REPORT OF FINDINGS 92 APR 24 P 5:53

UNDERGROUND STORAGE TANK REMOVAL

BAY AREA WAREHOUSE

4001 HOLLIS STREET

EMERYVILLE, CALIFORNIA

PREPARED FOR:

Mr. Charles P. Wellnitz

8707 San Leandro Street

Oakland, CA 94608

PREPARED BY:

THE ENVIRONMENTAL CONSTRUCTION COMPANY

775 Montague Expressway

Milpitas, CA 95035

DECEMBER 1991

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EXECUTIVE SUMMARY

On November 20, 1991, TECC removed one underground, 2000-gallon, steel, single-walled, tar-coated, leaded gasoline storage tank from the subject property located at 4001 Hollis Street, Emeryville, California. The tank pit excavation was approximately 14 feet long by 11 feet wide, with the base of the tank resting at a depth of six feet below surface grade. The material encountered in the pit predominantly was a dark-brown, medium-grained, well-sorted sand, which apparently was used as backfill during the initial tank installation. The native soils encountered along the walls of the pit typically were brownish-black clays and medium-brown sandy gravels. Slight product odor was noted in the excavated soils. Groundwater was encountered during the removal process, at a depth of approximately six feet. Visual inspection of the removed tank indicated no signs of rupture, puncture, cracking, or leakage.

Soil and water samples were collected and sent to a State-certified analytical laboratory. One water sample (L-1) and two soil samples (E-1 and W-1) were taken inside the excavation pit; one soil sample (PL-1) was taken from the approximate former location of the dispenser; and four soil samples (SP-1, SP-2, SP-3, SP-4) were taken from the soil stockpile, which were subsequently composited by the analytical lab into one stockpile sample (SP-1,2,3,4*). All samples were analyzed for TPHg, BTEX, and Total Lead.

Analytical results indicate that water sample L-1 contained TPHg at a concentration of 8800 ppb. BTEX constituents were detected at concentrations of 240 ppb for Benzene, 360 ppb for Toluene, 170 ppb for Ethylbenzene, and 750 ppb for Total Xylenes.

Soil sample E-1 contained Toluene, Total Xylenes, and Lead at concentrations of 13 ppb, 57 ppb, and 146 ppm, respectively. Soil sample W-1 contained TPHg, Ethylbenzene, Total Xylenes, and Lead at concentrations of 3.0 ppm, 52 ppb, 43 ppb, and 18.6 ppm, respectively. Soil sample PL-1 contained Lead at a concentration of 9.09 ppm. Composited sample SP-1,2,3,4* contained TPHg, Toluene, Ethylbenzene, Total Xylenes, and ~~Lead~~ at concentrations of 1.6 ppm, 28 ppb, 19 ppb, 250 ppb, and 41.6 ppm, respectively.

By request of the Alameda County Health Agency, a subsequent Waste Extraction Test was performed on the two soil samples with highest lead concentrations; samples ~~E-1 and~~ SP-1,2,3,4* generated lead extraction concentrations of 21.7 ppm and 2.73 ppm, respectively.

Based on the above findings, TECC recommends that soils be excavated until non-contaminated soils are encountered. Disposal and/or remediation of the excavated soils will be necessary. Groundwater occurring in the excavated pit should be pumped out in an attempt to reduce contaminant concentrations to acceptable levels. The RWQCB and/or the Alameda County Health Agency may require that at least one groundwater monitoring well be installed and periodically sampled.

RISK

The site represents a high risk to the environment because of the following conditions:

Soil Contamination

- Lead was detected in the soil samples at concentrations ranging from 9.09 ppm (parts per million) to 146 ppm.
    - A Waste Extraction Test (WET) for lead was subsequently conducted on the two samples with highest lead concentrations, at the request of the Alameda County Health Agency. Concentrations of 21.7 ppm and 2.73 ppm were detected.
    - The Soluble Threshold Limit Concentration (STLC) of lead, as defined by Title 22 of the California Code of Regulations, is 5.0 ppm. Soils determined by WET analysis to exceed the contaminant STLC level are classified as hazardous waste.
- TPHg was detected at concentrations ranging from 1.6 ppm to 3.0 ppm.
- Toluene was detected at concentrations ranging from 13 ppb (parts per billion) to 28 ppb.
- Ethylbenzene was detected at concentrations ranging from 19 ppb to 52 ppb.
- Xylenes were detected in the soil samples at concentrations ranging from 43 ppb to 250 ppb.

STLC levels for TPHg, Toluene, Ethylbenzene, and Xylenes have not been defined by the State of California.

Water Contamination

- TPHg was detected ~~in the~~ groundwater sample at a concentration of 8800 ppb.
- Benzene was detected at a concentration of 240 ppb.
    - The Action Level (AL) for Benzene contamination, as established by the California Department of Health Services (DOHS), is 0.7 ppb.
- Toluene was detected at a concentration of 360 ppb.
    - The AL for Toluene is 100 ppb.

- Ethylbenzene was detected at a concentration of 170 ppb.
- Xylenes were detected at a concentration of 750 ppb.

The reported concentrations of Ethylbenzene and Xylenes are below the respective AL and/or Maximum Contaminant Level (MCL, as defined by Title 22 of the California Code of Regulations); an AL or MCL has not been established for TPH.

SITE BACKGROUND/TANK HISTORY

The subject site is an open area that currently is devoid of buildings or other structures. The site, located at 4001 Hollis Street, Emeryville, California, is shown in Figure 1, Site Location Map. The site is bound to the north by predominately-unoccupied buildings, to the east by a building company (Bashland Builders), to the south by a truck trailer storage yard, and to the west by a fence-enclosed area that contains concrete debris. A general layout of the site is given in Figure 2, Site Characterization Map.

