LOP - RECORD CHANGE REQUEST FORM

printed: 08/08/2000

Mark Out What Needs Changing and Hand to LOP Data Entry
(Name/Address changes go to Annual Programs Data Entry)

Insp: DH

AGENCY # : 10000 SOURCE OF FUNDS: F SUBSTANCE: 8006619
StID : 3809 LOC: -0-
SITE NAME: Oakland Bus Terminal DATE REPORTED : 06/08/1989
ADDRESS : 2103 -0 San Pablo Ave DATE CONFIRMED: 06/08/1989
CITY/ZIP : Oakland 94608 MULTIPLE RPs : N

SITE STATUS

CASE TYPE: O CONTRACT STATUS: 4 PRIOR CODE:2B3 EMERGENCY RESP: -0-
RP SEARCH: S DATE COMPLETED: 03/20/1992
PRELIMINARY ASMNT: U DATE UNDERWAY: 11/11/1991 DATE COMPLETED: -0-
REM INVESTIGATION: - DATE UNDERWAY: -0- DATE COMPLETED: -0-
REMEDIAL ACTION: - DATE UNDERWAY: -0- DATE COMPLETED: -0-
POST REMED ACT MON:- DATE UNDERWAY: -0- DATE COMPLETED: -0-

ENFORCEMENT ACTION TYPE: 1 DATE ENFORCEMENT ACTION TAKEN: 03/20/1992
LUFT FIELD MANUAL CONSID: 3HSCAWG
CASE CLOSED: - DATE CASE CLOSED: -0-
DATE EXCAVATION STARTED : 06/08/1989 REMEDIAL ACTIONS TAKEN: ED,FP

RESPONSIBLE PARTY INFORMATION

RP#1-CONTACT NAME: Mr. Leroy Hernandez
COMPANY NAME: Greyhound Lines Inc.
ADDRESS: P. O. Box 660362
CITY/STATE: Dallas, Texas 75266-0362

INSPECTOR VERIFICATION:

NAME _____ SIGNATURE _____ DATE _____

DATA ENTRY INPUT:

Name/Address Changes Only

ANNPGMS _____ LOP ____ DATE _____

Case Progress Changes

LOP _____ DATE _____

LOP - RECORD CHANGE REQUEST FORM

printed: 05/25/2000

Mark Out What Needs Changing and Hand to LOP Data Entry
(Name/Address changes go to Annual Programs Data Entry)

Insp: TP

AGENCY # : 10000 SOURCE OF FUNDS: F SUBSTANCE: 8006619
StID : 3809 LOC: -0-
SITE NAME: Oakland Bus Terminal DATE REPORTED : 06/08/1989
ADDRESS : 2103 -0 San Pablo Ave DATE CONFIRMED: 06/08/1989
CITY/ZIP : Oakland 94608 MULTIPLE RPs : N

SITE STATUS

CASE TYPE: O CONTRACT STATUS: 3 PRIOR CODE:2B3 EMERGENCY RESP: -0-
RP SEARCH: S DATE COMPLETED: 03/20/1992
PRELIMINARY ASMNT: U DATE UNDERWAY: 11/11/1991 DATE COMPLETED: -0-
REM INVESTIGATION: - DATE UNDERWAY: -0- DATE COMPLETED: -0-
REMEDIAL ACTION: - DATE UNDERWAY: -0- DATE COMPLETED: -0-
POST REMED ACT MON:- DATE UNDERWAY: -0- DATE COMPLETED: -0-

ENFORCEMENT ACTION TYPE: 1 DATE ENFORCEMENT ACTION TAKEN: 03/20/1992
LUFT FIELD MANUAL CONSID: 3HSCAWG
CASE CLOSED: - DATE CASE CLOSED: -0-
DATE EXCAVATION STARTED : 06/08/1989 REMEDIAL ACTIONS TAKEN: ED,FP

RESPONSIBLE PARTY INFORMATION

RP#1-CONTACT NAME: Mr. Leroy Hernandez
COMPANY NAME: Greyhound Lines Inc.
ADDRESS: P. O. Box 660362
CITY/STATE: Dallas, Texas 75266-0362

INSPECTOR VERIFICATION:

NAME ________ SIGNATURE ________ DATE ________

DATA ENTRY INPUT:

Name/Address Changes Only	Case Progress Changes
ANNPGMS ____ LOP ____ DATE ____	LOP ____ DATE ____

5/25/00
Tom,
Transferring this case.
Susan

LOP - RECORD CHANGE REQUEST FORM

printed: 06/14/2000

Mark Out What Needs Changing and Hand to LOP Data Entry
(Name/Address changes go to Annual Programs Data Entry)

Insp: DH

AGENCY # : 10000 SOURCE OF FUNDS: F SUBSTANCE: 8006619
StID : 3809 LOC: -0-
SITE NAME: Oakland Bus Terminal DATE REPORTED : 06/08/1989
ADDRESS : 2103 -0 San Pablo Ave DATE CONFIRMED: 06/08/1989
CITY/ZIP : Oakland 94608 MULTIPLE RPs : N

SITE STATUS

CASE TYPE: O CONTRACT STATUS: 4 PRIOR CODE:2B3 EMERGENCY RESP: -0-
RP SEARCH: S DATE COMPLETED: 03/20/1992
PRELIMINARY ASMNT: U DATE UNDERWAY: 11/11/1991 DATE COMPLETED: -0-
REM INVESTIGATION: - DATE UNDERWAY: -0- DATE COMPLETED: -0-
REMEDIAL ACTION: - DATE UNDERWAY: -0- DATE COMPLETED: -0-
POST REMED ACT MON: - DATE UNDERWAY: -0- DATE COMPLETED: -0-

ENFORCEMENT ACTION TYPE: 1 DATE ENFORCEMENT ACTION TAKEN: 03/20/1992
LUFT FIELD MANUAL CONSID: 3HSCAWG
CASE CLOSED: - DATE CASE CLOSED: -0-
DATE EXCAVATION STARTED : 06/08/1989 REMEDIAL ACTIONS TAKEN: ED,FP

RESPONSIBLE PARTY INFORMATION

RP#1-CONTACT NAME: Mr. Leroy Hernandez
COMPANY NAME: Greyhound Lines Inc.
ADDRESS: P. O. Box 660362
CITY/STATE: Dallas, Texas 75266-0362

INSPECTOR VERIFICATION:

NAME _____ SIGNATURE _____ DATE _____

DATA ENTRY INPUT:

Name/Address Changes Only

ANNPGMS _____ LOP ____ DATE _____

Case Progress Changes

LOP _____ DATE _____

Don - can you take over this case?

Thanks.

11/17/98 Oakland Bus Terminal - Talked to David Nickerson

1) Guidelines

1) Tier II Benzene

2) RMP (315) 451-9570 fax Dave Nickerson

email: DavidJnickerson@parsons.com

TRANSMIT REPORT

1998,11-18 11:58
510 337 9335
ALAMEDA CO EHS HAZ-OPS

COM No.	REMOTE STATION	START TIME	DURATION	PAGES	RESULT	USER ID	REMARKS
660	PARSONS ENGINEERING SCIE	11-18 11:54	04'32	09/09	OK		

7499402046

ALAMEDA COUNTY ENVIRONMENTAL HEALTH SERVICES

ENVIRONMENTAL PROTECTION DIVISION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
Telephone (510) 567-6700 Fax (510) 337-9335

FAX COVER SHEET

DATE: NOVEMBER 18, 1998

TO: DAVID NICKERSON
PARSONS ENGINEERING
FAX # (315) 451-9570

Total number of pages including cover sheet 9

FROM: **SUSAN L. HUGO**
Hazardous Materials Specialist

ALAMEDA COUNTY ENVIRONMENTAL
HEALTH SERVICES

ENVIRONMENTAL PROTECTION DIVISION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
Telephone (510) 567-6700 Fax (510) 337-9335

FAX COVER SHEET

DATE: NOVEMBER 18, 1998

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Total number of pages including cover sheet 9

FROM: SUSAN L. HUGO
Hazardous Materials Specialist

NOTE: PER OUR PHONE CONVERSATION ON 11/17/98, HERE'S THE LOW RISK GUIDANCE DOCUMENT by RWQCB & an EXAMPLE OF A RISK MANAGEMENT PLAN. PLEASE SEE PAGE 4 for benzene concentration conversion. Call me if you have any questions. Susan

STATE OF CALIFORNIA -- CALIFORNIA ENVIRONMENTAL PROTECTION AGENCY PETE WILSON, Governor

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, Suite 500
OAKLAND, CA 94612
Tel: (510) 286-1255
FAX: (510) 286-1380
BBS: (510) 286-0404

January 5, 1996

To: **San Francisco Bay Area Agencies Overseeing UST Cleanup (see distribution list)**

Subject: **Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low Risk Fuel Sites**

As you know, Lawrence Livermore National Laboratory (LLNL) issued its "Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks" (October 16, 1995). In response to this report, State Water Resources Control Board Executive Director Walt Pettit issued an interim guidance letter (attached) dated December 8, 1995, which discussed the regulatory implications of the conclusions and recommendations of the LLNL report. This letter is intended to further amplify the guidance contained in the State Board letter for fuel cleanup sites within the San Francisco Bay Region.

Two documents are enclosed. One we call "Supplemental Instructions", which we recommend for your use in regulating low-risk sites. The other is a fact sheet in question and answer format intended for the interested tank owner or the general public.

In general, we concur with the findings and conclusions of the LLNL study. The LLNL study is consistent with the language approved by the Regional Board in its "non-attainment zone" policy for groundwater cleanup. For both the LLNL study and the Regional Board "non-attainment zone" policy, it is recommended that fuel sites be treated differently and less stringently than solvent sites. In this region we believe that most fuel sites fall into the low-risk category, for which source removal and passive remediation are adequate. At the same time we believe that great care should be used to see that sites which are ***not*** low-risk receive more aggressive treatment. These judgements will always have to be made on a site-by-site basis.

Note that this guidance, like that provided in the State Board's December 8 letter, is only interim. The recommendations of the SB 1764 Scientific Advisory Committee are due this month, and these will presumably be reflected in the pending changes the State Board is considering in its update to its cleanup policy this spring.

If you have questions on the guidance or the supplemental instructions, please call Steve Morse (510-286-0304) or Kevin Graves (510-286-0435) of my staff.

Sincerely,

Lawrence P. Kolb
for
Loretta K. Barsamian
Executive Officer

Attachment (2)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION
2101 WEBSTER STREET, Suite 500
OAKLAND, CA 94612
Tel: (510) 286-1255
FAX: (510) 286-1380
BBS: (510) 286-0404

January 5, 1996

MEMORANDUM

To: San Francisco Bay Area Agencies Overseeing UST Cleanup and Other Interested Parties

Subject: Regional Board Supplemental Instructions to State Water Board December 8, 1995, Interim Guidance on Required Cleanup at Low-Risk Fuel Sites

These supplemental instructions are intended for the regulatory and technical audience[1] to expand on the interim guidance provided in the December 8, 1995, letter from Walt Pettit, Executive Director of the State Water Resources Control Board regarding the findings of the report entitled "Recommendations to Improve the Cleanup Process for California's Leaking Underground Fuel Tanks (LUFTs)" issued by the Lawrence Livermore National Laboratory (LLNL). Mr. Pettit's letter urges cleanup agencies to proceed aggressively to close low risk soil only cases and not to require active remediation of low risk groundwater cases.

The LLNL report indicates that bioremediation of petroleum is an important factor in stabilizing plumes and may be the only remedial activity necessary in the absence of free product. After a review of existing literature, white papers submitted to the SB1764 committee, and an extensive study of leak cases statewide, the LLNL report found that petroleum plumes tend to stabilize close to the source, generally occur in shallow groundwater and rarely impact drinking water wells in the state.

It is in light of these findings and the "lessons learned" over the past ten years in San Francisco Bay Region that these supplemental instructions are written. Strategies are presented for closing low risk soil only cases and managing low risk groundwater impact cases utilizing natural bioremediation as the preferred remedial alternative.

These two classes of sites, low risk soils and low risk groundwater, are not intended to include the whole universe of petroleum leaks. There are higher risk sites that may require immediate action and remediation to protect human health and the environment. The responsibility still lies with the discharger for investigation of the subsurface to gather the data necessary to make these decisions. It is the responsibility of the regulator to only request that information which is required to make the necessary regulatory decisions regarding the site.

It is the responsibility of everyone in the process, particularly consultants and regulators, to keep up with current research on site investigation, fate and transport of contaminants, analytical methods, and other topics that affect the decision making process. Training and education should be a high priority for all parties participating in the site cleanup process. The State and Regional Boards will be providing training to the local agencies and others affected. In addition, consulting by the Regional Board's toxicologist, Dr. Ravi Arulanantham, is available on a limited basis to local agencies.

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[1] Additional supplemental information is also provided from the Regional Board in the form of a Fact Sheet in a "Question and Answer" format.

LOW RISK SOILS CASE

Definition:

1) **The leak has been stopped and ongoing sources, including free product, removed or remediated.**

The tank or appurtenant structure that leaked must be repaired or permanently closed per Chapter 7, Section 2672 of the UST regulations. Free product shall be removed to the extent practicable per Chapter 5, Section 2655 of the UST regulations.

Free product or soil which contains sufficient mobile constituents (leachate, vapors, or gravity flow) to degrade groundwater quality above water quality objectives or result in a significant threat to human health or the environment should be considered a source.

For old releases, the absence of current groundwater impact is often a good indication that residual concentrations present in the soil are not a source of pollution. In general, if impacted soil is not in contact, or expected to come in contact, with or very close to the groundwater, it is unlikely that it is a significant source of pollution.

2) **The site has been adequately characterized.**
The extent of the subsurface impact should be defined to the degree that is necessary to determine if the site poses a threat to human health, the environment, or other sensitive nearby receptors. The level of detail required at a given site will depend upon the presence or absence of potential receptors and exposure pathways. Delineating plumes to non-detect levels is not required at all sites.

It is assumed that subsurface conditions are highly variable and that there is always some uncertainty associated with evaluating data at a site. However, the cost of obtaining additional data must be weighed against the benefit of obtaining that data and the effect the data may have on the certainty of decisions to be made at the site.

3) **Little or no groundwater impact currently exists and no contaminants are found at levels above established MCLs or other applicable water quality objectives.**

By definition, soils only cases do not have significant groundwater impacts.

4) **No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted.**

5) **The site presents no significant risk to human health.**

The American Society of Testing and Materials' (ASTM) standard for Risked Based Corrective Action (RBCA), ASTM E-1739-95, details a framework and provides a methodology to perform a tiered risk analysis at petroleum release sites. This methodology incorporates EPA risk assessment practices to determine non-site specific (tier 1 look up table which provides generic risk based screening levels) and site specific (tier 2 and tier 3) clean up levels that are protective of public health and environmental resources.

In addition to the various methods of contaminant transport described in the ASTM standard, other methods may also be acceptable in determining health and environmental protective levels.

When using the ASTM lookup table risk based screening levels (RBSLs) one has to multiply the RBSL value for benzene by a factor of 0.29 to obtain the corrected value for California (CAL EPA has a higher toxicity value of 0.1 as compared to the USEPA value of 0.029 for benzene). All other values in the table remain the same.

6) **The site presents no significant risk to the environment.**
RBCA has no specific guidance for evaluating environmental risk although the basic framework is appropriate if site specific exposure pathways and ecological receptors are included. If the site has a potential to significantly impact surface water, wetlands, other sensitive receptors, it should not be considered low risk.

Management Strategy

Low risk soils cases should be closed when it is determined that site conditions conform to the above criteria. Further remediation or monitoring is not required. If the highest permitted use (e.g., residential) is not protected by the chosen cleanup levels, then land use restrictions or notifications for the site may be appropriate.

LOW RISK GROUNDWATER CASE

Definition

1) **The leak has been stopped and ongoing sources, including free product, have been removed or remediated** (see Low Risk Soils Case Definition #1).

2) **The site has been adequately characterized** (see Low Risk Soils Case Definition #2).

   The presence or absence of horizontal and vertical conduits which could act as preferential pathways for the dissolved plume should be evaluated as a part of the site characterization process.

3) **The dissolved hydrocarbon plume is not migrating.**
   The LLNL report found that petroleum plumes in the subsurface tend to stabilize once the source is removed. Natural biodegradation of hydrocarbons is the main reason why this stability occurs.

   Chemical concentrations of hydrocarbons in groundwater that decrease or do not change with time are the best indicators of a stable plume. Comparison of background and hydrocarbon plume concentrations of inorganic ions such as oxygen, iron, nitrate, sulfate, and others, can provide evidence of biodegradation at a given site. These data may not be required to determine plume stability but can supplement other lines of evidence.

   Stable or decreasing plumes often display short term variability in groundwater concentrations. These effects are due to changes in groundwater flow, degradation rates, sampling procedures, and other factors which are inherently variable. This behavior should not necessarily be construed as evidence of an unstable plume but may be the natural variations of a stable plume in the environment.

4) **No water wells, deeper drinking water aquifers, surface water, or other sensitive receptors are likely to be impacted.**

5) **The site presents no significant risk to human health.**

   For this analysis, the groundwater ingestion pathway need not be considered if the groundwater is not currently used as a source of drinking water or projected to be used within the life of the plume. (See Low Risk Soils Case Definition #5)

6) **The site presents no significant risk to the environment.**

   RBCA has no specific guidance for evaluating environmental risk although the basic framework is appropriate if site specific exposure pathways and ecological receptors are included. If the site has a potential to significantly impact surface water, wetlands, other sensitive receptors, it should not be considered low risk. (See Low Risk Soils Case Definition #6)

Management Strategy

1) **Passive bioremediation should be the preferred remedial alternative unless there is a compelling reason to do otherwise.**

A partial list of reasons that may justify active remediation are listed below:

- Groundwater within the plume is likely to be used before natural biodegradation is projected to complete the cleanup.
- Sensitive receptors have been identified and are projected to be adversely impacted.
- The plume is migrating significantly.
- Another remedial alternative is shown to be more cost effective.

Generally, if any of these conditions or others deemed to be compelling are met, a more aggressive remedial approach may be appropriate.

2) **Monitor the site to determine plume stability and the effectiveness of the remedial strategy.**

Monitoring is necessary to determine if site conditions will remain stable or improve over time. One hydrologic cycle (four quarters) of monitoring data is usually considered to be the minimum necessary to determine site conditions. This assumes depth to groundwater has significant seasonal variation and that no longer term variation occurs. If little seasonal fluctuation is expected, then one year of monitoring may not be required. Conversely, if depth to groundwater is expected to change significantly from year to year due to droughts, adjacent pumping, or other factors, then one year of monitoring may not be adequate.

Data from adjacent or nearby sites may be useful in determining groundwater fluctuations and other regional aquifer characteristics. Frequency of monitoring and the number of monitoring points may be adjusted after site characterization is completed. At many existing sites, these data may already have been collected.

Coordinated & Prepared by: Kevin L. Graves, P.E.
Associate Water Resources Control Engineer
January 5, 1996

Concur: Stephen I. Morse, P.E.
Chief, Toxics Cleanup Division
January 5, 1996

RECORDING REQUESTED BY
AND WHEN RECORDED MAIL TO:

[redacted] CO.,
[redacted]
[redacted]
Los Angeles, California 90071
[redacted]

(SPACE ABOVE THIS LINE FOR RECORDER'S USE ONLY)

RISK MANAGEMENT PLAN

The Alameda County Department of Environmental Health (ACDEH) requested that this Risk Management Plan (RMP) be prepared for this property, which was the subject of a soil and groundwater investigation and risk assessment, completed in June 1997.

RISK MANAGEMENT

1. This document should be recorded in the Real Property Records of Alameda County and a copy of this RMP should be provided to the City of Emeryville Planning/Building Department for its records.

2. **NOTICE OF CHANGE IN LAND USE FOR THIS PROPERTY SHOULD BE SENT TO:**

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION (LOP)
1131 HARBOR BAY PARKWAY, SUITE 250
ALAMEDA, CA 94502

3. Care should be exercised to not create a vertical conduit between shallow (<20-25 feet deep) and deeper (>30 feet deep) groundwater.

[redacted]

4. The shallow groundwater beneath the property should not be used for any purpose, unless analyzed and treated if necessary. If water is proposed for use, appropriate notice shall be given to the ACDEH.

5. Due to the detection of motor oil in shallow soils at five feet below ground surface outside the existing building's main door, construction site workers who may handle soils in this area during future construction activities should take appropriate precautions. A health and safety plan should be prepared that requires Level D protection for all workers as per Occupational Health and Safety Administration (OSHA) rules (29 CFR 1910.120), as amended. Level D protection should include appropriate gloves, work clothes, boots and hard hat, if required. In the unlikely event that groundwater is encountered during construction activities, direct contact with the groundwater should be avoided.

6. If soils are generated during construction activities, a soil management plan governing sampling of those soils to determine disposal or reuse options should be developed and submitted to ACDEH. If it becomes necessary to evacuate any groundwater during construction activities, such groundwater should be stored in temporary containers and analyzed for disposal options.

7. Any impacted soils not overlain by concrete or asphalt (*i.e.*, landscaped areas) should be covered as part of Site development with a minimum cover of 18 inches of clean topsoil.

[redacted] CO.,
a California corporation

By: _____
[redacted]
Chief Executive Officer

ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION

07/16/98

UNDERGROUND STORAGE TANK CLEANUP SITE

AGENCY#: 10000 SOURCE OF FUNDS: F-FEDERAL INSPECTOR: SH
StID: 3809 SUBSTANCE: 8006619 -Gasoline
SITE NAME: Oakland Bus Terminal DATE REPORTED : 06/08/89
ADDRESS : 2103 San Pablo Ave DATE CONFIRMED: 06/08/89
CITY/ZIP : Oakland, CA 94608 MULTIPLE RP's : N

CASE TYPE: O CONTRACT STATUS: 3 PRIOR:2B3 EMERGENCY RESPONSE:

RP SEARCH	: S			DATE END: 03/20/92
PRELIM ASSESSMENT	: U	DATE BEGIN: 11/11/91		DATE END:
REMEDIAL INVESTIG	:	DATE BEGIN:		DATE END:
REMEDIAL ACTION	:	DATE BEGIN:		DATE END:
POST REMED MONITOR:		DATE BEGIN:		DATE END:

TYPE ENFORCEMENT ACTION TAKEN: 1 DATE OF ENFORC. ACTION: 03/20/92

UNDERGROUND STORAGE TANK CLEANUP SITE - SCREEN #2

LUFT FIELD MANUAL CONSIDERATION: 3HSCAWG CASE CLOSED: on:

DT EXC START: 06/08/89 REMEDIAL ACTIONS TAKEN: ED,FP

RP #1: CONTACT: Mr. Leroy Hernandez RP COST:
RP COMPANY NAME: Greyhound Lines Inc. Ph: (214) 849-8132
ADDRESS: P. O. Box 660362
CITY/STATE: Dallas, Texas 75266-0362

ΔHaMENT:

