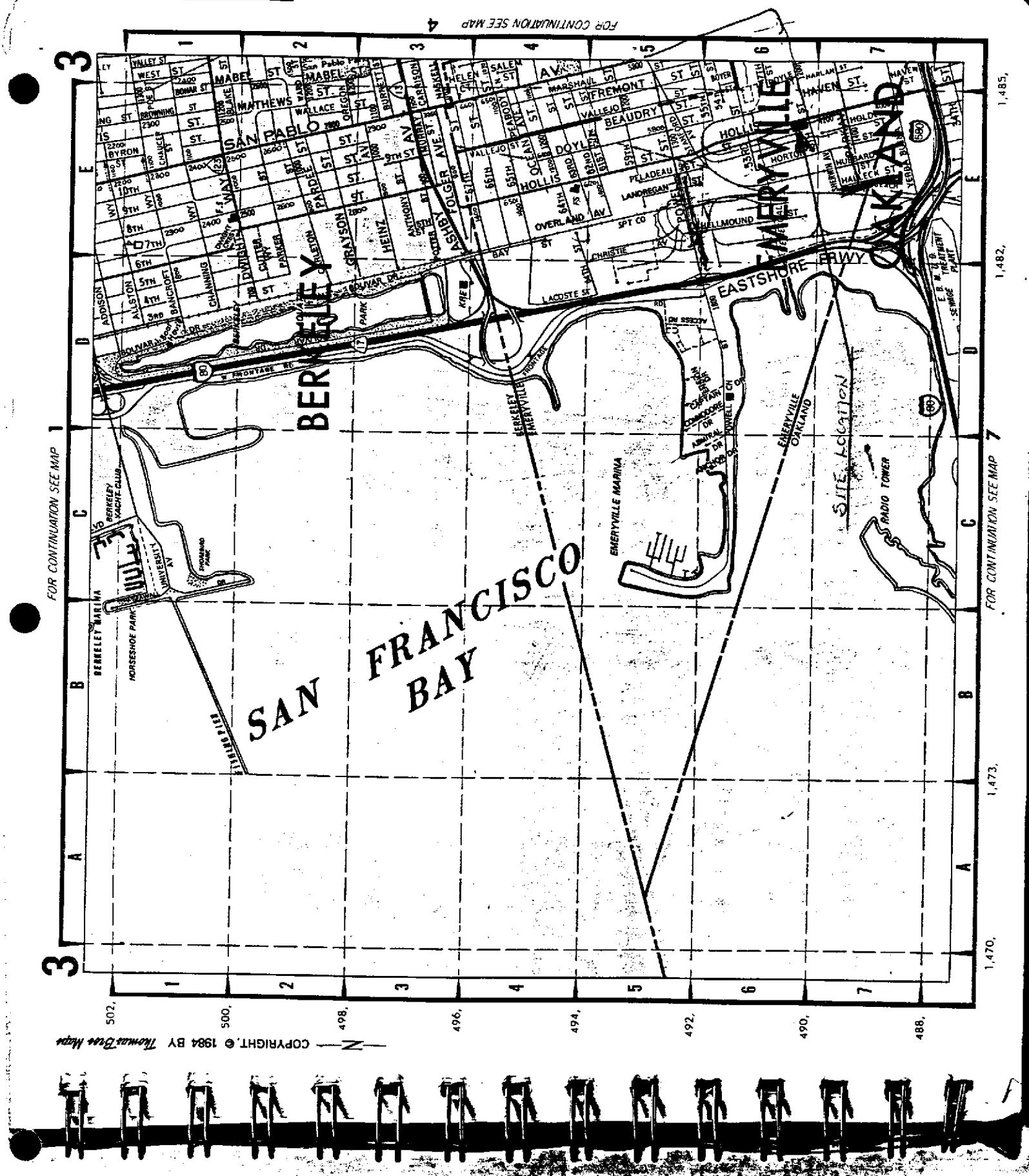
Contractor and Subcontractor Agreement:

1. Contractor certifies that the following personnel noted below to be employed on the soil sampling and excavation project at 4227 Holllis Street, Emeryville, California, have met the requirements of the OSHA Hazardous Waste Operations and Emergency Response Standard 29 CFR 1910.120 and other applicable OSHA Standards.

2. Contractor certifies that in addition to meeting the OSHA requirements, it has received a copy of this HSP, and will ensure that its employees are informed and will comply with both OSHA requirements and the guidelines in this HSP.

3. Contractor further certifies that it has read, understands and will comply with all provisions of this HSP, and it will take full responsibility for the health and safety of its employees.

Contractor	Signature	Date


FOR CONTINUATION SEE MAP 4
FOR CONTINUATION SEE MAP 1
FOR CONTINUATION SEE MAP 7
BERKELEY
EMERYVILLE
OAKLAND
SAN FRANCISCO BAY
EASTSHORE FRWY
SAN PABLO AV
FOLGER AVE
ASHBY
ALCATRAZ
BERKELEY MARINA
BERKELEY YACHT CLUB
HORSESHOE PARK
EMERYVILLE MARINA
SITE LOCATION
RADIO TOWER
E.B.M.U.D. SEWAGE TREATMENT PLANT
1,485,
1,482,
1,473,
1,470,
502,
500,
498,
496,
494,
492,
490,
488,
COPYRIGHT, © 1984 BY Thomas Bros. Maps

APPENDIX A

CHEMICAL DESCRIPTIONS

APPENDIX A

CHEMICAL DESCRIPTIONS

Benzene

Benzene is a clear colorless liquid.

Exposure to high concentrations (3,000 ppm) may result in acute poisoning, characterized by the narcotic action of benzene on the central nervous system. Chronic poisoning occurs most commonly through inhalation and dermal adsorption. Benzene is also a human carcinogen. Unleaded regular gasoline commercially available in the United States typically contains less than about 2 percent benzene.

The PEL for a time-weighted average (TWA) 8-hour period is 1 ppm in air (OSHA Standard 29 CFR 1910.1000).

Toluene

Toluene is a colorless liquid with a benzol-like odor.

Inhalation of high vapor concentrations may cause impairment of coordination and reaction time, headaches, nausea, eye irritation, loss of appetite, a bad taste in the mouth, and weariness.

The PEL for a TWA over an 8-hour period is 100 ppm in air (OSHA Standard 29 CFR 1910.1000).

Xylene

Xylene is a clear, colorless liquid.

Exposure to high concentrations of vapor may result in eye and skin irritation. Eye irritation may occur at concentrations of about 200 ppm.

The PEL for a TWA over an 8-hour period is 100 ppm in air (OSHA Standard 29 CFR 1910.1000).

Ethylbenzene

Ethylbenzene is a clear, colorless liquid.

Exposure to high concentrations of vapor (approximately 1,000 ppm) may result in irritation to the skin and mucous membranes, dizziness, irritation of the nose and throat and a sense of constriction of the chest.

The PEL for a TWA over an 8-hour period is 100 ppm in air (OSHA Standard 29 CFR 1910.1000).

EMERYVILLE FIRE DEPARTMENT
FIRE PREVENTION BUREAU
6303 HOLLIS STREET
EMERYVILLE, CA 94608
655-7678

CITY OF EMERYVILLE

FIRE CODE PERMIT

№ 1154

PERMISSION IS HEREBY GRANTED PR Environmental

TO ~~OPERATE~~ ~~MAINTAIN~~ ~~STORE~~ Remove UG tank (1)

ON PREMISES LOCATED AT 4227 Hollis Street, Emeryville (PG&E)

PERIODIC INSPECTIONS ARE A CONDITION OF THIS PERMIT WHICH IS ISSUED IN ACCORDANCE WITH UNIFORM FIRE CODE, AS SPECIFIED IN SECTION 4.108 OF SAID CODE.

ADDITION REQUIREMENTS -EFD requires 24-hr notice(minimum)prior to removal(LEL & O_2 levels to be below 10% each)

ENG. CO. DISTRICT # _____ EXPIRATION DATE: 11/30/91

THIS PERMIT MUST BE POSTED WITH BUSINESS LICENSE

PERMIT APPROVED BY

Georgia Warren Inspector
~~FIRE MARSHAL~~

10/18/91
DATE

REF./ A/C NO. R

COUNTY OF ALAMEDA
OFFICE OF THE AUDITOR-CONTROLLER

DATE: 10 / 17 / 91

№ 612118 SH

MISCELLANEOUS RECEIPT

$ 432.00
DOLLARS

RECEIVED FROM: PR Environmental | 912 Harbour Way S. Richmond 94804

FOR: P.G.&E.

4227 Hollis St. Emeryville 94608

RECEIVED BY: T. Spates

DEPT. NO.: 430-453

☐ CASH ☒ PERSONAL/CASHIER'S CHECK/M. O. # 163 ☐ OTHER:

110-1 (Rev 10/85) [0134E (08)] 3-Part Distribution: White - Payor Yellow & Pink - Depart.

APPLICATION FOR PERMIT TO OPERATE, MAINTAIN OR STORE

Make check payable to: CITY OF EMERYVILLE

Mail to: Emeryville Fire Department
Fire Prevention Bureau
6303 Hollis Street
Emeryville, CA 94608

PHONE: 596-3750 ~~658-7878~~

F.P.B. Permit No. _____

Due Date: _____

Original X

Renewal _____

~~Xxxxxx~~
To: maintain ~~xxxxx~~ Remove UG tank ☐ Specify use if Public Assembly
~~store~~

Pursuant to Section 4.108 of uniform Fire Code 1988 edition

Application made by: P.R. ENVIRONMENTAL

Location: 4227 HOLLIS ST. EMERYVILLE

Signed _____ Phone # (510) 233-6559
Applicant

Date: 10/18/91

Fee: $50.00 p/tank

Cash _____ Ck. No. _____

Receipt No. _____

Received by: _____

DO NOT WRITE BELOW THIS LINE

Plans submitted? _____ Checked by: _____
(GROUP-TYPE AND AREA)

Occupancy Group? _____ Other Occupancies in Building? _____

Floor to be Used: _____ Area to be Used? _____ sq. ft. Previous Occupancy? _____

BUILDING: Height _____ Stories, _____ ft. Type of Construction? _____ Is there a basement? _____

Location-Exterior Wall Openings? _____ Type of Protection _____

Is there 20 sq. ft. of Opening in every 50' on one exterior wall in—Cellar? _____ Basement? _____ Story? _____

Distance from Property Line on North? _____ South? _____ East? _____ West? _____

EXITS: Number? _____ Total Width? _____ How far Apart? _____ Do Exits Lead to Street? _____

Number of Exits from Hazardous Area (over 200 sq. ft.)? _____ Panic Bars? _____

Do Doors Swing Out? _____ Exit Signs? _____ Illuminated? _____

Number of Stairways? _____ Width? _____ Open or Enclosed? _____

Exterior Stairway or Fire Escape? _____ Where Located? _____ Distance from Street? _____
(WHICH)

FIRE PROTECTION: Standpipes: Wet? _____ Dry? _____ Sprinklers? _____

Number and Type of Extinguishers? _____

Other Fire Protection? _____

Is Flameproofing Required? _____ Is it Satisfactory? _____

DATE OF INSPECTION: _____

REMARKS: - contractor to provide proof of possession of proper licensefrom State of CA./contractor to coordinate w/Alameda County Dept. of Environmental Health r.. their requirements

Signed George Warren No. _____
~~FIRE~~ Inspector ~~INSPECTOR~~

BAY AREA AIR QUALITY MANAGEMENT DISTRICT NOTIFICATION

BAY AREA AIR QUALITY MANAGEMENT DISTRICT
939 ELLIS STREET
SAN FRANCISCO, CALIFORNIA 94109
(415) 771-6000

REGULATION 8, RULE 40
Aeration of Contaminanted Soil and Removal of Underground Storage Tanks

NOTIFICATION FORM

[X] Removal or Replacement of Tanks
[ ] Excavation of Contaminated Soil

SITE INFORMATION

GROSE

SITE ADDRESS 4227 Hollis Street
CITY, STATE, ZIP Emeryville, CA 94608
OWNER NAME Pacific Gas and Electric Company
SPECIFIC LOCATION OF PROJECT 4227 Hollis St. Emeryville

