



6/24/92

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ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

Letter of Transmittal

Date

From Jenifer Beatty
To Susan Hugo
80 Swan Way # 200
Oakland, California 94621

Project No. 1649.08
Subject _____

The following items are: Requested Enclosed Sent separately
via _____

| Description | No. of Copies |
|--------------------------------------------------------|---------------|
| <u>Tank Removal Report, Bushland Property</u> | <u>1</u> |
| <u>Letter concerning Bay Area Warehouse Excavation</u> | <u>1</u> |

These data are transmitted: At your request For your action
 For your approval For your files
 For your review For your information

Comments
I have enclosed one additional copy of the
Bushland tank removal report for your review.
I have additionally enclosed a copy of the
letter written by Mr. Don Marini of Catellus
Development Corporation concerning the Bay
Area Warehouse tank removal.
I look forward to talking to you when you
return from your vacation.

Jenifer Beatty
(Signed)

1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500
Fax (510) 652-2246



Tank Removal Report
Bashland Property
4015 Hollis Street, Emeryville, California

June 24, 1992
1649.08

Prepared for:

Catellus Development Corporation
201 Mission Street
San Francisco, California 94105



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June 24, 1992

LF 1649.08

Ms. Susan Hugo
Senior Hazardous Materials Specialist
Division of Hazardous Materials
Department of Environmental Health
Alameda County Health Care Services Agency
80 Swan Way, Room 350
Oakland, California 94621

Subject: Tank Removal Report, Bashland Property
4015 Hollis Street, Emeryville, California

Dear Ms. Hugo:

The enclosed report, which was prepared by Levine-Fricke on behalf of the Catellus Development Corporation, describes activities conducted to remove three underground fuel storage tanks from the Bashland Property in Emeryville, California. The report describes tank removal and disposal, excavation and backfilling, and soil sampling and disposal. Analytical results of the collected soil samples also are presented.


If you have any questions or comments, please call either of the undersigned or Amanda Spencer.

Sincerely,

Michael Stoll
Senior Staff Engineer

Enclosure

cc: Mr. Lester Feldman, RWQCB


Thomas M. Johnson, R.G.
Vice President and
Principal Hydrogeologist

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Emeryville, California 94608
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ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

June 24, 1992

LF 1649.08

Mr. Don Marini
Catellus Development Corporation
201 Mission Street, Suite 202
San Francisco, California 94105

Subject: Tank Removal Report, Bashland Property
4015 Hollis Street, Emeryville, California

Dear Mr. Marini:

The enclosed report describes activities conducted at the Bashland Property in Emeryville, California, to remove three underground fuel storage tanks, including tank removal and disposal, soil excavation, excavation backfilling, soil disposal, soil sampling, and laboratory analysis results.

We have submitted this report to the Regional Water Quality Control Board - San Francisco Bay Region and the Alameda County Health Care Services Agency.

If you have any questions or comments, please call either of the undersigned or Amanda Spencer.

Sincerely,

Michael Stoll
Senior Staff Engineer

Enclosure

Thomas M. Johnson, R.G.
Vice President and
Principal Hydrogeologist

cc: Mr. Peter Turner, Landels, Ripley & Diamond

1900 Powell Street, 12th Floor
Emeryville, California 94608
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June 24, 1992

LF 1649.08

**TANK REMOVAL REPORT
BASHLAND PROPERTY
4015 HOLLIS STREET, EMERYVILLE, CALIFORNIA**

1.0 INTRODUCTION

This report describes activities conducted to remove three underground storage tanks (USTs) from the Bashland Property, 4015 Hollis Street, Emeryville, California ("the Site"; Figures 1 and 2). The Site is adjacent to the ~~U.S. Buena~~ Project Site, which is owned by Catellus Development Corporation ("Catellus"). It is our understanding that the Site currently is under the management of the City of Emeryville and that Catellus is removing the tanks on the City's behalf. This report is submitted to the Alameda County Health Care Services Agency Department of Environmental Health (ACHA) and the Regional Water Quality Control Board - San Francisco Bay Region (RWCQB) by Levine·Fricke, Inc. ("Levine·Fricke") on behalf of Catellus.

Organization of this Report

Between ~~March 23 and May 7, 1992~~, one 5,000-gallon-capacity oil and two 12,000-gallon-capacity fuel USTs were removed from the Site under permits from the City of Emeryville (permit number B-4278-492), the Emeryville Fire Department (EFD), and the ACHA. Field procedures used during tank removal are described in Section 2.0. During the course of this work, soil samples were collected and analyzed, and results of these analyses are discussed in Section 3.0. Additionally, approximately 200 cubic yards of petroleum-affected tank backfill soil was excavated and subsequently stockpiled on another portion of the Site; these soils are discussed in Section 4.0. Section 5.0 evaluates the soil and grab groundwater chemical analysis results. Section 6.0 summarizes the tank removal effort and provides conclusions concerning current site conditions. Section 7.0 provides recommendations concerning future site work.

2.0 FIELD ACTIVITIES

Excavation, tank removal, and backfilling activities were performed by ~~Frapp Brothers, Inc.~~, of San Jose, California, on March 23 through May 7, 1992. Before the tanks were

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removed, permits were obtained for this work from the City of Emeryville, the EFD, and the ACHA. Copies of these permits are included in Appendix A. A Levine-Fricke field engineer was on site to observe tank removal and soil excavation activities and to collect soil and ground-water samples from the tank excavation.

Ms. Susan Hugo, Senior Hazardous Materials Specialist of the ACHA, Mr. Ron Owcarz, Hazardous Materials Specialist with the ACHA, and a representative of the EFD were on site to observe tank removal and soil sampling activities. The ACHA Hazardous Materials Inspection form is included in Appendix A.

2.1 Tank Stabilization and Tank Contents Disposal

The tanks were rendered inert by removing the fluid remaining in them and inserting dry ice to remove organic vapors and oxygen. Explosivity meter readings were taken from the three tanks. The tanks were removed on April 7, 1992 after Lower Explosivity Limit (LEL) meter readings were below 10 percent at least one hour after dry ice had been inserted.

Residual oil contained in the ~~1,200-gallon-capacity oil tank~~ was pumped into a vacuum truck by Evergreen Oil Recycling of Newark, California, and transported to its recycling facility on April 7, 1992. Because the oil is not hazardous waste, a manifest form was not required for its transportation. > ?

Residual fluids (a mixture of fuel and water) contained in the 12,000-gallon-capacity fuel tanks were pumped into a vacuum truck by H & H Ship Service Company (H & H) of San Francisco, California, and transported to its recycling facility on April 7, 1992. The manifest for transporting these residual fluids from the 12,000-gallon-capacity tanks is presented in Appendix A.

2.2 Tank Inspection and Field Observations

Visual observations of sediment types encountered and the possible presence of petroleum in soils in the excavation were made by a Levine-Fricke field engineer during tank removal activities.

The former tank locations and excavation boundary are shown on Figure 3. A 2.5-inch-thick asphalt surface covered the UST area, and a 6-inch-thick concrete pad covered the pump and the dispenser island areas. The tops of the tanks were approximately 4 feet below grade (bg). The tank diameters were 3.5 feet (1,200-gallon-capacity tank) and 8 feet

(12,000-gallon-capacity tanks). The bottom of the 1,200-gallon-capacity tank was at approximately 7.5 feet bg and the bottoms of the two 12,000-gallon-capacity tanks were at approximately 12 feet bg. The tanks were positioned end-to-end and separated by approximately 3 feet. Appurtenant piping attached to the tanks included fill pipes, vent pipes, and product pipes.

After the tanks had been emptied and removed, they were visually inspected. ~~The three tanks were constructed of tar-coated steel with welded seams.~~ The westernmost 12,000-gallon-capacity tank appeared in good condition with no evidence of leakage or holes. Later visual inspection at the H & H facility found there to be ~~one hole~~ (approximately 1/4-inch diameter) ~~in the top of the tank.~~ It could not be determined as to whether the hole was a result of corrosion or a result of damage during removal or transportation. The easternmost ~~12,000-gallon-capacity tank showed signs of corrosion, and several holes (up to approximately 3/8 inch in diameter) were observed at the time of removal.~~ The 1,200-gallon-capacity tank, which contained two compartments within the tank (one 400-gallon-capacity and one 800-gallon-capacity), was situated between the 12,000-gallon-capacity tanks. Holes (up to approximately 3/8 inch in diameter) and pitting were observed in both compartments of the 1,200-gallon capacity tank at the time of removal.

Native sediments surrounding the tank backfill materials consisted of tan to brown silty sandy clay. Visual inspection and organic vapor measurements of these soils, collected using a field photoionization detector (PID) after removal of the tanks, did not indicate the presence of petroleum hydrocarbons in native soils adjacent to the tank excavation.

~~Ground water~~ was encountered in the tank excavation at approximately 10 feet bg. The bottoms of the 12,000-gallon-capacity tanks were situated on native tan to ~~brown silty~~ sandy clay beneath the ground-water table.

2.3 Soil Excavation

Tank backfill soils were excavated using a Case 980B excavator. During excavation, soils were monitored using a field PID and through visual observation. Visual observations and field PID measurements indicated that excavated backfill materials (green to brown sand), formerly located beside and above the tanks, did not contain significant concentrations of volatile petroleum products. Visual observations of backfill material beneath the former 1,200-gallon-capacity tank

indicated the possible presence of product. As discussed in Section 3.1, soil samples were collected from beneath the 1,200-gallon-capacity tank, and chemical analysis results indicated the presence of ~~oil~~ in the soil at concentrations up to ~~1,500 parts per million (ppm)~~. Therefore, soil adjacent to and beneath the 1,200-gallon-capacity tank ~~was removed~~ ~~removal of soil from the tank on April 11, 1992~~.

2.4 Tank Disposal

The three tanks and appurtenant piping were transported under hazardous waste manifest by H & H to its receiving facility in San Francisco, California. Copies of the manifests and Certificates of Disposal are included in Appendix A.

2.5 Soil Sampling Locations

Soil samples were collected at selected locations approved by ACHA staff from the excavation sidewalls and bottom to assess the presence of residual petroleum hydrocarbon concentrations, if any. Soil sampling locations are illustrated on Figure 3. ~~Soil samples were not collected from the northern excavation wall due to the presence of a retaining wall and unstable sand backfill beneath this wall.~~ The excavation was not considered stable enough for entry to manually collect a sample and the contractor could not collect a soil sample using the excavator without damaging the retaining wall.

~~Two soil samples~~ were collected from backfill sediments beneath the former ends of the ~~1,200-gallon~~ capacity tank (B/C-4-W-8 and B/C-5-E-8). ~~Six soil samples~~ were collected ~~from native sediments along the excavation sidewalls~~ (AEW-1-W-9, AEW-2-S-9, AEW-3-S-9, DEW-6-W-9, DEW-7-S-9, and DEW-8-E-9). An additional soil sample was collected from ~~beneath the dispenser island~~.

2.6 Soil Sampling Procedures

Soil samples were collected from the ~~floor of the excavation~~ by driving a clean brass tube into the backfill material. Excavation sidewall soil samples of native soils were collected in clean brass tubes from the bucket of the excavator. The soil samples were labeled, capped with aluminum foil and plastic caps, and sealed with duct tape. Samples were stored in a chilled container and transported for analysis to Quanteq Laboratories in Pleasant Hill, California, a State-certified laboratory. Samples were transported under chain-of-custody protocol.

2.7 Ground-Water Sampling

As discussed in Section 2.2, ground water was encountered beneath the two larger tanks at the time of removal. The bottom of the excavation of the former 1,200-gallon-capacity tank was approximately 8 feet below (2 feet above the ground-water table) at the time of grab ground-water sampling on April 8, 1992. The soil beneath the former 1,200-gallon-capacity tank, which was excavated on April 27, 1992, acted to separate the ground water in the excavation into two ponded areas. Grab ground-water samples were collected from each of the two ponded areas. Before collecting the grab ground-water samples, ground water in the excavations was purged and allowed to recharge. The purged ground water was stored in a vacuum truck and transported by H & H to its recycling facility in San Francisco, California. A copy of the Hazardous Waste Manifest is included in Appendix A.

2.8 Excavation Backfilling

Chemical analysis results of soil samples collected from the excavation indicated low (2 ppm) non-detectable concentrations of diesel and negligible concentrations of oil and extracted aromatic compounds (chemical analysis results are discussed in more detail in Section 3.0).

Therefore, the tank excavation was backfilled on May 6 and 7, 1992 (after receiving approval from ACHA staff), using 3/4-inch drain rock and clean import fill material. Drain rock was placed in the bottom of the tank excavation to provide a stable base for compaction. Drain rock was placed to one foot above the ground-water table. A layer of geotextile fabric was placed over the compacted drain rock. Fill, consisting of a brown clayey sand, was imported from the Colma Quarry in Colma, California. This fill material was placed in 8-inch-thick uncompacted lifts and compacted using a steel sheepfooted compactor wheel attached to the excavator. A Levine-Fricke engineer was on site to observe backfilling operations and to test the degree of compaction attained in the field. The backfill was tested to meet 95 percent relative compaction using a nuclear density gauge. Laboratory compaction testing of the imported fill indicated 107.0 pounds per cubic foot maximum dry density with an optimum moisture content of 12.5 percent; results of the field density testing are presented in Table 1. Field density testing areas are shown in Figure 4.

3.0 CHEMICAL ANALYSIS RESULTS

3.1 Tank Excavation Soils

In accordance with the ACHA permit for the tank removal, soil samples collected from the tank excavation sidewalls or floor were analyzed for total petroleum hydrocarbons (TPH) using modified EPA Method 8010 for diesel (TPHD), oil (TPHO) and gasoline (TPHG), for purgeable aromatics (BTEX, toluene, ethylbenzene, and xylenes [BTEX]) using EPA Method 8020, and for total lead. Additionally, at the request of the ACHA, soil samples beneath the 1,200-gallon-capacity oil tank and the soil sample beneath the dispenser island also were analyzed for halogenated volatile organics using EPA Method 8010, oil and grease (O&G), and TPH using EPA Method 5520 and for semi-volatile organic compounds using EPA Method 8270 and cadmium, total chrome, zinc, and nickel. Chemical analysis results are summarized in Table 2, and copies of laboratory certificates are included in Appendix B.