Listing all LOP DAILY activities since 1991 for StID # 3809
as of 07/16/98

Act91_4
Act92_1

ActivDat	Insp	ACT	Activ	StID	ActCostF	aComment
03/16/92	JE	200	0.4	3809	$14.07	
03/20/92	JE	200	0.2	3809	$7.04	
03/26/92	JE	200	0.2	3809	$7.04	
04/10/92	EC	215	0.6	3809	$24.62	quarterly report
Act92_2						
05/05/92	DB	215	1.	3809	$44.50	
Act92_3						
06/15/92	DB	215	1.	3809	$44.50	
06/22/92	DB	215	1.	3809	$44.50	
Act92_4						
07/21/92	SH	215	2.	3809	$90.83	review case file/reports; summarized site activities.
09/02/92	SH	212	0.5	3809	$22.71	talked to Dave Nickerson re: site assess- ment report submitted
09/02/92	SH	212	0.5	3809	$22.71	talked to RP' consultant re: workplan
Act92_5						
10/08/92	SH	212	0.5	3809	$22.71	talked to Ed Roberts (ES) re: free product recovery at site
10/13/92	SH	215	1.	3809	$45.41	reviewed workplan 10/1/92
10/14/92	SH	212	0.5	3809	$22.71	talked to Ed Roberts(ES)re: workplan10/1/92
10/14/92	SH	215	1.	3809	$45.41	reviewed workplan 10/1/92
10/21/92	SH	215	2.5	3809	$113.53	review case file, workplan 10/92.
10/23/92	SH	215	2.5	3809	$113.53	letter to RP (Thomas Portele) re:work plan for hydrocarbon recovery system.
10/26/92	SH	212	0.8	3809	$36.33	talked to consultant (Ed Roberts) re: contents of letter & fax letter
11/02/92	SH	215	1.	3809	$45.41	review case, write up summary
11/30/92	SH	212	0.5	3809	$23.16	talked to Ed Roberts(ESI) re:30 daysextension
12/01/92	SH	215	1.5	3809	$69.49	review letter 11/23/92, letter out granting 30 days extension
12/03/92	SH	212	0.5	3809	$23.16	talked to Ed Roberts (ESI) re:MWs
Act93_1						
Act93_2						
04/26/93	SH	212	0.4	3809	$18.53	talked to David Nickerson (ES) re: updates, FP recovery
05/28/93	SH	212	0.3	3809	$14.22	talked to David Nickerson (ESI) re: quarterly sampling
06/07/93	SH	212	0.2	3809	$9.48	talked to Tim Conway re: groundwater gradient information
06/08/93	SH	215	2.5	3809	$118.52	review 11/11/92 report, 11/23/92 response to ACHD letter,
06/09/93	SH	215	3.	3809	$142.22	review 12/10/92 UGT closure report, 11/25/92 letter, 10/92 monthly report, 11/92 QR
06/10/93	SH	215	0.7	3809	$33.19	QR update, RP info, remail notification letter
06/10/93	SH	215	1.5	3809	$71.11	review work plan 3/8/93
06/15/93	SH	215	0.5	3809	$23.70	talked to David Nickerson re:

						statusof site approved additional investigation, will give 48 hrs advance notice, requested SB2004 information
06/28/93	SH	212	0.4	3809	$18.96	talked to Martin Miller RE: sampling in August instead of July for 4th quarter, verbally approved
Act93_3						
07/19/93	SH	210	1.2	3809	$62.53	on site , met Jeff Poulsen, installing additional wells
07/21/93	SH	210	1.	3809	$52.76	on site for monitoring well installation
08/05/93	SH	212	0.5	3809	$24.43	talked to Dave Nickerson re: site activity & scheduled meeting for 9/2/93
08/18/93	SH	215	1.	3809	$48.86	reviewed 8/12/93 report
09/02/93	SH	212	1.5	3809	$73.29	meeting w/ Tom Portele (OBT) & David Nickerson (ESI) re: site status
09/02/93	SH	215	1.	3809	$48.86	review files for updates
09/15/93	SH	215	1.	3809	$48.86	discuss site Ravi re: Mass balance
09/30/93	SH	215	0.3	3809	$14.66	update site status
Act93_4						
10/06/93	TP	200	0.1	3809	$5.83	update NRR
Act94_1						
Act94_2						
04/21/94	SH	212	0.4	3809	$20.34	talked to David Nickerson & Tom Portele re : status of site
05/04/94	SH	212	0.4	3809	$20.34	talked to David Nickerson re:APC
Act94_3						
Act94_4						
Act95_1						
03/14/95	SH	215	1.	3809	$53.31	review quarterly monitoring report, free product updates
03/16/95	SH	212	0.5	3809	$26.65	talked to Dave Nickerson re: site stauts & new address, future meeting
Act95_2						
Act95_3						
09/05/95	SH	212	0.2	3809	$10.66	talked o David Nickerson
09/06/95	SH	212	0.3	3809	$15.99	talked to David Nickerson
Act95_4						
10/02/95	SH	212	0.5	3809	$27.84	talked to David Nickerson re: status
10/10/95	SH	215	2.	3809	$111.36	review files, update summary, prepare for meeting
10/13/95	SH	212	2.5	3809	$142.32	meeting at the RWQCB with Oakland Bus Terminal, ESI (David Nickerson) & Kevin Graves
10/13/95	SH	215	2.	3809	$111.36	review QMR 8/95, & site assessment report 11/93
10/16/95	SH	212	0.4	3809	$22.27	talked to David Nickerson (ESE) re: format for report submittal
11/06/95	SH	215	2.	3809	$111.36	review files, current QMR
Act96_1						
03/05/96	BO	215	0.5	3809	$23.93	WORKED ON CASE, CONFERENCE WITH RP RE UST PERMITTING
03/05/96	BO	215	0.5	3809	$23.93	FAXED MATERIALS TO RP
Act96_2						
Act96_3						

08/29/96	SH	212	0.3	3809	$16.57	rec'd call from David Nickerson re: case closure.
Act96_4						
12/10/96	SH	212	0.3	3809	$16.57	talked to Chris Torrel (ES) re: Risk Assessment
12/18/96	TP	212	0.3	3809	$18.16	w/SH, w/Chris Terrel, NY
12/19/96	SH	212	0.4	3809	$22.10	talked to Chris Torrel re: case closure
12/19/96	SH	215	0.8	3809	$44.20	review 11/96 report, GW treatment system
Act97_1						
01/08/97	SH	212	0.5	3809	$27.84	talked to Chris Torrel re: case closure & MTBE analyses
01/13/97	SH	212	0.5	3809	$27.84	talked to Chris Torrel (ES) re: termination of the treatment system, need letter
02/11/97	SH	212	0.2	3809	$11.14	call from Chris Torrel re: site data
02/19/97	SH	212	0.3	3809	$16.71	talked to Chris Torrel
02/19/97	SH	215	0.3	3809	$16.71	review files, monitoring program
02/19/97	SH	215	2.	3809	$111.38	review files, letter out re: modification of monitoring program
Act97_2						
06/08/97	SH	215	3.	3809	$182.59	review files, evaluate for closure (OT)
04/16/98	SH	200	1.5	3809	$69.04	Talked to David Nickerson re: site status; reviewed case files, still high conc. of TPH but localized, need to draft letter for requirements prior to closure
04/16/98	TP	200	0.2	3809	$11.63	w/Nickeson & SH
04/23/98	SH	200	1.	3809	$46.03	Reviewed gw data, still high in BTEX; pump & treat deactivated

complete

Error Assigning LInspBP (last Bus.Plan inspection) for StID 6573
6573 on 02/03/98 by DH as a 50 ., -HMBP
Error Assigning LInspBP (last Bus.Plan inspection) for StID 6575
6575 on 02/05/98 by DH as a 50 ., -HMBP
Error Assigning LInspBP (last Bus.Plan inspection) for StID 6588
6588 on 03/12/98 by DH as a 151 ., -HMBP
Error Assigning LInspBP (last Bus.Plan inspection) for StID 6589
6589 on 03/13/98 by DH as a 50 ., -HMBP
Error Assigning LInsp (overall) for StID 7538
Error Assigning LInspGE (last GENERATOR inspection) for StID 7538
7538 on 01/29/97 by DH as a 13 ., -Gentr
RESULTS FROM ADJDAIL.CMD, run on 04/16/98

ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION

04/16/98

UNDERGROUND STORAGE TANK CLEANUP SITE

AGENCY#: 10000 SOURCE OF FUNDS: F-FEDERAL INSPECTOR: SH
StID: 3809 SUBSTANCE: 8006619 -Gasoline
SITE NAME: Oakland Bus Terminal DATE REPORTED : 06/08/89
ADDRESS : 2103 San Pablo Ave DATE CONFIRMED: 06/08/89
CITY/ZIP : Oakland, CA 94608 MULTIPLE RP's : N

CASE TYPE: O CONTRACT STATUS: 3 PRIOR:2B3 EMERGENCY RESPONSE:

RP SEARCH	: S		DATE END: 03/20/92
PRELIM ASSESSMENT	: U	DATE BEGIN: 11/11/91	DATE END:
REMEDIAL INVESTIG	:	DATE BEGIN:	DATE END:
REMEDIAL ACTION	:	DATE BEGIN:	DATE END:
POST REMED MONITOR	:	DATE BEGIN:	DATE END:

TYPE ENFORCEMENT ACTION TAKEN: 1 DATE OF ENFORC. ACTION: 03/20/92

UNDERGROUND STORAGE TANK CLEANUP SITE - SCREEN #2

LUFT FIELD MANUAL CONSIDERATION: 3HSCAWG CASE CLOSED: on:

DT EXC START: 06/08/89 REMEDIAL ACTIONS TAKEN: ED,FP

RP #1: CONTACT: Mr. Leroy Hernandez RP COST:
RP COMPANY NAME: Greyhound Lines Inc. Ph: (214) 849-8132
ADDRESS: P. O. Box 660362
CITY/STATE: Dallas, Texas 75266-0362

ΔHaMENT:

Listing all LOP DAILY activities since 1991 for StID # 3809
as of 04/16/98

Act91_4
Act92_1

ActivDat	Insp	ACT	Activ	StID	ActCostF	aComment
03/16/92	JE	200	0.4	3809	$14.07	
03/20/92	JE	200	0.2	3809	$7.04	
03/26/92	JE	200	0.2	3809	$7.04	
04/10/92	EC	215	0.6	3809	$24.62	quarterly report
Act92_2						
05/05/92	DB	215	1.	3809	$44.50	
Act92_3						
06/15/92	DB	215	1.	3809	$44.50	
06/22/92	DB	215	1.	3809	$44.50	
Act92_4						
07/21/92	SH	215	2.	3809	$90.83	review case file/reports; summarized site activities.
09/02/92	SH	212	0.5	3809	$22.71	talked to Dave Nickerson re: site assess- ment report submitted
09/02/92	SH	212	0.5	3809	$22.71	talked to RP' consultant re: workplan
Act92_5						
10/08/92	SH	212	0.5	3809	$22.71	talked to Ed Roberts (ES) re: free product recovery at site
10/13/92	SH	215	1.	3809	$45.41	reviewed workplan 10/1/92
10/14/92	SH	212	0.5	3809	$22.71	talked to Ed Roberts(ES)re: workplan10/1/92
10/14/92	SH	215	1.	3809	$45.41	reviewed workplan 10/1/92
10/21/92	SH	215	2.5	3809	$113.53	review case file, workplan 10/92.
10/23/92	SH	215	2.5	3809	$113.53	letter to RP (Thomas Portele) re:work plan for hydrocarbon recovery system.
10/26/92	SH	212	0.8	3809	$36.33	talked to consultant (Ed Roberts) re: contents of letter & fax letter
11/02/92	SH	215	1.	3809	$45.41	review case, write up summary
11/30/92	SH	212	0.5	3809	$23.16	talked to Ed Roberts(ESI) re:30 daysextension
12/01/92	SH	215	1.5	3809	$69.49	review letter 11/23/92, letter out granting 30 days extension
12/03/92	SH	212	0.5	3809	$23.16	talked to Ed Roberts (ESI) re:MWs
Act93_1						
Act93_2						
04/26/93	SH	212	0.4	3809	$18.53	talked to David Nickerson (ES) re: updates, FP recovery
05/28/93	SH	212	0.3	3809	$14.22	talked to David Nickerson (ESI) re: quarterly sampling
06/07/93	SH	212	0.2	3809	$9.48	talked to Tim Conway re: groundwater gradient information
06/08/93	SH	215	2.5	3809	$118.52	review 11/11/92 report, 11/23/92 response to ACHD letter,
06/09/93	SH	215	3.	3809	$142.22	review 12/10/92 UGT closure report, 11/25/92 letter, 10/92 monthly report, 11/92 QR
06/10/93	SH	215	0.7	3809	$33.19	QR update, RP info, remail notification letter
06/10/93	SH	215	1.5	3809	$71.11	review work plan 3/8/93
06/15/93	SH	215	0.5	3809	$23.70	talked to David Nickerson re:

						statusof site approved additional investigation, will give 48 hrs advance notice, requested SB2004 information
06/28/93	SH	212	0.4	3809	$18.96	talked to Martin Miller RE: sampling in August instead of July for 4th quarter, verbally approved
Act93_3						
07/19/93	SH	210	1.2	3809	$62.53	on site , met Jeff Poulsen, installing additional wells
07/21/93	SH	210	1.	3809	$52.76	on site for monitoring well installation
08/05/93	SH	212	0.5	3809	$24.43	talked to Dave Nickerson re: site activity & scheduled meeting for 9/2/93
08/18/93	SH	215	1.	3809	$48.86	reviewed 8/12/93 report
09/02/93	SH	212	1.5	3809	$73.29	meeting w/ Tom Portele (OBT) & David Nickerson (ESI) re: site status
09/02/93	SH	215	1.	3809	$48.86	review files for updates
09/15/93	SH	215	1.	3809	$48.86	discuss site Ravi re: Mass balance
09/30/93	SH	215	0.3	3809	$14.66	update site status
Act93_4						
10/06/93	TP	200	0.1	3809	$5.83	update NRR
Act94_1						
Act94_2						
04/21/94	SH	212	0.4	3809	$20.34	talked to David Nickerson & Tom Portele re : status of site
05/04/94	SH	212	0.4	3809	$20.34	talked to David Nickerson re:APC
Act94_3						
Act94_4						
Act95_1						
03/14/95	SH	215	1.	3809	$53.31	review quarterly monitoring report, free product updates
03/16/95	SH	212	0.5	3809	$26.65	talked to Dave Nickerson re: site stauts & new address, future meeting
Act95_2						
Act95_3						
09/05/95	SH	212	0.2	3809	$10.66	talked o David Nickerson
09/06/95	SH	212	0.3	3809	$15.99	talked to David Nickerson
Act95_4						
10/02/95	SH	212	0.5	3809	$27.84	talked to David Nickerson re: status
10/10/95	SH	215	2.	3809	$111.36	review files, update summary, prepare for meeting
10/13/95	SH	212	2.5	3809	$142.32	meeting at the RWQCB with Oakland Bus Terminal, ESI (David Nickerson) & Kevin Graves
10/13/95	SH	215	2.	3809	$111.36	review QMR 8/95, & site assessment report 11/93
10/16/95	SH	212	0.4	3809	$22.27	talked to David Nickerson (ESE) re: format for report submittal
11/06/95	SH	215	2.	3809	$111.36	review files, current QMR
Act96_1						
03/05/96	BO	215	0.5	3809	$23.93	WORKED ON CASE, CONFERENCE WITH RP RE UST PERMITTING
03/05/96	BO	215	0.5	3809	$23.93	FAXED MATERIALS TO RP
Act96_2						
Act96_3						

	08/29/96	SH	212	0.3	3809	$16.57 rec'd call from David Nickerson re: case closure.
Act96_4						
	12/10/96	SH	212	0.3	3809	$16.57 talked to Chris Torrel (ES) re: Risk Assessment
	12/18/96	TP	212	0.3	3809	$18.16 w/SH, w/Chris Terrel, NY
	12/19/96	SH	212	0.4	3809	$22.10 talked to Chris Torrel re: case closure
	12/19/96	SH	215	0.8	3809	$44.20 review 11/96 report, GW treatment system
Act97_1						
	01/08/97	SH	212	0.5	3809	$27.84 talked to Chris Torrel re: case closure & MTBE analyses
	01/13/97	SH	212	0.5	3809	$27.84 talked to Chris Torrel (ES) re: termination of the treatment system, need letter
	02/11/97	SH	212	0.2	3809	$11.14 call from Chris Torrel re: site data
	02/19/97	SH	212	0.3	3809	$16.71 talked to Chris Torrel
	02/19/97	SH	215	0.3	3809	$16.71 review files, monitoring program
	02/19/97	SH	215	2.	3809	$111.38 review files, letter out re: modification of monitoring program
Act97_2						
	06/08/97	SH	215	3.	3809	$182.59 review files, evaluate for closure (OT)
	07/03/97	SH	212	0.3	3809	$17.08 rec'd message from Chris Torrel re:gwm
	09/12/97	SH	200	1.	3809	$56.92 review QMR
	10/23/97	SH	200	3.	3809	$0.00 Review quarterly monitoring reports, evaluate for closure
	12/18/97	SH	200	0.5	3809	$0.00 Call from Chris Torrel re: reports submitted, review recent data
	12/18/97	TP	200	0.4	3809	$0.00 w/Consult.: closure for SH
	12/29/97	SH	200	0.5	3809	$0.00 Talked to Chris Torrel re: evaluating site as low risk case; Risk assessment prepared 2 years ago
	01/06/98	SH	200	1.	3809	$0.00 Talked to Chris Torrel re: evaluating site for closure; review fourth quarter monitoring results
	01/27/98	SH	200	0.3	3809	$0.00 Talked to David Nickerson re: case closure & he is the constct person for site at Parsons Engr.
	03/09/98	SH	200	0.2	3809	$0.00 Talked to David Nickerson re: closure
	03/10/98	SH	200	0.2	3809	$0.00 Talked to David Nickerson: re:site closure

complete

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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

February 19, 1997

Mr. Leroy Hernandez
Greyhound Lines Inc.
P.O. Box 660362
Dallas, Texas 75266-0362

RE: Oakland Bus Terminal - 2304 San Pablo Avenue, Oakland CA 94608 (STID # 3809)

Dear Mr. Hernandez:

This office has recently reviewed the most recent report prepared and submitted by Parsons Engineering Science, Inc. for the above referenced site.

The groundwater remediation system (free product recovery system) installed at the site can be terminated at this time since no measurable product had been detected in the four recovery wells (ES-1, ES-3, ES-5 and BC-1) since January 1996. However, the groundwater monitoring program must be continued to verify the effectiveness of the remediation treatment system implemented at the site.

The groundwater monitoring program must be conducted every quarter and should include the following tasks:

a) monitoring of all the wells for the presence of free product
b) measurement of groundwater elevation in all the wells to establish flow direction
c) quarterly sampling of wells ES-1, ES-2, ES-3, ES-4, ES-5, ES-6, BC-1, BC-2 and BC-3
d) annual sampling of wells ES-7, ES-8, and ES-11
e) wells ES-9 and ES-10 can be dropped from the sampling program
f) target analytes must include TPH gasoline, TPH diesel, BTEX and MTBE
g) polynuclear aromatic hydrocarbons (PAHs) must be included as target analyte if TPH diesel is detected

The contents of this letter has been discussed with Mr. Christopher Torrel of Parsons Engineering Science, Inc.

Please contact me at (510) 567- 6780 if you have any questions concerning this letter or the subject site.

Sincerely,

Susan L. Hugo

Susan L. Hugo, Senior Hazardous Materials Specialist

c: Mee Ling Tung, Director, Environmental Health
Kevin Graves, San Francisco Bay RWQCB
Christopher Torell, Parsons, 290 Elwood Davis Rd., Suite 312, Liverpool, NY 13088

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Sincerely,

Susan L. Hugo, Senior Hazardous Materials Specialist

c: Mee Ling Tung, Director, Environmental Health
Kevin Graves, San Francisco Bay RWQCB
Christopher Torell, Parsons, 290 Elwood Davis Rd., Suite 312, Liverpool, NY 13088

LOP [redacted] RECORD CHANGE REQUEST FORM [redacted]

printed: 02/19/97

Mark Out What Needs Changing and Hand to LOP Data Entry
(Name/Address changes go to Annual Programs Data Entry)

Insp: SH

AGENCY # : 10000 SOURCE OF FUNDS: F SUBSTANCE: 8006619
StID : 3809 LOC:
SITE NAME: Oakland Bus Terminal DATE REPORTED : 06/08/89
ADDRESS : 2103 San Pablo Ave DATE CONFIRMED: 06/08/89
CITY/ZIP : Oakland 94608 MULTIPLE RPs : N

SITE STATUS

CASE TYPE: O CONTRACT STATUS: 3 PRIOR CODE:2B3 EMERGENCY RESP:
RP SEARCH: S DATE COMPLETED: 03/20/92
PRELIMINARY ASMNT: U DATE UNDERWAY: 11/11/91 DATE COMPLETED:
REM INVESTIGATION: DATE UNDERWAY: DATE COMPLETED:
REMEDIAL ACTION: DATE UNDERWAY: DATE COMPLETED:
POST REMED ACT MON: DATE UNDERWAY: DATE COMPLETED:

ENFORCEMENT ACTION TYPE: 1 DATE ENFORCEMENT ACTION TAKEN: 03/20/92
LUFT FIELD MANUAL CONSID: 3HSCAWG
CASE CLOSED: DATE CASE CLOSED:
DATE EXCAVATION STARTED : 06/08/89 REMEDIAL ACTIONS TAKEN: ED,FP

RESPONSIBLE PARTY INFORMATION

RP#1-CONTACT NAME: Mr. Leroy Hernandez
COMPANY NAME: Greyhound Lines Inc.
ADDRESS: P. O. Box 660362
CITY/STATE: Dallas, Texas 75266-0362

INSPECTOR VERIFICATION:

NAME _____ SIGNATURE _____ DATE _____

DATA ENTRY INPUT:

Name/Address Changes Only

ANNPGMS _____ LOP ____ DATE _____

Case Progress Changes

LOP _____ DATE _____

PARSONS ENGINEERING SCIENCE, INC.

290 Elwood Davis Road, Suite 312 • Liverpool, New York 13088 • (315) 451-9560 • Fax (315) 451-9570

STID 3809

February 4, 1997

Ms. Susan Hugo
Alameda Cty. Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Dear Ms. Hugo:

The purpose of this letter is to confirm our recent discussions regarding the Greyhound Terminal in Oakland. As we discussed, Greyhound plans to continue work at the Oakland facilities in 1997 based on your verbal approval. Pursuant to our discussion, Greyhound will continue to monitor the site on a monthly basis. Sampling events will continue to be performed on a quarterly basis. Additionally, Greyhound awaits review of the Preliminary Risk Evaluation and your written instructions regarding sampling requirements for this site in 1997.

Based on our discussion, we understand that this site is a low priority for reimbursement of investigation/remediation costs.

Please contact us if you need any additional information. We look forward to working with you on behalf of Greyhound and to continued compliance with the goal of closure at this location in 1997.

Sincerely,

PARSONS ENGINEERING SCIENCE, INC.

Christopher R. Torell
Project Manager

James N. Baker, P.G.
Program Manager

GREYHOUND TERMINAL
OAKLAND, CALIFORNIA

SITE SUMMARY

1989

June

- Phase I Investigation - Brown and Caldwell

1991

November

- Preliminary Site Investigation

1992

January

- Greyhound submitted Preliminary Site Investigation to Alameda County Department of Environmental Health (ACDEH)

June

- Greyhound implemented voluntary groundwater monitoring program.

July-August

- Greyhound attempts to determine ACDEH contact.

September

- ACDEH contact established (Ms. Susan Hugo).
- Greyhound submitted discharge Application to EBMUD to operate free product/groundwater recovery system.

October

- ACDEH authorized recovery system installation.
- Greyhound obtained authorization from Bay Area Air Quality Management to construct/operate recovery system.
- ACDEH submitted letter to Greyhound requiring quarterly groundwater sampling and reporting, UST closure documentation and expanded site investigation.

November

- Greyhound submitted response to ACDEH comments.

- ACDEH granted 30-day extension request to prepare Closure Documentation Report.

December

- Greyhound finalized permit with EBMUD to install recovery system
- Recovery System Installed
- Greyhound submitted Tank Closure Document Report to ACDEH

1993

April

- Greyhound submitted Work Plan for Supplemental Site Assessment to ACDEH

June

- ACDEH verbally approved Work Plan for Supplemental Site Assessment

July

- Supplemental Site Assessment implemented by Greyhound

August

- Continued Groundwater Recovery System and Monthly Monitoring
- Met with ACDEH and RWQCB to discuss status and requirements for closure

November

- Submitted Supplemental Site Assessment and Preliminary Risk Evaluation to ACDEH

1994-1996

- Continued Groundwater Recovery System Operations and Site Monitoring. Met with ACDEH and RWQCB in September 1995 to discuss Non-Attainment option and requirements for "No Further Action"
- New monitoring requirements established for 1996 and 1997 as result of meeting.

1997

- Shut down remediaton system in January and conducted one-year of quarterly groundwater monitoring as directed by ACDEH. Terminated monitoring program at end of 1997 with ACDEH approval. ACDEH provided file review, including review of 1993 Risk Evaluation by March 1998

PARSONS ENGINEERING SCIENCE, INC.

290 Elwood Davis Road, Suite 312 • Liverpool, New York 13088 • (315) 451-9560 • Fax (315) 451-9570

October 31, 1995

Ms. Susan Hugo
Alameda County Department of
Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

Re: Greyhound Terminal
Location 8934
Oakland, California
10/13/95 Meeting Discussion Summary

Dear Ms. Hugo:

The purpose of this letter is to document the discussion held between the Alameda County Department of Environmental Health (ACDEH), the California Regional Water Quality Control Board (RWQCB), Greyhound Lines, Inc. (GLI), and Parsons Engineering Science, Inc. (Parsons ES) during our October 13, 1995 meeting. The meeting was attended by Ms. Susan Hugo (ACDEH), Mr. Kevin Graves (RWQCB), Ms. Rita Felton (GLI), and Mr. David Nickerson (Parsons ES) to review site investigations and remediation undertaken by GLI to date, and to define further requirements to obtain site closure for the Greyhound terminal in Oakland, California.

Following a brief discussion of the last two years of groundwater remediation and monitoring results, GLI requested that a no further action scenario or reduced monitoring program be considered.

Both the RWQCB and ACDEH agreed that a sufficient analytical database exists to demonstrate that the contaminant plume beneath the subject site has not migrated off site and that there is a low potential for future migration. It was also agreed that the site itself posed little threat to human health and the environment based on information previously provided regarding local water usage and other risk-based factors.

Kevin Graves (RWQCB) suggested that GLI develop a management plan to be implemented at the site over the next two years. The purpose of the management plan is to define an appropriate level of remediation/monitoring based on information gathered to date, that will allow GLI to obtain a site-specific, risk-based no further action in approximately two years. By 1997, alternative mechanisms are anticipated to be available to RWQCB and ACDEH to grant the no further actions without requiring GLI to provide a deed notice.