The installation date of the tank apparently is unknown; the date the tank was last used also is unknown. Approximately 10 gallons of fuel was pumped from the tank before removal. Prior to removal, the tank was estimated to be a 2000-gallon capacity, steel, single-walled underground storage tank; upon removal, this was confirmed. Sand apparently was used as back-fill material during the initial tank installation.

PREPARATION FOR TANK REMOVAL

Prior to excavation of the soils above the underground storage tank, approximately ten gallons of product was pumped from the tank by H&H Environmental Services and properly manifested, transported, and disposed of. A copy of the hazardous waste manifest is included in Appendix B. **TECC** personnel removed the surficial asphalt pad, and soils were then excavated from above and along the sides of the tank in preparation for removal.

The material encountered in the tank pit was a dark-brown, medium-grained, well-sorted sand apparently used as back-fill material during the initial tank installation. Native sediments that occurred along the walls of the tank pit consisted of brownish-black, moderately-plastic clay from surface grade to four feet below surface grade (bsg), and medium-brown, poorly-sorted sandy gravel from four feet bsg to six feet bsg.

The top of the tank was encountered at a depth of approximately one foot bsg. The tank pit was enlarged to approximately 14 feet long by 11 feet wide, with the base of the tank resting at approximately six feet bsg. Approximately 30 cubic yards of soil were excavated

from the tank pit. A slight product odor was noted in the excavated soils. Groundwater was encountered in the tank pit at a depth of approximately six feet.

TANK AND PRODUCT LINE REMOVAL

On November 20, 1991, TECC personnel exposed the top and walls of the underground storage tank in preparation for its removal. Inspector George Warren of the Emeryville Fire Department and Hazardous Materials Specialist Susan Hugo of the Alameda County Health Agency were on site to witness the removal of the tank and to supervise the collection of soil samples.

Before the tank was removed, dry ice (CO_2) was inserted into the tank in order to inert any residual volatiles remaining in the tank. After the tank was allowed to devolatilize for a sufficient amount of time, a probe attached to a GasTech Model 1314 Explosimeter was placed inside the tank to measure the lower explosive limit (LEL) and oxygen level (OL). According to safety guidelines, both the LEL and the OL must be below fifteen percent (15%) in order for the tank to be safely removed and transported. Readings below this level were measured; consequently the tank was prepared for removal. The tank was removed by attaching a heavy-duty steel chain to the pick points on the tank and attaching this assembly to the bucket of the back-hoe. The back-hoe then lifted the tank from the pit and placed it in a staging area for inspection.

Visual inspection of the tank did not indicate any signs of rupture, puncture, cracking, or leakage. A minor amount of rust scaling and some pits were noted, but no through-going holes were detected. The product line also appeared to be intact, exhibiting only a minor amount of rust scaling.

After visual inspection of the tank was completed, the tank and approximately 20 feet of product line were loaded onto an H&H Ship Service transport truck (EPA #CAD004771168) and taken to the H&H recycling facility located at 220 China Basin Street, San Francisco, California. Here they were steam-cleaned, rendered harmless, and dismantled. The tank was ultimately disposed of as scrap metal at Schnitzer Steel, Oakland, California. Copies of the Hazardous Waste Manifest and Certificate of Disposal are included in Appendix B.

GROUNDWATER AND SOIL SAMPLING PROTOCOL

On November 20, 1991, under the supervision of Inspector George Warren and Hazardous Materials Specialist Susan Hugo, TECC personnel collected one water sample and two soil samples from inside the excavation pit, one soil sample from the approximate

former location of the product line/dispenser, and four soil samples from the excavated soil stockpile. The locations from where these samples were collected are indicated in Figure 3, Sampling Location Map.

Collection of the water sample (L-1) was accomplished by lowering a clean, transparent, PVC, water bailer into the pool of exposed groundwater and allowing the bailer to fill. The bailer then was extracted, and the water contained within the bailer was slowly poured into two 1-liter capacity sample bottles. This procedure was repeated until each bottle was full. After the bottles were filled, they were capped with teflon-lined screw caps and inverted to check for the presence of air bubbles. The containers were then properly labeled; the label information included the date, identification number, project name and number, and analyses requested. The sample was submitted to a State-certified analytical laboratory. A copy of the Chain of Custody form is included in Appendix C.

Soil samples E-1 and W-1 were collected from native soil within the excavation pit. Sample E-1 was taken from the east wall of the pit, approximately 4-1/2 feet bsg. Sample W-1 was collected from the floor of the pit, at the soil/water interface near the western end of the pit.

The "grab sample" method was used to collect both soil samples. With this technique, a clean 2-inch outside diameter, 4-inch or 6-inch long brass sampling tube was hand-driven into the excavated soils in the bucket of the back-hoe; care was taken in recovering the sample at locations away from the walls of the bucket in order to reduce the possibility of contamination from the bucket. Upon recovery of each soil sample, the ends of the brass tube were sealed with aluminum foil, capped with plastic end caps, secured with aluminized tape, and properly labeled. The label information included the date, identification number, project name and number, and analyses requested. Under proper Chain of Custody procedures, the samples were placed on ice inside a thermally-insulated cooler for subsequent transport to a State-certified analytical laboratory. A copy of the Chain of Custody form is included in Appendix C.