Analysis results of excavation sidewall samples indicated the following:

- TPHG, TPHO, and BTEX were not detected above laboratory detection limits in the soil samples collected from the excavation sidewalls.
- TPHd was not detected above laboratory detection limits in four of six soil samples collected from the excavation sidewalls. TPHd was detected at a concentration of 2 milligrams per kilogram (mg/kg) in two of six soil samples collected from the excavation sidewalls.
- Total lead concentrations of the six soil samples collected from the excavation sidewalls were less than 100 ppm, which is well below California Environmental Protection Agency's (Cal-EPA) Total Threshold Limit Concentration (TTL) of 1,000 mg/kg for hazardous waste.

Analysis results of excavation floor samples (collected beneath the 1,200-gallon-capacity tank; Section 2.5) indicated the following:

- TPHd, TPHG, and BTEX were not detected above laboratory detection limits in the soil samples collected from the excavation floor.

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- TPHo was not detected above laboratory detection limits in one of two soil samples collected from the excavation floor. TPHo was detected at a concentration of 1,000 mg/kg in one excavation floor sample.
- O&G was detected at concentrations between 30 and 1,000 mg/kg in excavation floor samples.
- TPH was not detected above the laboratory detection limit in one excavation floor sample; TPH was detected at a concentration of 1,000 mg/kg in one excavation floor sample.
- Halogenated volatile organics were not detected above laboratory detection limits in the two excavation floor samples.
- Semivolatile organic compounds were not detected above the laboratory detection limits in the one excavation floor sample analyzed for these compounds.
- Cadmium, chromium, nickel, lead, and zinc concentrations of the two soil samples collected from the excavation floor were within expected background ranges and well below Cal-EPA TTLs of 100 mg/kg, 2,500 mg/kg, 2,000 mg/kg, 1,000 mg/kg and 5,000 mg/kg for these compounds, respectively, for hazardous waste.

3.2 Excavation Ground Water

Grab ground-water samples were analyzed for TPH using modified EPA Method 8015 to detect TPHd, TPHo, and TPHg, for volatile organics using EPA Method 8240, and for O&G and TPH using EPA Method 5520 C and F. Chemical analysis results are summarized in Table 3, and copies of the laboratory certificates are included in Appendix B.

Analysis results indicated the following:

- TPHg, O&G, and TPH were not detected above laboratory detection limits in either of the ground-water samples.
- TPHd was detected at low concentrations in both water samples (1.2 and 0.5 milligrams per liter [mg/L]).
- TPHo was not detected above laboratory detection limits in the grab ground-water sample collected from beneath the former location of the westernmost 12,000-gallon-capacity

tank; it was detected at a concentration of [REDACTED] in the grab ground-water sample collected from beneath [REDACTED] capacity tank.

- Low concentrations of cis-1,2-dichloroethane (1,2-DCE) (less than 0.005 mg/L) and trichloroethene (TCE) (less than [REDACTED]) were detected in both water samples.

3.3 Dispenser Island Area

One soil sample, P-1-1.5, collected at a depth of 1.5 feet by directly beneath the former dispenser island, did not contain TPHg, BTEX, halogenated volatile organics, or semivolatile organic compounds. The soil sample did contain low residual concentrations of [REDACTED] (70 mg/kg) and TPH (50 mg/kg). Concentrations of metals were below TTC criteria. Chemical analysis results are summarized in Table 2, and copies of laboratory certificates are included in Appendix B.

4.0 EXCAVATED SOIL STOCKPILE

The approximately [REDACTED] of excavated soil removed from the tank excavation were stockpiled on [REDACTED] sheeting. Stockpile soil samples were collected for characterization purposes. Stockpile soil samples were analyzed for TPH using modified EPA Method 8210 for TPHg, TPHv, and TPHo, and BTEX using EPA Method 8020. Four stockpile soil samples were collected in clean brass tubes, labeled, capped with aluminum foil and plastic caps, sealed with duct tape, and stored in a chilled container for transportation to Precision Analytical Laboratory of Richmond, California, a state-certified laboratory. Samples were transported under chain-of-custody protocol. Chemical analysis results of stockpile soil samples indicated the following:

- TPHo, benzene, and ethylbenzene were not present above the laboratory detection limits.
- [REDACTED] was not present above laboratory detection limits in three samples and was present at a concentration of [REDACTED] in one sample.
- [REDACTED] was not detected above laboratory detection limits in one sample and was present at concentrations up to [REDACTED] in three samples.
- [REDACTED] was present at concentrations up to [REDACTED] mg/kg.

• ~~_____~~ were present at concentrations up to ~~107 mg/kg~~

Chemical analysis results are summarized in Table 2. Copies of laboratory certificates are included in Appendix B.

The excavated soils currently are stockpiled on the Yerba Buena Project Site. Based on the results of the chemical analyses of the stockpiled soil samples, indicating low to nondetected concentrations ~~of _____~~ and ~~_____~~, it is proposed ~~that the soil be incorporated into the soil containment program at the Yerba Buena Project Site.~~

5.0 EVALUATION OF RESULTS

Chemical analysis results for soil samples collected from the excavation sidewalls indicated low (~~2 mg/kg~~) to nondetected concentrations of petroleum product or associated constituents. Therefore, the tank excavation was backfilled upon the approval of the ACHA. Ground water was encountered at approximately ~~10 feet~~ during excavation activities. Analysis of grab ground-water samples collected from beneath the 12,000-gallon-capacity tanks detected low concentrations of ~~_____ and _____ (less than 0.5 mg/L)~~. The chlorinated solvents ~~1,2-DCE and TCE were detected at low concentrations (less than 0.05 mg/L and 0.02 mg/L, respectively) in both grab ground-water samples.~~ Chlorinated solvents were not detected above laboratory detection limits in three soil samples analyzed for these compounds. It should be noted that ~~_____~~ was detected in ground-water samples from well ~~_____~~ formerly located approximately ~~_____~~ from the tanks at the Site, in February 1990 during a one-time sampling of that well (Levine·Fricke 1990). (The well was abandoned in ~~1988~~ so that soil excavation could proceed in that area [Levine·Fricke 1991]). Additionally, chlorinated solvents were not detected in ~~_____~~ soil samples collected from the well bore for well LF-9. Because neither TCE nor 1,2-DCE were detected in soil samples from the tank excavation or the well boring for LF-9, and TCE was detected in ground water upgradient from the tank excavation at the ~~_____~~ site.

6.0 SUMMARY AND CONCLUSIONS

Three USTs were removed and disposed by a licensed hazardous waste transportation company under a hazardous waste manifest. Inspection of the tanks after removal indicated that two of

the tanks showed signs of corrosion (pitting and holes up to 3/8 inch in diameter), and one tank had a hole (approximately 1/4 inch in diameter) of unknown origin. Approximately 200 cubic yards of petroleum-affected soil were removed from the tank excavation.

Soil samples collected from the final excavation sidewalls indicated trace (2 mg/kg) to nondetectable concentrations of diesel and nondetectable concentrations of oil, gasoline, and BTEX. Grab ground-water samples collected from the bottom of the excavation indicated the presence of low concentrations of ~~petroleum hydrocarbons less than 0.5 mg/L~~ TCE (less than 0.023 mg/L), and 1,2-DCE (less than 0.001 mg/L). TCE and 1,2-DCE were not detected in soil samples from the excavation and the TCE and 1,2-DCE detected in ground water ~~apparently~~ ~~is from an~~ ~~unknown, off-site source.~~ The excavation was backfilled with ACHA approval on May 6 and 7, 1992, and compacted to 95 percent relative compaction.

7.0 RECOMMENDATIONS

To evaluate the possible presence of petroleum in the vicinity of the retaining wall, it is recommended that soil samples be collected from beneath the retaining wall, along the northern edge of the tank excavation/property line, when the wall is removed from the Site during proposed site development. Additionally, as discussed in this report, holes were observed in at least two of the three tanks removed and grab ground-water samples collected from the bottom of the excavation indicated low concentrations of petroleum hydrocarbons (less than 0.5 mg/L). Therefore, based on the RWQCB's "Recommendations for Initial Evaluation and Investigation of Underground Tanks" (Tri-Regional Guidelines), dated June 2, 1988, it also is recommended that ground water in the vicinity of the excavation be investigated further, by installing and sampling one shallow ground-water monitoring well downgradient from the former tanks, to evaluate whether petroleum hydrocarbons are present in the ground water.

REFERENCES

Levine·Fricke, Inc. 1990. Phase I and II environmental investigation, Yerba Buena Project Site, Emeryville, California. October 26.

———. 1991. Report on soil remediation activities, Yerba Buena Project Site, Emeryville and Oakland, California. November 19.

TABLE 1
RESULTS OF FIELD DENSITY TESTS
BASHLAND PROPERTY, EMERYVILLE, CALIFORNIA

| Date | Test Number | Sample ID | Location | Approximate Depth Below Final Grade (feet) | Dry Density (pcf) | Moisture Content (%) | % Relative Compaction* | Retest | Specified % Relative Compaction |
|-----------|-------------|-----------|----------|--------------------------------------------|-------------------|----------------------|------------------------|---------------|---------------------------------|
| 06-May-92 | 1 | BM | Middle | 5.0 | 123.2 | 9.93 | 95 | | 95 |
| 06-May-92 | 2 | BM | East | 4.0 | 128.3 | 10.37 | 99 | | 95 |
| 06-May-92 | 3 | BM | Middle | 3.5 | 125.3 | 9.54 | 97 | | 95 |
| 06-May-92 | 4 | BM | West | 3.0 | 129.1 | 9.67 | 99 | | 95 |
| 06-May-92 | 5 | BM | Middle | 2.5 | 124.2 | 9.63 | 96 | | 95 |
| 06-May-92 | 6 | BM | West | 2.0 | 121.7 | 11.48 | 94 | | 95 |
| 06-May-92 | 7 | BM | West | 2.0 | 121.8 | 10.85 | 94 | retest of #6 | 95 |
| 06-May-92 | 8 | BM | West | 2.0 | 127.7 | 9.72 | 98 | retest of #7 | 95 |
| 07-May-92 | 9 | BM | West | 1.5 | 129.3 | 9.12 | 100 | | 95 |
| 07-May-92 | 10 | BM | East | 1.0 | 115.0 | 11.27 | 89 | | 95 |
| 07-May-92 | 11 | BM | Middle | 1.0 | 118.2 | 11.02 | 91 | | 95 |
| 07-May-92 | 12 | BM | Middle | 1.0 | 127.5 | 8.39 | 98 | retest of #11 | 95 |
| 07-May-92 | 13 | BM | East | 1.0 | 119.1 | 9.24 | 92 | retest of #10 | 95 |
| 07-May-92 | 14 | BM | East | 1.0 | 123.0 | 10.16 | 95 | retest of #13 | 95 |
| 07-May-92 | 15 | BM | West | 0.5 | 121.6 | 8.27 | 94 | | 95 |
| 07-May-92 | 16 | BM | West | 0.5 | 126.7 | 8.07 | 98 | retest of #15 | 95 |
| 07-May-92 | 17 | BM | Middle | 0.0 | 126.4 | 8.41 | 97 | | 95 |
| 07-May-92 | 18 | BM | East | 0.0 | 122.9 | 8.50 | 95 | | 95 |

pcf = pounds per cubic foot
* - percent of maximum dry density

TABLE 2
SOIL CHEMICAL ANALYSIS RESULTS
APRIL 7, 1992
BASHLAND PROPERTY, EMERYVILLE, CALIFORNIA
(All results expressed in milligrams per kilogram [mg/kg])

| Sample ID | EPA Method 8015 | | | EPA Method 8020 | | | | EPA Method 5520E | EPA Method 5520F | EPA Method 8010 | EPA Method 8270 | Cd | Cr | Ni | Pb | Zn |
|--------------------|-----------------|---------------|-----------------|-----------------|---------|---------|--------------|------------------|------------------|-----------------|-----------------|------|----|----|----|----|
| | TPH as Oil | TPH as Diesel | TPH as Gasoline | Benzene | Toluene | Xylenes | Ethylbenzene | Oil and Grease | TPH | 8010 | 8270 | | | | | |
| Excavation Samples | | | | | | | | | | | | | | | | |
| AEW-1-W-9 | <5 | <1 | <0.2 | <0.005 | <0.005 | <0.005 | <0.005 | NA | NA | NA | NA | NA | NA | NA | 8 | NA |
| AEW-2-S-9 | <5 | 2 | <0.2 | <0.005 | <0.005 | <0.005 | <0.005 | NA | NA | NA | NA | NA | NA | NA | 8 | NA |
| AEW-3-S-9 | <5 | <1 | <0.2 | <0.005 | <0.005 | <0.005 | <0.005 | NA | NA | NA | NA | NA | NA | NA | 11 | NA |
| B/CEB-4-W-8* | <5 | <1 | <0.2 | <0.005 | <0.005 | <0.005 | <0.005 | 20 | <10 | <5 | NA | 0.4 | 46 | 41 | 10 | 45 |
| B/CEB-5-E-8* | 1,500 | <1 | <0.2 | <0.005 | <0.005 | <0.005 | <0.005 | 1,300 | 1,200 | <5 | ND | <0.2 | 34 | 17 | 9 | 30 |
| DEW-6-W-9 | <5 | 2 | <0.2 | <0.005 | <0.005 | <0.005 | <0.005 | NA | NA | NA | NA | NA | NA | NA | 11 | NA |
| DEW-7-S-9 | <5 | <1 | <0.2 | <0.005 | <0.005 | <0.005 | <0.005 | NA | NA | NA | NA | NA | NA | NA | 10 | NA |
| DEW-8-E-9 | <5 | <1 | <0.2 | <0.005 | <0.005 | <0.005 | <0.005 | NA | NA | NA | NA | NA | NA | NA | 9 | NA |
| P-1-1.5 | 86 | 8 | <0.2 | <0.005 | <0.005 | <0.005 | <0.005 | 70 | 50 | <5 | ND | 0.3 | 47 | 34 | 8 | 30 |
| Stockpile Samples | | | | | | | | | | | | | | | | |
| SP1 | <50 | <10 | 1.0 | <0.005 | 0.009 | 0.036 | <0.005 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SP2 | <50 | 18 | 2.4 | <0.005 | 0.018 | 0.107 | <0.005 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SP3 | <50 | <10 | 1.1 | <0.005 | 0.012 | 0.092 | <0.005 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| SP4 | <50 | <10 | <1 | <0.005 | 0.013 | 0.097 | <0.005 | NA | NA | NA | NA | NA | NA | NA | NA | NA |

NOTES:

- NA - Not analyzed
- ND - Not detected
- TPH - Total Petroleum Hydrocarbons.
- * - Soil beneath and adjacent to sampling location excavated and removed on April 27, 1992.