Susan Hugo (ACDEH) indicated that her Department has issued closures for sites not classified as "non-attainment" areas based on risk assessment. Ms. Hugo also indicated that the Preliminary Risk Evaluation report, originally submitted by GLI in October 1993, has not yet been reviewed. GLI provided an additional copy of the

report and Ms. Hugo indicated that the report would be reviewed. GLI requested that the Risk Evaluation be reviewed as soon as possible to support a no further action at this site.

The following monitoring schedule was discussed and agreed to by the RWQCB, ACDEH, and GLI to be implemented immediately:

- Due to the absence of measurable product, the total fluid recovery system should be shut down. Subsequent monitoring for the potential reappearance of free product should be conducted monthly for the remainder of 1995. If free product rebounds in the recovery wells, GLI will restart the treatment system and evaluate other cost-effective cleanup alternatives as appropriate.

- Beginning in 1996, only quarterly monitoring will be required providing that no remediation systems are in operation which would require monthly maintenance. In any case, only quarterly reports will be required for the remainder of the monitoring program.

- Effective immediately, the groundwater sampling program will consist of quarterly sampling of wells close to the source area and downgradient (ES-3, ES-4, and ES-6) and annual sampling of upgradient wells ES-7, ES-8, and ES-11. Based on our discussions, it was agreed that monitoring wells ES-9 and ES-10 would be excluded from future sampling requirements.

We would like to take this opportunity to thank you and Mr. Graves for meeting with us to discuss this site. Both Rita and I enjoyed meeting with you and look forward to working closely with ACDEH on the completion of this important project. If you have any questions, or disagree with any of the information summarized in this letter, please contact us at (315) 451-9560.

Sincerely,

PARSONS ENGINEERING SCIENCE, INC.

David A. Nickerson
Deputy Program Manager

DAN/rlc

cc: Kevin Graves, RWQCB, Oakland, CA
R. Felton, GLI, Dallas, TX
J.N. Baker, Parsons ES Syracuse, NY
D.L. Chaffin, Parsons ES Syracuse, NY
M.N. Miller, Parsons ES Syracuse, NY
A.C. Peel, Parsons ES Alameda, CA

ENGINEERING-SCIENCE, INC.

290 Elwood Davis Road, Suite 312 • Liverpool, New York 13088 • (315) 451-9560 • Fax (315) 451-9570

93 OCT -4 PM 2:18

September 20, 1993

Ms. Susan Hugo
Alameda County Department
of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Re: Greyhound Terminal
Location 8934
Oakland, California
9/2/93 Meeting Discussion Summary

Dear Mr. Hugo:

The purpose of this letter is to document the discussion held between the Alameda County Department of Environmental Health (ACDEH), Greyhound Lines, Inc. (GLI), and Engineering-Science, Inc. (ES) during our September 2, 1993 meeting. The meeting was attended by Ms. Susan Hugo (ACDEH), Mr. Thomas Portele (GLI), and Mr. David Nickerson (ES) to review site investigations and remediation undertaken by GLI to date, and to define further requirements to obtain site closure for the Greyhound terminal in Oakland, California.

Following a brief discussion of site history and remedial actions undertaken and currently in progress, alternative points of compliance or site-specific cleanup levels were discussed. The following is a brief summary of our discussion.

1) Until recently, the California Regional Water Quality Control Board (RWQCB) used drinking water quality standards as cleanup standards for all sites and higher cleanup levels were established only after remediation was implemented over a prolonged period of time resulting in cleanup to the fullest-extent practical.

2) Alternative points of compliance or site-specific cleanup levels are now considered by RWQCB based on site-specific criteria. Higher contaminant levels may be left in place and long-term monitoring implemented in certain cases. ACDEH informed Greyhound that any proposal for alternative points of compliance or "monitor only" scenarios must be approved by ACDEH and RWQCB prior to implementation.

3) ACDEH accepts risk assessment to justify higher site-specific cleanup levels. Although ACDEH does not have a recommended format for risk assessments, the risk assessment should evaluate potential exposure pathways, contaminant levels, distribution, and chemical characteristics. Other site-specific factors such as soil permeability, surrounding land usage, and local water uses should also be included as part of the risk assessment.

4) The results of the recently completed supplemental (off-site) investigation indicated that soil and groundwater contamination is limited to a localized area on-site in the location of the former fueling system. ACDEH indicated that Greyhound may submit a risk assessment with a recommendation to continue operation of the free product/groundwater recovery system in place at the facility and perform long-term groundwater monitoring. If accepted by ACDEH, required monitoring events could become less frequent over time if dissolved contamination decreases and does not migrate off site. Greyhound agreed that continuation of the groundwater treatment system already in place and continued monitoring would be the most logical approach to remediation at this time. Greyhound also agreed to provide a preliminary risk assessment to support these conclusions.

We would like to take this opportunity to thank you for meeting with us to discuss this site. Both Tom Portele and I enjoyed meeting with you and look forward to working closely with ACDEH on the completion of this important project. If you have any questions, or disagree with any of the information summarized in this letter, please contact us at (315) 451-9560.

Sincerely,

ENGINEERING-SCIENCE, INC.

David A. Nickerson
Project Manager

DAN/lml

cc: T. Portele, GLI, Dallas, TX
J.N. Baker, ES Syracuse
D. Chaffin, ES Syracuse

9/2/93:
Meeting with David Nickerson & Tom Portich
re: Status of site STID 3809

GREYHOUND TERMINAL
OAKLAND, CALIFORNIA

SITE SUMMARY

1989

- **June** Phase I Investigation - Brown and Caldwell

1991

- **November** Preliminary Site Investigation

1992

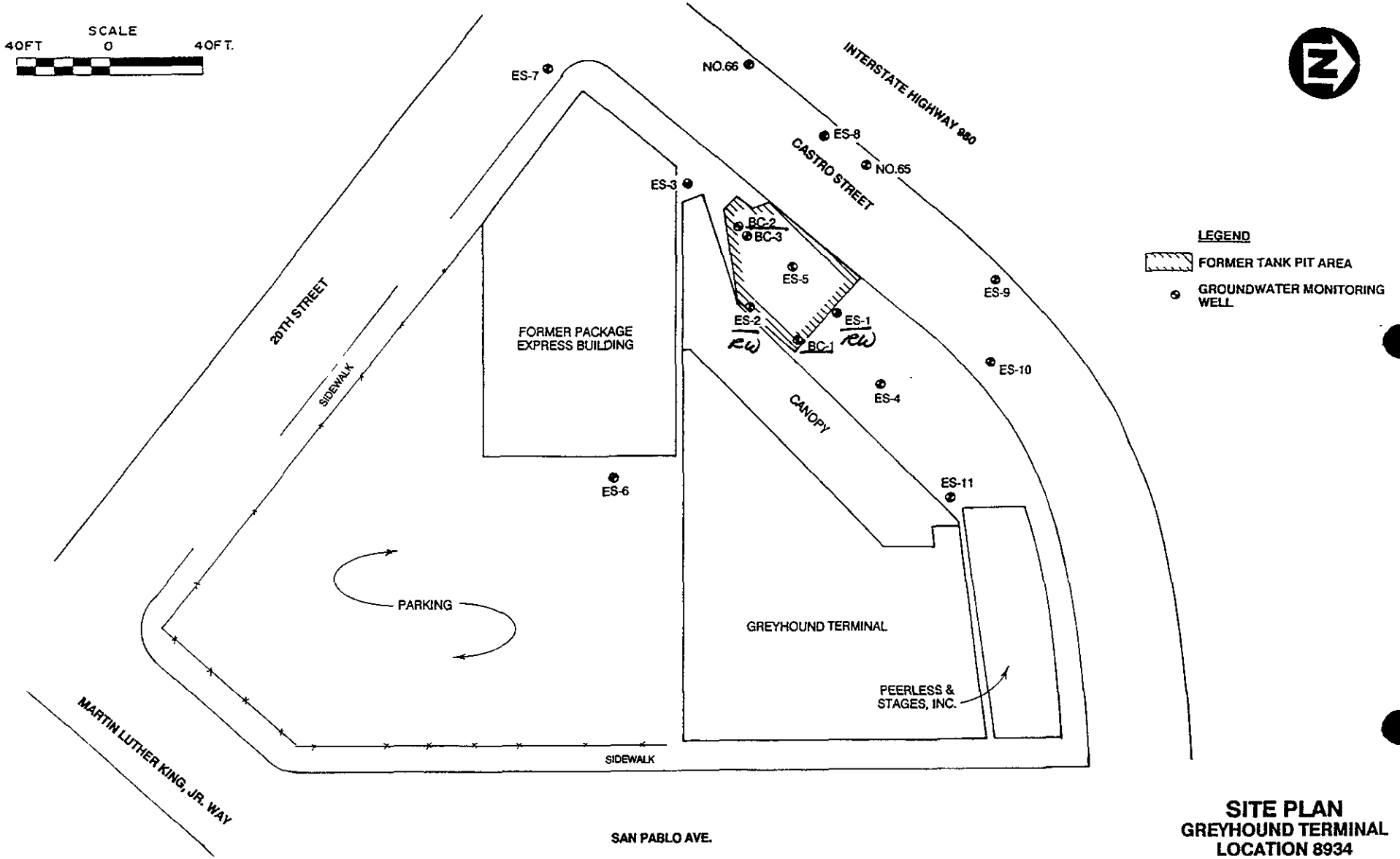
- **January** Greyhound submitted Preliminary Site Investigation to Alameda County Department of Environmental Health (ACDEH)
- **June** Greyhound implemented voluntary groundwater monitoring program
- **July - August** Greyhound attempts to determine ACDEH contact
- **September** ACDEH contact established (Ms. Susan Hugo)
  Greyhound submitted Discharge Application to EBMUD to operate free product/groundwater recovery system
- **October** ACDEH authorized recovery system installation
  Greyhound obtained authorization from Bay Area Air Quality Management to construct/operate recovery system
  ACDEH submitted letter to Greyhound requiring quarterly groundwater sampling and reporting, UST closure documentation, and expanded site investigation
- **November** Greyhound submitted response to ACDEH comments
  ACDEH granted 30-day extension request to prepare Closure Documentation Report
- **December** Greyhound finalized permit with EBMUD to install recovery system
  Recovery System Installed
  Greyhound submitted Tank Closure Documentation Report to ACDEH

SITE SUMMARY CONTINUED

1993

• **April**	Greyhound submitted Work Plan for Supplemental Site Assessment to ACDEH
• **June**	ACDEH verbally approved Work Plan for Supplemental Site Assessment
• **July**	Supplemental Site Assessment implemented by Greyhound
PRESENT	Continue Groundwater Recovery System and Monthly Monitoring Determine site-specific clean up standards based on investigations completed to date

FIGURE 2



SITE PLAN
GREYHOUND TERMINAL
LOCATION 8934
OAKLAND, CALIFORNIA

SY356.06

ENGINEERING-SCIENCE

TABLE 1
GRYHOUND LINES, INC.
OAKLAND, CALIFORNIA
ANALYTICAL SUMMARY

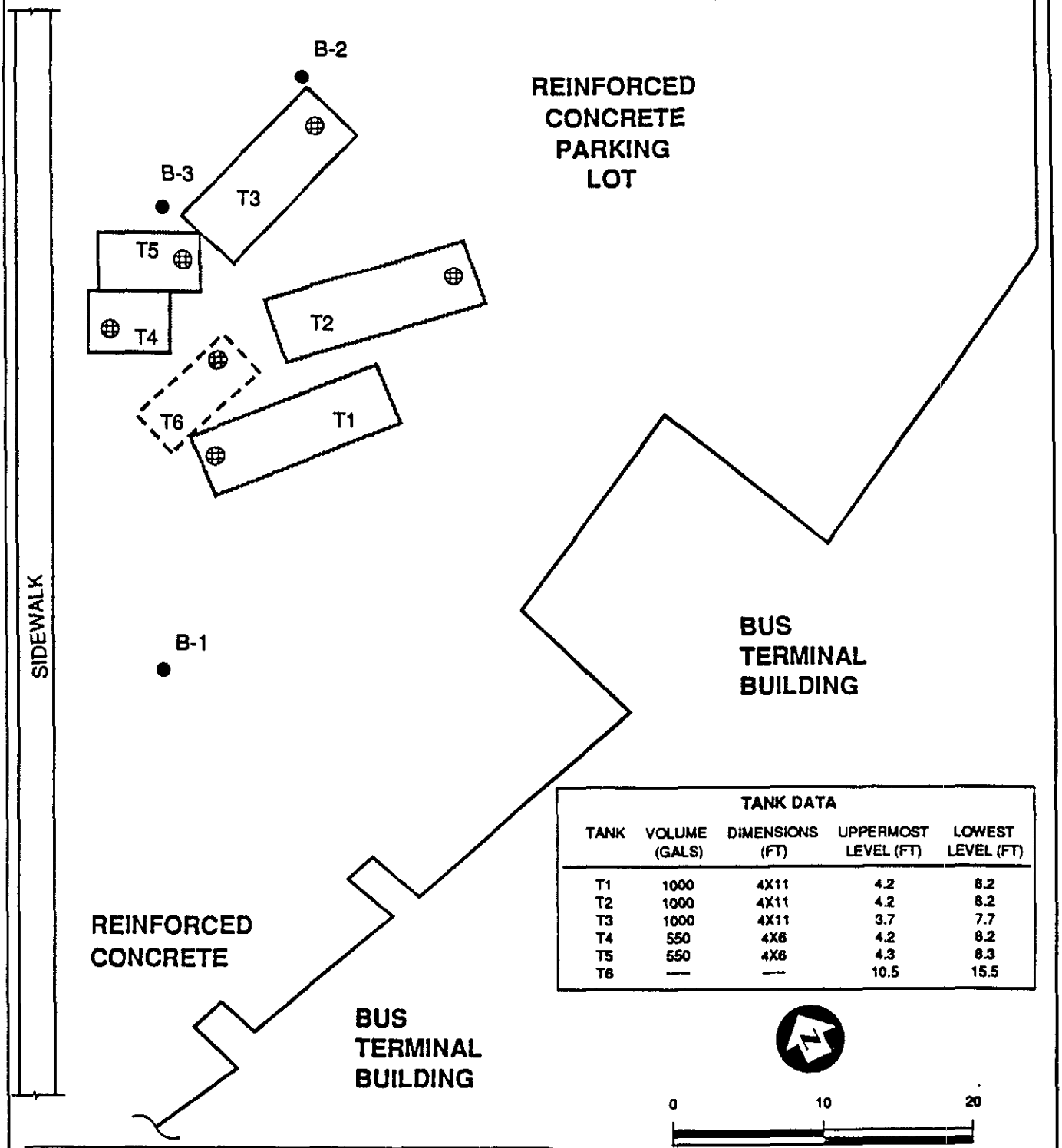
Date	Location	Matrix	Sample Depth	Benzene	Toluene	Ethyl-benzene	Total Xylenes	Total (1) BTEX	TPH (2) diesel	TPH (3) gasoline
Jun-89	BC-1	Soil	16.0-16.5 ft.	NR	1.780	37.500	1.130	40.410	3060.0	NA
Jun-89		Soil	25.0-25.5 ft.	ND	ND	0.027	0.008	0.035	ND	NA
Jun-89	BC-2	Soil	16.0-16.5 ft.	NR	4.000	49.500	2.000	55.500	4260.0	NA
Jun-89		Soil	26.0-26.5 ft.	ND	0.090	0.402	0.154	0.646	ND	NA
Jun-89	BC-3	Soil	16.0-16.5 ft.	NR	2.240	28.900	1.030	32.17	1850.0	NA
Jun-89		Soil	25.0-25.5 ft.	ND	ND	0.008	ND	0.008	ND	NA
Nov-91	ES-1	Soil	16.0-18.0 ft.	ND	3000.0	3400.0	22000.0	28400.0	ND	NA
Nov-91	ES-2	Soil	16.0-18.0 ft.	ND	27000.0	28000.0	150000.0	205000.0	ND	NA
Nov-91	ES-3	Soil	18.0-19.0 ft.	ND	ND	ND	ND	ND	ND	NA
Nov-91	ES-4	Soil	16.0-16.5 ft.	ND	ND	ND	ND	ND	ND	NA
Nov-91	ES-5	Soil	15.0-17.0 ft.	ND	80.0	65.0	330.0	475.0	160.0	NA
Nov-91	ES-1	Water	NA	130.0	43.0	10.0	91.0	274.0	ND	NA
Nov-91	ES-2	Water	NA	390.0	96.0	78.0	310.0	874.0	ND	NA
Nov-91	ES-3	Water	NA	61.0	16.0	14.0	33.0	124.0	ND	NA
Nov-91	ES-4	Water	NA	ND	ND	ND	ND	ND	ND	NA
Nov-91	ES-5	Water	NA	2100.0	3900.0	840.0	6000.0	12840.0	950.0	NA
Jul-93	BC-2	Water	NA	1.0	2.4	1.8	7.9	13.1	ND	ND
Jul-93	BC-3	Water	NA	2.7	3.6	3.6	7.9	17.8	NA	ND
Jul-93	ES-3	Water	NA	28.0	5.9	4.6	4.6	43.1	.06	1500
Jul-93	ES-4	Water	NA	24.0	1.1	.07	8.3	33.47	ND	ND
Jul-93	ES-6	Water	NA	ND	ND	ND	ND	ND	ND	ND
Jul-93		Soil		ND	ND	ND	ND	ND	ND	ND
Jul-93	ES-7	Water	NA	ND	ND	ND	ND	ND	ND	ND
Jul-93		Soil		ND	ND	ND	ND	ND	ND	ND
Jul-93	ES-8	Water	NA	ND	ND	ND	ND	ND	ND	ND
Jul-93		Soil		ND	ND	ND	ND	ND	ND	ND
Jul-93	ES-9	Water	NA	ND	ND	ND	ND	ND	ND	ND
Jul-93		Soil		ND	ND	ND	ND	ND	ND	ND
Jul-93	ES-10	Water	NA	ND	ND	ND	ND	ND	ND	ND
Jul-93		Soil		ND	ND	ND	ND	ND	ND	ND
Jul-93	ES-11	Water	NA	ND	0.7	ND	1.2	1.9	ND	ND
Jul-93		Soil		ND	ND	ND	ND	ND	ND	ND

ND= Non-detect; sample analyzed but did not exceed the method detection limit.

(1) Total BTEX= analyzed by EPA Method 602. Method detection limit specific to analyte. Refer to analytical laboratory report (Attachment A)

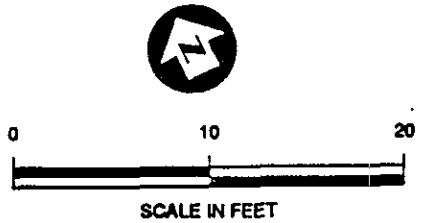
(2) TPH-Diesel= Total Petroleum Hydrocarbons (TPH) for diesel by EPA Method 3510/8015. Method Dection Limit specific to sample. Refer to analytical laboratory report.

(3) TPH-Gasoline= Total Petroleum Hydrocarbons (TPH) for Gasoline by EPA Method 8015M. Method detection limit specific to sample. Refer to analytical laboratory report.



TANK DATA

TANK	VOLUME (GALS)	DIMENSIONS (FT)	UPPERMOST LEVEL (FT)	LOWEST LEVEL (FT)
T1	1000	4X11	4.2	8.2
T2	1000	4X11	4.2	8.2
T3	1000	4X11	3.7	7.7
T4	550	4X6	4.2	8.2
T5	550	4X6	4.3	8.3
T6	—	—	10.5	15.5



EXPLANATION

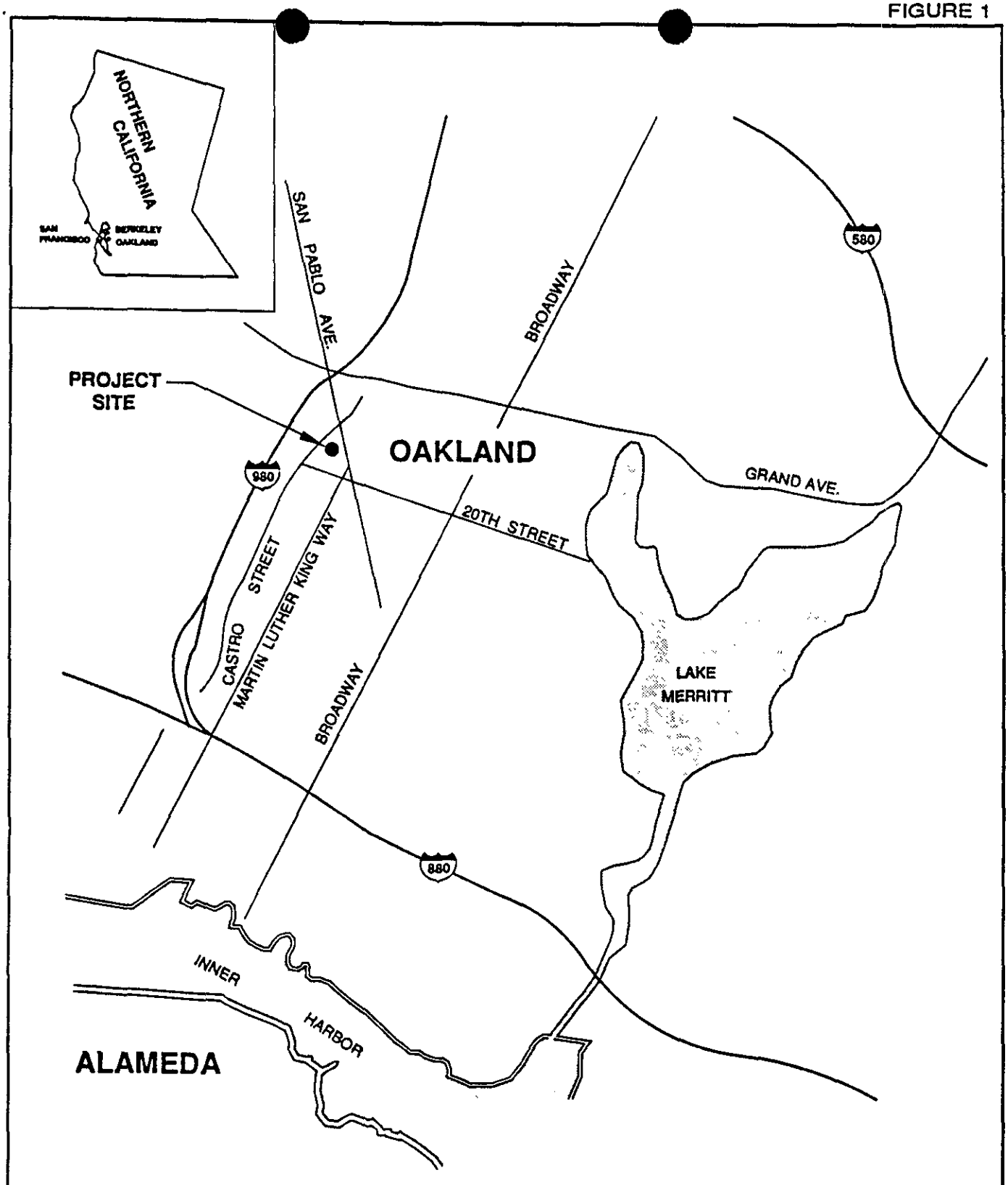
- SURFACE TRACE OF SUBSURFACE TANK
- SUSPECTED SURFACE TRACE OF SUBSURFACE TANK
- EXPLORATORY BORING SITE
- VAULT LID

SOURCE: BROWN AND CALDWELL CONSULTING ENGINEERS, 1989

GREYHOUND LINES, INC.
LOCATION 8934
2103 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

LOCATION OF TANKS AND BOREHOLES FROM 1989 INVESTIGATION

FIGURE 1



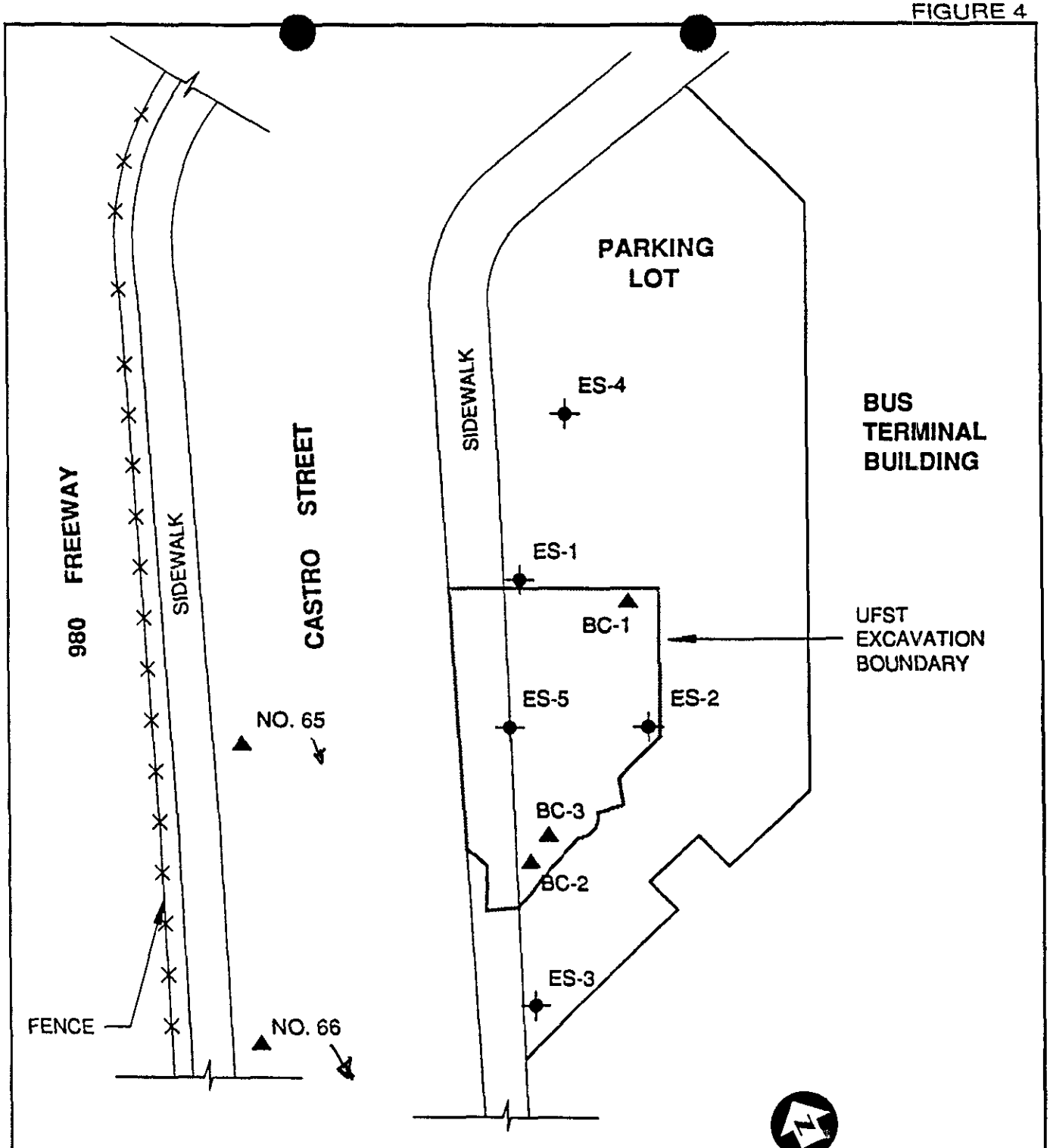
GREYHOUND LINES, INC.
LOCATION 8934
2103 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

SITE LOCATION MAP

C194-04.R2 01/27/92

ENGINEERING-SCIENCE, INC.