Soil sample PL-1 was taken from native soil approximately 12 inches below the approximate former location of the product line/dispenser. The four stockpile samples (SP-1, SP-2, SP-3, SP-4) were collected from the excavated soil stockpile, at random locations and depths sufficient to ensure accurate representation. Sample PL-1 and the stockpile samples were collected by hand-driving a clean 2-inch outside diameter, 4-inch or 6-inch long, brass sampling tube into the soils. The samples were then handled as described above. The four stockpile samples were composited at the laboratory into one composite sample (SP-1,2,3,4*).

All samples were submitted to Chromalab, Inc., of San Ramon, California (State-certification #238 and #655). The water and soil samples were analyzed for the following parameters: Total Petroleum Hydrocarbons as gasoline (TPHg) using EPA Method 5030/8015; Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) using EPA Method 602 for water and EPA Method 8020 for soils; and Total Lead using EPA Method 6010.

ANALYTICAL RESULTS

The analytical results for the water sample and soil samples are presented in Table 1 (TPHg, BTEX, and Lead) and Table 2 (Waste Extraction Test for Lead). Included in these tables are the detection limits for each of the parameters. A copy of the laboratory report is included in Appendix C.

Analytical results indicate that the water sample (L-1) contained 8800 parts per billion (ppb) of TPHg; each BTEX constituent was detected, with reported concentrations of 240 ppb of Benzene, 360 ppb of Toluene, 170 ppb of Ethylbenzene, and 750 ppb of Total Xylenes.

Soil sample E-1 contained 13 parts per million (ppm) of Toluene, 57 ppm of Total Xylenes, and 146 ppm of Total Lead.

Sample W-1 contained 3 ppm of TPHg, 52 ppm of Ethylbenzene, 43 ppm of Total Xylenes, and 18.6 ppm of Total Lead.

Analytical results indicate that sample PL-1 contained 9.09 ppm of Total Lead. TPHg and the BTEX constituents were not detected.

Composite sample SP-1,2,3,4 contained 1.6 ppm of TPHg, 28 ppm of Toluene, 19 ppm of Ethylbenzene, 250 ppm of Total Xylenes, and 41.6 ppm of Total Lead.

A subsequent Waste Extraction Test (WET) for lead was performed on sample E-1 and composite sample SP-1,2,3,4, by request of the Alameda County Health Agency. Sample E-1 released 21.7 ppm of lead, and composite sample SP-1,2,3,4 released 2.73 ppm.

SOIL SAMPLES

Sample Number	TPHg (ppm)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Xylenes (ppb)	Total Lead (ppm)
E-1	N.D.	N.D.	13	N.D.	57	146
W-1	3.0	N.D.	N.D.	52	43	18.6
PL-1	N.D.	N.D.	N.D.	N.D.	N.D.	9.09
SP-1,2,3,4	1.6	N.D.	28	19	250	41.6
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0	2.5
METHOD OF ANALYSIS	5030/ 8015	8020	8020	8020	8020	6010

WATER SAMPLE

Sample Number	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Xylenes (ppb)	Total Lead (ppm)
L-1	8800	240	360	170	750	N.D.
DETECTION LIMIT	50	0.5	0.5	0.5	0.5	0.05
METHOD OF ANALYSIS	5030/ 8015	602	602	602	602	6010

N.D. = Not Detected
ppm = parts per million (mg/l or mg/kg equivalent)
ppb = parts per billion (ug/l or ug/kg equivalent)

Table 1: Analytical Results (TPHg, BTEX, and Total Lead)

Sample Number	WET Lead (ppm)
E-1	21.7
SP-1,2,3,4 (Composite)	2.73
DETECTION LIMIT	0.05
METHOD OF ANALYSIS	7420

ppm = parts per million (mg/l or mg/kg equivalent)

Table 2: Analytical Results (Waste Extraction Test)

FINDINGS AND RECOMMENDATIONS

The results and findings of the underground storage tank removal program may be summarized as follows:

Findings

- Dark-brown, medium-grained, well-sorted sand was used as back-fill material after the tank was installed.
- Subsurface native soils typically were brownish-black, moderately-plastic clays and medium-brown, poorly-sorted sandy gravels.
- A slight product odor was noted in the excavated soils.
- Visual inspection of the removed tank did not indicate any signs of rupture, puncture, or cracking.
- Groundwater was encountered in the tank pit at a depth of approximately six feet.

Laboratory results indicate the following concentrations of petroleum hydrocarbons were present in the samples:

Water Sample:

- TPHg was present at a concentration of 8800 ppb.
- Benzene was present at a concentration of 240 ppb.
- Toluene was present at a concentration of 360 ppb.
- Ethylbenzene was present at a concentration of 170 ppb.
- Xylenes were present at a concentration of 750 ppb.

Soil Samples:

- TPHg was present at concentrations ranging from non-detect to 3 ppm.
- Toluene was present at concentrations ranging from non-detect to 28 ppm.
- Ethylbenzene was present at concentrations ranging from non-detect to 52 ppm.
- Xylenes were present at concentrations ranging from non-detect to 250 ppm.
- Lead was present at concentrations ranging from 9.09 ppm to 146 ppm.
    - Subsequent WET analysis of samples E-1 and SP-1,2,3,4 detected lead concentrations of 21.7 ppm and 2.73 ppm, respectively.

Discussion

The California Department of Health Services has established a concentration of 0.7 ppb as the Action Level for Benzene contamination of water, and the Action Level for Toluene contamination is 100 ppb. Additionally, soils determined by a Waste Extraction Test to equal or exceed the established STLC value for lead (5.0 ppm) are classified as hazardous waste.