Excavation soil sample locations shown on Figure 3.

Soil samples analyzed by Quanteq Laboratory of Pleasant Hill, California and Precision Analytical Laboratory of Richmond, California, both state-certified laboratories.

See laboratory data sheets for EPA Method 8010 analytes.

See laboratory data sheets for EPA Method 8270 analytes and detection limits

TABLE 3

WATER CHEMICAL ANALYSIS RESULTS
 BASKLAND PROPERTY, EMERYVILLE, CALIFORNIA
 APRIL 8, 1992

(all results expressed in milligrams per liter [mg/L])

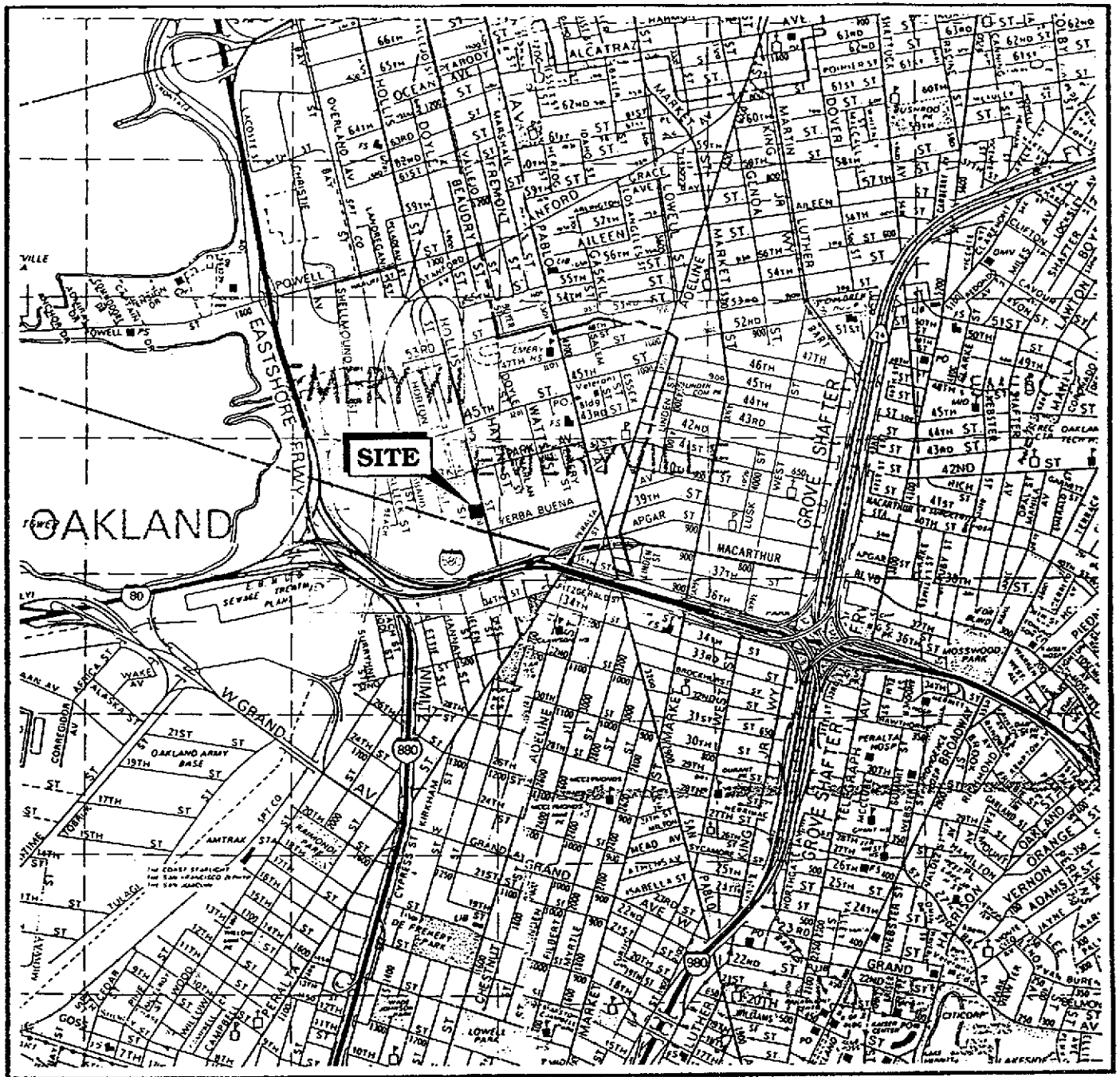
| Sample ID | EPA Modified Method 8015 | | | EPA Method 624 | EPA Method 5520 C | EPA Method 5520 F |
|-----------|--------------------------|---------------|-----------------|-----------------------------------------------------------|-------------------|------------------------------|
| | TPH as Oil | TPH as Diesel | TPH as Gasoline | | Oil & Grease | Total Petroleum Hydrocarbons |
| AGW(1) | <0.1 | 1.2 | <0.05 | cis-1,2-Dichloroethene - 0.007 Trichloroethene - 0.016 | <0.5 | <0.5 |
| DGW(2) | 0.4 | 0.3 | <0.05 | cis-1,2-Dichloroethene - 0.008 Trichloroethene - 0.022 | <0.5 | <0.5 |

Notes:

AGW(1) - grab ground-water sample collected beneath former location of westernmost 12,000-gallon-capacity tank.
 DGW(2) - grab ground-water sample collected beneath former location easternmost 12,000-gallon-capacity tank.

Only detectable compounds are listed for EPA Method 624; see laboratory data sheets.

Ground-water sample analyzed by Quanteq Laboratories of Pleasant Hill, California, a state-certified laboratory.



MAP SOURCE:
Alameda & Contra Costa Counties,
Thomas Bros. map, 1990 Edition

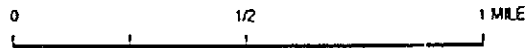


Figure 1: SITE LOCATION MAP
BASHLAND PROPERTY SITE

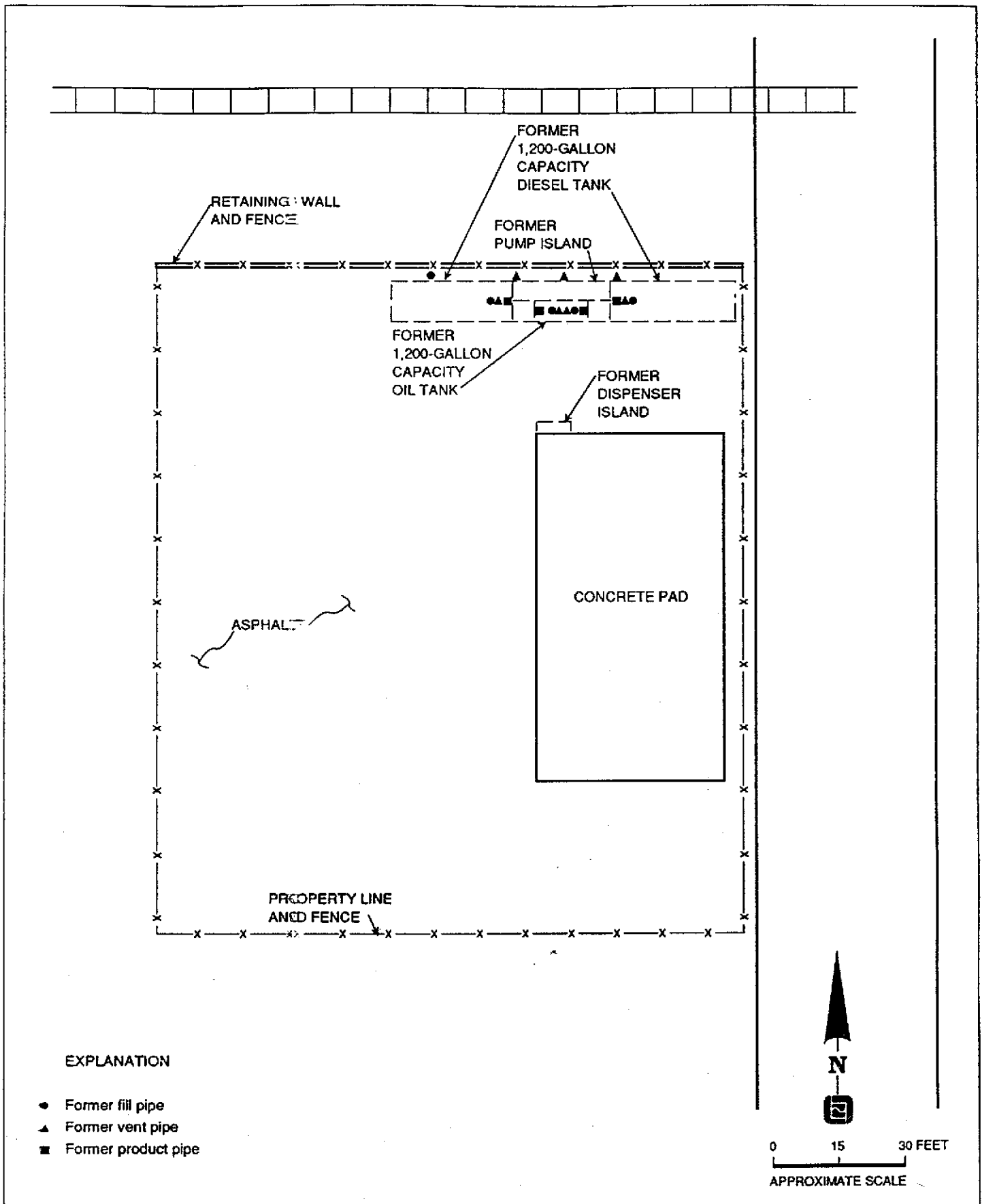


Figure 2 : SITE PLAN AND TANK LOCATIONS

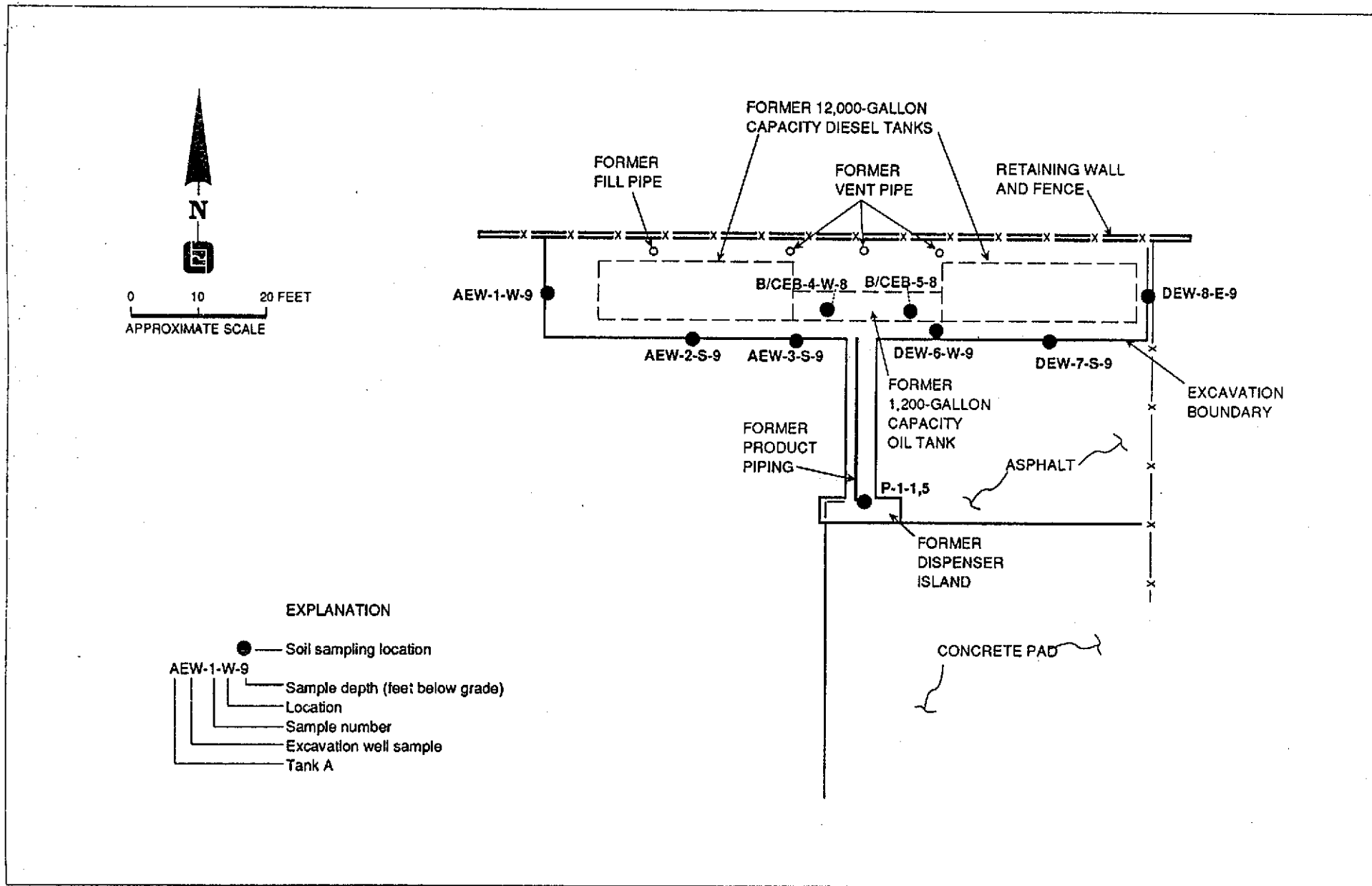
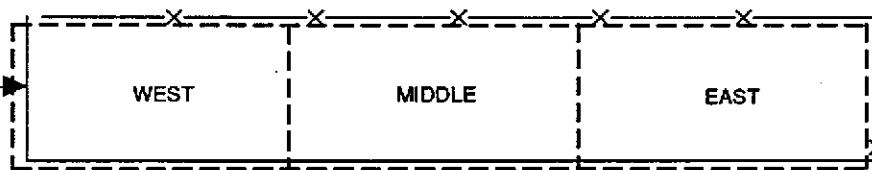


Figure 3: SITE PLAN SHOWING FORMER TANK AND SOIL SAMPLING LOCATIONS AND EXCAVATION BOUNDARIES

EXCAVATION
BOUNDARY



WEST

MIDDLE

EAST

DENSITY TEST AREA
BOUNDARY

ASPHALT

CONCRETE
PAD



0 10 20 FEET

APPROXIMATE SCALE

Figure 4: FIELD DENSITY TESTING AREAS

CITY OF EMERYVILLE
INSPECTION SERVICES DEPT.
2200 POWELL STREET, 12TH FLOOR
EMERYVILLE, CA 94608
(415) 596-4310



VALIDATE HERE

B-4278-492
Permit Number

APPLICATION AND PERMIT

THIS APPLICATION IS YOUR PERMIT WHEN PROPERLY FILLED OUT, SIGNED, VALIDATED & FEES PAID.