TANK REMOVAL

SCHEDULED STARTUP DATE 10/24/91
VAPORS REMOVED BY:
[ ] WATER WASH
[X] VAPOR FREEING (CO^2)
[ ] VENTILATION

CONTAMINATED SOIL EXCAVATION

SCHEDULED STARTUP DATE
STOCKPILES WILL BE COVERED? YES ____ NO ____
ALTERNATIVE METHOD OF AERATION (DESCRIBE BELOW):
(MAY REQUIRE PERMIT)

CONTRACTOR INFORMATION

NAME P.R. Environmental CONTACT Richard Comacho
ADDRESS 912 Harbour Way South PHONE (510) 233-6554
CITY, STATE, ZIP Richmond, CA 94804

RECEIVED OCT 22 1991

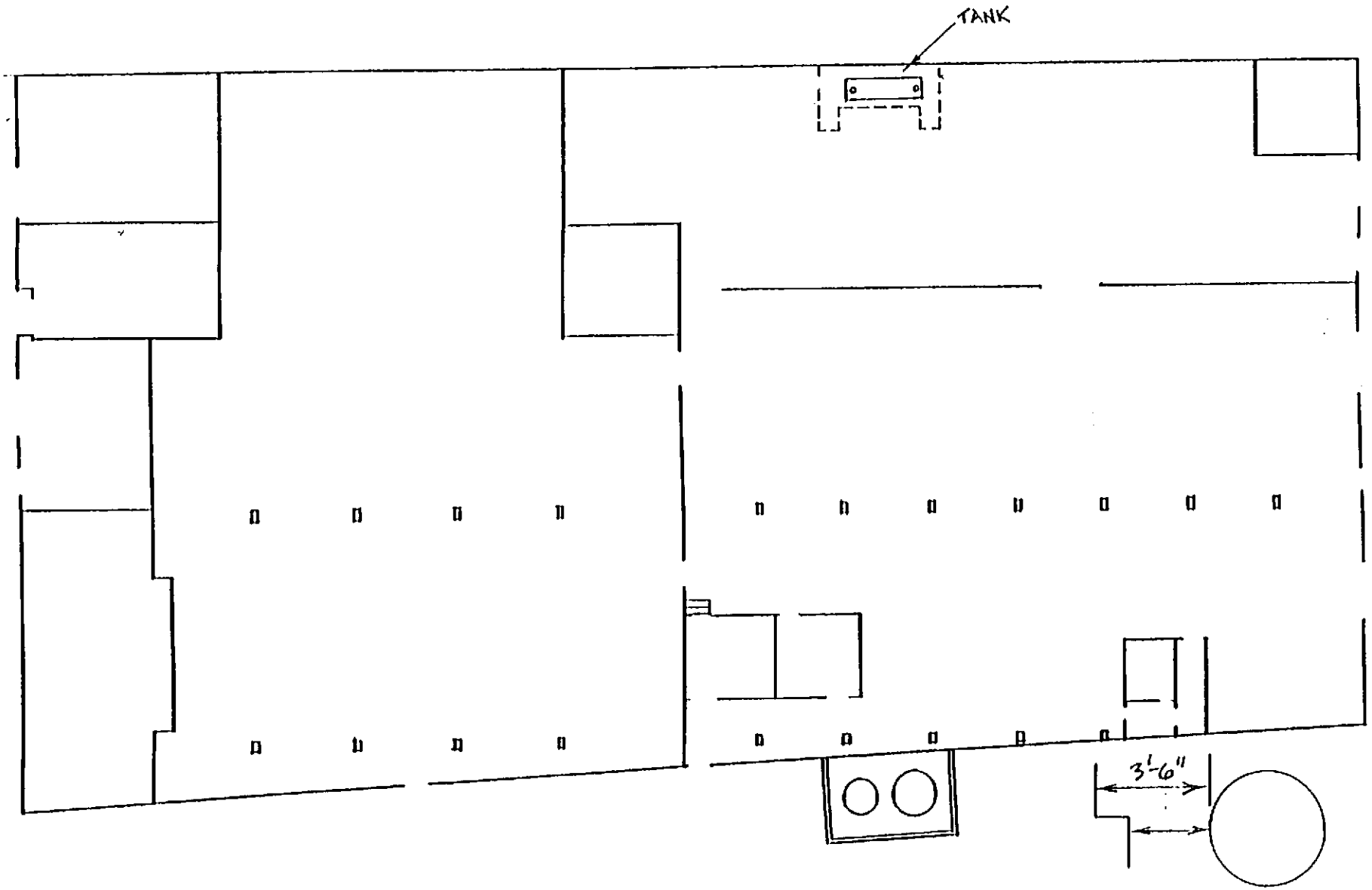
CONSULTANT INFORMATION
(IF APPLICABLE)

NAME STAMCO Env. CONTACT Lee Sparks
ADDRESS 12475 Clagett Road PHONE (408) 683-2395
CITY, STATE, ZIP San Martin, CA 95046

FOR OFFICE USE ONLY

DATE RECEIVED Fax 10-17-91 BY Re
CC: INSPECTOR NO. 502 375 DATE 10-18-91 (INIT.) BY Re (INIT.)
TELEPHONE UPDATE: CALLER ____ CHANGE MADE ____
BAAQMD N # ____

3/89

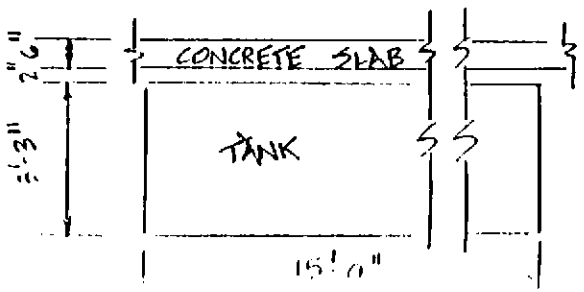


PARKING AREA

N

OCB BUILDING

SCALE: 1" = 30'



SAMPLING

A) P.R. ENVIRONMENTAL

B) STAMCO

C) BLAINE TECH SERVICES

REVISED 5/27/92

SUMMARY TABLE

LABORATORY ANALYTICAL RESULTS OF SOIL SAMPLES

	P.R.E.			STAMCO		BLAINE TECH.			
	WEST END	EAST END	COMPOSITE	WEST 11/11/91	EAST 11/11/91	W-WALL #1	E-WALL #2	N-WALL #3	S-WALL #4
METALS: EPA METHOD 6010									
zinc	88.0	115.3	193.5	21.5		32.0	43.0	45.7	35.2
cad	1.43	1.0	2.0	0.33		2.94	3.50	2.85	2.78
lead	21.3	6.1	300	5.89		1.37	2.00	2.28	1.62
nickel	ND	28.7	39.6	22.4		25.5	28.0	25.2	29.2
chrom	27.5	16.5	26.5	18.2		26.5	28.5	27.1	26.8
PCB: EPA METHOD 8080									
AR-1260	0.1	ND	0.2			ND	ND	ND	ND
OIL & GREASE: EPA METHOD 9071	115	ND	1.9	ND	ND	ND	ND	ND	ND
TPH AS KEROSENE	6,230	ND	ND	ND	ND	ND	ND	ND	ND
TPH AS GAS	460	ND	1.9	ND	ND	ND	ND	ND	ND
SEMIVOLATILE ORGANICS: 8270									
2-methyl napthlene	0.40	ND	ND						
acenapthene	ND	ND	0.3						
bis-(2 ethylhexo phthalate	0.30	ND	ND						
benzo (a) pyrene	ND	ND	0.12						
benzo (b) fluoranthene	ND	ND	0.30						

ENVIRONMENTAL

912 Harbour Way South • Richmond, California 94804 • (510) 233-6558 • FAX: (510) 237-6739

November 8, 1991

Mr. Lee Soares
Stamco
P.O. BOX 150
SAN MARTIN, CA 95046

Subject: Soil Sampling Activities
Pacific, Gas and Electric
4227 Hollis Street
Emeryville, California

Dear Lee:

At your request, Plant Reclamation Environmental (PRE) has collected soil samples in the vicinity of the underground storage tank (UST) at the Pacific, Gas and Electric (PG&E) facility located at 4227 Hollis Street, Emeryville, California (the "Site").

PRE was contracted by Stamco to supervise the UST removal activities at the Site. The UST was removed and transported for disposal by Stamco
Following removal of the UST, Susan Hugo of the Alameda County Environmental Health (ACEH) requested PG&E to collect soil samples from the area beneath the former location of the UST and the adjacent soil stockpile.

A total of six soil samples were collected from the Site. Two soil samples were collected from approximately 2 feet below the UST bottom at the west and east end of the UST. Four soil samples were collected from the soil stockpile located west of the UST. The four soil samples collected from the soil stockpile were composited into one soil sample at the laboratory prior to analysis.

The soil samples were analyzed for gasoline using EPA Method 5030; diesel using EPA Method 8015; oil and grease using EPA Method 9071; volatile organic compounds using EPA Method 8240; semi-volatile organic compounds using EPA Method 8270; cadmium, chromium, lead, nickel, and zinc using EPA Method 6010; and organochlorine pesticides using EPA Method 8080 as per instructions from Susan Hugo.

- diesel concentration was not detected at 10 mg/kg;
- oil and grease of 115 mg/kg;
- volatile organic compounds were not detected at their respective detection limits;
- semi-volatile organic compounds were generally not detected at their respective detection limits except for bis-(2-ethylhexyl)phthalate and 2-methyl naphthalene at 0.30 mg/kg and 0.40 mg/kg, respectively;
- nickel was not detected at 1.50 mg/kg, and cadmium, chromium, lead, and zinc were detected at 1.43 mg/kg, 27.5 mg/kg, 21.3 mg/kg, and 88.0 mg/kg respectively; and
- organochlorine pesticide compounds were not detected at their respective detection limits except for AR-1250 which was detected 0.1 mg/kg.

The laboratory analytical results for the soil sample that was collected at the east end of the UST and the soil composite sample of the soil stockpile will be available within the next few days.

We have fulfilled our obligations under the current PRE-Stamco contract. The laboratory analytical results for the soil sample that was collected at the east end of the UST and the soil composite sample of the soil stockpile will be faxed to you as soon as the results are made available to us.

Please do not hesitate to contact me should you have any questions or require additional information.

Sincerely,

Robert Kelly
General Manager

cc: Armando Roderigeuz, PG&E
Susan Hugo, ACEH

TABLE A: LABORATORY ANALYTICAL RESULTS OF SOIL SAMPLES
(concentrations are presented in mg/kg)

Test Type	West End	East End	Stockpile Composite
Metals: EPA Method 6010			
Zinc	88.0	115.3	93.5
Cadmium	1.43	1.0	2.0
Lead	21.3	6.1	300
Nickel	ND<1.5	28.7	39.6
Chromium	27.5	16.5	26.5
PCB: EPA Method 8080			
AR-1260	0.1	ND<0.1	0.2
Oil & Grease: EPA Method 9071			
Total Oil & Grease	115	ND	ND
TPH as Gasoline: EPA Method 5030			
TPH as Gasoline	460	ND<1.0	1.9
Semi-volatile Organic Compounds: EPA Method 8270			
2-Methyl Napthalene	0.40	ND	ND
Acenapthene	ND	ND	0.3
Bis-(2 Ethyl Hexo Phthalate)	0.30	ND	ND
Phenanthrene	ND	ND	0.4
Benzo(a)pyrene	ND	ND	0.12
Benzo(b)fluoranthene	ND	ND	0.30
TPH as kerosene: Department of Health Extraction Methods			
TPH as kerosene	6,230	ND<10	ND<10

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/08/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Total Petroleum Hydrocarbon Analysis
DHS Extraction Method (LUFT)
mg/Kg

Lab ID	Client ID	Kerosene	MDL
72953-1	Composite of Spd-1, Spd-2, Spd-3, and Spd-4	ND<10	10
72953-5	E - End of Tank	ND<10	10
72953-6	West End	6,230	450

MDL: Method Detection Limit. Compound below this level would not be detected.