Recommendations

Based on the above information, the following actions may be considered:

Action 1 - Determination of the Extent and Magnitude of Soil Contamination

The objective of this action is to define the lateral and vertical extent of soil contamination. We recommend the following steps to address this issue:

- The installation of soil borings around the perimeter of the tank pit. These exploratory borings should extend to a depth directly above the saturated zone.
- The collection of soil samples in each boring, and analysis of each sample for TPHg, BTEX, and Lead.

Action 2 - Immediate Source Removal

The objective of this action is to remove contaminated soils, from the vicinity of the former location of the underground storage tank, to the maximum extent possible in order to prevent leaching of contaminants into groundwater and to prevent further migration into areas of clean soil.

- Soils should be excavated to a depth of approximately eight feet, which is approximately two feet below the occurrence of groundwater, in an effort to remove saturated soils that may have petroleum hydrocarbons adsorbed onto the soil grains.

Action 3 - Definition of the Extent of Groundwater Contamination

The objective of this action is determine the extent of groundwater contamination. We recommend the following steps to address this issue:

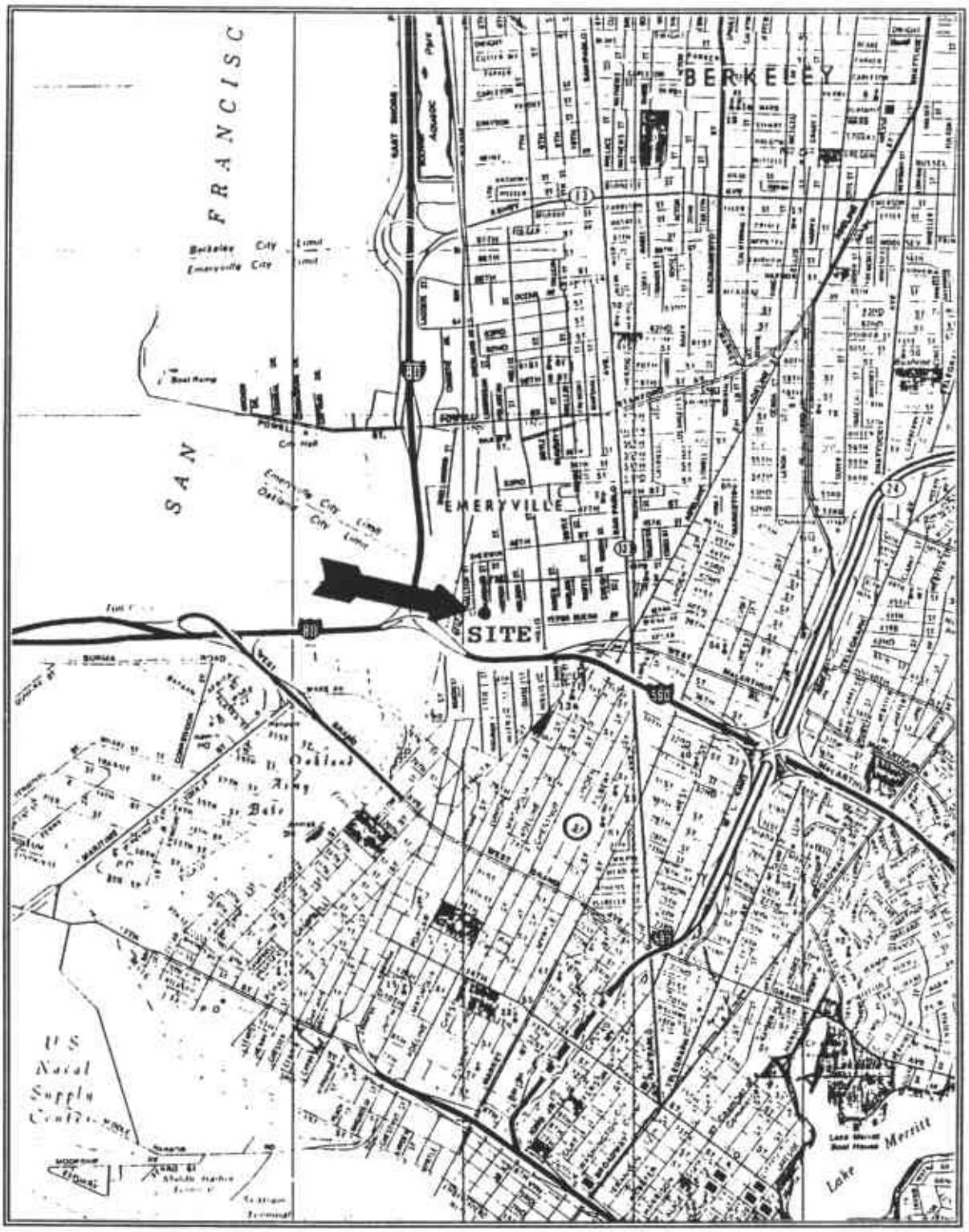
- The installation of at least one groundwater monitoring well in the vicinity of the tank pit.
- The collection of groundwater samples from this well.
- The analysis of the groundwater samples for TPHg, BTEX,. and Lead.
- The Alameda County Water District and the Regional Water Quality Control Board can and may require that additional monitoring wells be installed as part of the initial work.

Because of the concentrations of Lead in the soil, and the high groundwater level, **TECC** recommends that the most appropriate action would be soil excavation until non-contaminated soils are encountered. Groundwater occurring above the floor of the excavation pit should be extracted in an attempt to reduce groundwater contaminant concentrations to acceptable levels. If subsequent analysis of groundwater samples indicates that contaminant concentrations remain high, development of a groundwater remediation plan may be necessary.