DO NOT WRITE IN THIS SPACE

Application Received
Date 4/2/92 Signed C. Sawyer
Permit Issued
Date 4/2/92 Signed C. Sawyer

Single Family
 Apartment
 Condominium
 Commercial
 Industrial
 Public Building
 Accessory
 Other

New Addition
 Alteration
 Repair
 Improve
 Other

Grading
 Excavation
 Fill
 Drainage
 Other

BUILDING ADDRESS 4015 Hollis St.
TRACT LOT APN
NAME Bashland INC. / R. Stavens Condo
ADDRESS 11 Embarcadero West, Suite 272-0200
CITY OAKLAND CA. ST. 94607
NAME Levine, Fraille Theodore
ADDRESS 1900 Powell St.
CITY Emeryville CA. ST. 94608

I hereby affirm that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

LICENSE # AND CLASS AH 504951 CITY BUSINESS TAX # 20563
CONTRACTOR NAME TRUMP BROS. INC.
ADDRESS 1540 Industrial Ave
CITY San Jose CA. ST. 95112 PHONE 408 292-0822
SIGNATURE [Signature] DATE 4-1-92

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code): Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law, Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than \$500:

I, as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professions Code); The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement that he did not build or improve for the purpose of sale.

I, as owner of the property, am exempt from the sole requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption in this subdivision on more than two structures more than once during any three-year period. (Sec. 7044, Business and Professions Code).

I, as owner of the property, am exclusively contracting with a licensed contractor to construct the project (Sec. 7044, Business and Professions Code); The Contractor's License Law does not apply to an owner of property who builds or improves thereon and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.

I am exempt under Sec. B&PC for this reason Contractor's License Law

Signature [Signature] Date 4/1/92

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Workers' Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab. C.).
Policy # 793616 Company Name INSURANCE Co. of the West

Certified copy is hereby furnished.
 Certified copy is filed with the city building inspection department.
Signature [Signature] Date 4/1/92

(This section need not be completed if the permit is for one hundred dollars (\$100) or less.)
I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.
Signature _____ Date _____

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.
I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.). (If no lender indicate "None.")
LENDERS NAME NONE
LENDERS ADDRESS _____

I CERTIFY THAT I HAVE READ THIS APPLICATION AND STATE THAT THE INFORMATION GIVEN IS TRUE AND CORRECT. I AGREE TO COMPLY WITH ALL LOCAL ORDINANCES AND STATE LAWS RELATING TO BUILDING CONSTRUCTION AND I MAKE THIS STATEMENT UNDER PENALTY OF LAW. I HEREBY AUTHORIZE REPRESENTATIVES OF THIS CITY TO ENTER UPON THE ABOVE MENTIONED PROPERTY FOR INSPECTION PURPOSES. NOTICE: THIS PERMIT WILL EXPIRE BY LIMITATION IF WORK IS NOT STARTED WITHIN 180 DAYS OR IF WORK IS ABANDONED FOR MORE THAN 180 DAYS. DO NOT CONCEAL OR COVER ANY CONSTRUCTION UNTIL THE WORK IS INSPECTED AND THE INSPECTION IS RECORDED ON THE FIELD CARD ISSUED FOR THIS PERMIT. ALL INSPECTION REQUESTS ARE REQUIRED 24 HOURS IN ADVANCE OF THIS INSPECTION.
I hereby agree to save, indemnify and keep harmless the City of Emeryville, and its officers, employees and agents against all liabilities, judgments, costs and expenses which may accrue against the City in consequence of the granting of this permit or from the use or occupancy of any sidewalk, street or subside, or otherwise by virtue thereof, and will in all things strictly comply with the conditions under which this permit is granted.
Contractor
 Owner
 Agent for Contractor
 Owner
Signature [Signature] Date 4-1-92
Address of Agent _____
ADDRESS CITY STATE ZIP TELEPHONE

Describe Briefly All Proposed Construction Work
Removal of Under ground Fuel Storage Tanks. AT SITE EXCAVATIONS will be BACKFILL

New Building Floor Area (Sq. Ft.)
1st _____ 2nd _____ 3rd _____ Total _____
Garage _____ Carport _____ # Bedrooms _____ # Baths _____
Building Setbacks
Front _____ Rear _____ Left _____ Right _____
Occupancy Group and Division (Per UBC Table 10A) Ret Type (Per UBC Table 17A) _____
Valuation of Proposed Work \$ 18,000
(Include all labor and materials, all lighting, heating, ventilation, water supply, plumbing, electrical, fire protection, elevator equipment, etc. and thereon.)

THIS PERMIT SHALL COVER:
 Building
 Plumbing
 Solar
 S.M.I.P.
 Plan Check
 Mechanical
 Sign
 Grading
 Electrical
 Insulation
 Pool/Spa
 Other _____

DO NOT WRITE BELOW THIS LINE
Planning Approval Date _____ Planning Approval _____
Health Dept. Approval Date _____ Health Dept. Approval _____
Final Approval Date _____ Final Approval _____
Variance Date _____ Use Permit Date _____

PERMIT FEES

| | |
|-----------------------|--------|
| Building | 180.00 |
| Plan Check | |
| Filing | |
| Electrical | |
| Plumbing | |
| Mechanical | |
| Insulation | |
| Fire | |
| Traffic | |
| School | |
| S.M.I.P.-SB1374 | 3.78 |
| Grading | |
| Annexation | |
| Sewer Connection | |
| Community Development | |
| Growth Impact Fee | |
| Total | 183.78 |

APPLICANT

DISTRIBUTION
1. ADDRESS FILE
2. APPLICANT
3. INSPECTOR
4. FINANCE
5. RECORDS

APPLICATION FOR PERMIT TO OPERATE, MAINTAIN OR STORE

Make check payable to: CITY OF EMERYVILLE

Mail to: Emeryville Fire Department

Fire Prevention Bureau
6303 Hollis Street 1303
Emeryville, CA 94608

PHONE: 596-3750
~~596-3750~~

F.P.B. Permit No. _____

Due Date: _____

Original X

Renewal _____

~~operate~~

To: ~~maintain~~ Remove UG tank(s) Specify use if Public Assembly

~~store~~

Pursuant to Section 4.108 of uniform Fire Code 1988 edition

Application made by: TRUMAN BROS. INC.

Location: 4015 Hollis Street

Emeryville Emeryville F.P.D.

Signed [Signature] Phone # 408 292-0820

DO NOT WRITE BELOW THIS LINE

Date: _____

Fee: \$ _____

Cash _____ Ck. No. _____

Receipt No. _____

Received by: _____

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

Occupancy Group? _____ Other Occupancies in Building? _____

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

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

Location-Exterior Wall Openings? _____ Type of Protection _____

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

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

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

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

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

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

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

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

Number and Type of Extinguishers? _____

Other Fire Protection? _____

Is Flameproofing Required? _____ Is it Satisfactory? _____

DATE OF INSPECTION: _____

MARKS: Filing fee = \$35.00/Hourly on-site fee is \$50.00/hour(1st hour NC)/

EFD/requires a minimum of 48-hours notice prior to removal/Coordination

w/Alameda County Dept of Health is required prior to removal

Signed _____ No. _____

FIRE INSPECTOR

white -env.health
 yellow -facility
 pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Inspection Form

II, III

Site ID # _____ Site Name BASHLAND Today's Date 4/7/92

Site Address 4015 Hollis Street
 City Emeryville Zip 94608 Phone _____

MAX AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

- I. Haz. Mat/Waste GENERATOR/TRANSPORTER
- II. Business Plans, Acute Hazardous Materials
- III. Underground Tanks

12:45 P.M. →

Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments: HEH - Haz. Waste Hauler # 300935 (exp. 1/93)
3 - Underground Storage Tanks
FENCE

A BUSINESS PLANS (Title 19)

- 1. Immediate Reporting 2703
- 2. Bus. Plan Stds. 25503(b)
- 3. RR Cars > 30 days 25503.7
- 4. Inventory Information 25504(a)
- 5. Inventory Complete 2730
- 6. Emergency Response 25504(b)
- 7. Training 25504(c)
- 8. Deficiency 25505(a)
- 9. Modification 25505(b)

B ACUTELY HAZ. MATLS

- 10. Registration Form Filed 25533(a)
- 11. Form Complete 25533(b)
- 12. RMPP Contents 25534(c)
- 13. Implement Sch. Req'd? (Y/N)
- 14. OffSite Conseq. Assess. 25524(c)
- 15. Probable Risk Assessment 25534(d)
- 16. Persons Responsible 25534(g)
- 17. Certification 25534(i)
- 18. Exemption Request? (Y/N) 25536(b)
- 19. Trade Secret Requested? 25538

II. UNDERGROUND TANKS (Title 23)

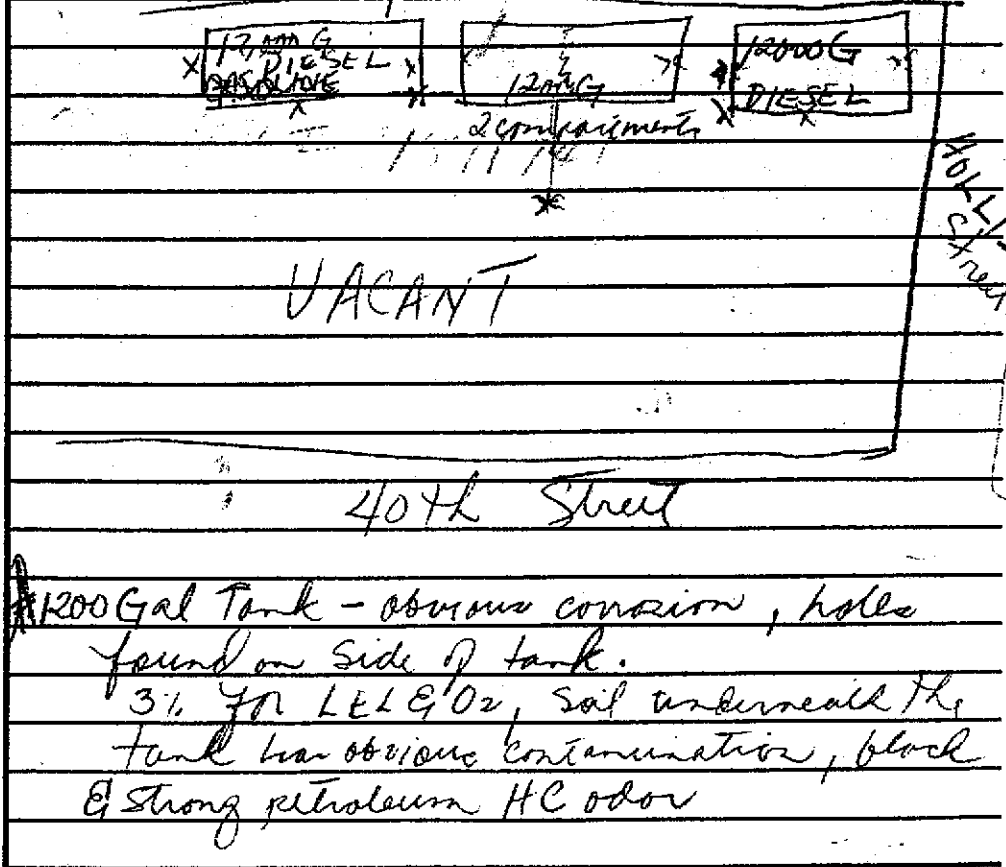
- 1. Permit Application 25284 (H&S)
- 2. Pipeline Leak Detection 25292 (H&S)
- 3. Records Maintenance 2712
- 4. Release Report 2651
- 5. Closure Plans 2670
- 6. Method
 - 1) Monthly Test
 - 2) Daily Vadose
Semi-annual groundwater
One time soils
 - 3) Daily Vadose
One time soils
Annual tank test
 - 4) Monthly Gndwater
One time soils
 - 5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
 - 6) Daily Inventory
Annual tank testing
Cont pipe leak det
 - 7) Weekly Tank Gauge
Annual tank testing
 - 8) Annual Tank Testing
Daily Inventory
 - 9) Other _____
- 7. Precs Tank Test 2643
Date: _____
- 8. Inventory Rec. 2644
- 9. Soil Testing 2646
- 10. Ground Water. 2647
- 11. Monitor Plan 2632
- 12. Access. Secure 2634
- 13. Plans Submit 2711
Date: _____
- 14. As Built 2635
Date: _____

General

Monitoring for Existing Tanks

New Tanks

Rev 6/88



Contact: Michael Stoll
 Title: Senior Staff Engineer
 Signature: Michael Stoll

Inspector: _____
 Signature: [Signature]

II, III

white -env.health
yellow -facility
pink -files

ALAMEDA COUNTY, DEPARTMENT OF ENVIRONMENTAL HEALTH

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

Hazardous Materials Inspection Form

II, III

Site ID # _____ Site Name BASHLAND Today's Date 1/7/92

LA BUSINESS PLANS (Title 19)