RECEIVED NOV 12 1991

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/06/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Polychlorinated Biphenyls
EPA Method 8080
mg/Kg

Lab ID	Client ID	PCB's	MDL
72953-6	West End	0.1	0.1

QA/QC: Spike Recovery: 90%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/05/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Analysis Method EPA 6010
Preparation Method 3050
mg/Kg

Lab ID #:	72953-6		% Spike
Client ID:	West End	MDL	Recovery
METAL			
Zinc	88.0	1.50	110
Cadmium	1.43	1.25	94
Lead	21.3	3.00	98
Nickel	ND<1.50	1.50	103
Chromium	27.5	1.00	101

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222 3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/04/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Total Petroleum Hydrocarbon Analysis
EPA Method 5030
mg/Kg

Lab ID	Client ID	Gasoline	MDL
72953-6	West End	460 *	3.0

* TPH in Gas Range

QA/QC: Spike Recovery for Gasoline: 103%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/04/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Total Oil and Grease
EPA 9071
mg/Kg

Lab ID	Client ID	Oil and Grease	MDL
72953-6	West End	115	50

QA/QC: Spike Recovery: 92%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222 3002 FAX (415) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/04/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

EPA METHOD 8240
PURGEABLE ORGANICS
mg/Kg

Lab ID: 72953-6
Client ID: West End

Compound	Concentration	Limit of Detection
Chloromethane	ND<0.9	0.9
Bromomethane	ND<0.3	0.3
Vinyl chloride	ND<0.5	0.5
Chloroethane	ND<1.0	1.0
Methylene chloride	ND<1.0	1.0
Trichlorofluoromethane	ND<2.0	2.0
1,1-dichloroethene	ND<0.6	0.6
1,1-dichloroethane	ND<0.5	0.5
Trans-1,2-dichloroethene	ND<0.5	0.5
Cis-1,2-dichloroethene	ND<0.3	0.3
Chloroform	ND<0.4	0.4
1,2-dichloroethane	ND<0.5	0.5
1,1,1-trichloroethane	ND<0.5	0.5
Carbon tetrachloride	ND<0.2	0.2
Bromodichloromethane	ND<0.2	0.2
1,2-dichloropropane	ND<0.3	0.3
Cis-1,3-dichlorpropene	ND<0.4	0.4
Trichloroethene	ND<0.1	0.1
Benzene	ND<0.3	0.3
Dibromochloromethane	ND<0.4	0.4
1,1,2-trichloroethane	ND<0.4	0.4

ND = Not detected at or above limit of detection.

Jaime Chow
Laboratory Director

JC/td

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STATE LICENSE NO. E 750

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Job #: 72953

Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

EPA METHOD 8240
PURGEABLE ORGANICS
mg/kg

Lab ID: 72953-6
Client ID: West End

Compound	Concentration	Limit of Detection
Trans-1,3-dichloropropene	ND<0.4	0.4
2-chloroethyl vinyl ether	ND<0.7	0.7
Bromoform	ND<0.5	0.5
1,1,2,2-tetrachloroethane	ND<0.5	0.5
Tetrachloroethene	ND<0.2	0.2
Toluene	ND<0.2	0.2
Chlorobenzene	ND<0.2	0.2
Ethylbenzene	ND<0.2	0.2
1,3-Dichlorobenzene	ND<0.2	0.2
1,2-Dichlorobenzene	ND<0.2	0.2
1,4-Dichlorobenzene	ND<0.2	0.2
Dichlorodifluoromethane	ND<0.4	0.4
Freon 113	ND<0.6	0.6
M + P Xylene	ND<0.5	0.5
O-Xylene	ND<0.2	0.2
Acetone	ND<1.0	1.0
Carbon Disulfide	ND<0.8	0.8
4-Methyl-2-Pentanone	ND<0.7	0.7
2-Hexanone	ND<0.8	0.8
Styrene	ND<0.2	0.2
2-Butanone	ND<0.6	0.6
Vinyl Acetate	ND<0.6	0.6

ND = Not detected at or above limit of detection.

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P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

EPA METHOD 8240
PURGEABLE ORGANICS
mg/Kg

Lab ID: 72953-Method Blank
Client ID: Method Blank

Compound	Concentration	Limit of Detection
Chloromethane	ND<0.9	0.9
Bromomethane	ND<0.3	0.3
Vinyl chloride	ND<0.5	0.5
Chloroethane	ND<1.0	1.0
Methylene chloride	ND<1.0	1.0
Trichlorofluoromethane	ND<2.0	2.0
1,1-dichloroethene	ND<0.6	0.6
1,1-dichloroethane	ND<0.5	0.5
Trans-1,2-dichloroethene	ND<0.5	0.5
Cis-1,2-dichloroethene	ND<0.3	0.3
Chloroform	ND<0.4	0.4
1,2-dichloroethane	ND<0.5	0.5
1,1,1-trichloroethane	ND<0.5	0.5
Carbon tetrachloride	ND<0.2	0.2
Bromodichloromethane	ND<0.2	0.2
1,2-dichloropropane	ND<0.3	0.3
Cis-1,3-dichlorpropene	ND<0.4	0.4
Trichloroethene	ND<0.1	0.1
Benzene	ND<0.3	0.3
Dibromochloromethane	ND<0.4	0.4
1,1,2-trichloroethane	ND<0.4	0.4

ND = Not detected at or above limit of detection.

Jaime Choy

Precision Analytical Laboratory, Inc.
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STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/04/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

EPA METHOD 8240
PURGEABLE ORGANICS
mg/kg

Lab ID: 72953-Method Blank
Client ID: Method Blank

Compound	Concentration	Limit of Detection
Trans-1,3-dichloropropene	ND<0.4	0.4
2-chloroethyl vinyl ether	ND<0.7	0.7
Bromoform	ND<0.5	0.5
1,1,2,2-tetrachloroethane	ND<0.5	0.5
Tetrachloroethene	ND<0.2	0.2
Toluene	ND<0.2	0.2
Chlorobenzene	ND<0.2	0.2
Ethylbenzene	ND<0.2	0.2
1,3-Dichlorobenzene	ND<0.2	0.2
1,2-Dichlorobenzene	ND<0.2	0.2
1,4-Dichlorobenzene	ND<0.2	0.2
Dichlorodifluoromethane	ND<0.4	0.4
Freon 113	ND<0.6	0.6
M + P Xylene	ND<0.5	0.5
O-Xylene	ND<0.2	0.2
Acetone	ND<1.0	1.0
Carbon Disulfide	ND<0.8	0.8
4-Methyl-2-Pentanone	ND<0.7	0.7
2-Hexanone	ND<0.8	0.8
Styrene	ND<0.2	0.2
2-Butanone	ND<0.6	0.6
Vinyl Acetate	ND<0.6	0.6

ND = Not detected at or above limit of detection.

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Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-6
Client ID: West End

ACID COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenol	ND<0.08	0.08
2-chlorophenol	ND<0.06	0.06
2-methyl phenol	ND<0.09	0.09
4-methyl phenol	ND<0.10	0.10
2-nitrophenol	ND<0.06	0.06
2,4-dimethylphenol	ND<0.10	0.10
2,4-dichlorophenol	ND<0.10	0.10
4-chloro-3-methylphenol	ND<0.10	0.10
2,4,5-trichlorophenol	ND<0.07	0.07
2,4,6-trichlorophenol	ND<0.08	0.08
2,4-dinitrophenol	ND<0.40	0.40
4-nitrophenol	ND<0.10	0.10
2-methyl-4,6-dinitrophenol	ND<0.10	0.10
Pentachlorophenol	ND<0.30	0.30

BASE/NEUTRAL COMPOUNDS		
N-nitrosodimethylamine	ND<0.10	0.10
Bis(2-chloroethyl)ether	ND<0.04	0.04
1,3-dichlorobenzene	ND<0.50	0.50
1,4-dichlorobenzene	ND<0.50	0.50
1,2-dichlorobenzene	ND<0.40	0.40
Bis-(2-chloroisopropyl)ether	ND<0.20	0.20

ND = Not detected at or above limit of detection.

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (415) 222-3002 FAX (415) 222-1251

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/04/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-6
Client ID: West End

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
N-nitrosodi-n-propylamine	ND<0.10	0.10
Hexachloroethane	ND<0.50	0.50
Nitrobenzene	ND<0.06	0.06
Isophorone	ND<0.09	0.09
Bis-(2-chloroethoxy)methane	ND<0.10	0.10
1,2,4-trichlorobenzene	ND<0.30	0.30
Naphthalene	ND<0.20	0.20
Hexachlorobutadiene	ND<0.50	0.50
2-chloronaphthalene	ND<0.05	0.05
2-methyl naphthalene	0.40	0.20
4-chloroaniline	ND<0.10	0.10
2-nitroaniline	ND<0.10	0.10
3-nitroaniline	ND<0.10	0.10
4-nitroaniline	ND<0.10	0.10
Hexachlorocyclopentadiene	ND<0.20	0.20
Dimethyl phthalate	ND<0.04	0.04
Acenaphthylene	ND<0.04	0.04
Acenaphthene	ND<0.04	0.04
2,4-dinitrotoluene	ND<0.10	0.10
2,6-dinitrotoluene	ND<0.06	0.06
Diethyl phthalate	ND<0.10	0.10
4-chlorophenylphenylether	ND<0.05	0.05
Fluorene	ND<0.20	0.20
N-nitrosodiphenylamine	ND<0.09	0.09
4-bromophenylphenylether	ND<0.07	0.07
Hexachlorobenzene	ND<0.20	0.20

ND = Not detected at or above limit of detection.

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STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/04/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-6
Client ID: West End

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenanthrene	ND<0.10	0.10
Anthracene	ND<0.20	0.20
Di-n-butylphthalate	ND<0.20	0.20
Fluoranthene	ND<0.50	0.50
Benzidine	ND<1	1
Pyrene	ND<0.60	0.60
Benzylbutylphthalate	ND<0.10	0.10
3,3-dichlorobenzidine	ND<0.30	0.30
Benzo(a)anthracene	ND<0.30	0.30
Bis-(2-ethylhexyl)phthalate	0.30	0.10
Chrysene	ND<0.30	0.30
Di-n-octylphthalate	ND<0.13	0.13
Benzo(b)fluoranthene	ND<0.20	0.20
Benzo(k)fluoranthene	ND<0.40	0.40
Benzo(a)pyrene	ND<0.09	0.09
Indeno(1,2,3-cd)pyrene	ND<0.20	0.20
Dibenzo(a,h)anthracene	ND<0.20	0.20
Benzo(ghi)perylene	ND<0.20	0.20

ND = Not detected at or above limit of detection.

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Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-Method Blank
Client ID: Method Blank

ACID COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenol	ND<0.08	0.08
2-chlorophenol	ND<0.06	0.06
2-methyl phenol	ND<0.09	0.09
4-methyl phenol	ND<0.10	0.10
2-nitrophenol	ND<0.06	0.06
2,4-dimethylphenol	ND<0.10	0.10
2,4-dichlorophenol	ND<0.10	0.10
4-chloro-3-methylphenol	ND<0.10	0.10
2,4,5-trichlorophenol	ND<0.07	0.07
2,4,6-trichlorophenol	ND<0.08	0.08
2,4-dinitrophenol	ND<0.40	0.40
4-nitrophenol	ND<0.10	0.10
2-methyl-4,6-dinitrophenol	ND<0.10	0.10
Pentachlorophenol	ND<0.30	0.30
BASE/NEUTRAL COMPOUNDS		
N-nitrosodimethylamine	ND<0.10	0.10
Bis(2-chloroethyl)ether	ND<0.04	0.04
1,3-dichlorobenzene	ND<0.50	0.50
1,4-dichlorobenzene	ND<0.50	0.50
1,2-dichlorobenzene	ND<0.40	0.40
Bis-(2-chloroisopropyl)ether	ND<0.20	0.20

ND = Not detected at or above limit of detection.

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.
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STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/04/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-Method Blank
Client ID: Method Blank

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
N-nitrosodi-n-propylamine	ND<0.10	0.10
Hexachloroethane	ND<0.50	0.50
Nitrobenzene	ND<0.06	0.06
Isophorone	ND<0.09	0.09
Bis-(2-chloroethoxy)methane	ND<0.10	0.10
1,2,4-trichlorobenzene	ND<0.30	0.30
Naphthalene	ND<0.20	0.20
Hexachlorobutadiene	ND<0.50	0.50
2-chloronaphthalene	ND<0.05	0.05
2-methyl naphthalene	ND<0.20	0.20
4-chloroaniline	ND<0.10	0.10
2-nitroaniline	ND<0.10	0.10
3-nitroaniline	ND<0.10	0.10
4-nitroaniline	ND<0.10	0.10
Hexachlorocyclopentadiene	ND<0.20	0.20
Dimethyl phthalate	ND<0.04	0.04
Acenaphthylene	ND<0.04	0.04
Acenaphthene	ND<0.04	0.04
2,4-dinitrotoluene	ND<0.10	0.10
2,6-dinitrotoluene	ND<0.06	0.06
Diethyl phthalate	ND<0.10	0.10
4-chlorophenylphenylether	ND<0.05	0.05
Fluorene	ND<0.20	0.20
N-nitrosodiphenylamine	ND<0.09	0.09
4-bromophenylphenylether	ND<0.07	0.07
Hexachlorobenzene	ND<0.20	0.20

ND = Not detected at or above limit of detection.