Upon completion of this phase, it is recommended that a groundwater monitoring well be installed within the back-filled pit or directly down-gradient from the pit. Regulatory agencies may require the installation of additional monitoring wells.

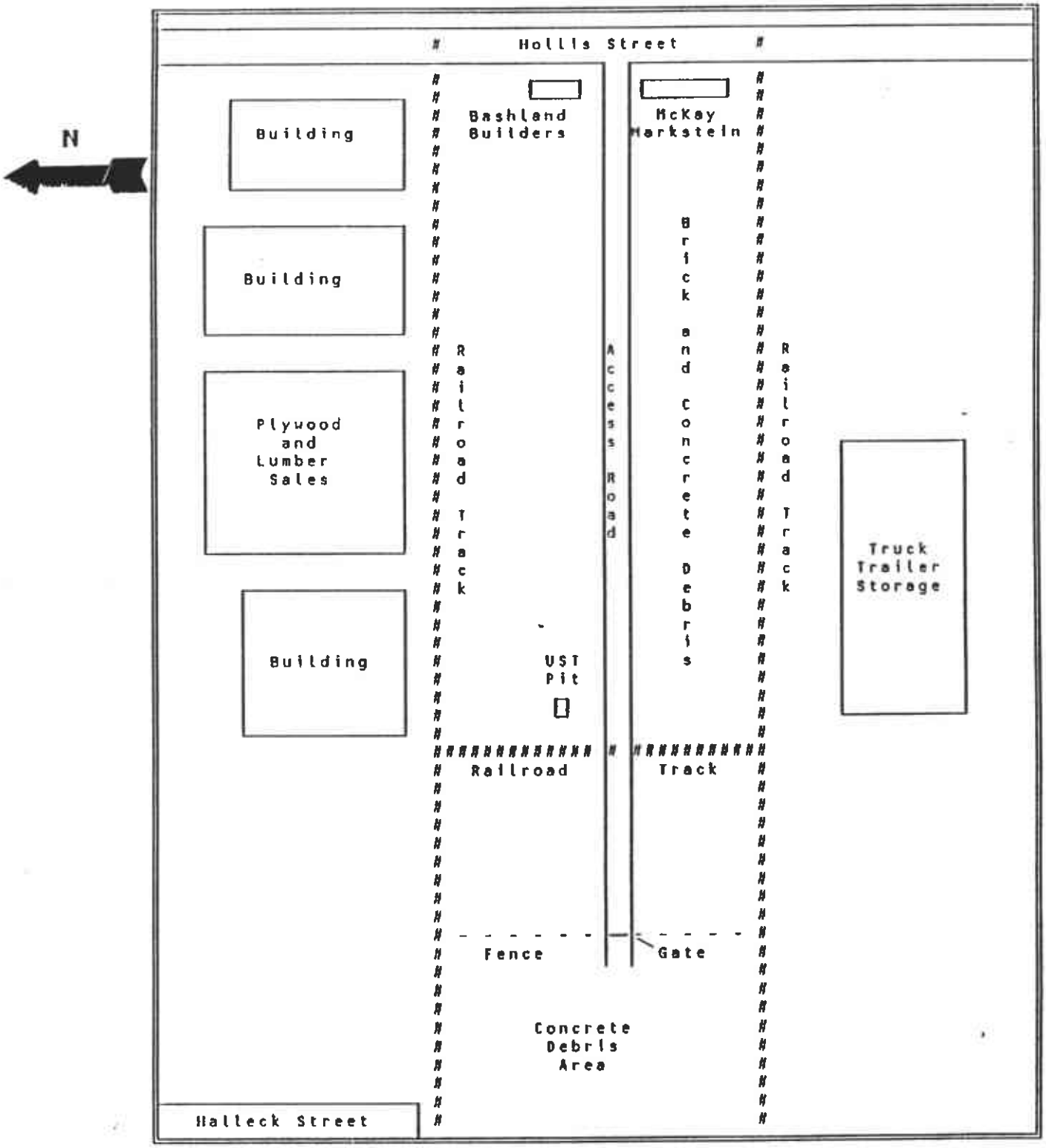
LIMITATIONS

The conclusions and professional guidelines presented herein were developed in accordance with generally accepted practice for addressing fuel leaks from underground storage tanks as outlined in the guidelines from the Alameda County Water District and the Regional Water Quality Control Board. Because the analytical results are based on data collected from the sampling locations only, TECC cannot have full knowledge of the underlying conditions at the site. Conditions at the project site may change with time due to the works of man and/or acts of nature. Accordingly, the findings of this report may be subject to change in light of new information.