FIGURE 4



EXPLANATION

ES-1 — NEW MONITORING WELL

BC-1 — EXISTING MONITORING WELL

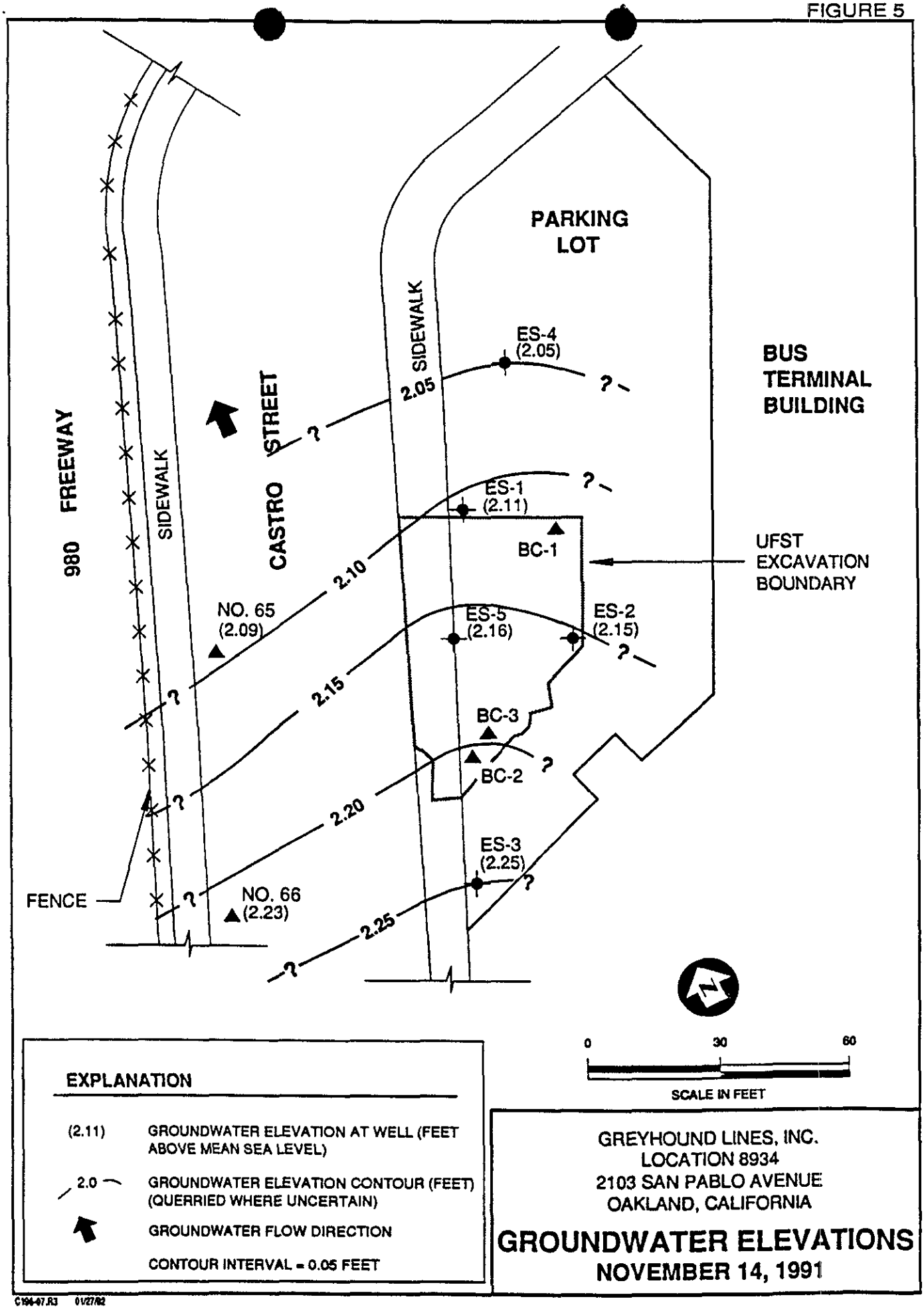
NOTE: WELLS BC-2, BC-3; CASINGS ARE NOT VERTICAL

GREYHOUND LINES, INC.
LOCATION 8934
2103 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

WELL LOCATION MAP

C194-06.R2 01/27/92

FIGURE 5



EXPLANATION

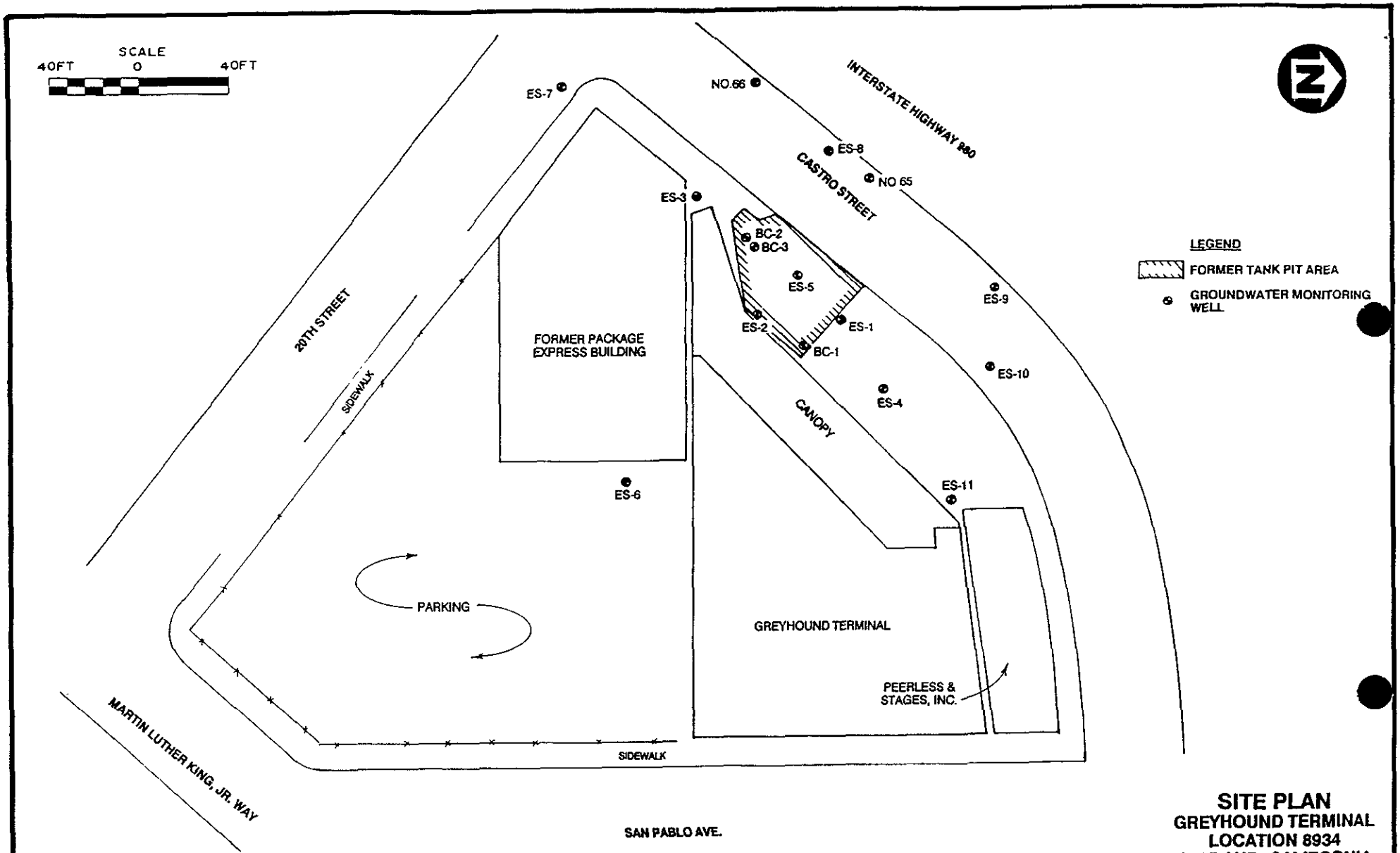
(2.11)	GROUNDWATER ELEVATION AT WELL (FEET ABOVE MEAN SEA LEVEL)
2.0	GROUNDWATER ELEVATION CONTOUR (FEET) (QUERRIED WHERE UNCERTAIN)
	GROUNDWATER FLOW DIRECTION
	CONTOUR INTERVAL = 0.05 FEET

GREYHOUND LINES, INC.
LOCATION 8934
2103 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATIONS
NOVEMBER 14, 1991

C196-47.R3 01/27/92

FIGURE 2



SITE PLAN
GREYHOUND TERMINAL
LOCATION 8934
OAKLAND, CALIFORNIA

SY356.06

ENGINEERING-SCIENCE

GREYHOUND LINES, INC.

SITE LOCATION: Oakland California

Depth to Groundwater: 17 to 20 ft based on most recent monitoring data

Local Water Usage/Receptor Data:

Groundwater in the vicinity of the site is used for limited irrigational and industrial purposes. The City of Oakland obtains its entire drinking water supply from EBMUD which imports water from surface water supplies located 200 miles away.

Permeability of Site Soil:

Silty, sandy clays with layers or lenses of silty sand and clayey sand
Permeability range 10^{-9} to 10^{-4} cm/sec.

Local Land Usage/Surrounding Properties:

urban - large/small business/residential

Product Released/How Released/Estimated Quantity:

Product released is suspected to be diesel fuel based on free product encountered at the facility - unknown quantity probable overfilling/overspilling of tanks caused release.

Migration Potential:

-very low -
Clayey soils on site will inhibit both vertical and horizontal migration of contaminants as indicated by the results of the supplemental site assessment.

Vertical Migration Potential:

-very low -
The entire site and surrounding areas are completely paved, inhibiting the vertical spread of contamination through recharge.

Additional Comments:

Groundwater/free product recovery system has operated very effectively. Greyhound will continue to use the system as a pump and treat system and continue groundwater monitoring program. Based on the results of the final off-site investigation, contamination has been contained on-site.

Listing of activities for SCD # 3809

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
~~State Water Resources Control~~ Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

From invoice 91_4:
-WARNING- No rows satisfy the WHERE clause
From invoice 92_1:

ActivDat	Insp	ACT	Activ	StID	ActCostF	aComment
03/16/92	JE	200	0.4	3809	$14.07	
03/20/92	JE	200	0.2	3809	$7.04	
03/26/92	JE	200	0.2	3809	$7.04	
04/10/92	EC	215	0.6	3809	$24.62	quarterly report

From invoice 92_2:

ActivDat	Insp	ACT	Activ	StID	ActCostF	aComment
05/05/92	DB	215	1.	3809	$44.50	

From invoice 92_3:

ActivDat	Insp	ACT	Activ	StID	ActCostF	aComment
06/15/92	DB	215	1.	3809	$44.50	
06/22/92	DB	215	1.	3809	$44.50	

From invoice 92_4:

ActivDat	Insp	ACT	Activ	StID	ActCostf	aComment
07/21/92	SH	215	2.	3809	$90.83	review case file/reports; summarized site activities.
09/02/92	SH	212	0.5	3809	$22.71	talked to Dave Nickerson re: site assess- ment report submitted
09/02/92	SH	212	0.5	3809	$22.71	talked to RP' consultant re: workplan

From invoice 92_5:

ActivDat	Insp	ACT	Activ	StID	ActCostf	acomment
10/08/92	SH	212	0.5	3809	$22.71	talked to Ed Roberts (ES) re: free product recovery at site
10/13/92	SH	215	1.	3809	$45.41	reviewed workplan 10/1/92
10/14/92	SH	212	0.5	3809	$22.71	talked to Ed Roberts(ES)re: workplan10/1/92
10/14/92	SH	215	1.	3809	$45.41	reviewed workplan 10/1/92
10/21/92	SH	215	2.5	3809	$113.53	review case file, workplan 10/92.
10/23/92	SH	215	2.5	3809	$113.53	letter to RP (Thomas Portele) re:work plan for hydrocarbon recovery system.
10/26/92	SH	212	0.8	3809	$36.33	talked to consultant (Ed Roberts) re: contents of letter & fax letter
11/02/92	SH	215	1.	3809	$45.41	review case, write up summary
11/30/92	SH	212	0.5	3809	$23.16	talked to Ed Roberts(ESI) re:30 daysextension
12/01/92	SH	215	1.5	3809	$69.49	review letter 11/23/92, letter out granting 30 days extension
12/03/92	SH	212	0.5	3809	$23.16	talked to Ed Roberts (ESI) re:MWs

ALAMEDA COUNTY ALAMEDA COUNTY HAZARDOUS MATERIALS DIVISION

HEALTH CARE SERVICES

06/07/93

UNDERGROUND STORAGE TANK CLEANUP SITE

AGENCY

DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH

State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

AGENCY#: 10000 SOURCE OF FUNDS: F-FEDERAL INSPECTOR: SH
StID: 3809 SUBSTANCE: 8006619 -Gasoline
SITE NAME: Oakland Bus Terminal DATE REPORTED: 06/08/89
ADDRESS : 2103 San Pablo Ave. DATE CONFIRMED:
CITY/ZIP : Oakland, CA 94608 MULTIPLE RP S, N

CASE TYPE: G CONTRACT STATUS: 3 EMERGENCY RESPONSE:

RP SEARCH	: S		DATE END:	03/20/92
PRELIM ASSESSMENT	: U	DATE BEGIN: 11/11/91	DATE END:	
REMEDIAL INVESTIG	:	DATE BEGIN:	DATE END:	
REMEDIAL ACTION	:	DATE BEGIN:	DATE END:	
POST REMED MONITOR:		DATE BEGIN:	DATE END:	

TYPE ENFORCEMENT ACTION TAKEN: 1 DATE OF ENFORC. ACTION: 03/20/92

UNDERGROUND STORAGE TANK CLEANUP SITE - SCREEN #2

LUFT FIELD MANUAL CONSIDERATION: 3HSCAWG CASE CLOSED: on:

DT EXC START: REMEDIAL ACTIONS TAKEN:

RP #1: CONTACT: n/a RP COST:
RP COMPANY NAME: G L I Realty Co. Ph:
ADDRESS: 901 Main St. #2500
CITY/STATE: Dallas T X 75202

MENT:

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
80 Swan Way, Rm 200
Oakland, CA 94621
(510) 271-4530

December 1, 1992
STID# 3809

Mr. Thomas Portele
Greyhound Lines Inc.
Environmental Department
802 Commerce Street, 3rd Floor
Dallas, Texas 75202

RE: Request for a 30-day Extension for Closure Report Submittal

Dear Mr. Portele:

This letter documents the telephone conversation between Mr. Edward Roberts of Engineering Science, Inc. (ESI) and myself on November 30, 1992, concerning the request of ESI on behalf of Greyhound Lines, Inc. for a 30-day extension to submit the complete tank closure report. This department acknowledges the time involve in gathering and compiling all the requested documents and is extending the deadline for 30 days. Your tank closure report must be submitted to this office **no later than December 30, 1992.**

Please contact me at (510) 271-4530 if you have any questions concerning this letter.

Sincerely,

Susan L. Hugo

Susan L. Hugo
Senior Hazardous Materials Specialist

cc: Rich Hiett, San Francisco Bay RWQCB
Gil Jensen, Alameda County District Attorney's Office
Edgar B. Howell, Chief, Hazardous Materials Division - files
Edward Roberts, Engineering Science, Inc. - 290 Elwood Davis Road, Suite 312, Liverpool, NY 13088
James Baker, Engineering Science, Inc. - 290 Elwood Davis Road, Suite 312, Liverpool, NY 13088

ES
ENGINEERING-SCIENCE, INC.

290 ELWOOD DAVIS ROAD
SUITE 312
LIVERPOOL, NY 13088
TEL: (315) 451-9560
FAX: (315) 451-9570

STIP 3809 ✓

92 NOV 23 AM 9:40

November 23, 1992

Ms. Susan Hugo
Alameda County Health Care
Services Agency
State Water Resources Control Board
80 Swan Way, Room 200
Oakland, California 94621

Re: Greyhound Terminal
Location 8934
Oakland, California
Site Investigation/Remediation

Dear Ms. Hugo:

On behalf of Greyhound Lines, Inc., Engineering-Science, Inc. (ES) acknowledges your letter to Greyhound dated October 23 concerning Alameda County Department of Environmental Health's (ACDEH's) review of the files for the Greyhound terminal in Oakland. Greyhound has reviewed ACDEH's comments and would like to present the attached responses.

Please note that we have requested a 30-day extension to submit the closure documentation requested in ACDEH's comment number 4. This will allow Greyhound sufficient time to compile the UST closure documentation requested. We hope the information provided sufficiently addresses the comments and concerns expressed in your letter to Greyhound. If you have any questions or require additional information, please contact us at (315) 451-9560.

Sincerely,

ENGINEERING-SCIENCE, INC.

David A. Nickerson

David A. Nickerson, P.G.
Project Manager

D. Chaffin

David L. Chaffin, R.G.
California Registered Geologist

DAN/DLC/lml

cc: Tom Portele, Greyhound Lines, Dallas, TX
Rich Hiett, RWQCB, Oakland, CA

GREYHOUND LINES, INC.
RESPONSES TO ACDEH FILE REVIEW AND COMMENTS
NOVEMBER 20, 1992

1. ACDEH COMMENT:

   Currently, a total of eight monitoring wells are on site. Monitoring wells ES-1, ES-2, ES-5, BC-1 have been detecting free product, as high as 3.69 feet in ES-1 during the June 16, 1992. Monitoring wells ES-3, ES-4, BC-2 and BC-3 detected elevated levels of dissolved petroleum hydrocarbon contaminants during the July 8, 1992 sampling event. Clearly, the lateral extent of groundwater contamination has not been completely delineated. Additional wells must be installed to identify the 'zero line' at the leading edge of the plume.

   GREYHOUND RESPONSE:

   Greyhound is currently evaluating potential on and off-site drilling locations to completely define the lateral extent of the dissolved hydrocarbon plume. Greyhound will submit a proposed supplemental site assessment plan to ACDEH after proposed monitoring well locations have been finalized.

2. ACDEH COMMENT:

   Free floating product must be measured in all the wells using an optical probe or a comparable instrument capable of measuring free product to 0.01 foot. Free product must be recovered on a regular basis and total amount of free product recovered must be reported in the quarterly report. Free product removal must comply with the California Code of Regulations, Title 23, Section 2655.

   GREYHOUND RESPONSE:

   Free floating product is measured in all the wells on a monthly basis using an ORS battery-operated hydrocarbon interface probe which is capable of measuring free product to within 0.01 feet. Greyhound is in the process of installing a free product recovery system. After the system is placed on line, estimated to be late November 1992, the amount of free product recovered will be measured on a monthly basis. Free product thickness measurements in the wells and amount of free product recovered will be included in the quarterly report submitted to ACDEH.

3. ACDEH COMMENT:

   Groundwater monitoring wells must be sampled on a quarterly basis and analyzed for the following target compounds: TPHg, TPHd, benzene, toluene, ethylbenzene and xylene.

GREYHOUND RESPONSE:

Groundwater monitoring wells will be sampled on a quarterly basis for the target compounds: TPHg, TPHd, benzene, toluene, ethylbenzene, and xylenes. Only those wells which do not contain a measurable free product thickness will be sampled for the target compound. Analytical results will be summarized in the quarterly report submitted to ACDEH.

4. ACDEH COMMENT:

Six underground storage tanks were removed in April 12, 1990. A complete closure report documenting all the work performed during the removal of the tanks has not been submitted to this office. Please submit this closure report which must include records of tanks disposal (manifests), records of stockpiled soil disposal, analytical results of samples collected during the removal, laboratory reports including quality control/quality assurance, and chain-of-custody documentation no later than November 30, 1992.

GREYHOUND RESPONSE:

Greyhound is currently compiling the requested documentation including records of tank disposals (manifests), records of stockpiled soil disposal, analytical results of samples collected during UST removals, laboratory reports including quality control/quality assurance, and chain-of-custody documentation. We request a 30-day extension for submittal of the tank closure documentation. This will allow sufficient time to compile and submit the requested documentation to ACDEH. Therefore, we request that ACDEH's original deadline of November 30 be extended to December 30, 1992. Please provide Greyhound with your written response to this extension request.

5. ACDEH COMMENT:

With regards to the hydrocarbon recovery system to be installed at the site, permits from other regulatory agencies must be followed. In addition, please provide this office with the following items:

- rationales to substantiate the selection of the referred location of the extraction wells; will these extraction well locations address the dissolved hydrocarbon contaminant plume and prevent off-site migration?

- contingency plan for system breakdown

- estimate duration of the pump and treat operation

GREYHOUND RESPONSE:

Greyhound has obtained the required construction and discharge permits from the City of Oakland, East Bay Municipal Utility District (EBMUD), and the Bay Area Quality Management District. Greyhound will adhere to the requirements of the permits for the duration of this project.

- **Selection of monitoring wells ES-1, ES-2, ES-5 and BC-1 as free product recovery wells was based on the presence of measurable hydrocarbons in these wells. The recovery system design allows for groundwater depression at each of these well locations which will prevent further migration of contaminants off-site. Additionally, dissolved-phase hydrocarbons are treated by passing the separated groundwater through the recovery system's carbon adsorption units prior to final discharge to the sanitary sewer.**

- **Monthly maintenance and system performance checks will be conducted by ES personnel. Additionally, Greyhound on-site personnel will perform periodic system checks and inform ES of any system malfunctions or breakdowns. In this manner, if a system breakdown occurs, Greyhound can quickly repair and return the system to operation.**

- **It is difficult to estimate the duration of the pump and treat operation at this location since the total volume of the release has not been determined. At the end of one full year of free product recovery and groundwater treatment, we will evaluate the clean-up time required to achieve the site-specific action levels established for this location.**

6. ACDEH COMMENT:

Please submit a time schedule for all phases of the investigation and remediation activities and the anticipated time when cleanup will be completed at the site.

GREYHOUND RESPONSE:

Greyhound proposes the following schedule for all remaining phases of site investigation and remediation:

November 1992	**Install free product recovery and groundwater treatment system.**
February 1993	**Submit third quarterly status report. Additional quarterly status reports will be submitted in May, August, and November of 1993.**
Spring 1993	**Conduct supplemental site investigation and install additional wells as necessary to completely define the lateral extent of the dissolved plume. Prepare report, including proposed clean-up standards and submit to ACDEH.**
November 1993	**Evaluate data collected throughout 1993 to determine if further remediation is required.**

7. ACDEH COMMENT:

A report must be submitted within 30 days after completion of this investigation. Until cleanup is complete, you will need to submit reports to this office and to RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). In addition, the following items must be incorporated in your future reports or workplans:

- a cover letter from the responsible party or tank owner stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or work plan.

- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified.

- proposed continuing or next phase of investigation/cleanup activities must be included to inform this department or the RWQCB of the responsible party or tank owner's intention.

- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained.

- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels.

- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain-of-custody documentation.

All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professionals involved with the project. Copies of reports must also be submitted to:

Rich Hiett
RWQCB, San Francisco Bay Region
2101 Webster Street, Fourth Floor
Oakland, California 94612

GREYHOUND RESPONSE:

In accordance with ACDEH's requirements, Greyhound will submit a final report within 30 days after completion of site investigation and remediation activities. In the interim, Greyhound will continue to submit quarterly status reports which will include all of the information listed above. We will also continue to submit all correspondence, including reports and proposals, under signature of a California Registered Geologist. Copies of all correspondence related to this project will be provided to Mr. Hiett at the California Regional Water Quality Control Board.

EBA File

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, ASST. AGENCY DIRECTOR

EALTH
Board
igrams
ogram
lm 200
94621
l-4530

October 23, 1992
STID# 3809

Post-It™ brand fax transmittal memo 7671	# of pages ▸ 4
To MR. ED ROBERTS	From SUSAN HUGO
Co. ENG. SCIENCE	Co. ACHD
Dept.	Phone # (510) 271-4530
Fax # (315) 451-9570	Fax # (510) 569-4757

Mr. Thomas Portele
Greyhound Lines Inc.
Environmental Department
802 Commerce Street, 3rd Floor
Dallas, Texas 75202

RE: Investigation / Remediation at Oakland Bus Terminal (Greyhound # 8934) 2103 San Pablo Ave., Oakland, CA 94608

Dear Mr. Portele:

The Alameda County Department of Environmental Health, Hazardous Materials Division has recently reviewed the files concerning the removal of six underground storage tanks at the referenced site. This office is in receipt of the following reports:

* Phase Site Assessment of UST Systems, dated June 22, 1989 prepared by Brown and Cadwell Consulting Engineers
* Preliminary Site Investigation Report, dated January, 1992 prepared by Engineering Science, Inc.
* Monthly Monitoring Report, dated August 5, 1992, prepared by Engineering Science, Inc.
* Monthly Monitoring Report, dated August 19, 1992, prepared by Engineering Science, Inc.
* Hydrocarbon Recovery System Installation/Monitoring, dated October 1, 1992, prepared by Engineering Science, Inc.
* Monthly Monitoring Report, dated October 6, 1992, prepared by Engineering Science, Inc.

This department concurs with the basic elements of the proposed hydrocarbon recovery system to be installed at the site as an interim remedial action to remove free product. However, the following issues must be addressed concerning the on-going investigation/remediation at the referenced site:

* Currently, a total of eight monitoring wells are on site. Monitoring wells ES-1, ES-2, ES-5, BC-1 have been detecting free product, as high as 3.69 feet in ES-1 during the June 16, 1992. Monitoring wells ES-3, ES-4, BC-2 and BC-3 detected elevated levels of dissolved petroleum hydrocarbon contaminants during the July 8, 1992 sampling event. Clearly, the lateral extent of groundwater contamination has not been completely delineated. Additional wells must be installed to identify the "zero line" at the leading edge of the plume.

* Free floating product must be measured in all the wells using an optical probe or a comparable instrument capable of measuring free product to 0.01 foot. Free product must be recovered on a regular basis and total amount of free product recovered must be reported in the quarterly report. Free product removal must comply with the California Code of Regulations, Title 23, Section 2655.

* Groundwater monitoring wells must be sampled on a quarterly basis and analyzed for the following target compounds: TPHg, TPHd, benzene, toluene, ethylbenzene and xylene.

* Six underground storage tanks were removed in April 12, 1990. A complete closure report documenting all the work performed during the removal of the tanks has not been submitted to this office. Please submit this closure report which must include records of tanks disposal (manifests), records of stockpiled soil disposal, analytical results of samples collected during the removal, laboratory reports including quality control/ quality assurance, and chain of custody documentation **no later than November 30, 1992.**

* With regards to the hydrocarbon recovery system to be installed at the site, permits from other regulatory agencies must be followed. In addition, please provide this office with the following items:
  - rationales to substantiate the selection of the referred location of the extraction wells; will these extraction well locations address the dissolved hydrocarbon contaminant plume and prevent off-site migration ?
  - contingency plan for system breakdown
  - estimate duration of the pump and treat operation

* Please submit a time schedule for all phases of the investigation and remediation activities and the anticipated time when cleanup will be completed at the site.

A report must be submitted within **30 days** after completion of this investigation. Until cleanup is complete, you will need to submit reports to this office and to RWQCB every three months (or at a more frequent interval, if specified at any time by either agency). In addition, the following items must be incorporated in your future reports or workplans:

- a cover letter from the responsible party or tank owner stating the accuracy of the report and whether he/she concurs with the conclusions and recommendations in the report or workplan

- site map delineating contamination contours for soil and groundwater based on recent data should be included and the status of the investigation and cleanup must be identified

- proposed continuing or next phase of investigation / cleanup activities must be included to inform this department or the RWQCB of the responsible party or tank owner's intention

- any changes in the groundwater flow direction and gradient based on the measured data since the last sampling event must be explained

- historical records of groundwater level in each well must be tabulated to indicate the fluctuation in water levels

- tabulate analytical results from all previous sampling events; provide laboratory reports (including quality control/quality assurance) and chain of custody documentation

All reports and proposals must be submitted under seal of a California Registered Geologist or Registered Civil Engineer with a statement of qualifications for each lead professionals involved with the project. Copies of reports must also be submitted to :

Rich Hiett
RWQCB, San Francisco Bay Region
2101 Webster Street, Fourth Floor
Oakland, California 94612

Because we are overseeing this site under the designated authority of the Regional Water Quality Control Board, this letter constitutes a formal requests for technical reports pursuant to California Water Code Section 13267 (b). Any extensions of stated deadlines or changes in the workplan must be confirmed in writing and approved by this agency or RWQCB.

Please contact me at (510) 271-4530 if you have any questions concerning this letter.

Sincerely,

Susan L. Hugo

Susan L. Hugo
Senior Hazardous Materials Specialist

cc: Rich Hiett, San Francisco Bay RWQCB
Gil Jensen, Alameda County District Attorney's Office
Edgar B. Howell, Chief, Hazardous Materials Division - files
Edward Roberts, Engineering Science, Inc. - 290 Elwood Davis Road, Suite 312, Liverpool, NY 13088
James Baker, Engineering Science, Inc. - 290 Elwood Davis Road, Suite 312, Liverpool, NY 13088

STID = 3809 OAKLAND BUS TERMINAL

7/31/92 (2,0) 2103 San Pablo Ave Oakland CA 94608

UGT removal application:

6 UGT's - all diesel except T-2 (diesel + gasoline)

→ fr. B. Analytical re: investigation

6/22/89 Letter to Greyhound Lines - Vernon Sorge Director of Env. Management - 901 Main St. Suite 2525 Dallas, Texas 75202

→ GW - [redacted]

T1-T5 - bottom of tanks approx. 8 ft below grade (BG) found contamination (HC) → 15 ft to 20 ft

9/29/89 Letter fr. ACHD - to Vernon Sorge - Greyhound re: removal of 6 UGTs

10/27/89 Letter fr. EPE to treat diesel contaminated ~~soil~~ soil

10/26/89 Phase I Site Assessment for Greyhound

4/12/90 6 UGT's removed - NO REPORT SUBMITTED

2/6/92 Preliminary Site Investigation Report dated 1/92 prepared by Engineering Science

6 UGT's - formerly stor[redacted] (30 yrs)

3 existing MWs found within excavation boundary.

2 additional MWs identified 35 → 50 ft West of Center

→ Regional GW flow → West - Southwest

→ At site - GW flow → N - NW

Shallow

11/19/91 MW's installed
[redacted] FP (0.08 ft)

[redacted] (installed previously) [redacted]

Preliminary Site Investigation report by ES (Jan 1992)

(1989)
Phase one assessment — 3 soil borings
detected 4260 ppm TPH
3 existing monitoring wells — BC 1, BC 2, BC 3
& 2 additional wells 35-50 feet west on Castro Street.

11/2/92 10/11/91 - PSA conducted 5 soil borings
11/23/92 Hydraulic conductivity values - for silty, sandy clays (10^{-9} to 10^{-4} cm/sec).
Lake Merritt - brackish water ✓
Oakland Inner Harbor ✓
ES 1, ES-2, ES 4, ES-5 → completed to 30 ft deep
except ES-3 - completed to 35 ft deep to characterize competency of clay layer at 25 ft bgs

Nov. 19, 1991 & ES-5 FP (0.08 ft)
BC-1 FP (2.63 ft)
Depth to H2O = 19-20 ft bgs

→ BC-2 & BC-3 depth to H2O not measured bec. well documentation is not available & well casings are out of plumb
Groundwater elevation of BC-1 not included in contour map bec. of depression effects of free product layer
→ Groundwater flow (N-NW) at hydraulic gradient 0.002 ft/ft

page 3

Groundwater flow - N-NW w/ hydraulic gradient 0.002 ft/ft.

8/5/92 Monthly Monitoring (rec'd 8/13/92)

July 1, 1992

June 7, 1992 →

ES-2	0.4 ft FP	ES-3	1,300 µg/L BTEX
ES-5	2.0 ft FP	ES-4	31 µg/L benzene
BC-1	1.11 FP	BC-2	2,100 µg/L TPH
ES-1	film	BC-3	3900 µg/L TPH & BTEX

July 8, 1992

8/19/92 monthly monitoring (rec'd 8/31/92)

August 4, 1992 →

ES-1	0.01 ft FP
ES-2	0.59 ft FP
ES-5	2.27 ft FP
BC-1	2.43 ft FP

7/13/92 Monthly monitoring (rec'd 7/16/92)

June 16, 1992 →

ES-1	3.69 ft FP	ES-3	clean
ES-2	0.01 ft FP	ES-4	clean
ES-5	0.33 ft FP	No. 65	clean
BC-1	0.20 ft FP	No. 66	clean
BC-2	- sheen		
BC-3	- sheen		

June 11, 1992 ES contact: James Baker & David Nickerson

page 4

10/1/92 Hydrocarbon Recovery System Installation / monitoring
rec'd 10/2/92
Workplan - for pump & treat

4 recovery wells - ES 1, BC-1, ES-2, ES-5

10/6/92 Monthly Monitoring
September, 1992

August 31, 1992 -

ES 1	0.01 ft FP	ES 3	clean
ES 2	0.61 ft FP	ES 4	
ES 5	2.56 ft FP	BC 2	
BC-1	2.34 ft FP	BC-3	

10/23/92 Letter fr. ACHD re: Status of the site
- need to delineate plume
- FP recovered regularly
- Groundwater sampled quarterly for TPHg TPHd BTXE
- HC recovery system - to address off site migration
  address dissolved HC plume
- Time schedule for all phases of investigation/
  remediation

STID 3809

Oct. 13, 1992

Oakland Bus Terminal

Reviewed Oct 1, 1992 letter report

Oct. 14, 1992 (1.0 hrs)

< Will install pump & treat system (automated)
4 MW's (extraction wells)
→ ↳ rationale for locations
→ contingency plan for system breakdown / equipment out stage
→ Storage of product recovered - 55 gallon drum or
275 gallon steel tank?

cc: James N. Baker Engineering Service

→ measure free product to nearest 0.01 ft
→ total Amount of free product recovered must be reported incorporated in the QR
→ permits from other regulatory agencies must be followed
→ Quarterly discharge reports to include:
summary of recovery system; MW sample results occurred during the prior quarter; carbon treatment performance data
estimated date of primary carbon canister breakthrough using current loading data
Recovery system inspection, monitoring

↑ contact person for Greyhound?
↓
→ no waste oil tank? (bus maintenance)

→ no UGT closure report submitted

QR must incorporate the ff:
- Cover letter from RP
- site map delineating contamination in soil & GW
- proposed continuing or next phase of investigation
- any change in GW flow direction, explain
- historical records of GW level in each well
- tabulate analytical results
- Quarterly sampling for dissolved target compounds on all the well
- aquifer test

→ TPHg not analyzed. why?

→ need to determ. extent of plume -

10/8/92

STID 3809 Oakland Bus Terminal
2103 San Pablo Ave Oakland 94608

D. Shea

Talked with Mr. Edward Roberts - need to contact BART Building Dept re: free product recovery system to be installed at the site

Free product present in some wells

Construction by Nov. 1, 1992

If Ed Roberts not available call
David Nickerson (315) 451-9560
Engineering Science

Laboratory Analysis and Results

UST Liquid Samples. Five UST liquid samples were analyzed by SPL for benzene, toluene, xylene, and ethylbenzene (BTXE) by EPA Method 602. Results of the liquid analyses are presented below in Table 1. Complete UST liquid laboratory reports are included in Attachment C.

Table 1. UST Liquids Laboratory Results

		Concentration in parts per million (ppm)			
Tank	Sample	Benzene	Toluene	Xylene	Ethylbenzene
T-1	O-2	86.1	231	663	100
T-2	O-1	26.1	42.7	49.8	7.5
T-3	O-5	3,730	8,110	16,700	3,730
T-4	O-6	NS	NS	NS	NS
T-5	O-4	7.16	78.2	285	42.6
T-6	O-3	137	5.99	980	155

Mr. John Trahan of SPL indicated that T-1 and T-6 contain #2 diesel fuel. The gas chromatograph response for T-2 indicated the sample contains gasoline, water, and diesel fuel. T-3 contains degraded #1 diesel fuel with some water. T-5 contains mostly #2 diesel but also some #1 diesel and water.

Soil Samples. Six soil samples were analyzed by SPL for benzene, toluene, xylene, and ethylbenzene (BTXE) by EPA Method 8020, for total petroleum hydrocarbons (TPH) by EPA Method 418.1, and for total fuel hydrocarbons (TFH) by Modified EPA Method 8015. Results of the soil analyses are presented below in Table 2. Complete soil laboratory reports are included in Attachment C.

Table 2. Soil Laboratory Results

			Concentration in parts per million (ppm)			
Sample/Depth	TPH	TFH	Benzene	Toluene	Xylene	Ethylbenzene
BC-1/16.0-16.5	11.300	3,060	NR	1.780	1.130	37.500
BC-1/25.0-25.5		<10	<10	<0.001	0.008	0.027
BC-2/16.0-16.5	13.200	4,260	NR	4.000	2.000	49.500
BC-2/26.0-26.5		<10	<10	0.090	0.154	0.402
BC-3/16.0-16.5	6.990	1,850	NR	2.240	1.030	28.900
BC-3/25.0-25.5	<0.001	<10	<10	<0.001	<0.001	0.008

Note: NR - Interpretation of results not possible. See below.

TLV Sniffer measurements and soil samples results from boreholes BC-1, BC-2, and BC-3 yield the highest hydrocarbon concentrations at a depth of 16.0-16.5 feet. The bottom of the USTs is 8 feet to 15.5 feet below grade. These results suggest that there has been an uncontrolled release from one or more of the USTs.

Interpretation of the TFH analyses for the soil samples from the 16.0-16.5 foot interval was difficult. The product had degraded significantly and matching its "fuel fingerprint" with that of known compounds was not possible. However, since the TPH and BTXE analyses indicate that there is significant contamination of the soil at this depth, the TFH results are not critical to this investigation.

Alameda County Health Department guidelines call for further investigation of a site exhibiting concentrations of TPH or TFH greater than 100 ppm as an uncontrolled release.

Quality Assurance/Quality Control Analyses

The validity of the laboratory analyses performed for this project is verified through three quality assurance/quality control procedures.

Laboratory control standards (LCS) are organic-free deionized water, also called blanks. Analysis of a blank provides a check of the laboratory instruments to determine if the reagents have been contaminated or if contamination of the instruments from previously analyzed samples is present. The analysis of a blank for TPH by EPA Method 418.1 yielded no detectable TPH and meets QA/QC requirements.

Batch duplicates are aliquots of a sample subjected to the same preparation and analytical scheme as the original sample. Analysis of duplicate aliquots of a TPH sample did not yield a detectable concentration (<10 ppm) for either aliquot. This is within the acceptable limits for analytical precision.

A matrix spike is an LCS to which a known amount of an analyte is added. These standards are then subjected to the same sample preparation or extraction and analyzed in the same manner as the field samples.

The percent recovery is a comparison of the measured spike as a percent of the theoretical spike. Low percent recoveries (below 100 percent) indicate the matrix has retained a portion of the compound. In soil samples this would indicate compounds adsorbed to the soil matrix. High recoveries (above 100 percent) indicate the matrix is adding to the analysis. The relative percent deviation (RPD) compares the average analyte concentration with their difference. Thus the smaller the RPD the closer the concentration of the measured sample is to its theoretical value.

The original known concentration of a sample prepared in the laboratory for TPH analysis was 0 ppm which is below the method detection limit of 10 ppm. A spike of 100 ppm was added to the sample thus the theoretical concentration was 100 ppm. The measured concentration of the spiked sample was 96 ppm, indicating a method recovery of 96%. This is within acceptable limits.

BTXE spikes were added to known soil sample concentrations. The spiked samples were analyzed by EPA Method 8020. All percent recoveries and RPDs except for one fall within acceptable limits. The exception is a toluene spike of 50 micrograms/liter (ug/l) which was added to a known concentration of 34 ug/l. The percent recovery was 68% and the RPD was 21 which is one point above the tolerance limit for this analysis. The QA/QC laboratory reports are included as Attachment D.

Conclusions

The following conclusions are based upon the results of this Phase I field investigation and laboratory testing program:

1. Native soils encountered during the sampling of 3 boreholes consisted primarily of clays, silts, and sands. Clays and silts were predominant to a depth of 9 to 14 feet. Medium to fine-grained sands were encountered below the silts and clays to a depth of 26 feet.

2. Groundwater was encountered at a depth of approximately 22 feet below ground surface.

3. Hydrocarbon concentrations in the tank liquids indicate the USTs contain #1 or #2 diesel. Water is also present in some tanks.

4. The TLV Sniffer readings and soil sample analyses suggest that one or more of the USTs have leaked or that overflows or spills to the USTs have occurred in the past.

Recommendations

We understand that Greyhound wishes to abandon the tanks by excavation and removal. The following recommendations are presented regarding methods for closure:

1. File an Underground Storage Tank Unauthorized Release Report with the Alameda County Department of Environmental Health and the San Francisco Bay Regional Water Quality Control Board. A copy of this reporting form was sent to you previously.

2. Pump out liquids remaining in the tanks using a vacuum truck. The names of 3 licensed operators were provided to you previously.

3. File closure permits with both the Alameda County Department of Environmental Health and the City of Oakland Fire Prevention Bureau. These permits are included as Attachment E. The permits require submittal of a site safety plan, the identification of the rinsate transporter, tank excavation contractor, tank transporter, contaminated soil transporter, sample collector, analytical laboratory, and application or inspection fees.

4. File a site investigation work plan to the Alameda County Department of Environmental Health and the San Francisco Bay Regional Water Quality Control Board which will address the approach and methods to delineate the lateral and vertical extent of soil and groundwater contamination. This plan will include the installation and sampling of at least 3 shallow groundwater monitoring wells.

5. Send a notification form to the Bay Area Air Quality Management District notifying them at least 5 days prior to removal of the tanks.

6. Remove the concrete slab and expose the top of the tanks.

7. Add dry ice to the tanks to purge all flammable vapors. The fire department inspector will test the tank vapors with a sniffer to ensure that vapors are below the lower explosive limit (LEL).

8. If no manway exists, saw a hole into USTs after receiving fire department approval. Triple rinse tanks and product lines pursuant to Alameda County requirements. The final rinse must contain less than 100 ppm of TFH (EPA Method 602) or TPH (EPA Method 418.1). The interiors of the USTs must be free from deposits or residues upon a visual examination of the tank by the fire inspector.

9. Excavate the tank and associated product lines and have them certified clean by the fire inspector. Properly label the tank with the name and address of the contractor and display a notice "triple rinsed; laboratory certified analysis available upon request". Haul USTs away for appropriate disposal.

11. Excavate and properly dispose of soils with TFH or TPH concentrations greater than 100 ppm or to a depth of 22 feet, whichever comes first. These soils must be transported under a Uniform Hazardous Waste Manifest that

must be signed by the Greyhound Lines, Inc. or their authorized agent.

12. Upon completion of each soil excavation, collect 2 soil samples from the base of the excavation and from every 20 lineal feet of product line trench to verify that contaminated soil has been removed. Analyze for TPH by EPA Method 418.1, TFH by Modified EPA Method 8015, and BTXE by EPA Method 8020. If groundwater is encountered, collect a sample and analyze for TPH by EPA Method 418.1, TFH by Modified EPA Method 8015 and BTEX by EPA Method 602.

13. Prepare a closure/soil remediation report detailing closure procedures, soil disposal activities, and laboratory results. Submit report to the Alameda County Department of Environmental Health, San Francisco Bay Regional Water Quality Control Board and the City of Oakland Fire Prevention Bureau.

This completes the scope of services for this Phase I investigation. We are prepared to begin tank closure/soil remediation and site investigation activities (Phase 2) at your request. If you have any questions or comments please call us at your convenience.

Very truly yours,

BROWN AND CALDWELL

Tim D. Cook
Project Manager

Denis M. O'Malley
Principal-in-Charge

TDC:

Attachments (5)

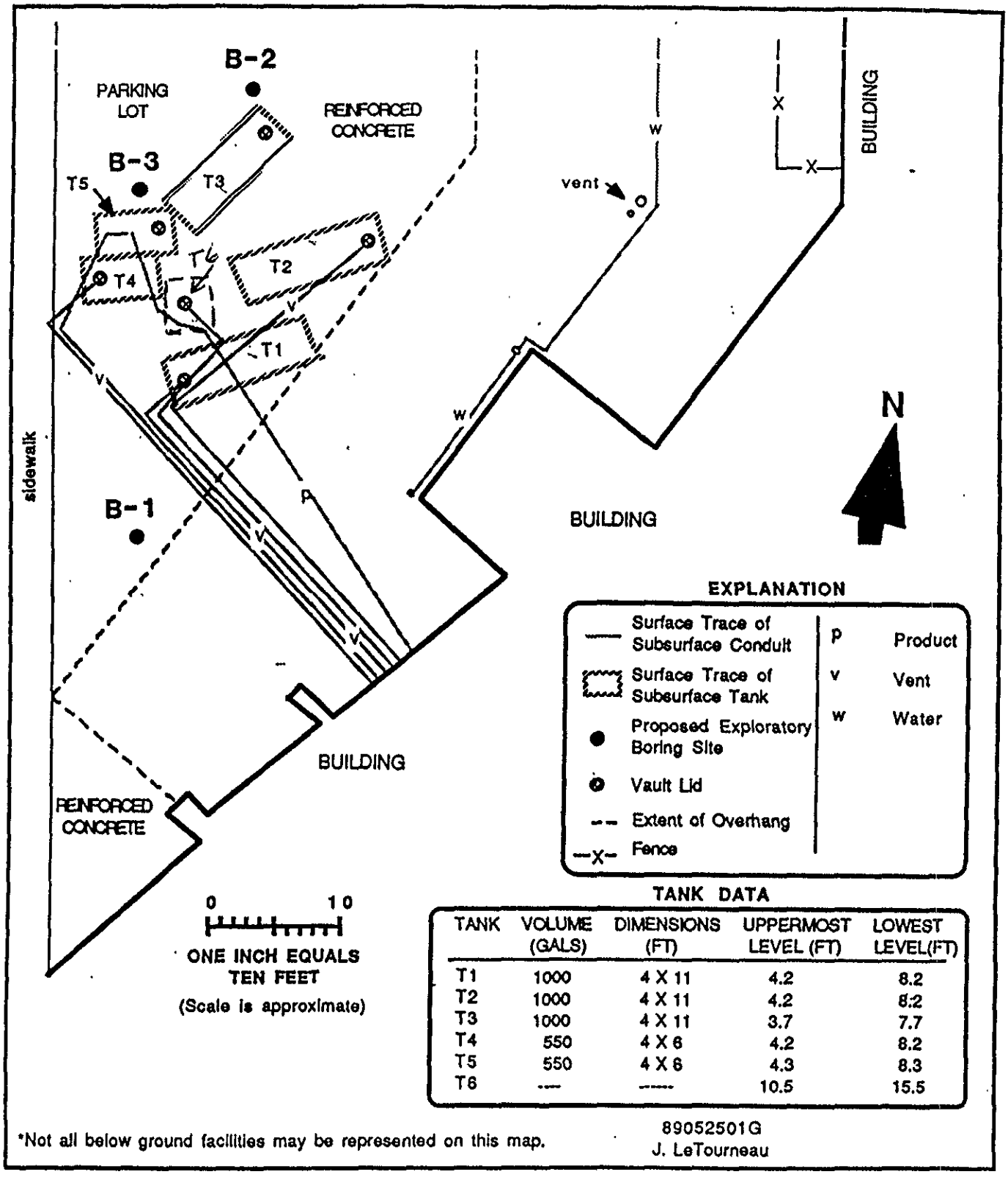


Figure 2 Site Plan

TABLE 4
SOIL ANALYTICAL DATA SUMMARY
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA

Location Sample Depth*	Benzene ug/kg	Toluene ug/kg	Ethylbenzene ug/kg	Xylenes ug/kg	Total BTEX ug/kg	TPHD(a) mg/kg
ES-1 (16-18)	ND	3,000	3,400	22,000	28,400	ND
ES-2 (16-18)	ND	27,000	28,000	150,000	205,000	ND
ES-3 (18-19)	ND	ND	ND	ND	ND	ND
ES-4 (16-16.5)	ND	ND	ND	ND	ND	ND
ES-5 (15-17)	ND	80	65	330	475	160
California ARARs:	0.3-1(b) (mg/kg)	0.3-50(b) (mg/kg)	1-50(b) (mg/kg)	1-50(b) (mg/kg)	---	100(c), 1000(d) (mg/kg)

NOTES:

ARAR = Available Applicable or Relevant Appropriate Requirements.