- ___ 1. Immediate Reporting 2703
- ___ 2. Bus. Plan Stds. 25503(b)
- ___ 3. RR Cars > 30 days 25503.7
- ___ 4. Inventory Information 25504(a)
- ___ 5. Inventory Complete 2730
- ___ 6. Emergency Response 25504(b)
- ___ 7. Training 25504(c)
- ___ 8. Deficiency 25505(c)
- ___ 9. Modification 25505(b)

Site Address 4015 HOLLIS STREET
City Emeryville Zip 94608 Phone _____

___ MAX/AMT stored > 500 lbs, 55 gal., 200 cft.?

Inspection Categories:

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

B ACUTELY HAZ. MATS

- ___ 10. Registration Form Filed 25533(a)
- ___ 11. Form Complete 25533(b)
- ___ 12. RMPP Contents 25534(c)
- ___ 13. Implement Sch. Req'd? (Y/N)
- ___ 14. OnSite Conseq. Assess. 25524(c)
- ___ 15. Probable Risk Assessment 25534(d)
- ___ 16. Persons Responsible 25534(g)
- ___ 17. Certification 25534(f)
- ___ 18. Exemption Request? (Y/N) 25536(b)
- ___ 19. Trade Secret Requested? 25536

* Calif. Administration Code (CAC) or the Health & Safety Code (HS&C)

Comments:

B 12,000 Gallon tank (diesel) ^{maybe}
LEL & O₂ = 3%
Groundwater present - foamy, brown shee
Tank has slight corrosion - no obvious
holes. Pump groundwater & let it
recharge, then sample. 2 soil samples
(2 end of middle) collected at the soil/groundwater interface
Manifest # 91511741 for Tank A&B

C 12,000 Gallon tank (gasoline)
LEL - 1.0%. O₂ - 8.5%
Groundwater present - foamy, brown
Holes present in the tank at bottom
2 Soil samples collected at soil/groundwater interface (2 end of middle)
H&H - 300939 (Exp. 1/93)
Manifest # 91511740

Stockpiled soil must be characterized &
covered with vaporizer.
Excavation pit must be secured.

III. UNDERGROUND TANKS (Title 23)

- ___ 1. Permit Application 25284 (H&S)
- ___ 2. Pipeline Leak Detection 25292 (H&S)
- ___ 3. Records Maintenance 2712
- ___ 4. Release Report 2651
- ___ 5. Closure Plans 2670
- ___ 6. Method
 - 1) Monthly Test
 - 2) Daily Vadose
Semi-annual gndwater
One time soils
 - 3) Daily Vadose
One time soils
Annual tank test
 - 4) Monthly Gndwater
One time soils
 - 5) Daily Inventory
Annual tank testing
Cont pipe leak det
Vadose/gndwater mon.
 - 6) Daily Inventory
Annual tank testing
Cont pipe leak det
 - 7) Weekly Tank Gauge
Annual tank testing
 - 8) Annual Tank Testing
Daily Inventory
 - 9) Other _____
- ___ 7. Precs Tank Test 2643
Date: _____
- ___ 8. Inventory Rec. 2644
- ___ 9. Soil Testing 2646
- ___ 10. Ground Water. 2647
- ___ 11. Monitor Plan 2632
- ___ 12. Access. Secure 2634
- ___ 13. Plans Submit 2711
Date: _____
- ___ 14. As Built 2635
Date: _____

Contact: Michael Stoll
Title: Senior Staff Engineer
Signature: Michael Stoll

Inspector: _____
Signature: Susan L. Hugo

Print or type. Form designed for use on 8 1/2" x 11" (12-pitch typewriter).

| | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------|-----------------------------------------------------------------|
| UNIFORM HAZARDOUS WASTE MANIFEST | | 1. Generator's US EPA ID No. CA 1A 1D 19 18 13 15 18 15 17 14 16 | Manifest Document No. 01 01 01 01 6 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law. |
| 3. Generator's Name and Mailing Address CATELLUS DEVELOPMENT CORPORATION 201 Mission Street, Suite 250, San Francisco, CA. 94105 | | | A. State Manifest Document Number 91511739 | | |
| 4. Generator's Phone (415) 974-4637 | | | B. State Generator's ID | | |
| 5. Transporter 1 Company Name H & H Ship Service Company | | 6. US EPA ID Number CA 1A 1D 10 10 14 17 17 11 11 16 18 | | C. State Transporter's ID 300946 | |
| 7. Transporter 2 Company Name | | 8. US EPA ID Number | | D. Transporter's Phone (415) 543-4835 | |
| 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 1A 1D 10 10 14 17 17 11 11 16 18 | | E. State Transporter's ID | |
| | | | | F. Transporter's Phone | |
| | | | | G. State Facility's ID | |
| | | | | 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 | 15. Waste Number |
| a. OIL AND WATER NON-RCRA HAZARDOUS WASTE LIQUID | | 0 10 1 T IT | 0 2 0 0 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 #A1675 | | | K. Handling Codes for Wastes Listed Above a. 01 b. c. d. | | |
| 15. Special Handling Instructions and Additional Information JOB #10425 24 Hr. Emergency Contact: H & H #(415) 543-4835 APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR JOB SITE: CATELLUS DEV. CORP. 4015 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 Michael Stoll | | Signature Michael Stoll for Catellus Development Corp | | Month Day Year 0 1 4 1 0 1 7 1 9 1 2 | |
| 17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name WAYMON H. MC DONALD | | Signature Waymon H McDonald | | Month Day Year 0 1 4 1 0 1 7 1 9 1 2 | |
| 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 17. Printed/Typed Name Roshan Sherkhori | | | | | |
| Signature Roshan Sherkhori | | Month Day Year 0 1 4 1 0 1 7 1 9 1 2 | | | |

DO NOT WRITE BELOW THIS LINE.

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

9084

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of 1

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

3. Generator's Name and Mailing Address
CATELLUS DEVELOPMENT CORPORATION
261 Mission Street, Suite 250, San Francisco, CA. 94105
4. Generator's Phone (415) 974-4835

A. State Manifest Document Number
91511767

5. Transporter 1 Company Name
H & H Ship Service Company

6. US EPA ID Number
91511767

B. State Generator's ID
91511767

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter 1 ID
300946

D. Transporter's Phone
(415) 543-4835

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
91511767

E. State Transporter 2 ID

F. Transporter's Phone

G. State Facility's ID
01A1010147711618

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 15. Waste Number

a. OIL AND WATER
NON-PCPA HAZARDOUS WASTE LIQUID

0 10 L TIT 045100 G
State: 134,241
EPA/Other:

b.

State: EPA/Other:

c.

State: EPA/Other:

d.

State: EPA/Other:

16. Additional Descriptions for Materials Listed Above
FUEL, OIL AND WATER
PROFILE #41675

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

15. Special Handling Instructions and Additional Information
JOB #10440
24 Hr. Emergency Contact: H & H #(415) 543-4835
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR
JOB SITE: CATELLUS DEV. CORP.
4015 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: Michael Stoll
Signature: Michael Stoll for Catellus Dev. Corporation
Month Day Year: 014 10 18 19 12

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: [Signature]
Signature: [Signature]
Month Day Year: 014 10 18 19 12

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: [Signature]
Signature: [Signature]
Month Day Year: [Signature]

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 9.
Printed/Typed Name: [Signature]
Signature: [Signature]
Month Day Year: 014 10 18 19 12

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

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

UNIFORM HAZARDOUS WASTE MANIFEST

I. Generator's US EPA ID No.

CA 1A 1D 19 18 13 15 18 15 17 14 16

Manifest Document No.

0 1 0 1 0 1 0 1 8

2. Page 1

of 1

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

3. Generator's Name and Mailing Address
CATELLUS DEVELOPMENT CORPORATION
201 Mission Street, Suite 250, San Francisco, CA. 94105

4. Generator's Phone (415) 974-4637

A. State Manifest Document Number
91511741

B. State Generator's ID

C. State Transporter's ID
300935

D. Transporter's Phone (415) 543-4835

E. State Transporter's ID

F. Transporter's Phone

G. State Facility's ID
CA 1D 10 10 14 17 17 11 11 16 18

H. Facility's Phone (415) 543-4835

5. Transporter 1 Company Name
H & H Ship Service Company

6. US EPA ID Number

CA 1A 1D 10 10 14 17 17 11 11 16 18

7. Transporter 2 Company Name

8. US EPA ID Number

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

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 1A 1D 10 10 14 17 17 11 11 16 18

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)

12. Containers
No. Type

13. Total Quantity

14. Unit
Wt/Vol

1. Waste Number
State
EPA/Other

a. **RESIDUE GASOLINE TANK
NON-RCRA HAZARDOUS WASTE SOLID**

0 1 0 1 T 1 P

1 2 0 0 0

P

512
State
EPA/Other

b. **RESIDUE LUBE OIL TANK
NON-RCRA HAZARDOUS WASTE SOLID**

0 1 0 1 T 1 P

0 1 0 0 0

P

512
State
EPA/Other

c.

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

State
EPA/Other

d.

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

State
EPA/Other

J. Additional Descriptions for Materials Listed Above

EMPTY 12,000 and 1,000 gallon tanks last containing gasoline and lube oil. Tanks inerted with dry ice for transport. PROFILE #A1576

K. Handling Codes for Wastes Listed Above

a. 01
b. 01
c.
d.

15. Special Handling Instructions and Additional Information

JOB #10428
24 Hr. Emergency Contact: **H & H # (415) 543-4835**
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR

JOB SITE: CATELLUS DEV. CORP.
4015 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

Michael Stoll

Signature

Michael Stoll for Catellus Development Corp.

Month Day Year

04 10 17 19 12

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

WAYMON H. MC DONALD

Signature

Waymon H. McDonald

Month Day Year

04 10 17 19 12

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

Charles Walker

Signature

Charles Walker

Month Day Year

04 10 17 19 12

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

GENERATOR

TRANSPORTER

FACILITY

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 17 18 19 20 21 22 23 24 25 26 27 28 29 30 | | Manifest Document No. 010101017 | | 2. Page 1 of 1 | | Information in the shaded areas is not required by Federal law. | | | | | |
| 3. Generator's Name and Mailing Address CATELLUS DEVELOPMENT CORPORATION 201 Mission Street, Suite 250, San Francisco, CA. 94105 | | | | | | A. State Manifest Document Number 91511740 | | | | | | | |
| 4. Generator's Phone (415) 974-4637 | | | | | | B. State Generator's ID | | | | | | | |
| 5. Transporter 1 Company Name H & H Ship Service Company | | | 6. US EPA ID Number CA 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 | | | C. State Transporter's ID 300939 | | 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 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 | | | | | | | |
| 11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number) | | | | | | 12. Containers | | 13. Total Quantity | | 14. Unit | | 15. Waste Number | |
| a. RESIDUE GASOLINE TANK NON-PCRA HAZARDOUS WASTE SOLID | | | | | | 0 10 1 | | T 12 0 0 0 | | P | | State: 512 EPA/Other: | |
| b. RESIDUE LUBE OIL TANK NON-PCRA HAZARDOUS WASTE SOLID | | | | | | 0 10 1 | | T 12 0 0 0 | | P | | State: 512 EPA/Other: | |
| c. | | | | | | | | | | | | State: EPA/Other: | |
| d. | | | | | | | | | | | | State: EPA/Other: | |
| J. Additional Descriptions for Materials Listed Above EMPTY 12,000 and 1,000 gallon tanks last containing gasoline and lube oil. Tanks inerted with dry ice for transport. PROTEC #A1675 | | | | | | K. Handling Codes for Wastes Listed Above | | | | | | | |
| | | | | | | a. 01 | | b. 01 | | | | | |
| 15. Special Handling Instructions and Additional Information JOB #10428 24 Hr. Emergency Contact: H & H # (415) 543-4835 APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR | | | | | | JOB SITE: CATELLUS DEV. CORP. 4015 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 Michael Stoll | | | Signature <i>Michael Stoll</i> | | | Month Day Year 014 10 17 10 12 | | | | | | | |
| 17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name NORMAN L. BERG | | | Signature <i>Norman Berg</i> | | | Month Day Year 014 10 17 19 12 | | | | | | | |
| 18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name | | | Signature | | | Month Day Year | | | | | | | |
| 19. Discrepancy Indication Space Line 11B should say related piping. | | | | | | | | | | | | | |
| 20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name Cleveland Walker | | | Signature <i>Cleveland Walker</i> | | | Month Day Year 04101792 | | | | | | | |

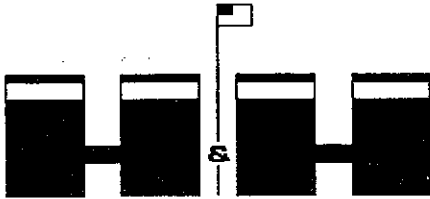
DO NOT WRITE BELOW THIS LINE.