Scale: 1 inch = 3025 feet

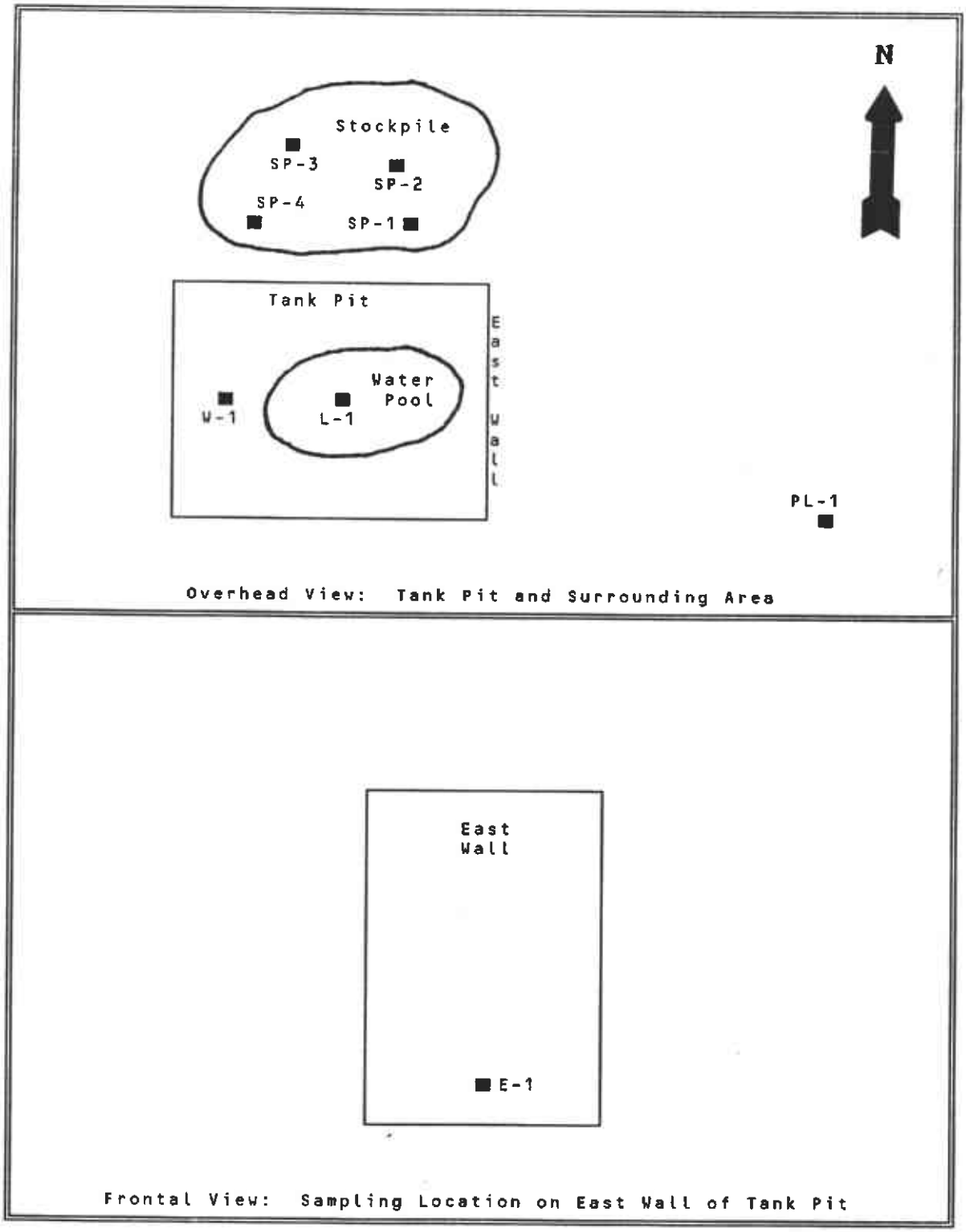
Figure 1: SITE LOCATION MAP



Scale: 1 inch = Approximately 150 feet

Figure 2: SITE CHARACTERIZATION MAP

All Dimensions and Locations are Approximate



Scale: 1 inch = Approximately 7 feet

Figure 3: SAMPLING LOCATION MAP

APPENDIX A

TANK REMOVAL PERMITS

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

NOV 14 RECD

CITY OF EMERYVILLE

FIRE CODE PERMIT

№ 1156

PERMISSION IS HEREBY GRANTED Environmental Construction Co.

TO ~~OPERATE~~ ~~MAINTAIN~~ ~~USE~~ Remove one (1) UG tank

ON PREMISES LOCATED AT 4001 Hollis Street (Bay Area Warehouse)

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

ADDITION REQUIREMENTS -EFD requires minimum 24-hr notice prior to removal; County and/or EFD rep.must be present

ENG. CO. DISTRICT # 2 EXPIRATION DATE: 12/15/91

THIS PERMIT MUST BE POSTED WITH BUSINESS LICENSE

PERMIT APPROVED BY

George A Warren 11-12-91

~~FIRE MARSHAL~~ Inspector DATE

CITY OF OAKLAND
FIRE MARSHAL'S OFFICE
ROOM 201, CITY HALL
OAKLAND, CALIFORNIA 94612
273-3851

Copies to_____

Date Issued_____

APPLICATION for PERMIT to INSTALL, REMOVE or REPAIR TANKS

IN THE CITY OF OAKLAND

Date SEPT. 25, 1991

Application is hereby made for permit to ~~install~~ remove ~~repair~~ gasoline fuel oil tank and excavate, commencing four feet inside the curb line inside the property line

on the WEST side of HOLLIS St. ~~Ave.~~ _____ feet _____ of _____ St. Ave.

House No. and Street 4001 HOLLIS ~~Avenue~~ Present storage _____

Owner BAY AREA WAREHOUSE Address 8707 SAN LEANDRO ST Phone 415-568-1300

Applicant APPLIED ENVIRO. SOLUTIONS INC. Address 775 MONTAGUE EXP. Phone (408) 957-7700

Remarks _____

Sidewalk surface to be disturbed _____ X _____ Number of Tanks 1 Capacity 2000 Gallons each

Signature _____

APPENDIX B

HAZARDOUS WASTE MANIFEST/CERTIFICATE OF DISPOSAL

State of California—Health and W

See instructions on back of page 6.