ND = Parameter analyzed for but not detected above method detection limit.
* Depth given in feet below ground surface.
(a) Total petroleum hydrocarbons as diesel (TPHD) were analyzed and characterized by GCFID in accordance with DHS/LUFT Method (modified EPA Method 8015).
(b) California LUFT criteria. Note the ARARs are given in ppm, whereas the results are in ppb.
(c) RWQCB - Level that initiates a soil/groundwater characterization investigation.
(d) California Hazardous Waste based on ignitability.

oakland4.wq1
01/27/92

TABLE 5
GROUNDWATER ANALTYICAL DATA SUMMARY
GREYHOUND TERMINAL, OAKLAND, CALIFORNIA

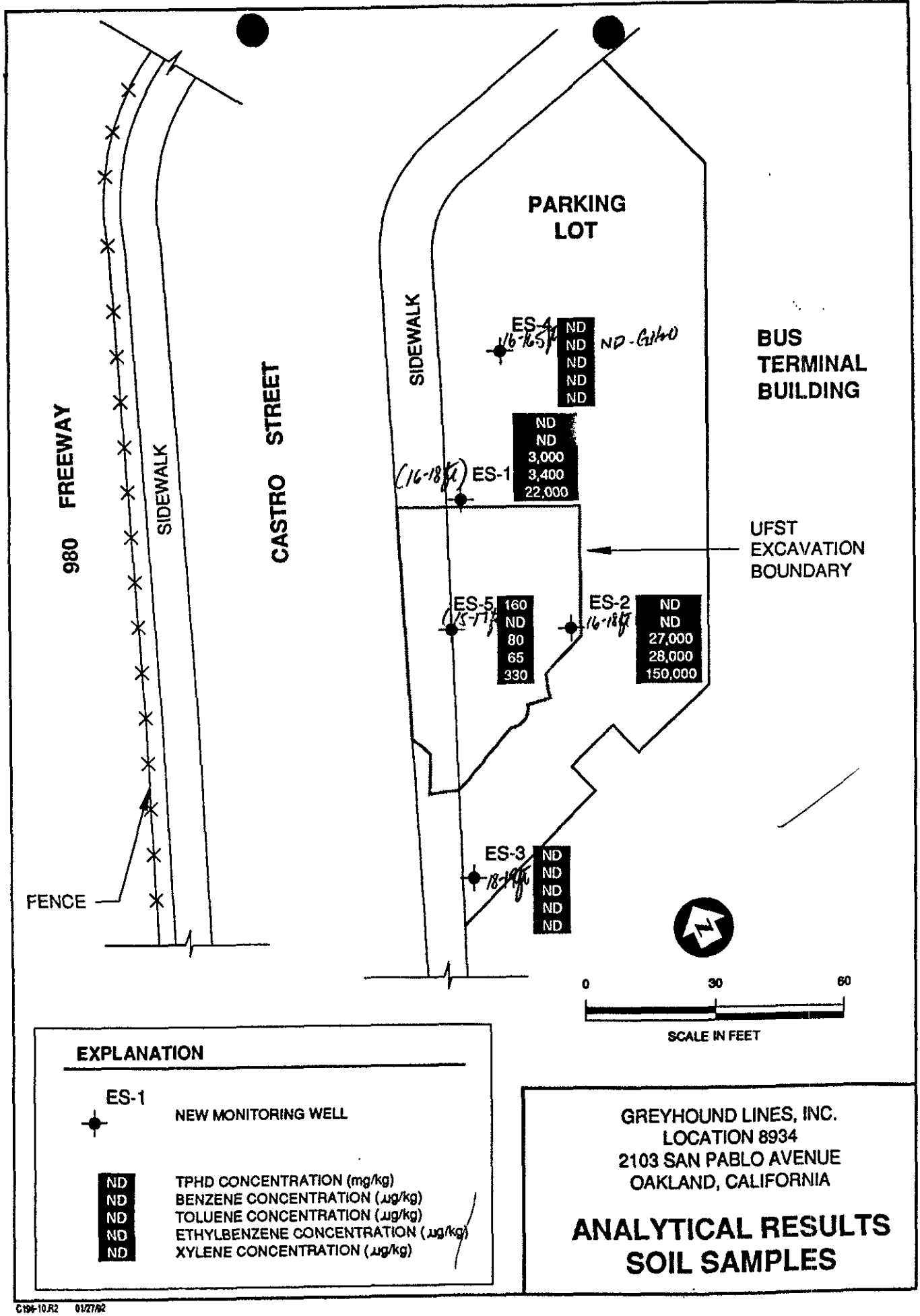
Location	Benzene ug/l	Toluene ug/l	Ethylbenzene ug/l	Xylenes ug/l	Total BTEX ug/l	TPHD* mg/l
ES-1	130	43	10	91	274	ND
ES-2	390	96	78	310	874	ND
ES-3	61	16	14	33	124	ND
ES-4	ND	ND	ND	ND	ND	ND
ES-5	2,100	3,900	840	6,000	12,840	950
California ARARs:	0.5(a) (ug/l)	1000(b) (ug/l)	680(a) (ug/l)	1750(a) (ug/l)	—	(c)

NOTES:

ARAR = Available Applicable or Relevant Appropriate Requirements.

ND = Parameter analyzed for but not detected above method detection limit.
* Total petroleum hydrocarbons as diesel (TPHD) were analyzed and characterized by GCFID in accordance with DHS/LUFT Method (modified EPA Method 8015).
(a) California MCL.
(b) Federal MCl; not effective as a California ARAR until July 1992.
(c) Evaluated on a case-by-case risk assessment basis.

FIGURE 6



EXPLANATION

ES-1 — NEW MONITORING WELL

ND
ND
ND
ND
ND

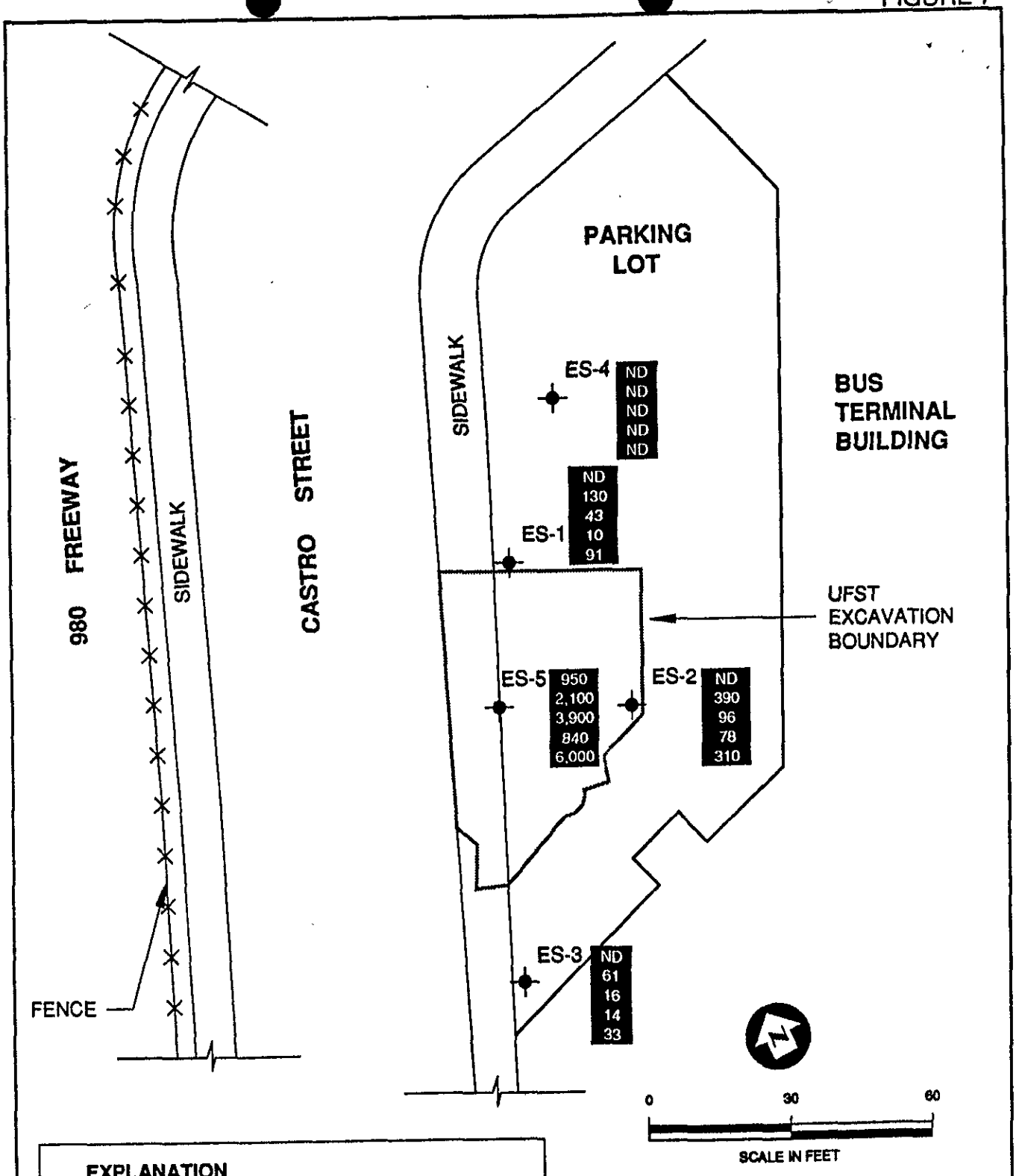
TPHD CONCENTRATION (mg/kg)
BENZENE CONCENTRATION (µg/kg)
TOLUENE CONCENTRATION (µg/kg)
ETHYLBENZENE CONCENTRATION (µg/kg)
XYLENE CONCENTRATION (µg/kg)

GREYHOUND LINES, INC.
LOCATION 8934
2103 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

ANALYTICAL RESULTS SOIL SAMPLES

C196-10.R2 01/27/92

FIGURE 7



EXPLANATION

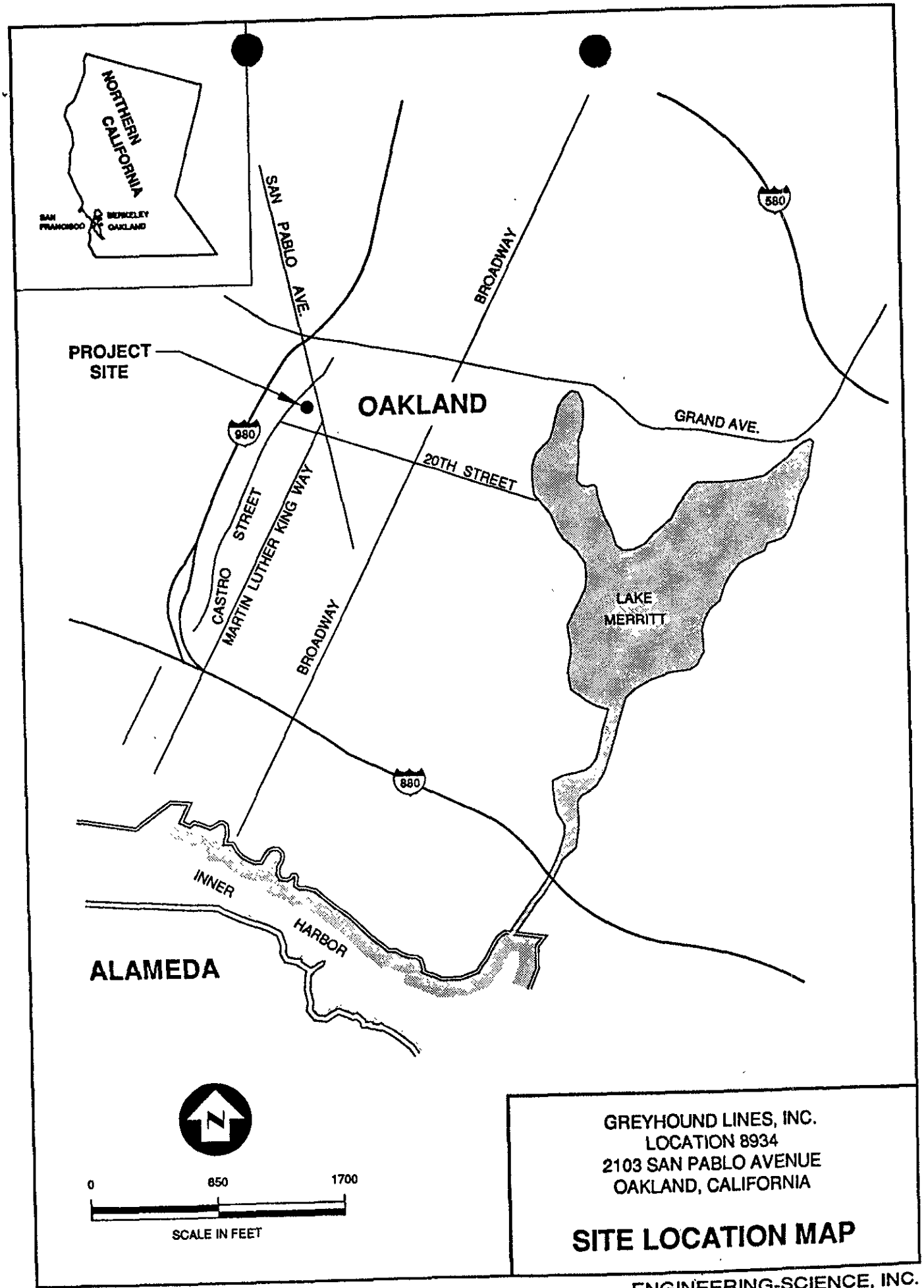
ES-1 — NEW MONITORING WELL

ND — TPHD CONCENTRATION (mg/l)
ND — BENZENE CONCENTRATION (µg/l)
ND — TOLUENE CONCENTRATION (µg/l)
ND — ETHYLBENZENE CONCENTRATION (µg/l)
ND — XYLENE CONCENTRATION (µg/l)

GREYHOUND LINES, INC.
LOCATION 8934
2103 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

ANALYTICAL RESULTS GROUNDWATER SAMPLES

C196-11.R2 01/27/92

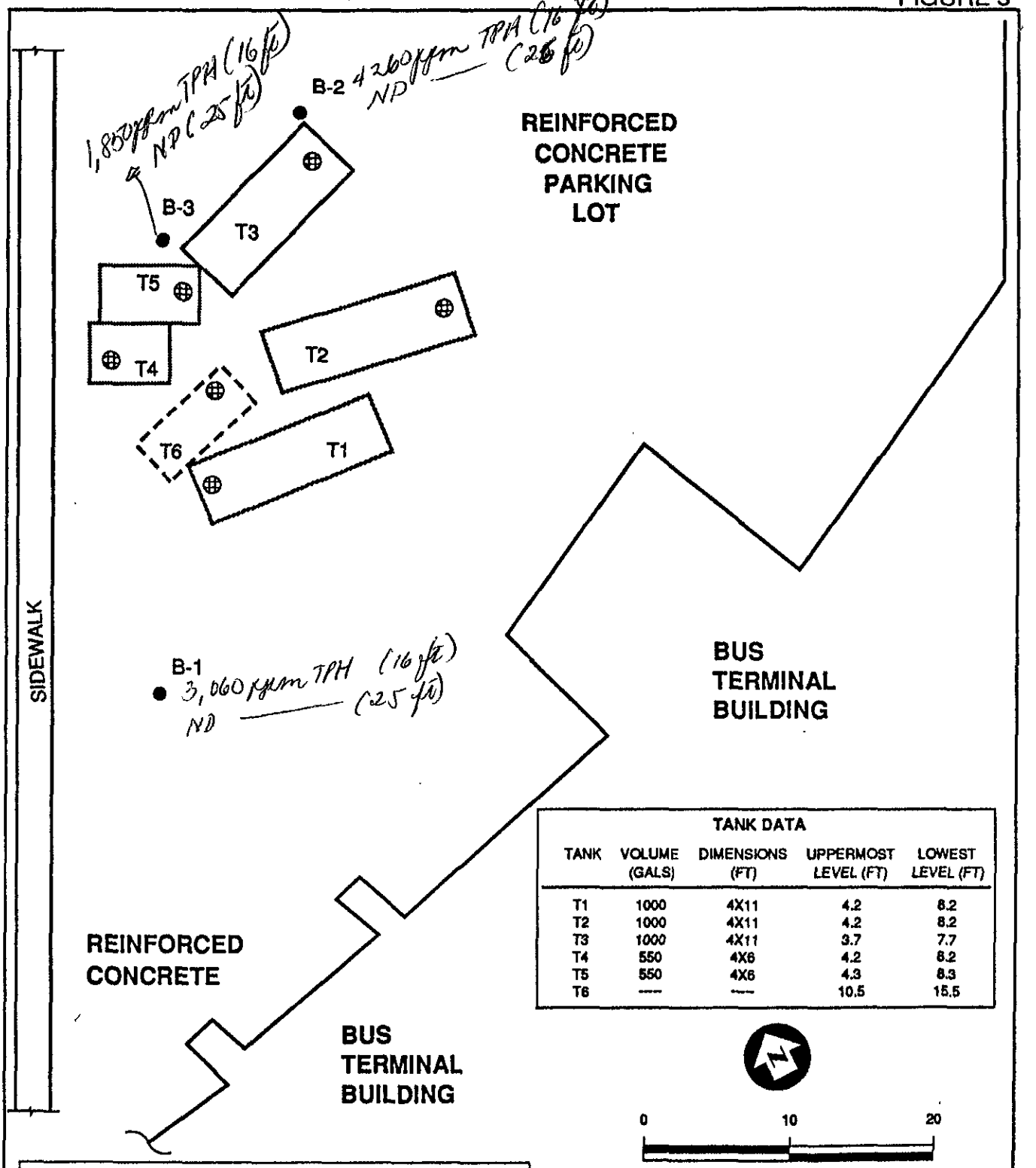


GREYHOUND LINES, INC.
LOCATION 8934
2103 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

SITE LOCATION MAP

ENGINEERING-SCIENCE, INC.

C196-04.R2 01/27/92



TANK DATA

TANK	VOLUME (GALS)	DIMENSIONS (FT)	UPPERMOST LEVEL (FT)	LOWEST LEVEL (FT)
T1	1000	4X11	4.2	8.2
T2	1000	4X11	4.2	8.2
T3	1000	4X11	3.7	7.7
T4	550	4X6	4.2	8.2
T5	550	4X6	4.3	8.3
T6	----	----	10.5	15.5

EXPLANATION

- SURFACE TRACE OF SUBSURFACE TANK
- SUSPECTED SURFACE TRACE OF SUBSURFACE TANK
- EXPLORATORY BORING SITE
- VAULT LID

SOURCE: BROWN AND CALDWELL CONSULTING ENGINEERS, 1989

GREYHOUND LINES, INC.
LOCATION 8934
2103 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

LOCATION OF TANKS AND BOREHOLES FROM 1989 INVESTIGATION

C196-05.R1 01/27/92

FIGURE 6
FIGURE 5
FIGURE 4
TABLE 3
TABLE 2
FIGURE 7

FIGURE 4

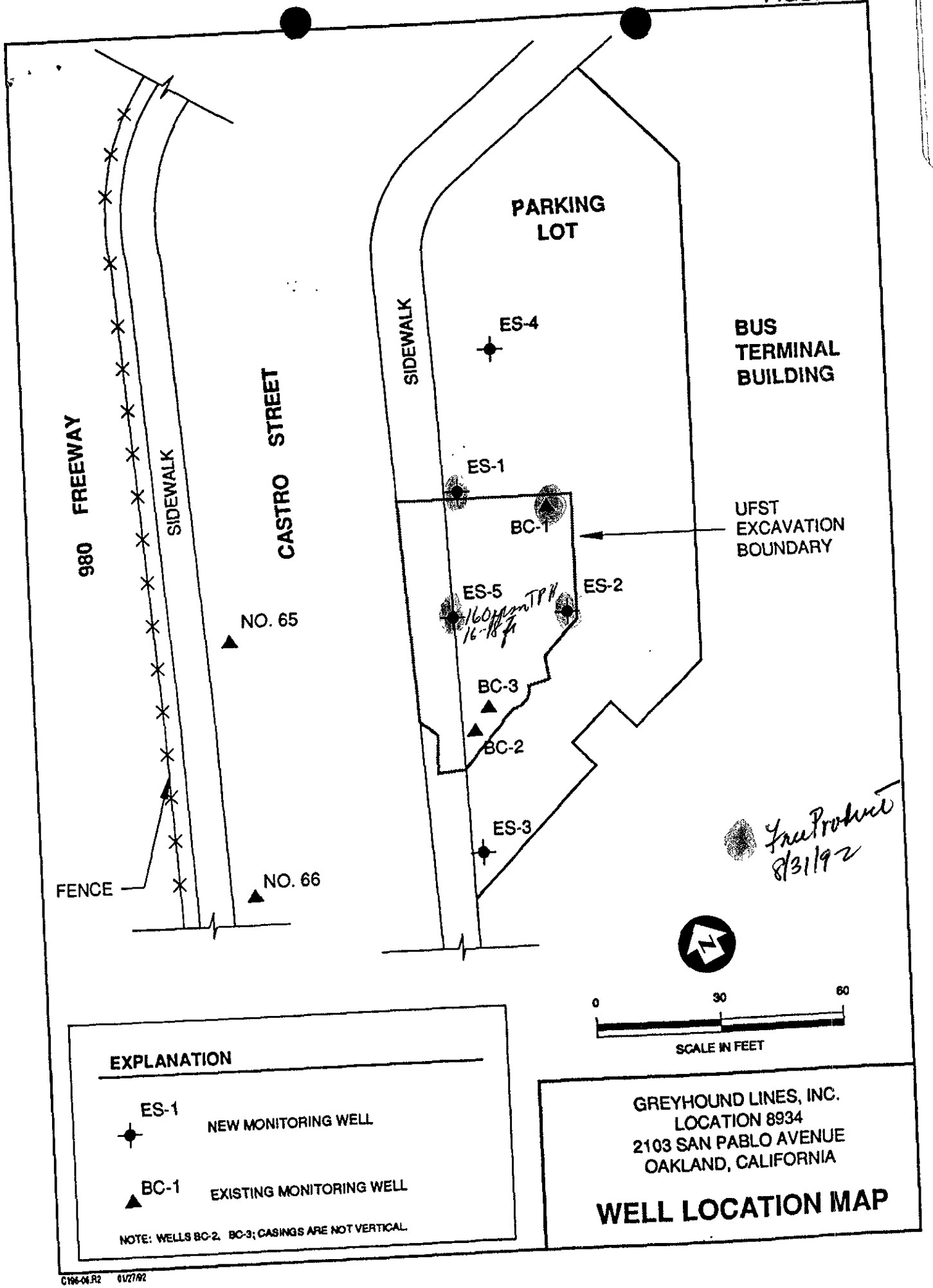
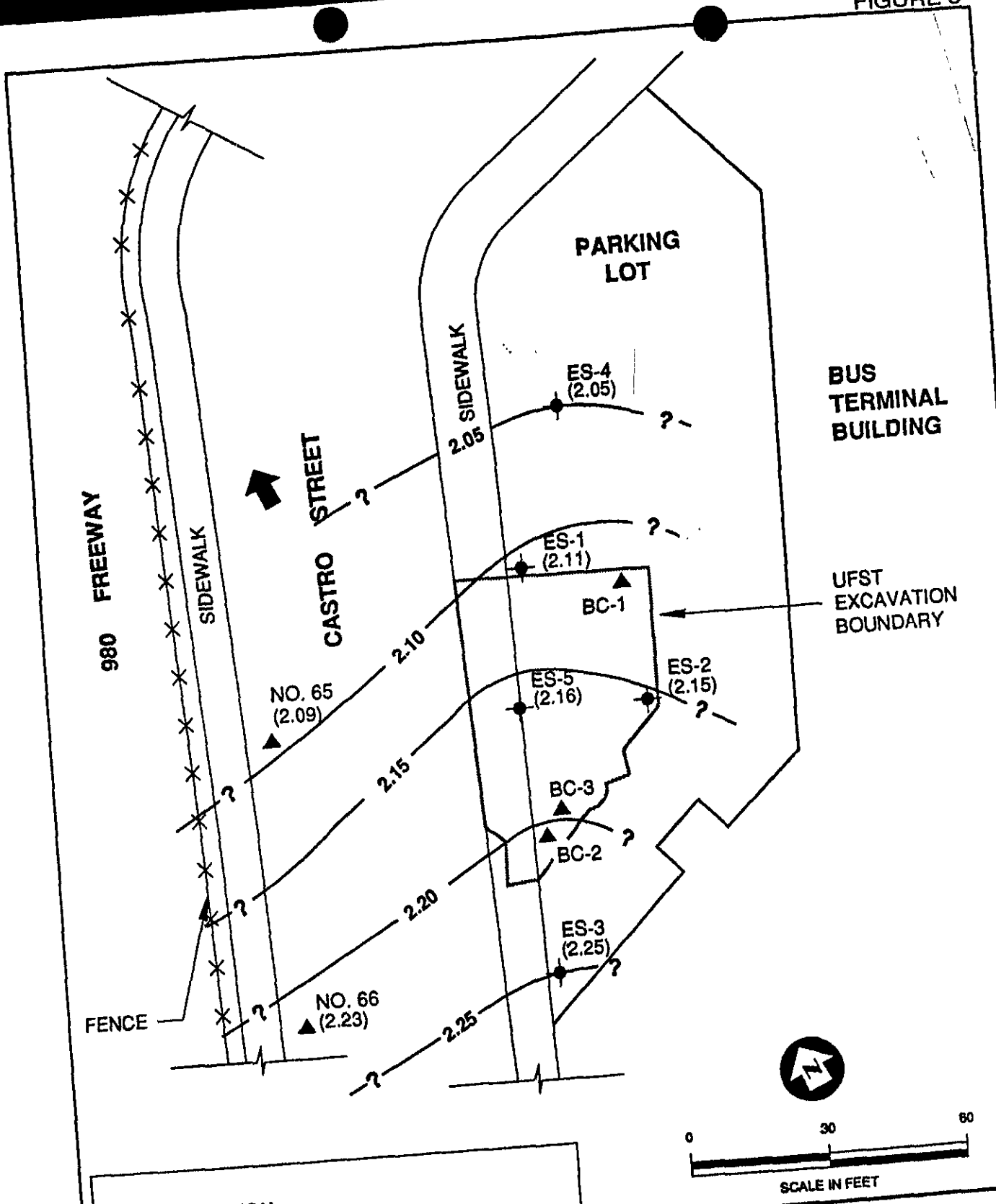


FIGURE 6

FIGURE 5



EXPLANATION

(2.11) GROUNDWATER ELEVATION AT WELL (FEET ABOVE MEAN SEA LEVEL)

2.0 GROUNDWATER ELEVATION CONTOUR (FEET) (QUERRIED WHERE UNCERTAIN)

GROUNDWATER FLOW DIRECTION

CONTOUR INTERVAL = 0.05 FEET

GREYHOUND LINES, INC.
LOCATION 8934
2103 SAN PABLO AVENUE
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATIONS
NOVEMBER 14, 1991

C196-07.R3 01/27/92

ES
ENGINEERING-SCIENCE, INC.