Precision Analytical Laboratory, Inc.
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STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/04/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-Method Blank
Client ID: Method Blank

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenanthrene	ND<0.10	0.10
Anthracene	ND<0.20	0.20
Di-n-butylphthalate	ND<0.20	0.20
Fluoranthene	ND<0.50	0.50
Benzidine	ND<1	1
Pyrene	ND<0.60	0.60
Benzylbutylphthalate	ND<0.10	0.10
3,3-dichlorobenzidine	ND<0.30	0.30
Benzo(a)anthracene	ND<0.30	0.30
Bis-(2-ethylhexyl)phthalate	ND<0.10	0.10
Chrysene	ND<0.30	0.30
Di-n-octylphthalate	ND<0.13	0.13
Benzo(b)fluoranthene	ND<0.20	0.20
Benzo(k)fluoranthene	ND<0.40	0.40
Benzo(a)pyrene	ND<0.09	0.09
Indeno(1,2,3-cd)pyrene	ND<0.20	0.20
Dibenzo(a,h)anthracene	ND<0.20	0.20
Benzo(ghi)perylene	ND<0.20	0.20

ND = Not detected at or above limit of detection.

NO.	SAMPLERS (Signature) Mike Nala - Bob Kelly

NAME AND ADDRESS: PR - Environmental / PG&E - 4227 Hollis St.
FAX (415) 237-6739

ANALYSIS REQUESTED

S[...] NCE [...] R	DATE	TIME	Soil	Water	STATION LOCATION	(5030) TPH- Gas ~~or Diesel~~ Diesel (3550)	BTX - (8020)	Halogenated (8010)	Oil & Grease 5520	PCB - (8080)	Metals Pb, Cd, Zn, Ni	8240	8270	REMARKS
-1	10/23/91	12:05pm	X			X			X	X	X	X	X	
-2	↓	12:10pm	X			X			X	X	X	X	X	
-3		12:15pm	X			X			X	X	X	X	X	
-4		12:20pm	X			X			X	X	X	X	X	
l-[illegible]		12:25pm	X			X			X	X	X	X	X	
[illegible]cl	↓	12:30pm	X			X			X	X	X	X	X	

[...]HED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Robert J. Kelly	DATE 10-24-91 TIME 1:45	[signature]	DATE 10-24-91 TIME 1:45pm
[...]HED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
[...]HED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
[...]HED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME

[...]ound Time: * 24 hrs ______ * 2/3 days ______ * 4/5 X Normal ______ * Surcharge Applies

[...]l Instructions: ______________________________

[...]le Sample Hazards: ______________________________

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/14/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Polychlorinated Biphenyls
EPA Method 8080
mg/Kg

Lab ID	Client ID	Ar-1260	MDL
72953-5	East End of Tank	ND<0.1	0.1
72953-Composite	Spd-1, Spd-2, Spd-3, and Spd-4	0.2	0.1

QA/QC: Spike Recovery: 100%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.
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CERTIFICATE OF ANALYSIS

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Received: 10/24/91
Reported: 11/14/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Total Petroleum Hydrocarbon Analysis
EPA Method 5030
mg/Kg

Lab ID	Client ID	Gasoline	MDL
72953-5	East End of Tank	ND<1.0	1.0
72953-Composite	Spd-1, Spd-2, Spd-3, and Spd-4	1.9	1.0

QA/QC: Spike Recovery for Gasoline: 98%

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.
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CERTIFICATE OF ANALYSIS

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Received: 10/24/91
Reported: 11/14/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Analysis Method EPA 6010
Preparation Method 3050
mg/Kg

Lab ID #: / Client ID:	72953-5 East End of Tank	72953-Composite Spd-1, Spd-2, Spd-3, and Spd-4	MDL	% Spike Recovery
METAL				
Cadmium	1.00	2.00	0.25	88

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-125

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/14/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Flame AA Method
Chromium - EPA Method 7190
Preparation Method 3050
mg/Kg

Lab ID #: / Client ID:	72953-5 East End of Tank	72953-Composite Spd-1, Spd-2, Spd-3, and Spd-4	MDL	% Spike Recovery
METAL				
Chromium	16.5	26.5	1.25	108

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Crow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.

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CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/14/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Flame AA Method
Lead - EPA Method 7420
Preparation Method 3050
mg/Kg

Lab ID #:	72953-5	72953-Composite		
Client ID:	East End of Tank	Spd-1, Spd-2, Spd-3, and Spd-4	MDL	% Spike Recovery
METAL				
Lead	6.1	300	2.5	85

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/14/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Flame AA Method
Nickel - EPA Method 7520
Preparation Method 3050
mg/Kg

Lab ID #:	72953-5	72953-Composite		
Client ID:	East End of Tank	Spd-1, Spd-2, Spd-3, and Spd-4	MDL	% Spike Recovery
METAL				
Nickel	28.7	39.6	2.5	91.4

MDL: Method Detection Limit. Compound below this level would not be detected.

Jaime Chow
Laboratory Director

JC/td

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Attn: Bob Kelly
P.R. Environmental
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Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

Flame AA Method
Zinc - EPA Method 7950
Preparation Method 3050
mg/Kg

Lab ID #:	72953-5	72953-Composite		
Client ID:	East End of Tank	Spd-1, Spd-2, Spd-3, and Spd-4	MDL	% Spike Recovery
METAL				
Zinc	115.3	193.5	1.0	85

MDL: Method Detection Limit. Compound below this level would not be detected.

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Laboratory Director

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Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

EPA METHOD 8240
PURGEABLE ORGANICS
mg/Kg

Lab ID: 72953-Composite
Client ID: Spd-1, Spd-2, Spd-3, and Spd-4

Compound	Concentration	Limit of Detection
Chloromethane	ND<0.9	0.9
Bromomethane	ND<0.3	0.3
Vinyl chloride	ND<0.5	0.5
Chloroethane	ND<1.0	1.0
Methylene chloride	ND<1.0	1.0
Trichlorofluoromethane	ND<2.0	2.0
1,1-dichloroethene	ND<0.6	0.6
1,1-dichloroethane	ND<0.5	0.5
Trans-1,2-dichloroethene	ND<0.5	0.5
Cis-1,2-dichloroethene	ND<0.3	0.3
Chloroform	ND<0.4	0.4
1,2-dichloroethane	ND<0.5	0.5
1,1,1-trichloroethane	ND<0.5	0.5
Carbon tetrachloride	ND<0.2	0.2
Bromodichloromethane	ND<0.2	0.2
1,2-dichloropropane	ND<0.3	0.3
Cis-1,3-dichlorpropene	ND<0.4	0.4
Trichloroethene	ND<0.1	0.1
Benzene	ND<0.3	0.3
Dibromochloromethane	ND<0.4	0.4
1,1,2-trichloroethane	ND<0.4	0.4

ND = Not detected at or above limit of detection.

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Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

EPA METHOD 8240
PURGEABLE ORGANICS
mg/kg

Lab ID: 72953-Composite
Client ID: Spd-1, Spd-2, Spd-3, and Spd-4

Compound	Concentration	Limit of Detection
Trans-1,3-dichloropropene	ND<0.4	0.4
2-chloroethyl vinyl ether	ND<0.7	0.7
Bromoform	ND<0.5	0.5
1,1,2,2-tetrachloroethane	ND<0.5	0.5
Tetrachloroethene	ND<0.2	0.2
Toluene	ND<0.2	0.2
Chlorobenzene	ND<0.2	0.2
Ethylbenzene	ND<0.2	0.2
1,3-Dichlorobenzene	ND<0.2	0.2
1,2-Dichlorobenzene	ND<0.2	0.2
1,4-Dichlorobenzene	ND<0.2	0.2
Dichlorodifluoromethane	ND<0.4	0.4
Freon 113	ND<0.6	0.6
M + P Xylene	ND<0.5	0.5
O-Xylene	ND<0.2	0.2
Acetone	ND<1.0	1.0
Carbon Disulfide	ND<0.8	0.8
4-Methyl-2-Pentanone	ND<0.7	0.7
2-Hexanone	ND<0.8	0.8
Styrene	ND<0.2	0.2
2-Butanone	ND<0.6	0.6
Vinyl Acetate	ND<0.6	0.6

ND = Not detected at or above limit of detection.

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Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

EPA METHOD 8240
PURGEABLE ORGANICS
mg/Kg

Lab ID: 72953-5
Client ID: East End of Tank

Compound	Concentration	Limit of Detection
Chloromethane	ND<0.9	0.9
Bromomethane	ND<0.3	0.3
Vinyl chloride	ND<0.5	0.5
Chloroethane	ND<1.0	1.0
Methylene chloride	ND<1.0	1.0
Trichlorofluoromethane	ND<2.0	2.0
1,1-dichloroethene	ND<0.6	0.6
1,1-dichloroethane	ND<0.5	0.5
Trans-1,2-dichloroethene	ND<0.5	0.5
Cis-1,2-dichloroethene	ND<0.3	0.3
Chloroform	ND<0.4	0.4
1,2-dichloroethane	ND<0.5	0.5
1,1,1-trichloroethane	ND<0.5	0.5
Carbon tetrachloride	ND<0.2	0.2
Bromodichloromethane	ND<0.2	0.2
1,2-dichloropropane	ND<0.3	0.3
Cis-1,3-dichlorpropene	ND<0.4	0.4
Trichloroethene	ND<0.1	0.1
Benzene	ND<0.3	0.3
Dibromochloromethane	ND<0.4	0.4
1,1,2-trichloroethane	ND<0.4	0.4

ND = Not detected at or above limit of detection.

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Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

EPA METHOD 8240
PURGEABLE ORGANICS
mg/kg

Lab ID: 72953-5
Client ID: East End of Tank

Compound	Concentration	Limit of Detection
Trans-1,3-dichloropropene	ND<0.4	0.4
2-chloroethyl vinyl ether	ND<0.7	0.7
Bromoform	ND<0.5	0.5
1,1,2,2-tetrachloroethane	ND<0.5	0.5
Tetrachloroethene	ND<0.2	0.2
Toluene	ND<0.2	0.2
Chlorobenzene	ND<0.2	0.2
Ethylbenzene	ND<0.2	0.2
1,3-Dichlorobenzene	ND<0.2	0.2
1,2-Dichlorobenzene	ND<0.2	0.2
1,4-Dichlorobenzene	ND<0.2	0.2
Dichlorodifluoromethane	ND<0.4	0.4
Freon 113	ND<0.6	0.6
M + P Xylene	ND<0.5	0.5
O-Xylene	ND<0.2	0.2
Acetone	ND<1.0	1.0
Carbon Disulfide	ND<0.8	0.8
4-Methyl-2-Pentanone	ND<0.7	0.7
2-Hexanone	ND<0.8	0.8
Styrene	ND<0.2	0.2
2-Butanone	ND<0.6	0.6
Vinyl Acetate	ND<0.6	0.6

ND = Not detected at or above limit of detection.

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Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

EPA METHOD 8240
PURGEABLE ORGANICS
mg/Kg

Lab ID: 72953-Method Blank
Client ID: Method Blank

Compound	Concentration	Limit of Detection
Chloromethane	ND<0.9	0.9
Bromomethane	ND<0.3	0.3
Vinyl chloride	ND<0.5	0.5
Chloroethane	ND<1.0	1.0
Methylene chloride	ND<1.0	1.0
Trichlorofluoromethane	ND<2.0	2.0
1,1-dichloroethene	ND<0.6	0.6
1,1-dichloroethane	ND<0.5	0.5
Trans-1,2-dichloroethene	ND<0.5	0.5
Cis-1,2-dichloroethene	ND<0.3	0.3
Chloroform	ND<0.4	0.4
1,2-dichloroethane	ND<0.5	0.5
1,1,1-trichloroethane	ND<0.5	0.5
Carbon tetrachloride	ND<0.2	0.2
Bromodichloromethane	ND<0.2	0.2
1,2-dichloropropane	ND<0.3	0.3
Cis-1,3-dichlorpropene	ND<0.4	0.4
Trichloroethene	ND<0.1	0.1
Benzene	ND<0.3	0.3
Dibromochloromethane	ND<0.4	0.4
1,1,2-trichloroethane	ND<0.4	0.4

ND = Not detected at or above limit of detection.