Department of Health Services
Toxic Substances Control Program
8196 Sacramento, California

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

UNIFORM HAZARDOUS WASTE MANIFEST

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

3. Generator's Name and Mailing Address
BAY AREA WAREHOUSE
8707 San Leandro Avenue, Oakland, CA. 94608

A. State Manifest Document Number: 91507391

4. Generator's Phone (510) 568-1300

B. State Generator's ID:

5. Transporter 1 Company Name: H & H Ship Service Company
6. US EPA ID Number: CA D 0 0 4 7 7 1 1 1 6 8
C. State Transporter's ID: 200505
D. Transporter's Phone: (415) 543-4835

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

9. Designated Facility Name and Site Address
H & H Ship Service Company
220 China Basin Street
San Francisco, CA 94107
10. US EPA ID Number: CA D 0 0 4 7 7 1 1 1 6 8
G. State Facility's ID: CA D 0 0 4 7 7 1 1 1 6 8
H. Facility's Phone: (415) 543-4835

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. OIL AND WATER NON-RCRA HAZARDOUS WASTE LIQUID	0 0 1	T T	0 0 0 1 0	G	State 134,241 EPA/Other
b.					State EPA/Other
c.					State EPA/Other
d.					State EPA/Other

J. Additional Descriptions for Materials Listed Above
FUEL, OIL AND WATER
PROFILE #A1406

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

15. Special Handling Instructions and Additional Information
JOB #9670
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR
JOB SITE: BAY AREA WAREHOUSE
4001 Hollis Street
Emeryville, California

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

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

Printed/Typed Name	Signature	Month	Day	Year
For Bay Area Ron LeGrue Warehouse		1 1	2 0	9 1

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
ESTEBAN M. PENALVER		1 1	2 0	9 1

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name	Signature	Month	Day	Year
Richard Shaffer		1 1	2 0	9 1

DO NOT WRITE BELOW THIS LINE.

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

91507391

DHS 8022A (12/90)
EPA 8700—22

State of California—Health and Welfare Agency

See instructions on back of page 6.

Department of Health Services
Toxic Substances Control Program
Sacramento, California

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

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD041771161 | Manifest Document No. 01 01 01 01 2 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law

3. Generator's Name and Mailing Address
BAY AREA WAREHOUSE
3707 San Leandro Avenue, Oakland, CA. 94608
4. Generator's Phone (510) 568-1300

A. State Manifest Document Number: 91507393
B. State Generator's ID:

5. Transporter 1 Company Name: H & H Ship Service Company
6. US EPA ID Number: CAD041771161
C. State Transporter's ID: 200554
D. Transporter's Phone: (415) 543-4835

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

9. Designated Facility Name and Site Address
H & H Ship Service Company
220 China Basin Street
San Francisco, CA 94107
10. US EPA ID Number: CAD041771163
G. State Facility's ID: CAD041771163
H. Facility's Phone: (415) 543-4835

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste Number
a. RESIDUE GASOLINE TANK NON-RCRA HAZARDOUS WASTE SOLID	001	TP	02000	P	State 512 / EPA/Other
b.					State / EPA/Other
c.					State / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
EMPTY 2,000 gallon tank last containing gasoline.
Tank inerted with dry ice for transport.
PROFILE #A1405

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

15. Special Handling Instructions and Additional Information
JOB #9668
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR
JOB SITE: BAY AREA WAREHOUSE
4001 Hollis Street
Emeryville, California

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

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

Printed/Typed Name	Signature	Month	Day	Year
Ron LeDoux For BAY AREA WAREHOUSE		11	20	91

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
SAMUEL GLYNN FORD	x Samuel Glynn Ford	11	20	91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

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

Printed/Typed Name	Signature	Month	Day	Year
Crawford Water		11	20	91

DO NOT WRITE BELOW THIS LINE.

GENERATOR
TRANSPORTER
FACILITY

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

91507393

DHS 8022A (12/90)
EPA 8700—22

ENVIRONMENTAL SERVICES
(DIVISION OF H&H SHIP SERVICE CO., INC.)

220 CHINA BASIN, SAN FRANCISCO, CA 94107 • DAY AND NIGHT: (415) 543-4835 FAX (415) 543-8265

CERTIFICATE OF DISPOSAL

NOVEMBER 25, 1991

H & H Ship Service Company hereby certifies to THE ENVIRONMENTAL CONSTRUCTION that:

1. The storage tank(s), size(s) ONE (1) 2,000 GALS.

   removed from the BAY AREA WAREHOUSE

   facility at 4001 HOLLIS STREET
   EMERYVILLE, CALIFORNIA

   were transported to H & H Ship Service Company, 220 China Basin St., San Francisco, California 94107.

2. The following tank(s), H & H Job Number 9668

   have been steamed cleaned, cut with approximately 2' X 2' holes, rendered harmless and disposed of as scrap metal.

3. Disposal site: SCHNITZER STEEL, OAKLAND, CALIFORNIA.

4. The foregoing method of destruction/disposal is suitable for the materials involved, and fully complies with all applicable regulatory and permit requirements.

5. Should you require further information, please call (415) 543-4835.

Very Truly Yours,

Cleveland Vairey
Operations Coordinator

APPENDIX C

LABORATORY REPORT/CHAIN OF CUSTODY

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

November 27, 1991 ChromaLab File No.: 1191215

APPLIED ENVIRONMENTAL SOLUTIONS, INC.