290 ELWOOD DAVIS ROAD
SUITE 312
LIVERPOOL, NY 13088
TEL: (315) 451-9560
FAX: (315) 451-9570

June 11, 1992

Mr. Dennis Byrne
Alameda County Department of
Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Re: Greyhound Terminal
Location 8934
2103 San Pablo Avenue, Oakland, CA

Dear Mr. Byrne:

This letter is to inform you that all environmental activities at the Greyhound Terminal in Oakland, California will be directed through the Syracuse, New York office of Engineering-Science Inc., (ES). All correspondence regarding this location should be directed either directly to Greyhound or to the Syracuse office to the attention of James N. Baker or David A. Nickerson.

If you should have any questions, please contact us at (315) 451-9560.

Sincerely,

ENGINEERING-SCIENCE, INC.

James N. Baker

James N. Baker, P.G.
Program Manager

JNB/lml

cc: Mr. Richard Hiatt, California Regional
Water Quality Control Board

DATE: 3-9-92

TO : **Local Oversight Program**

FROM: BRIT JOHNSON

SUBJ: **Transfer of Elligible Oversight Case**

Site name: OAKLAND BUS TERMINAL

Address: 2103 SAN PABLO City OAKLAND Zip 94708

Closure plan attached? (Y) N DepRef remaining $ 809.00

DepRef Project # 706 STID #(if any) 3809

Number of Tanks: 6 removed? (Y) N Date of removal 4-12-90

Leak Report filed? Y N Date of Discovery 6-8-89

Samples received? Y N Contamination: SOIL & GW

Petroleum (Y) N Types: Avgas Jet (leaded) unleaded (Diesel)
fuel oil waste oil kerosene solvents

Monitoring wells on site 8 Monitoring schedule? Y (N)

Briefly describe the following:

Preliminary Assessment BORING DONE 6/8/89 UP TO 4260 TFH FOUND

Remedial Action _____

Post Remedial Action Monitoring _____

Enforcement Action _____

Comments:

11/91 FREE PRODUCT FOUND IN WELL #ES-5 & BC-1

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

Hazardous Materials Division Inspection Form

80 Swan Way, #200
Oakland, CA 94621
(415) 271-4320

Site ID# _____ Site Name Greyhound Bus Today's Date 4/12/90

Site Address 2103 San Pablo Ave EPA ID# _____

City Oakland Zip 94608 Phone _____

MAX Amt. Stored > 500lbs/55g/200cf? Y N
Hazardous Waste generated per month? _____

Inspection Categories:
- ___ I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- ___ II. Business Plans, Acute Hazardous Materials
- ✓ III. Underground Tanks

The marked items represent violations of the Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

I.A GENERATOR (Title 22)

	1. Waste ID	* 66471
	2. EPA ID	66472
	3. > 90 days	66508
	4. Label dates	66508
	5. Biennial	66493
Manifest	6. Records	66492
	7. Correct	66484
	8. Copy sent	66492
	9. Exception	66484
	10. Copies Rec'd	66492
Misc.	11. Treatment	66371
	12. On-site Disp. (H.S.&C.)	26189.5
	13. Ex Haz. Waste	66570
Prevention	14. Communications	67121
	15. Aisle Space	67124
	16. Local Authority	67126
	17. Maintenance	67120
	18. Training	67105
Contin. gency	19. Prepared	67140
	20. Name List	67141
	21. Copies	67141
	22. Emg. Coord. Trng.	67144
Containers, Tanks	23. Condition	67241
	24. Compatibility	67242
	25. Maintenance	67243
	26. Inspection	67244
	27. Buffer Zone	67246
	28. Tank Inspection	67259
	29. Containment	67245
	30. Safe Storage	67261
	31. Freeboard	67257

I.B TRANSPORTER (Title 22)

	32. Applic./Insurance	66428
	33. Comp. Cert./CHP Insp.	66448
	34. Containers	66465
Manifest	35. Vehicles	66465
	36. EPA ID #s	66531
	37. Correct	66541
	38. HW Delivery	66543
	39. Records	66544
Cont'rs	40. Name/ Covers	66545
	41. Recyclables	66800

Comments:

observed removal of 4 GT's

2 - 280 gal tanks

3 - 550 gal tanks

1 - ~~1,000~~ 2,000 gal tank

No water in excavation to a depth of 18'

No obvious holes in any of the tanks

Excavation to a depth of ± 20' still in excess greater than 1,000 ppm on a Photo Vac TIP.

Appears extensive excavation may be required. Soil to be moved to lot on San Pablo Ave 4/13/90

Excavation to be fenced.

Rev 6/88

Contact: _____

Title: _____ Inspector: _____

Signature: _____ Signature: D Byrne

ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
~~470 - 27TH ST., RM. 322~~
~~OAKLAND, CA 94612~~
~~PHONE NO. 415/874-7237~~
80 Swan Way, St. 200
Oakland, CA 94621
415-271-4320

ACCEPTED 10/31/89

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 change 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.

[illegible]

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

1. Business Name Oakland Bus Terminal
   Business Owner Greyhound Lines -
2. Site Address 2103 San Pablo Ave,
   City Oakland Ca Zip 94608 Phone Vernon Sorgee 214-744-6678
3. Mailing Address Same as above
   City Zip Phone
4. Land Owner Greyhound Lines, Inc.
   Address 901 Main St., Suite 2500 City, State Dallas, Texas Zip 75202
5. EPA I.D. No. CAC000194368
6. Contractor Placer Tractor Service (Rodger Thomas)
   Address P.O. Box 170 - 7200 Wells Ave.
   City Loomis, CA 95650 Phone 916-652-5535
   License Type 440591-A ID# CAD982040206
7. Other (Specify)
   Address
   City Phone

4552906
1,146
10-2-89

8. Contact Person for Investigation

Name Rodger Thomas Title V. Pres.

Phone 916-652-5535

9. Total No. of Tanks at facility 6

10. Have permit applications for all tanks been submitted to this office? Yes [ ] No [X] unknown

11. State Registered Hazardous Waste Transporters/Facilities

a) Product/Waste Tranporter

Name Placer Tractor Service EPA I.D. No. CAD982040206

Address 7200 Wells Ave

City Loomis State Ca Zip 95650

b) Rinsate Transporter

Name Same as above EPA I.D. No. _____

Address _____

City _____ State _____ Zip _____

c) Tank Transporter To be transported to Ericson's under manifest for disposal

Name Same as above EPA I.D. No. _____

Address _____

City _____ State _____ Zip _____

d) Contaminated Soil Transporter

Name Same as above EPA I.D. No. _____

Address _____

City _____ State _____ Zip _____

12. Sample Collector

Name Brown & Caldwell - Jim Cook proj. mgr.

Company Brown + Caldwell

Address P.O Box 8045

City Walnut Creek State Ca Zip 94596 Phone 415-937-9010

13. Sampling Information for each tank or area

Tank or Area		Material sampled	Location & Depth
Capacity	Historic Contents (past 5 years)		
T-1	Diesel	as per Brown + Caldwell report dated 6/22/89	
T-2	Gasoline + Diesel		
T-3	Diesel		
T-4	Diesel		
T-5	Diesel		
T-6	Diesel		

14. Have tanks or pipes leaked in the past? Yes [ ] No [ ] unknown

If yes, describe. _____

15. NFPA methods used for rendering tank inert? Yes [X] No [ ]

If yes, describe. Vapors will be expelled by using 1.5 lbs of dry ice per 100 gals of tank volume.

16. Laboratories

Name Brown + Caldwell -

Address 1255 Powell in Emeryville

City _____ State CA Zip 94608

State Certification No. #104

17. Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
TPH BTXE ~~TPD~~	Modified 8015 Method 8020	

18. Site Safety Plan submitted? Yes [X] No [ ]

19. Workman's Compensation: Yes [X] No [ ]

Copy of Certificate enclosed? Yes [X] No [ ]

Name of Insurer Placer Tractor Service

20. Plot Plan submitted? Yes [X] No [ ]

21. Deposit enclosed? Yes [X] No [ ]

22. Please forward to this office the following information within 60 days after receipt of sample results.

a) Chain of Custody Sheets

b) Original Signed Laboratory Reports

c) TSD to Generator copies of wastes shipped and received

d) Attachment A summarizing laboratory results

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 will notify the Department of Environmental Health at least two (2) working days (48 hours) in advance to schedule any required inspections. I understand that site and worker safety are soley the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Signature of Contractor

Name (please type) _____

Signature C. D. Thurman

Date 9/25/89

Signature of Site Owner or Operator

Name (please type) VERNON SORGEE

Signature Vernon Sorgee

Date Sept 25, 1989

NOTES:

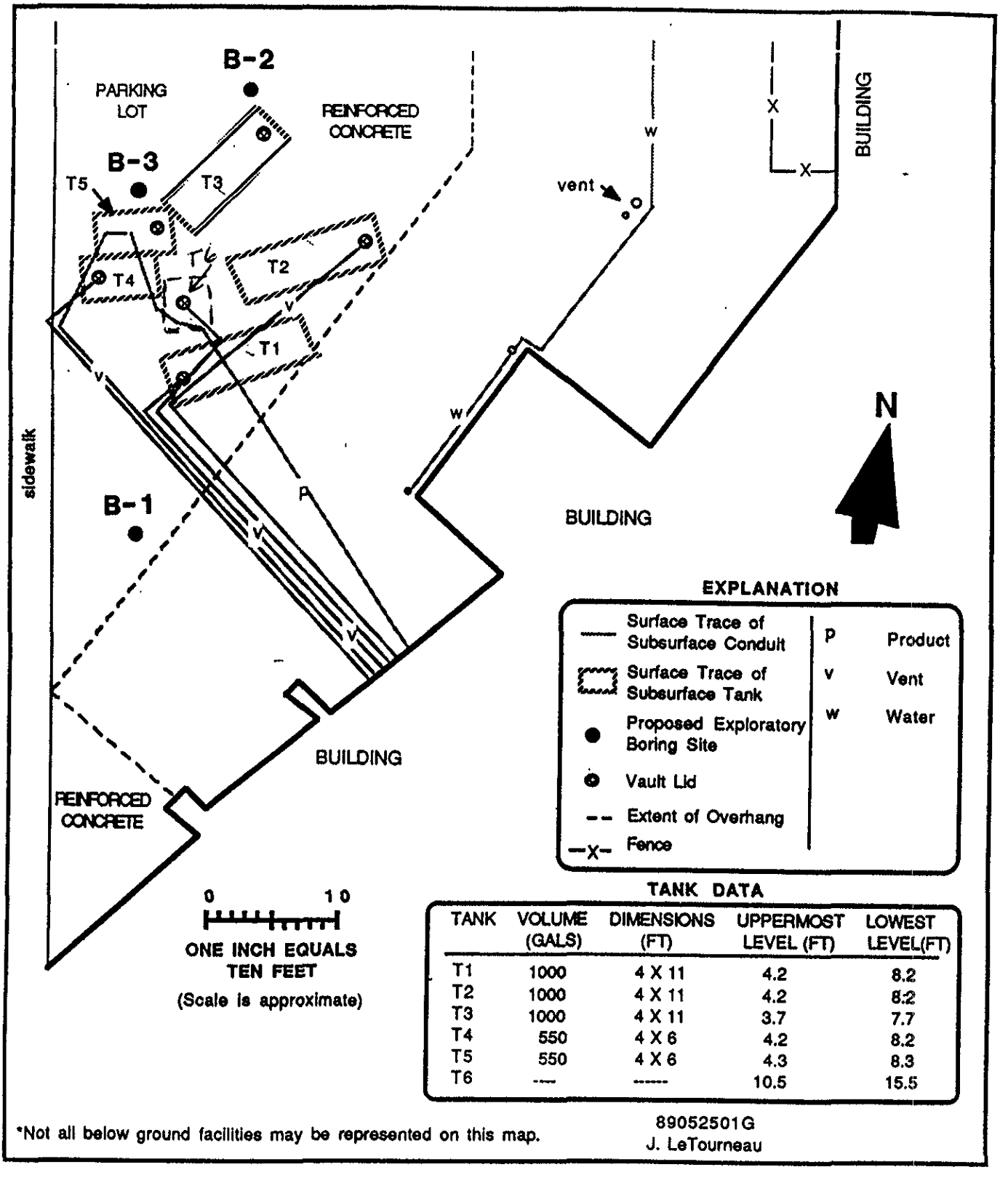
1. Any changes in this document must be approved by this Department.
2. Any leaks discovered must be submitted to this office on an underground storage tank unauthorized leak/contamination site report form within 5 days of its discovery.
3. Three (3) copies of this plan must be submitted to this Department. One copy must be at the construction site at all times.
4. A copy of your approved plan must be sent to the landowner.

UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

ATTACHMENT A

SAMPLING RESULTS

Tank or Area	Contaminant	Location & Depth	Results (specify units)
	See attached.		



TANK	VOLUME (GALS)	DIMENSIONS (FT)	UPPERMOST LEVEL (FT)	LOWEST LEVEL(FT)
T1	1000	4 X 11	4.2	8.2
T2	1000	4 X 11	4.2	8.2
T3	1000	4 X 11	3.7	7.7
T4	550	4 X 6	4.2	8.2
T5	550	4 X 6	4.3	8.3
T6	----	------	10.5	15.5

*Not all below ground facilities may be represented on this map.

Figure 2 Site Plan

INSTRUCTIONS

2. SITE ADDRESS
Address at which closure or modification is taking place.

5. EPA I.D. NO.
This number may be obtained from the State Department of Health Services, 916/324-1781.

6. CONTRACTOR
Prime contractor for the project.

7. OTHER
List professional consultants here.

12. SAMPLE COLLECTOR
Persons who are collecting samples.

13. SAMPLING INFORMATION
Historic contents - the principal product(s) used in the last 5 years.

Material sampled - i.e., water, oil, sludge, soil, etc.

16. LABORATORIES
Laboratories used for chemical and geotechnical analyses.

17. CHEMICAL METHODS:
All sample collection methods and analyses should conform to EPA or DHS methods.

Contaminant - Specify the chemical to be analyzed.

Sample Preparation Method Number - The means used to prepare the sample prior to analyses - i.e., digestion techniques, solvent extraction, etc. Specify number of method and reference if not an EPA or DHS method.

Analysis Method Number - The means used to analyze the sample - i.e., GC, GC-MS, AA, etc. Specify number of method and reference if not a DHS or EPA method.

NOTE:
Method Numbers are available from certified laboratories.

18. SITE SAFETY PLAN
A plan outlining protective equipment and additional specialized personnel in the event that significant amount of hazardous materials are found. The plan should consider the availability of respirators, respirator cartridges, self-contained breathing apparatus (SCBA) and industrial hygienists.

19. ATTACH COPY OF WORKMAN'S COMPENSATION

20. PLOT PLAN

The plan should consists of a scaled view of the facility at which the tank(s) are located and should include the following information:

a) Scale

b) North Arrow

c) Property Line

d) Location of all Structures

e) Location of all relevant existing equipment including tanks and piping to be removed

f) Streets

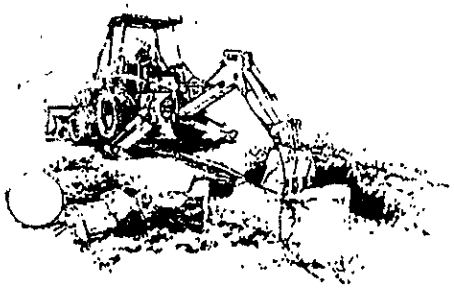
g) Underground conduits, sewers, water lines, utilities

h) Existing wells (drinking, monitoring, etc.)

i) Depth to ground water

j) All existing tanks in addition to the ones being pulled

1/88



Placer Tractor Service
7200 Wells Avenue
Loomis, California 95650
(916) 652-5535

Contractors License #440591

EPA #CAD 982040206
A - General Engineering
B - 1 General Building

DOH Hauler #2350
C - 2 Insulation
C - 10 Electrical

PUC #152608

PROCEDURES FOR UNDERGROUND TANK REMOVAL

A. REMOVE ALL RESIDUAL COMBUSTIBLE/FLAMMABLE LIQUIDS FROM THE LINES AND TANKS.

Placer Tractor Service will be responsible for removing residual liquid in the tank with it's vacuum truck. All residual liquids removed are considered hazardous waste and will be manifested to a TSDF facility.

B. INITIAL EXCAVATION

1. Placer Tractor shall remove asphalt and/or concrete cover as necessary to expose storage tank and piping. Asphalt and/or concrete will be cut at right angles (90 degrees) to allow appropriate site restoration. Placer Tractor is responsible for disposal of all removed concrete or asphalt.

2. Placer Tractor shall remove sufficient backfill to expose the tank top and piping. The site inspector will investigate the excavated area for evidence of contamination.

C. DISCONNECT AND RINSE PIPING

All piping shall be disconnected at a point furthest away from the tanks.

D. INERT TANKS

1. Flammable vapors will be expelled by inserting a minimum of 1.5 pounds of solid carbon dioxide (dry ice) per 100 gallons of tank volume.

2. All piping shall be disconnected from the tanks and all tank openings securely sealed. One 1/8 inch vent hole will be left open at the high point of the tank to allow flammable vapors to escape.

3. A minimum of two hours must be allowed for the vapors to expel once the dry ice has been introduced into the tank and the tank properly sealed.

E. TANK AND PIPING REMOVAL

1. Soil suspected to contain hydrocarbons or any contaminates will be segregated and placed on visqueen or the equivalent. The contractor will keep separate any suspected contaminated soil from clean soil.

2. The tanks shall be lifted from the excavation with a crane or backhoe of sufficient weight capacity, and placed on smooth ground free of rocks and/or other foreign objects for inspection.

3. All piping shall be removed as practical. Piping that, in the judgement of Placer Tractor, cannot be removed must be brought to the attention of the site inspector who will have the final authority to allow piping to be left in place. All piping left in place must be sealed with concrete at all openings.

4. The pump island will be removed and disposed of by Placer Tractor.

F. TANKS ABANDONED IN PLACE

1. The underground storage tank will be pumped of all liquid or sludge. The tank will then be triple rinsed and then filled with a two sack concrete slurry mix.

2. A notice shall be placed in the deed of the property by the owner. The notice shall describe the exact location of the closed underground storage tank, the substance it contained and the closure method.

G. DECONTAMINATE TANKS

The interior of the tanks will be pressure washed per the specifications of NFPA 327. The equivalent of a triple rinse of water and trisodium phosphate generating a minimum of one percent of the tank volume.

H. DISPOSAL OF TANKS

Placer Tractor is responsible for removal and disposal of the tanks and all associated piping and pumps from the site. A Certificate of Disposal will be supplied to the owner stating the final disposition of the tanks. All of the tanks will be taken to American Metal Recyclers in Ontario, CA. where they are smashed for scrap metal.

I. BACKFILLING TANK EXCAVATION:

Contractor will be responsible for providing additional clean backfill, free of foreign material or rocks greater than 6'' in any dimension.

The backfill will be compacted in loose lifts not exceeding 8 inches in thickness. Backfill should be moisture conditioned to 1-3 percent over optimum moisture content, and compacted to 90 percent relative compaction to within 12 inches of subgrade in accordance with ASIM 1557-D. The remaining 12 inches must be compacted to a minimum of 90 percent relative compaction.

J. ASPHALT PAVING:

The disturbed area shall be resurfaced with asphalt or concrete to a condition, thickness, and grade equivalent to the surrounding area. Resurfacing finish grade shall match existing grade of the undisturbed area. Contractor shall:

1. Cover excavated areas with a minimum compacted thickness of 10 inches of aggregrate base material. Base material will consist of Class 2 aggregate; a maximum of 1 1/2 inches in diameter. Base material will be compacted to 95 percent relative compaction.

2. Surfaces to receive asphalt/concrete shall be dry and clean of loose material. Surface shall be given an even prime coat of liquid asphalt applied at a rate of not less than 0/25 gallon per square yard at a temperature of from 105 - 175 degrees, and allowed to dry. Additional asphalt shall be applied to any spots where color or other signs indicate that more asphalt is required to prevent breaking or reveling.

3. Placer Tractor shall apply three (3) inches of Type B asphalt. Asphalt binder shall be grade AR 2000 paving asphalt. Aggregate shall be 1 1/2 inch maximum, medium grade.

K. SOIL DISPOSAL REMEDIATION

Hydrocarbon impacted soils will either be shipped for disposal at a permitted disposal facility or remediated on-site. The remediation decision will be determined following removal of tanks, and will be based on actual quantity of excavated impacted soils, soil sample results, type of constituents, and requirements of the local County Department of Environmental Health.

1. Disposal: Contractor to load, transport and dispose of hydrocarbon impacted soils in a permitted landfill facility. Placer Tractor Service has a current EPA Hazardous Waste Haulers permit (#2350). Proper manifesting of wastes will be required before waste will be allowed to leave the site.

L. SITE INSPECTION

If requested a site inspector will be designated by the District to oversee Placer Tractor's compliance with any contract. The inspector will specifically perform the following items:

1. Inspection of the tank and excavation for evidence of leakage following removal.

2. Examination of import fill, backfill compaction, and asphalting to specifications.

3. Approval of manifest for waste disposal and/or rinse disposal.

4. Final site inspection for cleanup and completion of work tasks.

M. REMOVAL OF UNDERGROUND TANKS

The safe removal of underground tanks can be accomplished by taking the steps described below:

a. Drain and flush the piping into the tank.

b. Remove all flammable liquid from the tank which can be pumped out with Placer Tractor's vacuum pump.

c. Dig down to the top of the tank.

d. Remove the fill tube. Disconnect the fill, gauge, product and vent lines. Cap or plug open ends of lines which are not to be used.

e. Temporarily plug all tank openings, complete the excavation, and remove the tank, placing it in a secure location. Block the tank to prevent movement.

f. Remove flammable vapors. The tank will be conditioned by the method described in Section G. The vapors will also be made inert

f. by adding solid carbon dioxide (dry ice) in the amount of 1.5 pounds per 100 gallons of tank capacity. The dry ice should be crushed or sliced and distributed evenly over the greatest area to secure rapid evaporation. Avoid skin contact with dry ice because it will produce burns. As the dry ice vaporizes flammable vapors will flow out of the tank and may surround the area. Observe all normal safety precautions regarding flammable vapors. Make sure that all of the dry ice has vaporized.

g. After the tank has been freed of vapors and before the tank is removed from the site, plug or cap all holes. Use boiler plugs to plug any corrosion leak holes. The plug should have a 1/8 inch vent hole to prevent the tank from being subjected to an excessive pressure differential caused by extreme temperature changes.

h. Finally the tank should be secured on a truck for transportation to the disposal site. The tank should be secured so that the 1/8 inch vent hole is located at the uppermost point on the tank.