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Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

EPA METHOD 8240
PURGEABLE ORGANICS
mg/kg

Lab ID: 72953-Method Blank
Client ID: Method Blank

Compound	Concentration	Limit of Detection
Trans-1,3-dichloropropene	ND<0.4	0.4
2-chloroethyl vinyl ether	ND<0.7	0.7
Bromoform	ND<0.5	0.5
1,1,2,2-tetrachloroethane	ND<0.5	0.5
Tetrachloroethene	ND<0.2	0.2
Toluene	ND<0.2	0.2
Chlorobenzene	ND<0.2	0.2
Ethylbenzene	ND<0.2	0.2
1,3-Dichlorobenzene	ND<0.2	0.2
1,2-Dichlorobenzene	ND<0.2	0.2
1,4-Dichlorobenzene	ND<0.2	0.2
Dichlorodifluoromethane	ND<0.4	0.4
Freon 113	ND<0.6	0.6
M + P Xylene	ND<0.5	0.5
O-Xylene	ND<0.2	0.2
Acetone	ND<1.0	1.0
Carbon Disulfide	ND<0.8	0.8
4-Methyl-2-Pentanone	ND<0.7	0.7
2-Hexanone	ND<0.8	0.8
Styrene	ND<0.2	0.2
2-Butanone	ND<0.6	0.6
Vinyl Acetate	ND<0.6	0.6

ND = Not detected at or above limit of detection.

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P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-Composite
Client ID: Spd-1, Spd-2, Spd-3, and Spd-4

ACID COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenol	ND<0.08	0.08
2-chlorophenol	ND<0.06	0.06
2-methyl phenol	ND<0.09	0.09
4-methyl phenol	ND<0.10	0.10
2-nitrophenol	ND<0.06	0.06
2,4-dimethylphenol	ND<0.10	0.10
2,4-dichlorophenol	ND<0.10	0.10
4-chloro-3-methylphenol	ND<0.10	0.10
2,4,5-trichlorophenol	ND<0.07	0.07
2,4,6-trichlorophenol	ND<0.08	0.08
2,4-dinitrophenol	ND<0.40	0.40
4-nitrophenol	ND<0.10	0.10
2-methyl-4,6-dinitrophenol	ND<0.10	0.10
Pentachlorophenol	ND<0.30	0.30
BASE/NEUTRAL COMPOUNDS		
N-nitrosodimethylamine	ND<0.10	0.10
Bis(2-chloroethyl)ether	ND<0.04	0.04
1,3-dichlorobenzene	ND<0.50	0.50
1,4-dichlorobenzene	ND<0.50	0.50
1,2-dichlorobenzene	ND<0.40	0.40
Bis-(2-chloroisopropyl)ether	ND<0.20	0.20

ND = Not detected at or above limit of detection.

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Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-Composite
Client ID: Spd-1, Spd-2, Spd-3, and Spd-4

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
N-nitrosodi-n-propylamine	ND<0.10	0.10
Hexachloroethane	ND<0.50	0.50
Nitrobenzene	ND<0.06	0.06
Isophorone	ND<0.09	0.09
Bis-(2-chloroethoxy)methane	ND<0.10	0.10
1,2,4-trichlorobenzene	ND<0.30	0.30
Naphthalene	ND<0.20	0.20
Hexachlorobutadiene	ND<0.50	0.50
2-chloronaphthalene	ND<0.05	0.05
2-methyl naphthalene	ND<0.20	0.20
4-chloroaniline	ND<0.10	0.10
2-nitroaniline	ND<0.10	0.10
3-nitroaniline	ND<0.10	0.10
4-nitroaniline	ND<0.10	0.10
Hexachlorocyclopentadiene	ND<0.20	0.20
Dimethyl phthalate	ND<0.04	0.04
Acenaphthylene	ND<0.04	0.04
Acenaphthene	0.30	0.04
2,4-dinitrotoluene	ND<0.10	0.10
2,6-dinitrotoluene	ND<0.06	0.06
Diethyl phthalate	ND<0.10	0.10
4-chlorophenylphenylether	ND<0.05	0.05
Fluorene	ND<0.20	0.20
N-nitrosodiphenylamine	ND<0.09	0.09
4-bromophenylphenylether	ND<0.07	0.07
Hexachlorobenzene	ND<0.20	0.20

ND = Not detected at or above limit of detection.

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P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-Composite
Client ID: Spd-1, Spd-2, Spd-3, Spd-4

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenanthrene	0.40	0.10
Anthracene	ND<0.20	0.20
Di-n-butylphthalate	ND<0.20	0.20
Fluoranthene	ND<0.50	0.50
Benzidine	ND<1	1
Pyrene	ND<0.60	0.60
Benzylbutylphthalate	ND<0.10	0.10
3,3-dichlorobenzidine	ND<0.30	0.30
Benzo(a)anthracene	ND<0.30	0.30
Bis-(2-ethylhexyl)phthalate	ND<0.10	0.10
Chrysene	ND<0.30	0.30
Di-n-octylphthalate	ND<0.13	0.13
Benzo(b)fluoranthene	0.30	0.20
Benzo(k)fluoranthene	ND<0.40	0.40
Benzo(a)pyrene	0.12	0.09
Indeno(1,2,3-cd)pyrene	ND<0.20	0.20
Dibenzo(a,h)anthracene	ND<0.20	0.20
Benzo(ghi)perylene	ND<0.20	0.20

ND = Not detected at or above limit of detection.

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Richmond, CA 94804

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-5
Client ID: East End of Tank

ACID COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenol	ND<0.08	0.08
2-chlorophenol	ND<0.06	0.06
2-methyl phenol	ND<0.09	0.09
4-methyl phenol	ND<0.10	0.10
2-nitrophenol	ND<0.06	0.06
2,4-dimethylphenol	ND<0.10	0.10
2,4-dichlorophenol	ND<0.10	0.10
4-chloro-3-methylphenol	ND<0.10	0.10
2,4,5-trichlorophenol	ND<0.07	0.07
2,4,6-trichlorophenol	ND<0.08	0.08
2,4-dinitrophenol	ND<0.40	0.40
4-nitrophenol	ND<0.10	0.10
2-methyl-4,6-dinitrophenol	ND<0.10	0.10
Pentachlorophenol	ND<0.30	0.30
BASE/NEUTRAL COMPOUNDS		
N-nitrosodimethylamine	ND<0.10	0.10
Bis(2-chloroethyl)ether	ND<0.04	0.04
1,3-dichlorobenzene	ND<0.50	0.50
1,4-dichlorobenzene	ND<0.50	0.50
1,2-dichlorobenzene	ND<0.40	0.40
Bis-(2-chloroisopropyl)ether	ND<0.20	0.20

ND = Not detected at or above limit of detection.

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Laboratory Director

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Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-5
Client ID: East End of Tank

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
N-nitrosodi-n-propylamine	ND<0.10	0.10
Hexachloroethane	ND<0.50	0.50
Nitrobenzene	ND<0.06	0.06
Isophorone	ND<0.09	0.09
Bis-(2-chloroethoxy)methane	ND<0.10	0.10
1,2,4-trichlorobenzene	ND<0.30	0.30
Naphthalene	ND<0.20	0.20
Hexachlorobutadiene	ND<0.50	0.50
2-chloronaphthalene	ND<0.05	0.05
2-methyl naphthalene	ND<0.20	0.20
4-chloroaniline	ND<0.10	0.10
2-nitroaniline	ND<0.10	0.10
3-nitroaniline	ND<0.10	0.10
4-nitroaniline	ND<0.10	0.10
Hexachlorocyclopentadiene	ND<0.20	0.20
Dimethyl phthalate	ND<0.04	0.04
Acenaphthylene	ND<0.04	0.04
Acenaphthene	ND<0.04	0.04
2,4-dinitrotoluene	ND<0.10	0.10
2,6-dinitrotoluene	ND<0.06	0.06
Diethyl phthalate	ND<0.10	0.10
4-chlorophenylphenylether	ND<0.05	0.05
Fluorene	ND<0.20	0.20
N-nitrosodiphenylamine	ND<0.09	0.09
4-bromophenylphenylether	ND<0.07	0.07
Hexachlorobenzene	ND<0.20	0.20

ND = Not detected at or above limit of detection.

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Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-5
Client ID: East End of Tank

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenanthrene	ND<0.10	0.10
Anthracene	ND<0.20	0.20
Di-n-butylphthalate	ND<0.20	0.20
Fluoranthene	ND<0.50	0.50
Benzidine	ND<1	1
Pyrene	ND<0.60	0.60
Benzylbutylphthalate	ND<0.10	0.10
3,3-dichlorobenzidine	ND<0.30	0.30
Benzo(a)anthracene	ND<0.30	0.30
Bis-(2-ethylhexyl)phthalate	ND<0.10	0.10
Chrysene	ND<0.30	0.30
Di-n-octylphthalate	ND<0.13	0.13
Benzo(b)fluoranthene	ND<0.20	0.20
Benzo(k)fluoranthene	ND<0.40	0.40
Benzo(a)pyrene	ND<0.09	0.09
Indeno(1,2,3-cd)pyrene	ND<0.20	0.20
Dibenzo(a,h)anthracene	ND<0.20	0.20
Benzo(ghi)perylene	ND<0.20	0.20

ND = Not detected at or above limit of detection.

Attn: Bob Kelly
P.R. Environmental
912 Harbour Way South
Richmond, CA 94804

JOB #: 72953

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-Method Blank
Client ID: Method Blank

ACID COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenol	ND<0.08	0.08
2-chlorophenol	ND<0.06	0.06
2-methyl phenol	ND<0.09	0.09
4-methyl phenol	ND<0.10	0.10
2-nitrophenol	ND<0.06	0.06
2,4-dimethylphenol	ND<0.10	0.10
2,4-dichlorophenol	ND<0.10	0.10
4-chloro-3-methylphenol	ND<0.10	0.10
2,4,5-trichlorophenol	ND<0.07	0.07
2,4,6-trichlorophenol	ND<0.08	0.08
2,4-dinitrophenol	ND<0.40	0.40
4-nitrophenol	ND<0.10	0.10
2-methyl-4,6-dinitrophenol	ND<0.10	0.10
Pentachlorophenol	ND<0.30	0.30
BASE/NEUTRAL COMPOUNDS		
N-nitrosodimethylamine	ND<0.10	0.10
Bis(2-chloroethyl)ether	ND<0.04	0.04
1,3-dichlorobenzene	ND<0.50	0.50
1,4-dichlorobenzene	ND<0.50	0.50
1,2-dichlorobenzene	ND<0.40	0.40
Bis-(2-chloroisopropyl)ether	ND<0.20	0.20

ND = Not detected at or above limit of detection.

Jaime Chow
Laboratory Director

JC/td

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/14/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-Method Blank
Client ID: Method Blank

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
N-nitrosodi-n-propylamine	ND<0.10	0.10
Hexachloroethane	ND<0.50	0.50
Nitrobenzene	ND<0.06	0.06
Isophorone	ND<0.09	0.09
Bis-(2-chloroethoxy)methane	ND<0.10	0.10
1,2,4-trichlorobenzene	ND<0.30	0.30
Naphthalene	ND<0.20	0.20
Hexachlorobutadiene	ND<0.50	0.50
2-chloronaphthalene	ND<0.05	0.05
2-methyl naphthalene	ND<0.20	0.20
4-chloroaniline	ND<0.10	0.10
2-nitroaniline	ND<0.10	0.10
3-nitroaniline	ND<0.10	0.10
4-nitroaniline	ND<0.10	0.10
Hexachlorocyclopentadiene	ND<0.20	0.20
Dimethyl phthalate	ND<0.04	0.04
Acenaphthylene	ND<0.04	0.04
Acenaphthene	ND<0.04	0.04
2,4-dinitrotoluene	ND<0.10	0.10
2,6-dinitrotoluene	ND<0.06	0.06
Diethyl phthalate	ND<0.10	0.10
4-chlorophenylphenylether	ND<0.05	0.05
Fluorene	ND<0.20	0.20
N-nitrosodiphenylamine	ND<0.09	0.09
4-bromophenylphenylether	ND<0.07	0.07
Hexachlorobenzene	ND<0.20	0.20

ND = Not detected at or above limit of detection.