Attn: Ron LeGue

RE: One water sample and four soil samples for Gasoline/BTEX analysis

Project Name: BAY AREA WAREHOUSE
Project Number: 326
Date Sampled: Nov. 20, 1991 Date Submitted: Nov. 20, 1991
Date Extracted: Nov. 26, 1991 Date Analyzed: Nov. 26, 1991

RESULTS:

Sample I.D.	Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl Benzene (µg/L)	Total Xylenes (µg/L)
L-1	8800	240	360	170	750.
DETECTION LIMIT	50	0.5	0.5	0.5	0.5
METHOD OF ANALYSIS	5030/8015	602	602	602	602

Sample I.D.	Gasoline (mg/kg)	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl Benzene (µg/kg)	Total Xylenes (µg/kg)
E-1	N.D.	N.D.	13	N.D.	57
PL-1	N.D.	N.D.	N.D.	N.D.	N.D.
SP-1,2,3,4*	1.6	N.D.	28	19	250
W-1	3.0	N.D.	N.D.	52	43
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	98.0%	103.4%	106.4%	108.9%	107.9%
DUP. SPIKE RECOVERY	93.8%	85.7%	93.9%	100.8%	106.6%
DETECTION LIMIT	1.0	5.0	5.0	5.0	5.0
METHOD OF ANALYSIS	5030/8015	8020	8020	8020	8020

*Composited soil sample.

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam
Laboratory Director

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

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

December 2, 1991 ChromaLab File No.: 1191215

APPLIED ENVIRONMENTAL SOLUTIONS

Attn: Ron LeGue

RE: One water and four soil samples for Lead analysis

Project Name: BAY AREA WAREHOUSE
Project Number: 326
Date Sampled: Nov. 20,1991 Date Submitted: Nov.20, 1991
Date Extracted: Nov. 27, 1991 Date Analyzed: Nov. 27, 1991

RESULTS:

Sample I.D.	Lead (mg/l)
L-1	N.D.
DETECTION LIMIT	0.05

Sample I.D.	Lead (mg/kg)
E-1	146
W-1	18.6
PL-1	9.09
SP (1,2,3,4)Comp	41.6
BLANK	N.D.
SPIKE RECOVERY	74
DUPLICATE SPIKE RECOVERY	61
DETECTION LIMIT	2.5
METHOD OF ANALYSIS	6010

ChromaLab, Inc.

Refaat A. Mankarious
Inorganics Supervisor

Eric Tam
Laboratory Director

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

CHROMALAB, INC.

Analytical Laboratory (E694)

5 DAYS TURNAROUND

December 13, 1991 ChromaLab File No.: 1191215

APPLIED ENVIRONMENTAL SOLUTIONS

Attn: Ron LeGue

RE: One samples for WET Lead analysis

Project Name: BAY AREA WAREHOUSE
Project Number: 326
Date Sampled: Nov. 20,1991 Date Submitted: Nov.20, 1991
Date Extracted: Dec. 11, 1991 Date Analyzed: Dec. 13, 1991

RESULTS:

Sample I.D.	WET Lead (mg/Kg)
E-1	21.7
SP-1,SP-2,SP-3, SP-4 (composite)	2.73
BLANK	N.D.
SPIKED RECOVERY	100%
DUPLICATE SPIKED RECOVERY	97%
DETECTION LIMIT	0.05
METHOD OF ANALYSIS	7420

ChromaLab, Inc.

Refaat A. Mankarious
Inorganics Supervisor

Eric Tam
Laboratory Director

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

APPLIED ENVIRONMENTAL SOLUTIONS, INC.
775 MONTAGUE EXPRESSWAY
MILPITAS, CA 95035 (408) 957-7700

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: RON LEGUE
Phone #:
FAX #: 408 ~~292-1490~~ 263-9709
Project Number: 326
Project Name: BAY AREA WAREHOUSE
Project Location: 1001 HOLLIS ST., EMERYVILLE
Sampler Signature:

Sample ID	Lab # (Lab use only)	# CONTAINERS	Volume/Amount	Matrix: WATER	SOIL	AIR	SLUDGE	OTHER	Method Preserved: HCl	H2SO4	ICE	HgCl2	OTHER	Sampling: DATE	TIME
L-1		2	40 ml	X								X		11/20	12:15
E-1		1			X						X			11/20	12:30
W-1		1			X						X			11/20	12:20
PL-1		1			X						X			11/20	12:40
SP-1	COMPOSITE	1			X						X			11/20	12:45
SP-2		1			X						X			11/20	12:55
SP-3		1			X						X			11/20	1:05
SP-4		1			X						X			11/20	1:15

ANALYSIS REQUEST

BTEX (602/8020)	BTEX/TPH as Gasoline (602/8020/5030-8015)	TPH as Diesel 3550-8015	TPH as Jetfuel (8015 or 8270)	Total Oil & Grease 5520 E & F, C I F	Total Oil & Grease (413.2)	Total Petroleum Hydrocarbons (418.1)	EPA 601/8010	EPA 602/8020	EPA 608/8080	EPA 608/8080-PCBs Only	EPA 624/8240	EPA 625/8270	CAM - 17 Metals	EPTOX - 8 Metals	EPA - Priority Pollutant Metals	LEAD(7420/7421/239.2)	ORGANIC LEAD
	X															X	
	X															X	
	X															X	
	X															X	
	X															X	
	X															X	
	X															X	
	X															X	

OTHER

SPECIAL HANDLING

PRIORITY ONE SERVICE (24 hr)	EXPEDITED SERVICE (2-4 days)	VERBALS/FAX	SPECIAL DETECTION LIMITS (SPECIFY)	SPECIAL REPORTING REQUIREMENTS

Relinquished by:	Date	Time	Received by:
	11/20	1:??	
Relinquished by	Date	Time	Received by:
Relinquished by	Date	Time	Received by Laboratory:

Have all the samples received for analysis been stored on ice ?
Will samples remain refrigerated until analyzed ?
Did any samples received have head space ?
(If so, estimate amount.
Were samples in appropriate containers and properly labeled?