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

GENERATOR

TRANSPORTER

FACILITY



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

APRIL 13, 1992

H & H Ship Service Company hereby certifies to TRUMPP BROTHERS
 that:

1. The storage tank(s), size(s) 2-12,000 GALS. AND 1-1,000 GALS.

removed from the CATELLUS DEVELOPMENT CORPORATION

facility at 4015 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 10428

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 Valrey
 Operations Coordinator

Quanteq Laboratories

An Ecologics Company

Certificate of Analysis

PAGE 1 OF 8

DOHS CERTIFICATION NO. E772

AIHA ACCREDITATION NO. 332

LEVINE-FRICKE
1900 POWELL STREET
12TH FLOOR
EMERYVILLE, CA 94608
ATTN: AMANDA SPENCER


REPORT DATE: 04/24/92
DATE SAMPLED: 04/08/92
DATE RECEIVED: 02/08/92
QUANTEQ JOB NO: 9204066

CLIENT PROJECT NO: 1649.08
C.O.C. NO: 9010

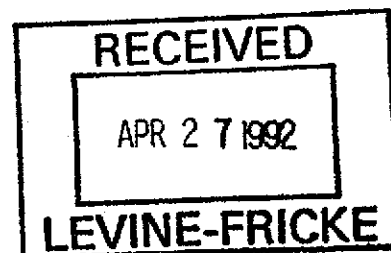
ANALYSIS OF: WATER SAMPLES

| Client Sample Id. | Quanteq Lab Id. | Purgeable Hydrocarbons as Gasoline (mg/L) | Extractable Hydrocarbons as Diesel (mg/L) | Extractable Hydrocarbons as Oil (mg/L) | Oil & Grease (mg/L) | Hydrocarbons (mg/L) |
|-------------------|-----------------|-------------------------------------------|-------------------------------------------|----------------------------------------|---------------------|---------------------|
| AGW(1) | 01C | ND | --- | --- | --- | --- |
| AGW(1) | 01E | --- | 1.2 | ND | --- | --- |
| AGW(1) | 01G | --- | --- | --- | ND | ND |
| DGW(2) | 02C | ND | --- | --- | --- | --- |
| DGW(2) | 02E | --- | 0.3 | 0.4 | --- | --- |
| DGW(2) | 02G | --- | --- | --- | ND | ND |
| Detection Limit | | 0.05 | 0.05 | 0.1 | 0.5 | 0.5 |
| Method: | | 5030 GCFID | 3520 GCFID | 3520 GCFID | 5520C | 5520F |
| Instrument: | | F | C | C | IR | IR |
| Date Extracted: | | --- | 04/13/92 | 04/13/92 | 04/20/92 | 04/20/92 |
| Date Analyzed: | | 04/09/92 | 04/15/92 | 04/15/92 | 04/20/92 | 04/20/92 |

ND = Not Detected


Andrew Bradeen, Manager
Organic Laboratory

Results FAXed 04/20-22/92



LEVINE-FRICKE

SAMPLE ID: AGW (1)
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/08/92
 DATE RECEIVED: 04/08/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204066-01A
 QUANTEQ JOB NO: 9204066
 DATE ANALYZED: 04/14/92
 INSTRUMENT: 12

EPA METHOD 8240 (WATER MATRIX)
 GC/MS VOLATILE ORGANIC COMPOUNDS

| COMPOUND | CAS # | CONCENTRATION (ug/L) | DETECTION LIMIT (ug/L) |
|---------------------------|------------|-------------------------|------------------------------|
| Acetone | 67-64-1 | ND | 100 |
| Benzene | 71-43-2 | ND | 5 |
| Bromodichloromethane | 75-27-4 | ND | 5 |
| Bromoform | 75-25-2 | ND | 5 |
| Bromomethane | 74-83-9 | ND | 10 |
| 2-Butanone | 78-93-3 | ND | 100 |
| Carbon Disulfide | 75-15-0 | ND | 10 |
| Carbon Tetrachloride | 56-23-5 | ND | 5 |
| Chlorobenzene | 108-90-7 | ND | 5 |
| Chloroethane | 75-00-3 | ND | 10 |
| 2-Chloroethyl Vinyl Ether | 110-75-8 | ND | 10 |
| Chloroform | 67-66-3 | ND | 5 |
| Chloromethane | 74-87-3 | ND | 10 |
| Dibromochloromethane | 124-48-1 | ND | 5 |
| 1,1-Dichloroethane | 75-34-3 | ND | 5 |
| 1,2-Dichloroethane | 107-06-2 | ND | 5 |
| 1,1-Dichloroethene | 75-35-4 | ND | 5 |
| cis-1,2-Dichloroethene | 156-59-2 | ND | 5 |
| trans-1,2-Dichloroethene | 156-60-5 | ND | 5 |
| 1,2-Dichloropropane | 78-87-5 | ND | 5 |
| cis-1,3-Dichloropropene | 10061-01-5 | ND | 5 |
| trans-1,3-Dichloropropene | 10061-02-6 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| 2-Hexanone | 591-78-6 | ND | 50 |
| Methylene Chloride | 75-09-2 | ND | 5 |
| 4-Methyl-2-pentanone | 108-10-1 | ND | 50 |
| Styrene | 100-42-5 | ND | 5 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | ND | 5 |
| Tetrachloroethene | 127-18-4 | ND | 5 |
| Toluene | 108-88-3 | ND | 5 |
| 1,1,1-Trichloroethane | 71-55-6 | ND | 5 |
| 1,1,2-Trichloroethane | 79-00-5 | ND | 5 |
| Trichloroethene | | ND | 5 |
| Vinyl Acetate | 108-05-4 | ND | 50 |
| Vinyl Chloride | 75-01-4 | ND | 10 |
| Xylenes, total | 1330-20-7 | ND | 10 |

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: DGW (2)
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/08/92
 DATE RECEIVED: 04/08/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204066-02A
 QUANTEQ JOB NO: 9204066
 DATE ANALYZED: 04/14/92
 INSTRUMENT: 12

EPA METHOD 8240 (WATER MATRIX)
 GC/MS VOLATILE ORGANIC COMPOUNDS

| COMPOUND | CAS # | CONCENTRATION (ug/L) | DETECTION LIMIT (ug/L) |
|---------------------------|------------|-------------------------|------------------------------|
| Acetone | 67-64-1 | ND | 100 |
| Benzene | 71-43-2 | ND | 5 |
| Bromodichloromethane | 75-27-4 | ND | 5 |
| Bromoform | 75-25-2 | ND | 5 |
| Bromomethane | 74-83-9 | ND | 10 |
| 2-Butanone | 78-93-3 | ND | 100 |
| Carbon Disulfide | 75-15-0 | ND | 10 |
| Carbon Tetrachloride | 56-23-5 | ND | 5 |
| Chlorobenzene | 108-90-7 | ND | 5 |
| Chloroethane | 75-00-3 | ND | 10 |
| 2-Chloroethyl Vinyl Ether | 110-75-8 | ND | 10 |
| Chloroform | 67-66-3 | ND | 5 |
| Chloromethane | 74-87-3 | ND | 10 |
| Dibromochloromethane | 124-48-1 | ND | 5 |
| 1,1-Dichloroethane | 75-34-3 | ND | 5 |
| 1,2-Dichloroethane | 107-06-2 | ND | 5 |
| 1,1-Dichloroethene | 75-35-4 | ND | 5 |
| trans-1,2-Dichloroethene | 156-60-5 | ND | 5 |
| 1,2-Dichloropropane | 78-87-5 | ND | 5 |
| cis-1,3-Dichloropropene | 10061-01-5 | ND | 5 |
| trans-1,3-Dichloropropene | 10061-02-6 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| 2-Hexanone | 591-78-6 | ND | 50 |
| Methylene Chloride | 75-09-2 | ND | 5 |
| 4-Methyl-2-pentanone | 108-10-1 | ND | 50 |
| Styrene | 100-42-5 | ND | 5 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | ND | 5 |
| Tetrachloroethene | 127-18-4 | ND | 5 |
| Toluene | 108-88-3 | ND | 5 |
| 1,1,1-Trichloroethane | 71-55-6 | ND | 5 |
| 1,1,2-Trichloroethane | 79-00-5 | ND | 5 |
| Trichloroethene | 79-01-6 | 22 | 5 |
| Vinyl Acetate | 108-05-4 | ND | 50 |
| Vinyl Chloride | 75-01-4 | ND | 10 |
| Xylenes, total | 1330-20-7 | ND | 10 |

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 04/20/92
 DATE ANALYZED: 04/20/92
 CLIENT PROJ. ID: 1649.08

QUANTEQ JOB NO: 9204066
 SAMPLE SPIKED: DI WATER
 INSTRUMENT: IR

IR DETERMINATION FOR OIL & GREASE/HYDROCARBONS
 METHOD SPIKE RECOVERY SUMMARY
 (WATER MATRIX)

| ANALYTE | Spike Conc. (mg/L) | Sample Result (mg/L) | MS Result (mg/L) | MSD Result (mg/L) | Average Percent Recovery | RPD |
|---------|--------------------|----------------------|------------------|-------------------|--------------------------|-----|
| OIL | 6.97 | ND | 6.65 | 6.65 | 95.4 | 0.0 |

CURRENT QC LIMITS (Revised 01/09/92)

| Analyte | Percent Recovery | RPD |
|---------|------------------|-----|
| Oil | (82-112) | 5.4 |

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference
 ND = Not Detected

DATE EXTRACTED: 04/13/92
 DATE ANALYZED: 04/15/92
 CLIENT PROJ. ID: 1649.08

QUANTEQ JOB NO: 9204066
 SAMPLE SPIKED: DI WATER
 INSTRUMENT: C

**MATRIX SPIKE RECOVERY SUMMARY
 TPH EXTRACTABLE WATERS
 METHOD 3520 GCFID
 (WATER MATRIX; EXTRACTION METHOD)**

| ANALYTE | Spike Conc. (mg/L) | Sample Result (mg/L) | MS Result (mg/L) | MSD Result (mg/L) | Average Percent Recovery | RPD |
|---------|--------------------|----------------------|------------------|-------------------|--------------------------|-----|
| Diesel | 2.52 | ND | 1.50 | 1.55 | 60.5 | 3.3 |

CURRENT QC LIMITS (Revised 08/15/91)

| <u>Analyte</u> | <u>Percent Recovery</u> | <u>RPD</u> |
|----------------|-------------------------|------------|
| Diesel | (49.3-101.4) | 29.0 |

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference
 ND = Not Detected

DATE ANALYZED: 04/09/92
SAMPLE SPIKED: 9204066-02C
CLIENT PROJ. ID: 1649.08

QUANTEQ JOB NO: 9204066

INSTRUMENT: F

MATRIX SPIKE RECOVERY SUMMARY
METHOD 5030 w/GCFID/8020
(WATER MATRIX)

| ANALYTE | Spike Conc. (ug/L) | Sample Result (ug/L) | MS Result (ug/L) | MSD Result (ug/L) | Average Percent Recovery | RPD |
|--------------------------|--------------------|----------------------|------------------|-------------------|--------------------------|-----|
| Benzene | 14.4 | ND | 14.9 | 14.6 | 102.4 | 2.0 |
| Toluene | 44.8 | ND | 45.6 | 45.9 | 102.1 | 0.7 |
| Hydrocarbons as Gasoline | 550 | ND | 546 | 542 | 98.9 | 0.7 |

CURRENT QC LIMITS (Revised 08/15/91)

| <u>Analyte</u> | <u>Percent Recovery</u> | <u>RPD</u> |
|----------------|-------------------------|------------|
| Benzene | (77.7-118.0) | 10.3 |
| Toluene | (80.7-116.2) | 10.1 |
| Gasoline | (72.5-110.7) | 13.6 |

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

INSTRUMENT: 12

QUANTEQ JOB NO: 9204066

CLIENT PROJ. ID: 1649.08

SURROGATE STANDARD RECOVERY SUMMARY

**METHOD 8240
(WATER MATRIX)**

| SAMPLE IDENTIFICATION | | | SURROGATE RECOVERY (PERCENT) | | |
|-----------------------|------------|---------|-----------------------------------|------------------------|----------------------|
| Date Analyzed | Client Id. | Lab No. | 1,2-Dichloroethane-d ₄ | Toluene-d ₈ | p-Bromofluorobenzene |
| 04/14/92 | AGW(1) | 01A | 118.7 | 94.6 | 100.6 |
| 04/14/92 | DGW(2) | 02A | 107.0 | 95.3 | 102.3 |

CURRENT QC LIMITS

| <u>ANALYTE</u> | <u>PERCENT RECOVERY</u> |
|-----------------------------------|-------------------------|
| 1,2-Dichloroethane-d ₄ | (83-127) |
| Toluene-d ₈ | (90-108) |
| p-Bromofluorobenzene | (91-109) |

DATE ANALYZED: 04/09/92
SAMPLE SPIKED: 9204066-02A
INSTRUMENT: 10

QUANTEQ JOB NO: 9204066
CLIENT PROJ. ID: 1649.08

MATRIX SPIKE RECOVERY SUMMARY

METHOD 8240
(WATER MATRIX)

| ANALYTE | Spike Conc. (ug/L) | Sample Result (ug/L) | MS Result (ug/L) | MSD Result (ug/L) | Average Percent Recovery | RPD |
|--------------------|--------------------|----------------------|------------------|-------------------|--------------------------|-----|
| 1,1-Dichloroethene | 50.0 | ND | 57.2 | 52.5 | 109.7 | 8.6 |
| Trichloroethene | 50.0 | 21.6 | 71.4 | 71.4 | 99.6 | 0.0 |
| Benzene | 50.0 | ND | 52.8 | 52.8 | 105.6 | 0.0 |
| Toluene | 50.0 | ND | 52.7 | 52.8 | 105.5 | 0.2 |
| Chlorobenzene | 50.0 | ND | 53.8 | 54.6 | 108.4 | 1.5 |

CURRENT QC LIMITS (Revised 08/13/91)

| Analyte | Percent Recovery | RPD |
|--------------------|------------------|------|
| 1,1-Dichloroethene | (65-133) | 13.5 |
| Trichloroethene | (84-120) | 8.7 |
| Benzene | (84-121) | 9.4 |
| Toluene | (89-119) | 8.4 |
| Chlorobenzene | (83-116) | 7.5 |

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9204066

| | | | |
|-------------------------------|-----------------------------------------|---------------------|-------------------------|
| Project No.: B 1649.08 | Field Logbook No.: | Date: 4/8/92 | Serial No.: 9010 |
| Project Name: Bashland | Project Location: Emeryville, CA | | |

| SAMPLES | | | | | | ANALYSES | | | | | | SAMPLERS: | | REMARKS |
|------------|--------|------|----------------|-------------------|-------------|----------|---------|-------|---------|--------|------|-----------|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SAMPLE NO. | DATE | TIME | LAB SAMPLE NO. | NO. OF CONTAINERS | SAMPLE TYPE | EPA 601 | EPA 624 | TPH-6 | TPH-D.O | O+6 LF | HOLD | RUSH | MJS | |
| ✓ AGW(1) | 4/8/92 | | O1A-H | 8 | Water | X | X | X | X | | | | | TPH - Gasoline TPH - D+O (Diesel + Oil) O+6 : 5520 C+F oil + grease 624 (BTXE + CLHC) Per Tri Regional Recommendation (4VOA + 4 Liter each) Regular 7-day TAT |
| ✓ DGW(2) | 4/8/92 | | O2A-H | 8 | Water | X | X | X | X | | | | | |
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|---------------------------------------------------|--------------------|--------------------|-------------------------------------------|--------------------|------------------|
| RELINQUISHED BY: (Signature) <i>Michael Stoll</i> | DATE 4/8/92 | TIME 9:50pm | RECEIVED BY: (Signature) <i>Pam Boggs</i> | DATE 4/8/92 | TIME 2:50 |
| RELINQUISHED BY: (Signature) | DATE | TIME | RECEIVED BY: (Signature) | DATE | TIME |
| RELINQUISHED BY: (Signature) | DATE | TIME | RECEIVED BY: (Signature) | DATE | TIME |
| METHOD OF SHIPMENT: | DATE | TIME | LAB COMMENTS: | | |

| | |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Sample Collector: LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, Ca 94608 (415) 652-4500 | Analytical Laboratory: Quantog, Pleasant Hill, CA |
|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|