Precision Analytical Laboratory, Inc.
4136 LAKESIDE DRIVE, RICHMOND, CA 94806 PHONE (510) 222-3002 FAX (510) 222-1251

STATE LICENSE NO. E 750

Received: 10/24/91
Reported: 11/14/91
Job #: 72953

Attn: Bob Kelly
P.R. Environmental

Project: P.G.&E.
4227 Hollis Street
Matrix: Soil

ACID & BASE/NEUTRAL EXTRACTABLES
EPA Method 8270 - Low Level
mg/Kg

Lab ID: 72953-Method Blank
Client ID: Method Blank

BASE/NEUTRAL COMPOUNDS	CONCENTRATION	LIMIT OF DETECTION
Phenanthrene	ND<0.10	0.10
Anthracene	ND<0.20	0.20
Di-n-butylphthalate	ND<0.20	0.20
Fluoranthene	ND<0.50	0.50
Benzidine	ND<1	1
Pyrene	ND<0.60	0.60
Benzylbutylphthalate	ND<0.10	0.10
3,3-dichlorobenzidine	ND<0.30	0.30
Benzo(a)anthracene	ND<0.30	0.30
Bis-(2-ethylhexyl)phthalate	ND<0.10	0.10
Chrysene	ND<0.30	0.30
Di-n-octylphthalate	ND<0.13	0.13
Benzo(b)fluoranthene	ND<0.20	0.20
Benzo(k)fluoranthene	ND<0.40	0.40
Benzo(a)pyrene	ND<0.09	0.09
Indeno(1,2,3-cd)pyrene	ND<0.20	0.20
Dibenzo(a,h)anthracene	ND<0.20	0.20
Benzo(ghi)perylene	ND<0.20	0.20

ND = Not detected at or above limit of detection.

CHAIN OF CUSTODY

PROJECT NO.	SAMPLERS (Signature)
[PG]&E.	Mike Naia - Bob Kelly

PROJECT NAME AND ADDRESS: AR - Environmental / PG&E - 4227 Hollis st.
FAX (415) 237-6739

ANALYSIS REQUESTED

CROSS REFERENCE NUMBER	DATE	TIME	Soil	Water	STATION LOCATION	(5030) TPH - Gas or Diesel (3550) Diesel	BTX - (8020)	Halogenated (8010)	Oil & Grease 5520 B+F	PCB - (8080)	Metals CAM 17 (Cd, Cr, Pb, Ni, Zn)	8240	8270	REMARKS
Spd-1	10/23/91	12:05pm	X			X			X	X	X	X	X	
Spd-2	↓	12:10pm	X			X			X	X	X	X	X	
Spd-3		12:15pm	X			X			X	X	X	X	X	
Spd-4		12:20pm	X			X			X	X	X	X	X	
-End-[illegible]		12:25pm	X			X			X	X	X	X	X	
[W]est End	↓	12:30pm	X			X			X	X	X	X	X	

RELINQUISHED BY: (Signature) Robert J. Kelly	DATE 10-24-91 TIME 1:45	RECEIVED BY: (Signature) Bhupinder Sidhu	DATE 10-24-91 TIME 1:45pm
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME

Turnaround Time: * 24 hrs ____ * 2/3 days ____ * 4/5 X Normal ____ * Surcharge Applies

Special Instructions: ____

Possible Sample Hazards: ____

STAMCO, INC.
P.O. Box 150 • San Martin, CA 95046
(408) 683-2395 • (408) 268-1196 • FAX: 408-683-4771

EXCAVATION AND SOIL SAMPLING SUMMARY

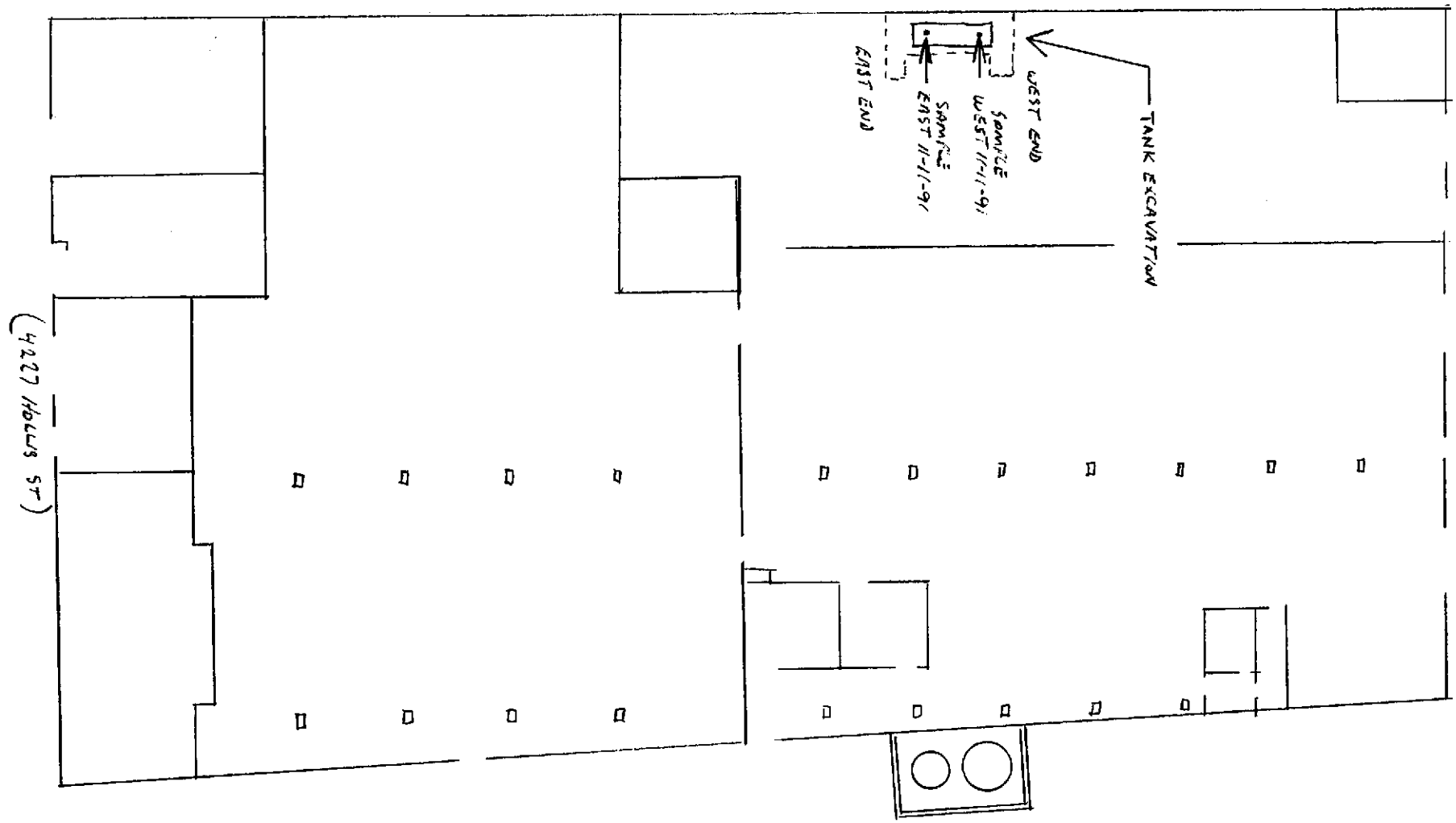
P.G.&E. requested STAMCO to remove an additional four feet of soil from the excavation at 4227 Hollis Street, Emeryville, under their existing System Wide Contract. The open excavation was from a tank removal project. On November 11, 1991 STAMCO carried out P.G.&E's request.

A bobcat with an extended arm was utilized to remove soil from the excavation because of the structural constraints inside the building. The excavated soil was placed directly into lined bins which are currently being stored on P.G.&E.'s adjacent property.

Immediately following the removal of the four feet of soil, shoring was installed to maintain the integrity of the side walls and permit confined space entry to take soil samples.

The soil samples were taken with P.G.&E's representative, Armando Rodriquez observing the sampling procedure in the following sequence: approximately two to four inches of soil was scraped from the bottom surface about one foot from the east and west ends of the excavation (see attached sampling map). Then clean brass tubes were drive into the soil at each end to obtain representative soil samples. The ends of the tubes were covered with aluminum foil, them plastic end caps were put on. Labels with the sample I.D. data were put on the body of the brass tube soil samples, east 11-11-91 and west 11-11-91 respectively. The samples were then wrapped in poly and taped closed. The samples were immediately placed on ice in an ice chest for transport to CHROMALAB under full chain of custody (attached). P.G.&E. requested the samples be analyzed for TPH (diesel) TPH (kerosene), and for oil and grease. On November 12, 1991, P.G.&E. requested that the same samples be analyzed for the following metals: chrome, cadmium, lead, zinc, and nickel. On November 13, 1991, P.G.&E. requested that these are samples be tested for TPH (gas). (See attached analytical results for all of the above.)

SAMPLING MAP



P.G.&E

OCB BUILDING

SCALE 1" = ~ 30'

CHROMALAB, INC.

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798

CHROMALAB FILE # [illegible]
ORDER # 4121

Chain of Custody

DATE 11-11-91 PAGE 1 OF 1

PROJ. MGR. RICHARD CAMACHO
COMPANY STAMCO, INC.
ADDRESS 12475-A LLAGAS AVE.
SAN MARTIN, CA 95046
SAMPLERS (SIGNATURE) [signature] (PHONE NO.) (408)683-2395

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	TPH - Gasoline (EPA 5030, 8015)	TPH - Gasoline (5030, 8015) w/BTeX (EPA 602,8020)	TPH - Diesel (KEROSENE) (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524.2)	BASE/NEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 5520 E&F)	PESTICIDES/PCB (EPA 608, 8080)	PHENOLS (EPA 604, 8040)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)		METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	EXTRACTION (TCLP, STLC)		24 HOUR TURNAROUND			NUMBER OF CONTAINERS
EAST 11-11-91	11-11-91	2:50PM	SOIL				X					X										X			1
WEST 11-11-91	11-11-91	3:10PM	SOIL				X					X										X			1

PROJECT INFORMATION	
PROJECT NAME:	P.G.&E EMERYVILLE HOLLIS ST.
PROJECT NUMBER:	STAM/PG&E -001
SHIPPING ID. NO.	
VIA:	HAND CARRY

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	
CHAIN OF CUSTODY SEALS	
REC'D GOOD CONDITION/COLD	
CONFORMS TO RECORD	
LAB NO.	

SPECIAL INSTRUCTIONS/COMMENTS: 24 HOUR TURNAROUND!!!
FAX RESULTS TO:
ARMANDO RODRIGUEZ
PG&E
FAX #(510) 649-3370

	RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
(SIGNATURE) (TIME)	[signature] 4:31P		
(PRINTED NAME) (DATE)	RICHARD CAMACHO 11-11-91		
(COMPANY)	STAMCO, INC.		

	RECEIVED BY 1.	RECEIVED BY 2.	RECEIVED BY (LABORATORY) 3.
(SIGNATURE) (TIME)			[signature] 4:30pm
(PRINTED NAME) (DATE)			Charles N. [illegible] 11/11/91
(COMPANY) / (LAB)			Chromalab

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 12, 1991 ChromaLab File No.: 1191096

STAMCO, INC.

Attn: Armando Rodriguez / Richard Camaro

RE: Two rush soil samples for TEPH and Oil & Grease analyses

Project Name: PG&E EMERYVILLE
Project Location: Hollis Street
Project Number: STAM/TP&E-001
Date Sampled: Nov. 11, 1991 Date Submitted: Nov. 11, 1991
Date Extracted: Nov. 12, 1991 Date Analyzed: Nov. 12, 1991

RESULTS:

Sample I.D.	Kerosene (mg/kg)	Diesel (mg/kg)	Oil & Grease (mg/kg)
EAST 11-11-91	N.D.	N.D.	N.D.
WEST 11-11-91	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.
SPIKED RECOVERY	----	93.8%	----
DETECTION LIMIT	1.0	1.0	10
METHOD OF ANALYSIS	3550/8015	3550/8015	5520 E&F

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam (by DD)
Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E894)

5 DAYS TURNAROUND

November 14, 1991 ChromaLab File No.: 1191096

STAMCO, INC.