Placer Tractor Service
7200 Wells Avenue
Loomis, California 95650
(916) 652-5535

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C - 2 Insulation
C - 10 Electrical
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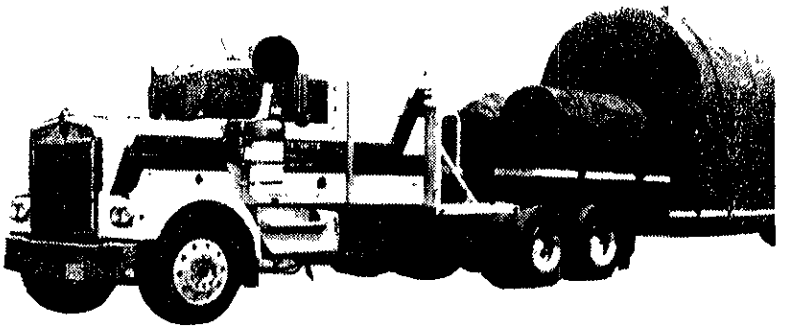

OCCUPATIONAL SAFETY AND HEALTH CERTIFICATION

PROJECT: OAKLAND BUS TERMINAL

CONTRACTOR: PLACER TRACTOR SERVICE, RODGER THOMAS

1. Contractor certifies that the following personnel to be employed on the project above have met the following requirements of the OSHA Hazardous Waste Operations Standard (29 CFR 1910.120) and other applicable OSHA standards.

PERSONNEL	TRAINING	RESPIRATOR CERTIFICATION	MEDICAL EXAM
Al Oesterling	Yes	Yes	Yes
Bill Teal	Yes	Yes	Pending
Mac McConnell	Yes	Yes	Yes
Rodger Thomas	Yes	Yes	Pending
Tony Imbers	Yes	Yes	Yes
Greg Stegall	Yes	Yes	Yes

*

2. Contractor certifies that he has received a copy of the Site Safety and Health Plan and will ensure that its employees are informed and will comply with its requirements.

3. Contractor further certifies that it has read and understands and will comply with all provisions of its contractual agreement.

SIGNED: _____ DATE: _____

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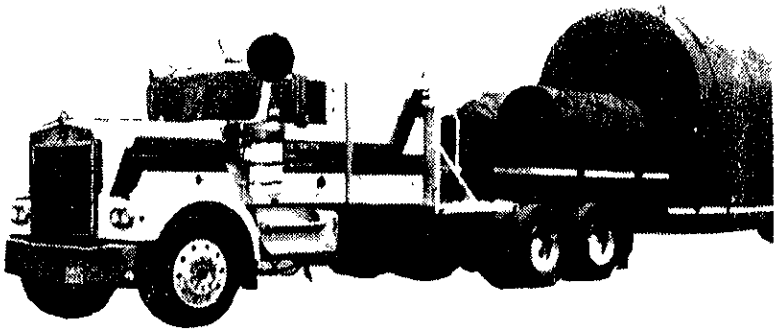

PLACER TRACTOR SERVICE

SITE SAFETY & UNDERGROUND TANK CLOSURE PLAN

Please consider this document a Proposed Closure Plan for the underground fuel tanks listed below:

A) Project Name & Address: Oakland Bus Terminal, 2103 San Pablo Ave., Oakland

B) Projected Closure Date:

C) Project Manager: Vernon Sorgee

D) Number of Tanks: 6

E) Tank Type: Steel

F) Present Contents: Diesel & gas

SECTIONS:

I. Project Description

II. Task Risk Analysis and Safety & Health Plan
   1. Underground fuel tank removal

III. Emergency Response Plan

IV. Contractor Certification

Continued on page 2 . . . . . .

Placer Tractor Service
7200 Wells Avenue
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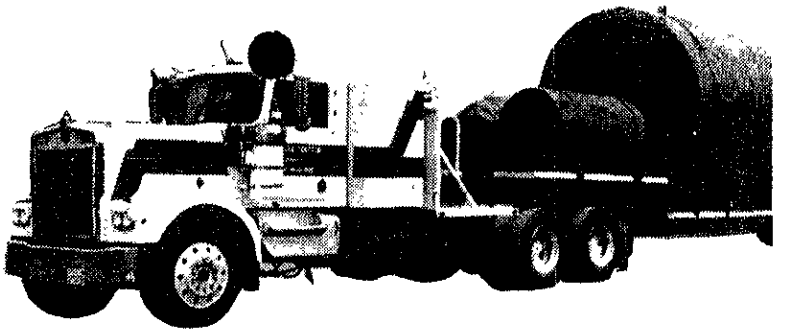


SECTION I: Project Description

A) All product shall be removed from tanks prior to excavation. Any project remaining will be manifested by Placer Tractor Service, EPA # CAD 982040206, DOH# 2350. Disposal facility will be Refinery Services, 13331 N. Highway 33, Patterson, CA. 95363. Their EPA # is CAD 083166728 or Gibson Refinery, 3121 Standard St., Bakersfield, CA. 93308; EPA # CAD 980883177.

B) All vapors will be purged from tanks at least one - two hours prior to removal by using at least 20 pounds of carbon dioxide (dry ice) per 1,000 gallon tank capacity.

C) Tanks and associated piping will be removed by Placer Tractor Service. Customer will receive a Certified Disposal Receipt that tanks were cut up for scrap metal.

D) Clean excavated material will be stockpiled on-site for use in back-filling the excavation.

E) The local agencies have been notified of the removal date and will be present when the tank(s) are removed to make a visual inspection.

F) Placer Tractor Service will arrange to have Alpha Analytical Laboratory take the required soil samples unless arrangements have been previously made by the owners. Alpha Analytical is State Certified (#124) for Hazardous Waste samples and results are usually received within five working days.

G) ONSITE PERSONNEL:

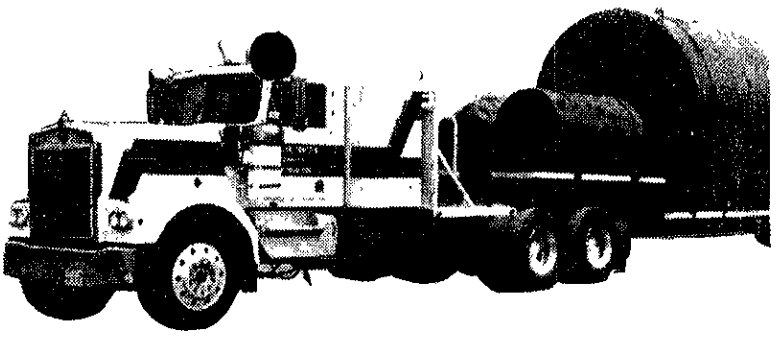
1) The following personnel are designated to carry out job functions as needed on site. They all have been certified in Hazardous Waste and Safety Training.

Continued on page 3 . . . . . .

Placer Tractor Service
7200 Wells Avenue
Loomis, California 95650
(916) 652-5535

EPA #CAD 982040206
A - General Engineering
B - 1 General Building
Contractors License #440591

DOH Hauler #2350
C - 2 Insulation
C - 10 Electrical
PUC #152608



3. Personnel Protection Equipment:

   a. Appropriate skin protection/clothing
   b. Air purifying respirator
   c. Hard hat and safety glasses
   d. Gloves
   e. Hearing protection
   f. Eye wash and First Aid kits in trucks

4. Site Control:

   a. A 6' cyclone fence will be installed around excavated area if found to be contaminated and hole is left from excavation.

5. Hazardous Waste Management:

   a. This project will generate hazardous wastes (rinseate) which will be transported for recycling on a manifest. See Section I A. on Closure Plan.

SECTION III: Emergency Response Plan

1. If an accident should occur, employees should first call 911 if it is an emergency. If it is not of emergency nature then the employee shall be brought to the nearest hospital (see attached page for map to hospital).

Placer Tractor Service
7200 Wells Avenue
Loomis, California 95650
(916) 652-5535

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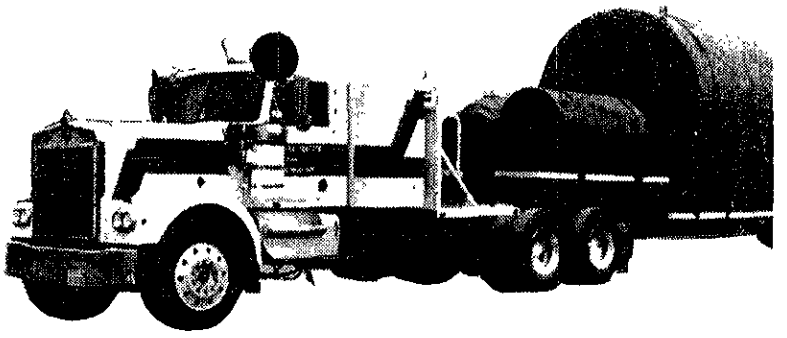


Greg Stegall
Albert Oesterling

Rodger Thomas

H. LOCAL AGENCIES:

Alameda County Health Care Services
Department of Environmental Health
Hazardous Materials Division
80 Swan Way Suite 200
Oakland, CA 94621

Calif. Regional Water Quality Control
San Francisco Bay Region
Oakland, CA.
(415) 464-1255

SECTION II: Risk Analysis & Safety and Health Plan

1. Tasks Planned:

   a. Underground Tank Removal - excavation
   b. Possible confined space entries
   c. Soil Sampling
   d. Fill in excavation and resurface

2. Hazardous Materials Anticipated:

   a. Benzene
   b. Xylenes
   c. Gasoline, diesel and waste oil
   d. TCE
   e. Solvents

Continued on page 4 . . . . . .

HAZARD COMMUNICATION PROGRAM

TO ALL EMPLOYEES:

RE: HAZARD COMMUNICATION REGULATION

The hazard communication standard (right to know law) requires Placer Tractor Service to provide our employees with the information on the hazardous chemicals they use in the work place. The regulation gives you the right to know about hazardous chemicals and the responsibility to use that knowledge to work safely with hazardous chemicals.

The goal of this regulation is to encourage safe work practices by our company and yourselves by making hazard information available to you in an easily understood format.

Each individual that is working for Placer Tractor Service will be required to attend a training class each year starting May 23rd, 1988 to assure that they understand chemical hazards and how chemicals can be handled safely.

The training sessions will provide you with information on the hazard communication regulation, the company's program, and the employees rights. This information will include the following:

1. Information regarding any hazardous substances present.

2. Post notice to inform employees material safety data sheets (MSDS) are located.

3. Employees must be informed of the location and availability of the hazard communication program.

4. Employees must be informed of their rights;

   A) To personally recieve all the information regarding hazardous substances to which the employees may be exposed.

B) For their physician to recieve information regarding the hazardous substances to which the employee may be exposed.

C) Against discharge or other discrimination due to the employees exercise of rights under the regulation.

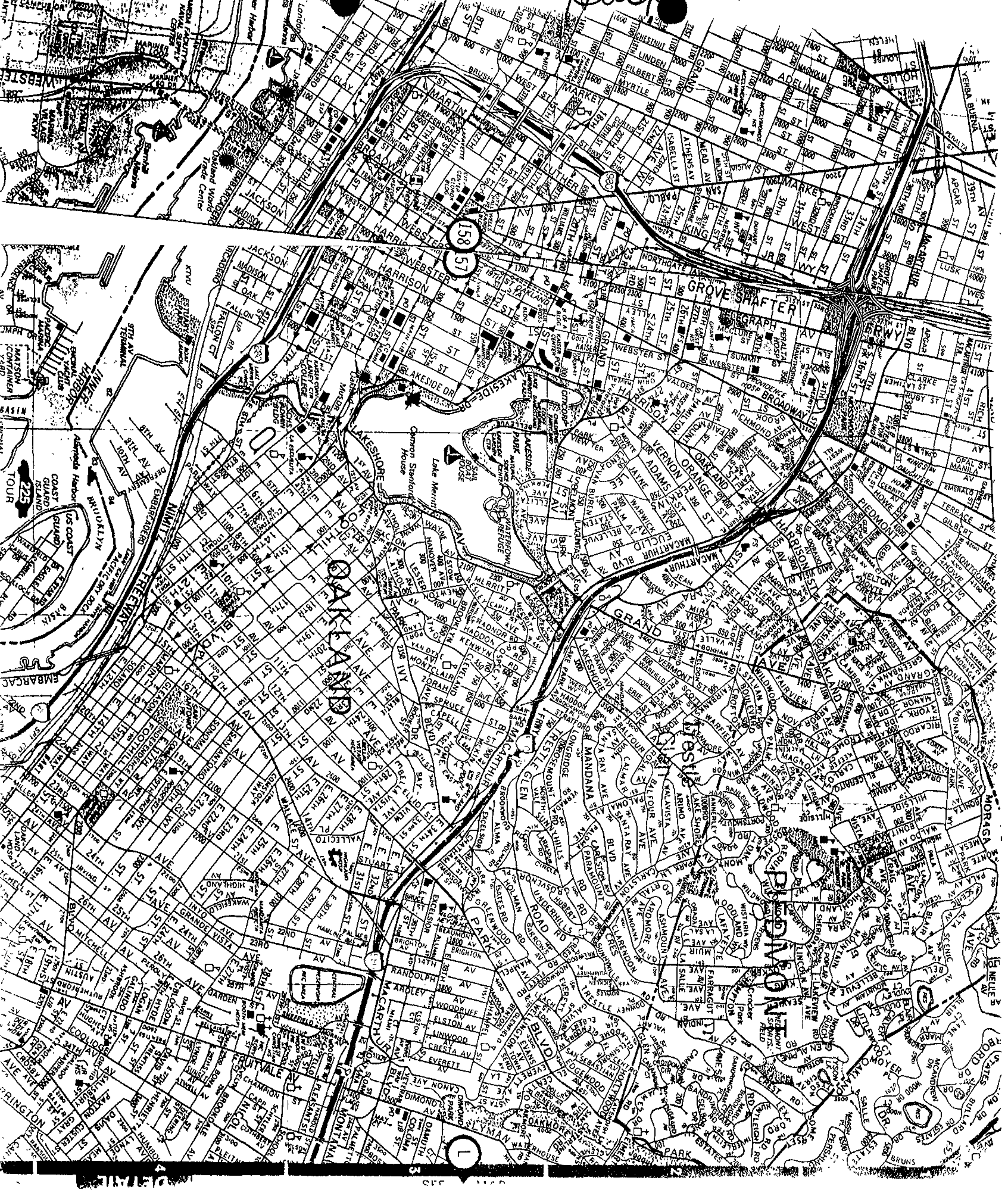
The purpose of the hazard communication regulation is to inform people who work with chemicals about the potential health risks that they may be exposed to at their place of work. It is our responsibility to have a written plan in place. It is your responsibilty to know and abide by the rules of handling the hazardous chemicals.

Everyone's cooperation will be greatly appreciated.

Sincerely,

Cathy Thomas
Placer Tractor Service

Hospital Directions



ACORD. CERTIFICATE OF INSURANCE

ISSUE DATE (MM/DD/YY)
7/17/89

PRODUCER

Mother Lode Insurance
P. O. Box 1310
Shingle Springs, CA 95682

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW

CODE SUB-CODE

INSURED

Placer Tractor Service
Rodger Thomas
7200 Wells Ave.
Loomis, CA 95650

COMPANIES AFFORDING COVERAGE

COMPANY LETTER A — California Indemnity
COMPANY LETTER B — FIC
COMPANY LETTER C
COMPANY LETTER D
COMPANY LETTER E

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	ALL LIMITS IN THOUSANDS
	GENERAL LIABILITY				
A X	COMMERCIAL GENERAL LIABILITY				GENERAL AGGREGATE $ 2,000
	CLAIMS MADE X OCCUR.	TBD	6/9/89	6/9/90	PRODUCTS-COMP/OPS AGGREGATE $ 1,000
	OWNER'S & CONTRACTOR'S PROT.				PERSONAL & ADVERTISING INJURY $ 1,000
					EACH OCCURRENCE $ 1,000
					FIRE DAMAGE (Any one fire) $ 50
					MEDICAL EXPENSE (Any one person) $ 5
	AUTOMOBILE LIABILITY				COMBINED SINGLE LIMIT $ 100,000
	ANY AUTO				
	ALL OWNED AUTOS				BODILY INJURY (Per person) $ 300,000
B X	SCHEDULED AUTOS	C 3888042	5/18/89	11/18/89	
	HIRED AUTOS				BODILY INJURY (Per accident) $ 300,000
	NON-OWNED AUTOS				
	GARAGE LIABILITY				PROPERTY DAMAGE $ 50,000
	EXCESS LIABILITY				EACH OCCURRENCE $ / AGGREGATE $
	OTHER THAN UMBRELLA FORM				
	WORKER'S COMPENSATION AND EMPLOYERS' LIABILITY				STATUTORY X
A		TBD	6/9/89	6/9/90	$ (EACH ACCIDENT)
					$ (DISEASE—POLICY LIMIT)
					$ (DISEASE—EACH EMPLOYEE)
	OTHER				
A	Leased or Rented Equipment	TBD	6/9/89	6/9/90	$55,000

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/RESTRICTIONS/SPECIAL ITEMS

Lease Acct#02-789-10616 Amount $32,400
330 CAT 950 Wheel Loader Serial#81J6230
Certificate holder is named as additional insured and loss payee

CERTIFICATE HOLDER

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES

AUTHORIZED REPRESENTATIVE
Maureen Bennett

EPE
EARTH PURIFICATION ENGINEERING

10/1/89

October 27, 1989

Department of Environmental Health
Hazardous Materials Division
80 Swan Way, Room 200
Oakland, CA. 94621

Attention: Dennis Byrne

Dear Mr. Byrne,

Per our phone conversation here is a brief report on Earth Purification Engineering, Inc.'s (EPE) system. We would like to treat the diesel contaminated soil that is located at the Oakland Greyhound Bus Terminal.

Within our system, the contamination in the soil is reduced to non-detectable levels and the contaminants are destroyed. The soil is then clean and the problem is solved permanently, not merely transporting the problem to another location. This not only saves the owner the cost of transportation and class 1 landfill fees, but it also relieves the owner from the long term liability associated with these landfill storage facilities.

We are at the present time going through the process of permitting with the Bay Area Air Quality Management District, Sandra Lopez (415) 771-6000. We are also obtaining permission to operate from the Department of Health Services in Emeryville, Dick Burgard (415) 540-3396.

We would be on-site approximately 7 days to treat the soil. Our system is mounted on two trailers and is setup in a single afternoon. We our sub-contracting to Brown and Caldwell, they will do all the testing of our air emissions and treated soil.

I hope this letter and the enclosed report will answer some of your questions concerning Earth Purification Engineering, Inc. (EPE). If you need further information, or have any other questions please don't hesitate to give us a call.

Sincerely yours,

Timothy Solle

Timothy Solle
Earth Purification Engineering, Inc.

42700 BOYCE ROAD FREMONT, CALIFORNIA 94538 (415)657-0316 LIC. # 493985

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

DEPARTMENT OF ENVIRONMENTAL HEALTH
Hazardous Materials Program
80 Swan Way, Rm. 200
Oakland, CA 94621
(415)

29 September 1989

Vernon Soree
Director Environmental Management
Greyhound Lines, Incorporated
901 Main Street
Suite 2500
Dallas, TX 75202

Subject: Removal of Underground Storage Tanks Located at 2103 San Pablo Avenue, Oakland, CA.

Dear Mr. Soree:

This office has received your letter dated 21 July 1989, pertaining to the discovery of six underground storage tanks and suspected soil/groundwater contamination at the location listed above. The Alameda County Department of Environmental Health, Hazardous Materials Division, oversees the removal of underground storage tanks and any remediation of contaminated sites within the City of Oakland.

Your letter stated that soil borings detected hydrocarbon contamination at a depth of fifteen to twenty feet. A copy of the data report for this site was not included in your letter, so the identity of the specific contaminants and whether or not groundwater has been impacted is unclear to this office. Please submit a copy of this report to us so that we may review the data and include it into our records.

In Alameda County, we issue a standard closure plan document which we request applicants to complete and submit in triplicate. A blank copy of this document is enclosed with this letter for your use. This form, when highlighted with the red "Accepted" stamp constitutes a legal permit authorizing the removal project to proceed. In addition to the closure plan, we require that a plot plan of the facility, a copy of the contractor's workman's compensation insurance certificate and a site safety plan also be submitted for review.

Prior to the review of a submitted closure plan the applicant is required to submit a deposit. This deposit is authorized by Section 3-141.6 of the Ordinance Code of the County of Alameda and is used to cover the expenses incurred by County personnel in the performance of their oversight duties. Upon the completion of the

the project the balance of the deposit is refunded to the applicant. For a project involving six underground storage tanks, a deposit of $1,146.00 is required.

Common omissions on closure plans include; the EPA Identification Number of the facility, no listing of the historic contents of the tanks, suggesting improper soil analysis tests for the reported tank contents, not listing a registered hazardous waste hauler to remove the tank(s) from the job site following excavation and not signing the closure plan. Minimum requirements for a site safety plan include a statement that an explosimeter will be present to gauge tank atmospheric conditions prior to removal, identify a person with overall responsibility for site safety and specifying a minimum of two five extinguishers and level C protective clothing to be available to workers on the job site.

Upon approval of the submitted closure plan we request that you notify us a minimum of forty-eight hours in advance of the scheduled removal date. This is to allow our inspectors to organize their weekly schedules accordingly and facilitate our having a representative present to examine the tanks upon removal for obvious evidence of leakage and to observe the collection of soil samples.

Following the submittal of all analytical data, Chain of Custody Forms, hazardous waste manifests and the completion of any required remedial action, a sign-off letter will be issued. The County Billing Department will be notified to refund to you the balance of your deposit.

Though this office is the lead agency in regards to administering Title 23 of the California Code of Regulations within Alameda County, it is the responsibility of the San Francisco Bay Regional Water Quality Control Board to issue the final approval for all soil and groundwater remediation projects conducted within it's jurisdiction. This office will directly oversee the implementation of the project to ensure that the work conducted is in compliance with guidelines established by the Regional Board.

If you have any questions or require further clarification concerning the underground tank removal process in Alameda County, please contact me at (415) 271-4320.

Sincerely,

Dennis J. Byrne

Dennis J. Byrne
Hazardous Materials Specialist

enclosure

cc: Rafat Shahid, Assistant Director, Alameda County Department of Environmental Health.
Howard Hatayama, DOHS.
Lester Feldman, SFBRWQCB

WATER RESOURCES CONTROL BOARD
DIVISION OF WATER QUALITY - UST CLEANUP PROGRAM
SITE SPECIFIC QUARTERLY REPORT
01/01/92 THROUGH 03/31/92

AGENCY # : 10000 SOURCE OF FUNDS: F SUBSTANCE: 8006619
StID : 3809
SITE NAME: Oakland Bus Terminal DATE REPORTED : 06/08/89
ADDRESS : 2103 San Pablo Ave. DATE CONFIRMED:
CITY/ZIP : Oakland 94608 MULTIPLE RPs : N

SITE STATUS

CASE TYPE: G	CONTRACT STATUS: 3	EMERGENCY RESP:
RP SEARCH: S		DATE COMPLETED: 03/20/92
PRELIMINARY ASMNT: U	DATE UNDERWAY: 11/11/91	DATE COMPLETED:
REM INVESTIGATION:	DATE UNDERWAY:	DATE COMPLETED:
REMEDIAL ACTION:	DATE UNDERWAY:	DATE COMPLETED:
POST REMED ACT MON:	DATE UNDERWAY:	DATE COMPLETED:

ENFORCEMENT ACTION TYPE: 1 DATE ENFORCEMENT ACTION TAKEN: 03/20/92
LUFT FIELD MANUAL CONSID: 3,HSCAWG
CASE CLOSED: DATE CASE CLOSED:
DATE EXCAVATION STARTED : REMEDIAL ACTIONS TAKEN:

RESPONSIBLE PARTY INFORMATION

RP#1-CONTACT NAME:
COMPANY NAME: G L I Realty Co.
ADDRESS: 901 Main St. #2500
CITY/STATE: Dallas T X 75202

Mr. Thomas Portele
Greyhound Lines Inc.
Env. Dept.
802 Commerce St. 3rd Floor
Dallas TX 75202
(214) 698-4675

Fax (315) 451-9570
Ed Roberts