Quanteq Laboratories

An Ecologics Company

FORMERLY MED-TOX

Certificate of Analysis

PAGE 1 OF 28

DOHS CERTIFICATION NO. E772

AIHA ACCREDITATION NO. 332

LEVINE-FRICKE
1900 POWELL STEET
12TH FLOOR
EMERYVILLE, CA 94608

REPORT DATE: 04/24/92

DATE SAMPLED: 04/07/92
DATE RECEIVED: 04/07/92

ATTN: MICHAEL STOLL

ADDITIONAL ANALYSIS
REQUESTED: 04/15/92

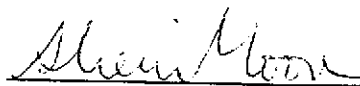
CLIENT PROJ. ID: 1649.08
C.O.C. SERIAL NO: 9015

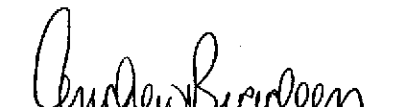
QUANTEQ JOB NO: 9204054

ANALYSIS OF: SOIL SAMPLES

See attached for results

APR 29 1992


Sherri Moore, Manager
Inorganic Laboratory


Andrew Bradeen, Manager
Organic Laboratory

Results FAXed 04/09-20/92

LEVINE-FRICKE

DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 CLIENT PROJ. ID: 1649.08

REPORT DATE: 04/24/92

QUANTEQ JOB NO: 9204054

| Client Sample Id. | Quanteq Lab Id. | Extractable Hydrocarbons as Diesel (mg/kg) | Extractable Hydrocarbons as Oil (mg/kg) | Oil & Grease (mg/kg) | Hydrocarbons (mg/kg) | Cadmium (mg/kg) | Chromium (mg/kg) | Nickel (mg/kg) | Lead (mg/kg) | Zinc (mg/kg) |
|-------------------|-----------------|--------------------------------------------|-----------------------------------------|----------------------|----------------------|-----------------|------------------|----------------|--------------|--------------|
| AEW-1-W-9 | 01A | ND | ND | --- | --- | --- | --- | --- | 8 | --- |
| AEW-2-S-9 | 02A | 2 | ND | --- | --- | --- | --- | --- | 8 | --- |
| AEW-3-S-9 | 03A | ND | ND | --- | --- | --- | --- | --- | 11 | --- |
| B/CEB-4-W-8 | 04A | ND | ND | 20 | ND | 0.4 | 46 | 41 | 10 | 45 |
| B/CEB-5-E-8 | 05A | ND | 1,500 | 1,300 | 1,200 | ND | 34 | 17 | 9 | 30 |
| DEW-6-W-9 | 06A | 2 | ND | --- | --- | --- | --- | --- | 11 | --- |
| DEW-7-S-9 | 07A | ND | ND | --- | --- | --- | --- | --- | 10 | --- |
| DEW-8-E-9 | 08A | ND | ND | --- | --- | --- | --- | --- | 9 | --- |
| P-1-1.5 | 09A | 8 | 86 | 70 | 50 | 0.3 | 47 | 34 | 8 | 30 |
| Detection limit | | 1 | 5 | 10 | 10 | 0.2 | 6 | 3 | 2 | 2 |
| Method: | | 3550 GCFID | 3550 GCFID | 5520E | 5520F | 6010 | 6010 | 6010 | 6010 | 6010 |
| Instrument: | | C | C | IR | IR | ICP | ICP | ICP | ICP | ICP |
| Date Extracted: | 04/08/92 | | | | | | | | | |
| Date Analyzed: | 04/08/92 | | | | | | | | | |

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: B/CEB-4-W-8
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-04A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: G

EPA METHOD 8010 (SOIL MATRIX)
 HALOGENATED VOLATILE ORGANICS

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|-------------------------------------------|------------|--------------------------|-------------------------------|
| Bromodichloromethane | 75-27-4 | ND | 5 |
| Bromoform | 75-25-2 | ND | 5 |
| Bromomethane | 74-83-9 | ND | 5 |
| Carbon Tetrachloride | 56-23-5 | ND | 5 |
| Chlorobenzene | 108-90-7 | ND | 5 |
| Chloroethane | 75-00-3 | ND | 5 |
| 2-Chloroethyl Vinyl Ether | 110-75-8 | ND | 5 |
| Chloroform | 67-66-3 | ND | 5 |
| Chloromethane | 74-87-3 | ND | 5 |
| Dibromochloromethane | 124-48-1 | ND | 5 |
| 1,2-Dichlorobenzene | 95-50-1 | ND | 5 |
| 1,3-Dichlorobenzene | 541-73-1 | ND | 5 |
| 1,4-Dichlorobenzene | 106-46-7 | ND | 5 |
| Dichlorodifluoromethane | 75-71-8 | ND | 5 |
| 1,1-Dichloroethane | 75-34-3 | ND | 5 |
| 1,2-Dichloroethane | 107-06-2 | ND | 5 |
| 1,1-Dichloroethene | 75-35-4 | ND | 5 |
| cis-1,2-Dichloroethene | 156-59-2 | ND | 5 |
| trans-1,2-Dichloroethene | 156-60-5 | ND | 5 |
| 1,2-Dichloropropane | 78-87-5 | ND | 5 |
| cis-1,3-Dichloropropene | 10061-01-5 | ND | 5 |
| trans-1,3-Dichloropropene | 10061-02-6 | ND | 5 |
| Methylene Chloride | 75-09-2 | ND | 5 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | ND | 5 |
| Tetrachloroethene | 127-18-4 | ND | 5 |
| 1,1,1-Trichloroethane | 71-55-6 | ND | 5 |
| 1,1,2-Trichloroethane | 79-00-5 | ND | 5 |
| Trichloroethene | 79-01-6 | ND | 5 |
| Trichlorofluoromethane | 75-69-4 | ND | 5 |
| 1,1,2-Trichloro- 1,2,2-trifluoroethane | 76-13-1 | ND | 5 |
| Vinyl Chloride | 75-01-4 | ND | 5 |

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: B/CEB-5-E-8
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-05A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: G

EPA METHOD 8010 (SOIL MATRIX)
 HALOGENATED VOLATILE ORGANICS

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|-------------------------------------------|------------|--------------------------|-------------------------------|
| Bromodichloromethane | 75-27-4 | ND | 5 |
| Bromoform | 75-25-2 | ND | 5 |
| Bromomethane | 74-83-9 | ND | 5 |
| Carbon Tetrachloride | 56-23-5 | ND | 5 |
| Chlorobenzene | 108-90-7 | ND | 5 |
| Chloroethane | 75-00-3 | ND | 5 |
| 2-Chloroethyl Vinyl Ether | 110-75-8 | ND | 5 |
| Chloroform | 67-66-3 | ND | 5 |
| Chloromethane | 74-87-3 | ND | 5 |
| Dibromochloromethane | 124-48-1 | ND | 5 |
| 1,2-Dichlorobenzene | 95-50-1 | ND | 5 |
| 1,3-Dichlorobenzene | 541-73-1 | ND | 5 |
| 1,4-Dichlorobenzene | 106-46-7 | ND | 5 |
| Dichlorodifluoromethane | 75-71-8 | ND | 5 |
| 1,1-Dichloroethane | 75-34-3 | ND | 5 |
| 1,2-Dichloroethane | 107-06-2 | ND | 5 |
| 1,1-Dichloroethene | 75-35-4 | ND | 5 |
| cis-1,2-Dichloroethene | 156-59-2 | ND | 5 |
| trans-1,2-Dichloroethene | 156-60-5 | ND | 5 |
| 1,2-Dichloropropane | 78-87-5 | ND | 5 |
| cis-1,3-Dichloropropene | 10061-01-5 | ND | 5 |
| trans-1,3-Dichloropropene | 10061-02-6 | ND | 5 |
| Methylene Chloride | 75-09-2 | ND | 5 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | ND | 5 |
| Tetrachloroethene | 127-18-4 | ND | 5 |
| 1,1,1-Trichloroethane | 71-55-6 | ND | 5 |
| 1,1,2-Trichloroethane | 79-00-5 | ND | 5 |
| Trichloroethene | 79-01-6 | ND | 5 |
| Trichlorofluoromethane | 75-69-4 | ND | 5 |
| 1,1,2-Trichloro- 1,2,2-trifluoroethane | 76-13-1 | ND | 5 |
| Vinyl Chloride | 75-01-4 | ND | 5 |

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: P-1-1.5
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-09A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: G

EPA METHOD 8010 (SOIL MATRIX)
 HALOGENATED VOLATILE ORGANICS

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|-------------------------------------------|------------|--------------------------|-------------------------------|
| Bromodichloromethane | 75-27-4 | ND | 5 |
| Bromoform | 75-25-2 | ND | 5 |
| Bromomethane | 74-83-9 | ND | 5 |
| Carbon Tetrachloride | 56-23-5 | ND | 5 |
| Chlorobenzene | 108-90-7 | ND | 5 |
| Chloroethane | 75-00-3 | ND | 5 |
| 2-Chloroethyl Vinyl Ether | 110-75-8 | ND | 5 |
| Chloroform | 67-66-3 | ND | 5 |
| Chloromethane | 74-87-3 | ND | 5 |
| Dibromochloromethane | 124-48-1 | ND | 5 |
| 1,2-Dichlorobenzene | 95-50-1 | ND | 5 |
| 1,3-Dichlorobenzene | 541-73-1 | ND | 5 |
| 1,4-Dichlorobenzene | 106-46-7 | ND | 5 |
| Dichlorodifluoromethane | 75-71-8 | ND | 5 |
| 1,1-Dichloroethane | 75-34-3 | ND | 5 |
| 1,2-Dichloroethane | 107-06-2 | ND | 5 |
| 1,1-Dichloroethene | 75-35-4 | ND | 5 |
| cis-1,2-Dichloroethene | 156-59-2 | ND | 5 |
| trans-1,2-Dichloroethene | 156-60-5 | ND | 5 |
| 1,2-Dichloropropane | 78-87-5 | ND | 5 |
| cis-1,3-Dichloropropene | 10061-01-5 | ND | 5 |
| trans-1,3-Dichloropropene | 10061-02-6 | ND | 5 |
| Methylene Chloride | 75-09-2 | ND | 5 |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | ND | 5 |
| Tetrachloroethene | 127-18-4 | ND | 5 |
| 1,1,1-Trichloroethane | 71-55-6 | ND | 5 |
| 1,1,2-Trichloroethane | 79-00-5 | ND | 5 |
| Trichloroethene | 79-01-6 | ND | 5 |
| Trichlorofluoromethane | 75-69-4 | ND | 5 |
| 1,1,2-Trichloro- 1,2,2-trifluoroethane | 76-13-1 | ND | 5 |
| Vinyl Chloride | 75-01-4 | ND | 5 |

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: AEW-1-W-9
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-01A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: H

BTEX AND HYDROCARBONS (SOIL MATRIX)
 METHOD: EPA 8020, 5030 GCFID

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------|-----------|--------------------------|-------------------------------|
| Benzene | 71-43-2 | ND | 5 |
| Toluene | 108-88-2 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| Xylenes, Total | 1330-20-7 | ND | 5 |

PURGEABLE HYDROCARBONS AS:

| | | |
|----------|----------|-----------|
| Gasoline | ND mg/kg | 0.2 mg/kg |
|----------|----------|-----------|

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: AEW-2-S-9
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-02A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: H

BTEX AND HYDROCARBONS (SOIL MATRIX)
 METHOD: EPA 8020, 5030 GCFID

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------|-----------|--------------------------|-------------------------------|
| Benzene | 71-43-2 | ND | 5 |
| Toluene | 108-88-2 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| Xylenes, Total | 1330-20-7 | ND | 5 |

PURGEABLE HYDROCARBONS AS:

Gasoline ND mg/kg 0.2 mg/kg

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: AEW-3-S-9
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-03A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: H

BTEX AND HYDROCARBONS (SOIL MATRIX)
 METHOD: EPA 8020, 5030 GCFID

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------|-----------|--------------------------|-------------------------------|
| Benzene | 71-43-2 | ND | 5 |
| Toluene | 108-88-2 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| Xylenes, Total | 1330-20-7 | ND | 5 |

PURGEABLE HYDROCARBONS AS:

Gasoline ND mg/kg 0.2 mg/kg

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: B/CEB-4-W-8
CLIENT PROJ. ID: 1649.08
DATE SAMPLED: 04/07/92
DATE RECEIVED: 04/07/92
REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-04A
QUANTEQ JOB NO: 9204054
DATE ANALYZED: 04/09/92
INSTRUMENT: H

BTEX AND HYDROCARBONS (SOIL MATRIX)
METHOD: EPA 8020, 5030 GCFID

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------|-----------|--------------------------|-------------------------------|
| Benzene | 71-43-2 | ND | 5 |
| Toluene | 108-88-2 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| Xylenes, Total | 1330-20-7 | ND | 5 |

PURGEABLE HYDROCARBONS AS:

Gasoline ND mg/kg 0.2 mg/kg

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: B/CEB-5-E-8
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-05A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: H

BTEX AND HYDROCARBONS (SOIL MATRIX)
 METHOD: EPA 8020, 5030 GCFID

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------|-----------|--------------------------|-------------------------------|
| Benzene | 71-43-2 | ND | 5 |
| Toluene | 108-88-2 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| Xylenes, Total | 1330-20-7 | ND | 5 |