Attn: Steve Soares

RE: One soil sample for Cadmium, Chromium, Lead, Nickel and Zinc analyses

Project Name: PG&E EMERYVILLE
Project Location: Hollis Street
Project Number: STAM/PG&E.001
Date Sampled: Nov. 11, 1991 Date Submitted: Nov. 11, 1991
Date Extracted: Nov. 13, 1991 Date Analyzed: Nov. 13, 1991

RESULTS:

Sample No.	Cadmium (mg/Kg)	Chromium (mg/Kg)	Lead (mg/Kg)	Zinc (mg/Kg)	Nickel (mg/Kg)
WEST 11-11-91	0.33	18.2	5.89	21.5	22.4
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	75%	92%	72%	79%	74%
DUP SPIKE REC	70%	98%	90%	99%	66%
DETECTION LIMIT	0.05	0.05	0.05	0.25	0.50
METHOD OF ANALYSIS	6010	6010	6010	6010	6010

ChromaLab, Inc.

Refaat A Mankarious
Refaat A. Mankarious
Inorganics Supervisor

Refaat A Mankarious (for)
Eric Tam
Laboratory Director

~~415-894-2442~~

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory (E894)

5 DAYS TURNAROUND

November 15, 1991 ChromaLab File No.: 1191096

STAMCO, INC.

Attn: Richard Camacho

RE: Two rush soil samples for Gasoline analysis

Project Name: PG&E EMERYVILLE
Project Number: STAM/PG&E-001
Date Sampled: Nov. 11, 1991 Date Submitted: Nov. 11, 1991
Date Extracted: Nov. 14, 1991 Date Analyzed: Nov. 14, 1991

RESULTS:

Sample I.D.	Gasoline (mg/kg)
EAST 11-11-91	N.D.
WEST 11-11-91	N.D.
BLANK	N.D.
SPIKED RECOVERY	91.5%
DETECTION LIMIT	1.0
METHOD OF ANALYSIS	5030/8015

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam (by DD)
Eric Tam
Laboratory Director

BLAINE
TECH SERVICES INC.

1370 TULLY RD., SUITE 505
SAN JOSE, CA 95122
(408) 995-5535

December 5, 1991

Stamco
12475 Llagas Road
San Martin, CA 95046

Attn: Lee Sories

SITE:
PG & E
4227 Hollis Street
Emeryville, California

PROJECT:
Tank pit sampling

SAMPLED ON:
November 19, 1991

SAMPLING REPORT 911119-G-1

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. In order to avoid compromising the objectivity necessary for the proper and disinterested performance of this work, Blaine Tech Services, Inc. does not participate in the interpretation of analytical results or become involved with the marketing or installation of remedial systems. The interpretation of results should be performed by representatives of interested regulatory agencies and/or those professionals who are engaged as paid consultants in the business of providing opinions and proposals for further investigation or clean-up activities.

This report describes environmental sampling and documentation performed by our firm on this project. In addition to the Sampling Report text itself, supporting documents are provided as attachments. These include the chain of custody and the certified analytical laboratory report. All these documents should be kept together and preserved as a file of interrelated records which, together, comprise the documentation of the work performed at the site.

Background

On November 19, 1991, Blaine Tech Services, Inc. office personnel were told that a tank had been previously removed from a PG & E site and that additional soil from the tank pit had been removed several days ago. The local implementing agency (LIA), Alameda County Health Agency, would like an undisturbed soil sample taken from each wall of the tank pit.

Scope of Requested Services

In accordance with Stamco's request, field personnel would be dispatched to the PG & E site to collect undisturbed soil samples from the sidewalls of the tank pit. Each sample would be taken at an approximate depth of eight feet (8.0') below grade and twelve inches (12") into the pit wall. We would arrange for the requested analyses of the samples and maintain standard documentation resulting in the issuance of a formal Sampling Report. The collection of environmental samples was to be performed in accordance with the requirements and the specific directions of the LIA inspector present at the site.

Execution of the Work

Blaine Tech Services, Inc. personnel were sent to the site on Tuesday, November 19, 1991.

Our representative met with Mr. Rich Camacho of Stamco and with Ms. Susan Hugo of the Alameda County Health Agency, who was present to observe and direct the sampling activity.

The tank pit was located inside the PG & E building along the south wall. The concrete floor had been cut through in order to excavate and remove the tank. Shoring was used to support the walls of the pit agasinst collapse.

At each sample depth, a hand auger was used to laterally bore through the sidewall of the pit approximately twelve inches (12"). An undisturbed soil sample was then obtained by driving a hand driven core sampler into the soil at the furthest extent of the bore hole. The hand driven core sampler consisted of a drive shoe (containing a brass sample liner), extension rods and a slide hammer.

Sample #1 was taken from the east wall of the tank pit at a depth of sixty-eight inches (68") below grade.

Sample #2 was taken from the west wall of the tank pit at a depth of sixty-seven inches (67") below grade.

Sample #3 was taken from the north wall of the tank pit at a depth of sixty-four inches (64") below grade.

Sample #4 was taken from the south wall of the tank pit at a depth of sixty-three inches (63") below grade.

The location of individual sampling points is shown on the diagram on page four. Additional information on the exact method of sample collection will be found in the SAMPLING METHODOLOGY section of this report.

After completion of the field work, the sample containers were delivered to Chromalab, Inc. Analytical Laboratory in San Ramon, California. Chromalab, Inc. Analytical Laboratory is certified by the California Department of Health Services as a Hazardous Materials Testing Laboratory and is listed as DOHS HMTL #238.

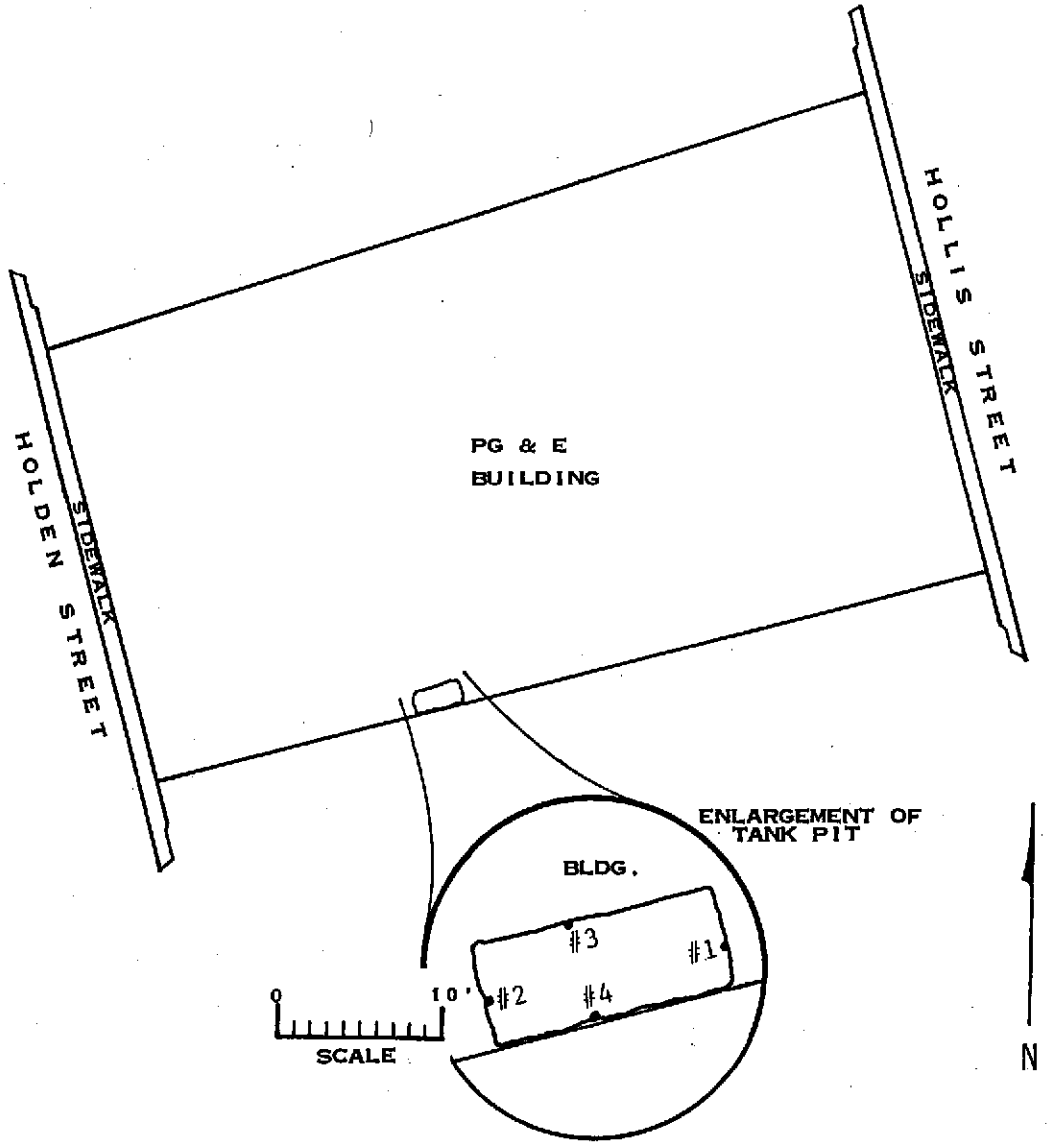
SAMPLING METHODOLOGIES USED ON THIS PROJECT

Hand Driven Core Sampling: This is another term for the sampling methodology that is often called undisturbed soil sampling. This is the generally preferred sampling method for both geotechnical and environmental investigations because the method captures a relatively undisturbed cylinder of soil which can be retained in its sealed brass liner during transport to a laboratory for very precise examination. Whether driven by a drill rig or a much smaller hand operated slide hammer, the principle attributes of the methodology remain the same.

Because of the tons of force which can be exerted by a drill rig, the samplers, drill rod and hammers are, necessarily, quite massive. Apparatus used in hand augered borings is usually much lighter and more subject to wear and breakage. Specialized hand tools that enable a person to drive samples consist of a sampling shoe (which contains the brass liners), light weight drill rod, and a small slide hammer. These hand operated drive samplers collect samples in the same two inch diameter brass liners used in many drill rig samplers, but collect only a four or six inch long core rather than twelve to twenty four inches of soil commonly obtained by drilling apparatus.

Common uses for hand operated drive samplers include all those applications where an undisturbed soil sample is desired. Typical applications include the collection of soil samples from the bottom of a hand augered boring, capillary zone sampling where a drill rod is used to extend the sampler across an open pit to a selected location on the wall of the excavation, and when sampling soil from the backhoe bucket that is too hard to allow a brass sample liner to be pushed into the soil by hand.

In practice, the sampler is usually overdriven and then retracted. Then the sampler is removed from the drill rods and hammer, opened, and the sample contained in the brass sample liners removed. Samples to be analyzed for environmental hazards are treated according to the same sample handling protocol as all other environmental samples.



SCALE: 0 50' 100' 150'

MAP REF: THOMAS BROS.
ALAMEDA COUNTY
P.3 E-6

#1 SOIL SAMPLE FROM SIDE WALL OF PIT AT 68''
ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS (TPH) AS GASOLINE, TPH AS DIESEL, KEROSENE, TOTAL OIL AND GREASE (TOG), CADMIUM (CD), CHROMIUM (CR), LEAD (PB), ZINC (ZN), NICKEL (NI), AND PCB'S
AT CHROMALAB INC.

#2 SOIL SAMPLE FROM SIDE WALL OF PIT AT 67''
ANALYSIS FOR TPH AS GASOLINE, TPH AS DIESEL, KEROSENE, TOG, CD, CR, PB, ZN, NI AND PCB'S
AT CHROMALAB INC.

#3 SOIL SAMPLE FROM SIDE WALL OF PIT AT 64''
ANALYSIS FOR TPH AS GASOLINE, TPH AS DIESEL, KEROSENE, TOG, CD, CR, PB, ZN, NI AND PCB'S
AT CHROMALAB INC

#4 SOIL SAMPLE FROM SIDE WALL OF PIT AT 63''
ANALYSIS FOR TPH AS GASOLINE, TPH AS DIESEL, KEROSENE, TOG, CD, CR, PB, ZN, NI AND PCB'S
AT CHROMALAB INC

SAMPLING PERFORMED BY CHUCK GRAVES

DIAGRAM PREPARED BY LI PAN

Sample Containers

Our firm uses new sample containers of the type specified by either EPA or the RWQCB for the collection of samples at sites where underground storage tanks are involved. Soil samples for volatile, semivolatile and nonvolatile analyses are all collected in properly prepared new brass liners which are 2 inches in diameter by 4 inches in length. Closure is accomplished with press fit plastic end caps which are fitted to the open ends of brass tube liners after a sheet of aluminum foil is wrapped over the exposed sample material. No preservative other than cold storage is used on samples captured in sample containers of this type.

Sample Handling Procedures

Solid sample material is captured by advancing the liner into the soil. This may be done by pushing the liner into soft soils or by containing the liner in a drive shoe which can be advanced and then retracted by means of a slide hammer. The open ends of the sample liner are covered with aluminum foil and plastic end caps. Excess aluminum foil is removed. The brass liner is then labeled with the appropriate identification numbers which specify the sampling activity designation number, sample collection area, depth etc. that apply to that particular sample. The sample liner is then placed in an ice chest which contains pre-frozen blocks of an inert ice substitute such as Blue Ice or Super Ice.

Sample Designations

All sample containers are identified with both a sampling event number and a discrete sample identification number. Please note that the sampling event number is the number that appears on our chain of custody. It is roughly equivalent to a job number, but applies only to work done on a particular day of the year rather than spanning several days as jobs and projects often do. This is followed by the sample I.D. number which is usually a simple number such as #1, #2, #3.

Chain of Custody

Samples are continuously maintained in either a chilled ice chest, refrigerator, or freezer from the time of collection until acceptance by the State certified Hazardous Materials Testing Laboratory selected to perform the analytical procedures. If the samples are taken charge of by a different party (such as another person from our office, a courier, etc.) prior to being delivered to the laboratory, appropriate release and acceptance records are made on the chain of custody (time, date, and signature of person releasing the samples followed by the time, date and signature of the person accepting custody of the samples).

Reportage

Submission to the Regional Water Quality Control Board and the local implementing agency should include copies of the sampling report, the chain of custody, and the certified analytical report issued by the Hazardous Materials Testing Laboratory. The property owner should attach a cover letter and submit all documents together in a package.

The following addresses have been listed here for your convenience:

Water Quality Control Board
San Francisco Bay Region
2101 Webster Street
5th Floor
Oakland, CA 94612
ATTN: Lester Feldman

Alameda County Health Agency
Hazardous Materials Management
80 Swan Way, Room 200
Oakland, CA 94621
ATTN: Susan Hugo

Please call if we can be of any further assistance.

Richard C. Blaine

RCB/dmp

attachments: chain of custody

CHROMALAB, INC.

Analytical Laboratory (E894)

5 DAYS TURNAROUND

November 26, 1991 ChromaLab File No.: 1191198

STAMCO INC.

Attn: Steve Soaris

RE: Four soil samples for Gasoline, TEPH, PCB's and Oil & Grease analysis

Project Name: STAMCO
Project Number: 911119-G-1
Date Sampled: Nov. 19, 1991 Date Submitted: Nov. 19, 1991
Date Extracted: Nov. 25, 1991 Date Analyzed: Nov. 25, 1991

RESULTS:

Sample I.D.	Gasoline (mg/kg)	Diesel (mg/kg)	PCB's (mg/kg)	Kerosene (mg/kg)	Oil & Grease (mg/kg)
1	N.D.	N.D.	N.D.	N.D.	N.D.
2	N.D.	N.D.	N.D.	N.D.	N.D.
3	N.D.	N.D.	N.D.	N.D.	N.D.
4	N.D.	N.D.	N.D.	N.D.	N.D.
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	98.0%	92.6%	91.7%	----	----
DUP SPIKE REC.	93.8%	88.0%	87.4%	----	----
DETECTION LIMIT	1.0	1.0	0.5	1.0	10
METHOD OF ANALYSIS	5030/ 8015	3550/ 8015	8080	3550/ 8015	5520 E&F

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

FAX TO: 510-874-2442
ATT: Bill UTIC

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

December 4, 1991 ChromaLab File No.: 1191198

STAMCO, INC.

Attn: Steve Soaris

RE: Four soil samples for Cadmium, Chromium, Lead, Nickel and Zinc analysis

Project Name: P G & E
Project Number: 911119-G-1
Date Sampled: Nov. 19, 1991 Date Submitted: Nov. 19, 1991
Date Extracted: Dec.3, 1991 Date Analyzed: Dec.4, 1991

RESULTS:

Sample I.D.	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Zinc (mg/kg)	Nickel (mg/kg)
# 1	2.94	26.5	1.37	32.8	25.5
# 2	3.50	28.5	2.00	43.0	28.0
# 3	2.85	27.1	2.28	45.7	25.2
# 4	2.78	26.8	1.62	35.2	29.2
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	80%	100%	96%	117%	125%
DUP SPIKE REC.	72%	110%	70%	115%	118%
DETECTION LIMIT	0.25	0.25	1.0	0.25	0.50
METHOD OF ANALYSIS	6010	6010	6010	6010	6010

ChromaLab, Inc.

Refaat A. Mankarious
Inorganics Supervisor

Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
510/831-1788 • Facsimile 510/831-8798
Federal ID #68-0140157

BLAINE
TECH SERVICES INC.

1370 TULLY ROAD., SUITE 505
SAN JOSE, CA 95122
(408) 995 5535

CHAIN OF CUSTODY 911119-G-1
CLIENT SAMCO
SITE PG+E
4227 Hollis St.
Emeryville, CA

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT: TPH-G, TPH-D, Kerosene; O+G (5520 E+F); CAM 17 Metals; PCB's

LAB Chroma Lab DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND

☐ EPA ☐ LIA ☐ OTHER ☒ RWQCB REGION II

SPECIAL INSTRUCTIONS

5-Day Turnaround

SAMPLE I.D.	MATRIX S = SOIL W = H2O	CONTAINERS TOTAL	Brass	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
#1	S	1	X		5-Day		
#2	S	1	X		" "		
#3	S	1	X		" "		
#4	S	1	X		" "		

SAMPLING COMPLETED DATE 11/19 TIME 1615
SAMPLING PERFORMED BY Mark McDonnell
RESULTS NEEDED NO LATER THAN 5-Day

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Mark McDonnell	11/19/91	1650		11-19-91	1650

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #

State of California—Health and Welfare Agency

Please print or type: Form designed for use on elite (12-pitch typewriter).

See Instructions on back of page 6.

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD982400[illegible]

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
[illegible] ELECTRIC COMPANY
4227 HOLLIS STREET
EMERYVILLE CALIFORNIA 94608

4. Generator's Phone (510) 649-3335

A. State Manifest Document Number 91512187

B. State Generator's ID H[illegible]3600879[illegible]

5. Transporter 1 Company Name: STANCO INC

6. US EPA ID Number: CAD063547976

C. State Transporter's ID [illegible]

D. Transporter's Phone [illegible]

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
ERICKSON INC
255 PARR BLVD
RICHMOND CALIFORNIA 94801

10. US EPA ID Number: CAD009466392

G. State Facility's ID CAD009466392

H. Facility's Phone [illegible] 235 1393

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON RCRA HAZARDOUS WASTE SOLID	001	T[illegible]	02000	P	State 512; EPA/Other NONE
b.					State; EPA/Other
c.					State 4578; EPA/Other
d.					State; EPA/Other

J. Additional Descriptions for Materials Listed Above
11.a [illegible] TANK # [illegible]
WITH SOLID DRY ICE

K. Handling Codes for Wastes Listed Above
a. 01
b.
c.
d.

15. Special Handling Instructions and Additional Information
WEAR PROTECTIVE CLOTHING
EMERGENCY [illegible] 1-800 [illegible] 321-1030
PU TAG 69997

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]			91

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
MIKE O [illegible]	[signature]	10	24	91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
HARRISON L. STOCKTON	[signature]	10	24	91

DO NOT WRITE BELOW THIS LINE.

GENERATOR / TRANSPORTER / FACILITY

91512187 IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

DHS 8022A (12/90)
EPA 8700—22

Green: HAULER RETAINS

a—Health and Welfare Agency

Please print of type. Form designed for use on elite (12-pitch typewriter).

See instructions on back of page 6.

Department of Health Services
Toxic Substances Control Program
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. C A D 9 8 1 2 0 0 4 1 6 | Manifest Document No. A 0 7 7 6 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
EMERYVILLE REPAIR FACILITY
ATTN: JIM ADDIEGO
PACIFIC GAS & ELECTRIC, CO.
4525 HOLLIS STREET
EMERYVILLE, CA 94608

4. Generator's Phone (415-) 649-3314

A. State Manifest Document Number 9 1 5 1 2 2 4 7

B. State Generator's ID N Y R 0 3 6 0 0 8 7 9 3

5. Transporter 1 Company Name: STAMCO, INC.

6. US EPA ID Number: C A D 0 6 3 5 4 7 9 9 6

C. State Transporter's ID [illegible]

D. Transporter's Phone (408)665-0447

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
35251 Old Skyline Road
Kettleman City, CA 93239

10. US EPA ID Number: C A T 0 8 0 0 0 6 4 6 1 1 7

G. State Facility's ID [illegible]

H. Facility's Phone (800)252-2954

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON-RCRA HAZARDOUS WASTE, SOLID	002	CM	00016	Y	State 223 CCR EPA/Other NON-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
Lt.a. Soil and hydrocarbons - Profile# 213009
(2-roll off containers)

K. Handling Codes for Wastes Listed Above
a. T3 b.
c. d.

15. Special Handling Instructions and Additional Information
24hr Emergency contact: (24) McConnell-(800)332-AEMC
Wear protective clothing when handling wastes.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Jim Addiego	[signature]	1	12	91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
[illegible]	[signature]	1	22	91

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

91512247

DHS 8022A (12/90)
EPA 8700—22

Green: HAULER RETAINS

Please print or type. Form designed for use on elite (12-pitch typewriter).

See Instructions on back of page 6.

Department of Health Services
Toxic Substances Control Program
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 2	Information in the shaded areas is not required by Federal law.
CA D 0 9 8 2 4 0 0 4 7 8	A 0 7 7 5		

GENERATOR

3. Generator's Name and Mailing Address
EMERYVILLE REPAIR FACILITY
ATTN: JIM ADDIEGO
4. Generator's Phone (415) 649-3316

PACIFIC GAS & ELECTRIC, CO.
4525 HOLLIS STREET
EMERYVILLE, CA 94608

A. State Manifest Document Number 91512246
B. State Generator's ID
CA D 0 9 8 2 4 0 0 4 7 8

5. Transporter 1 Company Name: STANCO, INC.
6. US EPA ID Number: CA D 0 6 3 5 4 7 9 1 6
C. State Transporter's ID
D. Transporter's Phone (408)683-0447

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
CHEMICAL WASTE MANAGEMENT, INC.
35251 Old Skyline Road
Kettleman City, CA 93239
10. US EPA ID Number: CA T 0 0 0 6 4 6 1 1 7
G. State Facility's ID
H. Facility's Phone (800)227-2964

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. NON-RCRA HAZARDOUS WASTE SOLID	002	CM	0016	Y	State 658 611 EPA/Other NON-RCRA
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
11.a. Soil and Hydrocarbons- Profile# J13009
(2-roll off containers)

K. Handling Codes for Wastes Listed Above
a. 03
b.
c. AE775
d.

15. Special Handling Instructions and Additional Information
24hr Emergency contact: Tom McConnell-(800)332-AENC.
Wear protective clothing when exposed to waste.

915 12246

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month	Day	Year
Jim Addiego	Jim Addiego	11	12	91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Rich Cuttz				

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
RICK HUFF	Rick Huff	11	22	91

DO NOT WRITE BELOW THIS LINE.

IN CASE OF EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA, CALL 1-800-852-7550

91512246

DHS 8022A (12/90)
EPA 8700-22

Green: HAULER RETAINS