PURGEABLE HYDROCARBONS AS:

Gasoline ND mg/kg 0.2 mg/kg

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: DEW-6-W-9
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-06A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: H

BTEX AND HYDROCARBONS (SOIL MATRIX)
 METHOD: EPA 8020, 5030 GCFID

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------|-----------|--------------------------|-------------------------------|
| Benzene | 71-43-2 | ND | 5 |
| Toluene | 108-88-2 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| Xylenes, Total | 1330-20-7 | ND | 5 |

PURGEABLE HYDROCARBONS AS:

Gasoline ND mg/kg 0.2 mg/kg

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: DEW-7-S-9
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-07A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: H

BTEX AND HYDROCARBONS (SOIL MATRIX)
 METHOD: EPA 8020, 5030 GCFID

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------|-----------|--------------------------|-------------------------------|
| Benzene | 71-43-2 | ND | 5 |
| Toluene | 108-88-2 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| Xylenes, Total | 1330-20-7 | ND | 5 |

PURGEABLE HYDROCARBONS AS:

Gasoline ND mg/kg 0.2 mg/kg

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: DEW-8-E-9
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-08A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: H

BTEX AND HYDROCARBONS (SOIL MATRIX)
 METHOD: EPA 8020, 5030 GCFID

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------|-----------|--------------------------|-------------------------------|
| Benzene | 71-43-2 | ND | 5 |
| Toluene | 108-88-2 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| Xylenes, Total | 1330-20-7 | ND | 5 |

PURGEABLE HYDROCARBONS AS:

Gasoline ND mg/kg 0.2 mg/kg

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: P-1-1.5
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-09A
 QUANTEQ JOB NO: 9204054
 DATE ANALYZED: 04/09/92
 INSTRUMENT: H

BTEX AND HYDROCARBONS (SOIL MATRIX)
 METHOD: EPA 8020, 5030 GCFID

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------|-----------|--------------------------|-------------------------------|
| Benzene | 71-43-2 | ND | 5 |
| Toluene | 108-88-2 | ND | 5 |
| Ethylbenzene | 100-41-4 | ND | 5 |
| Xylenes, Total | 1330-20-7 | ND | 5 |

PURGEABLE HYDROCARBONS AS:

Gasoline ND mg/kg 0.2 mg/kg

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: B/CEB-5-E-8
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-05A
 QUANTEQ JOB NO: 9204054
 DATE EXTRACTED: 04/15/92
 DATE ANALYZED: 04/18/92
 INSTRUMENT: 11

EPA METHOD 8270 (SOIL MATRIX)
 SEMI-VOLATILE ORGANIC COMPOUNDS

GC/MS EXTRACTABLES

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|---------------------------------|------------|--------------------------|-------------------------------|
| Acenaphthene | 83-32-9 | ND | 330 |
| Acenaphthylene | 208-96-8 | ND | 330 |
| Anthracene | 120-12-7 | ND | 330 |
| Benzidine | 92-87-5 | ND | 1600 |
| Benzoic Acid | 65-85-0 | ND | 1600 |
| Benzo(a)anthracene | 56-55-3 | ND | 330 |
| Benzo(b)fluoranthene | 205-99-2 | ND | 330 |
| Benzo(k)fluoranthene | 207-08-9 | ND | 330 |
| Benzo(g,h,i)perylene | 191-24-2 | ND | 330 |
| Benzo(a)pyrene | 50-32-8 | ND | 330 |
| Benzyl Alcohol | 100-51-6 | ND | 660 |
| Bis(2-chloroethoxy) methane | 111-91-1 | ND | 330 |
| Bis(2-chloroethyl)ether | 111-44-4 | ND | 330 |
| Bis(2-chloroisopropyl) ether | 39638-32-9 | ND | 330 |
| Bis(2-ethylhexyl) phthalate | 117-81-7 | ND | 330 |
| 4-Bromophenyl phenyl ether | 101-55-3 | ND | 330 |
| Butylbenzyl phthalate | 85-68-7 | ND | 330 |
| 4-Chloroaniline | 106-47-8 | ND | 660 |
| 2-Chloronaphthalene | 91-58-7 | ND | 330 |
| 4-Chlorophenyl phenyl ether | 7005-72-3 | ND | 330 |
| Chrysene | 218-01-9 | ND | 330 |
| Dibenzo(a,h)anthracene | 53-70-3 | ND | 330 |
| Dibenzofuran | 132-64-9 | ND | 330 |
| Di-n-butylphthalate | 84-74-2 | ND | 330 |
| 1,2-Dichlorobenzene | 95-50-1 | ND | 330 |

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: B/CEB-5-E-8
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-05A
 QUANTEQ JOB NO: 9204054
 DATE EXTRACTED: 04/15/92
 DATE ANALYZED: 04/18/92
 INSTRUMENT: 11

EPA METHOD 8270

GC/MS EXTRACTABLES

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------------------|----------|--------------------------|-------------------------------|
| 1,3-Dichlorobenzene | 541-73-1 | ND | 330 |
| 1,4-Dichlorobenzene | 106-46-7 | ND | 330 |
| 3,3'-Dichlorobenzidine | 91-94-1 | ND | 660 |
| Diethylphthalate | 84-66-2 | ND | 330 |
| Dimethylphthalate | 131-11-3 | ND | 330 |
| 2,4-Dinitrotoluene | 121-14-2 | ND | 330 |
| 2,6-Dinitrotoluene | 606-20-2 | ND | 330 |
| Di-n-octylphthalate | 117-84-0 | ND | 330 |
| 1,2-Diphenylhydrazine | 122-66-7 | ND | 330 |
| Fluoranthene | 206-44-0 | ND | 330 |
| Fluorene | 86-73-7 | ND | 330 |
| Hexachlorobenzene | 118-74-1 | ND | 330 |
| Hexachlorobutadiene | 87-68-3 | ND | 330 |
| Hexachlorocyclopentadiene | 77-47-4 | ND | 330 |
| Hexachloroethane | 67-72-1 | ND | 330 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | ND | 330 |
| Isophorone | 78-59-1 | ND | 330 |
| 2-Methylnaphthalene | 91-57-6 | ND | 330 |
| Naphthalene | 91-20-3 | ND | 330 |
| 2-Nitroaniline | 88-74-4 | ND | 1600 |
| 3-Nitroaniline | 99-09-2 | ND | 1600 |
| 4-Nitroaniline | 100-01-6 | ND | 1600 |
| Nitrobenzene | 98-95-3 | ND | 330 |
| N-Nitrosodimethylamine | 62-75-9 | ND | 330 |
| N-Nitrosodiphenylamine | 86-30-6 | ND | 330 |
| N-Nitroso-di-n-propylamine | 621-64-7 | ND | 330 |
| Phenanthrene | 85-01-8 | ND | 330 |
| Pyrene | 129-00-0 | ND | 330 |
| 1,2,4-Trichlorobenzene | 120-82-1 | ND | 330 |

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: B/CEB-5-E-8
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-05A
 QUANTEQ JOB NO: 9204054
 DATE EXTRACTED: 04/15/92
 DATE ANALYZED: 04/18/92
 INSTRUMENT: 11

EPA METHOD 8270

GC/MS EXTRACTABLES

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------------------|----------|--------------------------|-------------------------------|
| 4-Chloro-3-methylphenol | 59-50-7 | ND | 330 |
| 2-Chlorophenol | 95-57-8 | ND | 330 |
| 2,4-Dichlorophenol | 120-83-2 | ND | 330 |
| 2,4-Dimethylphenol | 105-67-9 | ND | 330 |
| 4,6-Dinitro-2-methylphenol | 534-52-1 | ND | 1600 |
| 2,4-Dinitrophenol | 51-28-5 | ND | 1600 |
| 2-Methylphenol | 95-48-7 | ND | 330 |
| 4-Methylphenol | 106-44-5 | ND | 330 |
| 2-Nitrophenol | 88-75-5 | ND | 330 |
| 4-Nitrophenol | 100-02-7 | ND | 1600 |
| Pentachlorophenol | 87-86-5 | ND | 1600 |
| Phenol | 108-95-2 | ND | 330 |
| 2,4,5-Trichlorophenol | 95-95-4 | ND | 330 |
| 2,4,6-Trichlorophenol | 88-06-2 | ND | 330 |

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: P-1-1.5
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-09A
 QUANTEQ JOB NO: 9204054
 DATE EXTRACTED: 04/15/92
 DATE ANALYZED: 04/18/92
 INSTRUMENT: 11

EPA METHOD 8270 (SOIL MATRIX)
 SEMI-VOLATILE ORGANIC COMPOUNDS

GC/MS EXTRACTABLES

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|---------------------------------|------------|--------------------------|-------------------------------|
| Acenaphthene | 83-32-9 | ND | 330 |
| Acenaphthylene | 208-96-8 | ND | 330 |
| Anthracene | 120-12-7 | ND | 330 |
| Benzidine | 92-87-5 | ND | 1600 |
| Benzoic Acid | 65-85-0 | ND | 1600 |
| Benzo(a)anthracene | 56-55-3 | ND | 330 |
| Benzo(b)fluoranthene | 205-99-2 | ND | 330 |
| Benzo(k)fluoranthene | 207-08-9 | ND | 330 |
| Benzo(g,h,i)perylene | 191-24-2 | ND | 330 |
| Benzo(a)pyrene | 50-32-8 | ND | 330 |
| Benzyl Alcohol | 100-51-6 | ND | 660 |
| Bis(2-chloroethoxy) methane | 111-91-1 | ND | 330 |
| Bis(2-chloroethyl)ether | 111-44-4 | ND | 330 |
| Bis(2-chloroisopropyl) ether | 39638-32-9 | ND | 330 |
| Bis(2-ethylhexyl) phthalate | 117-81-7 | ND | 330 |
| 4-Bromophenyl phenyl ether | 101-55-3 | ND | 330 |
| Butylbenzyl phthalate | 85-68-7 | ND | 330 |
| 4-Chloroaniline | 106-47-8 | ND | 660 |
| 2-Chloronaphthalene | 91-58-7 | ND | 330 |
| 4-Chlorophenyl phenyl ether | 7005-72-3 | ND | 330 |
| Chrysene | 218-01-9 | ND | 330 |
| Dibenzo(a,h)anthracene | 53-70-3 | ND | 330 |
| Dibenzofuran | 132-64-9 | ND | 330 |
| Di-n-butylphthalate | 84-74-2 | ND | 330 |
| 1,2-Dichlorobenzene | 95-50-1 | ND | 330 |

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: P-1-1.5
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-09A
 QUANTEQ JOB NO: 9204054
 DATE EXTRACTED: 04/15/92
 DATE ANALYZED: 04/18/92
 INSTRUMENT: 11

EPA METHOD 8270

GC/MS EXTRACTABLES

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------------------|----------|--------------------------|-------------------------------|
| 1,3-Dichlorobenzene | 541-73-1 | ND | 330 |
| 1,4-Dichlorobenzene | 106-46-7 | ND | 330 |
| 3,3'-Dichlorobenzidine | 91-94-1 | ND | 660 |
| Diethylphthalate | 84-66-2 | ND | 330 |
| Dimethylphthalate | 131-11-3 | ND | 330 |
| 2,4-Dinitrotoluene | 121-14-2 | ND | 330 |
| 2,6-Dinitrotoluene | 606-20-2 | ND | 330 |
| Di-n-octylphthalate | 117-84-0 | ND | 330 |
| 1,2-Diphenylhydrazine | 122-66-7 | ND | 330 |
| Fluoranthene | 206-44-0 | ND | 330 |
| Fluorene | 86-73-7 | ND | 330 |
| Hexachlorobenzene | 118-74-1 | ND | 330 |
| Hexachlorobutadiene | 87-68-3 | ND | 330 |
| Hexachlorocyclopentadiene | 77-47-4 | ND | 330 |
| Hexachloroethane | 67-72-1 | ND | 330 |
| Indeno(1,2,3-cd)pyrene | 193-39-5 | ND | 330 |
| Isophorone | 78-59-1 | ND | 330 |
| 2-Methylnaphthalene | 91-57-6 | ND | 330 |
| Naphthalene | 91-20-3 | ND | 330 |
| 2-Nitroaniline | 88-74-4 | ND | 1600 |
| 3-Nitroaniline | 99-09-2 | ND | 1600 |
| 4-Nitroaniline | 100-01-6 | ND | 1600 |
| Nitrobenzene | 98-95-3 | ND | 330 |
| N-Nitrosodimethylamine | 62-75-9 | ND | 330 |
| N-Nitrosodiphenylamine | 86-30-6 | ND | 330 |
| N-Nitroso-di-n-propylamine | 621-64-7 | ND | 330 |
| Phenanthrene | 85-01-8 | ND | 330 |
| Pyrene | 129-00-0 | ND | 330 |
| 1,2,4-Trichlorobenzene | 120-82-1 | ND | 330 |

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: P-1-1.5
 CLIENT PROJ. ID: 1649.08
 DATE SAMPLED: 04/07/92
 DATE RECEIVED: 04/07/92
 REPORT DATE: 04/24/92

QUANTEQ LAB NO: 9204054-09A
 QUANTEQ JOB NO: 9204054
 DATE EXTRACTED: 04/15/92
 DATE ANALYZED: 04/18/92
 INSTRUMENT: 11

EPA METHOD 8270

GC/MS EXTRACTABLES

| COMPOUND | CAS # | CONCENTRATION (ug/kg) | DETECTION LIMIT (ug/kg) |
|----------------------------|----------|--------------------------|-------------------------------|
| 4-Chloro-3-methylphenol | 59-50-7 | ND | 330 |
| 2-Chlorophenol | 95-57-8 | ND | 330 |
| 2,4-Dichlorophenol | 120-83-2 | ND | 330 |
| 2,4-Dimethylphenol | 105-67-9 | ND | 330 |
| 4,6-Dinitro-2-methylphenol | 534-52-1 | ND | 1600 |
| 2,4-Dinitrophenol | 51-28-5 | ND | 1600 |
| 2-Methylphenol | 95-48-7 | ND | 330 |
| 4-Methylphenol | 106-44-5 | ND | 330 |
| 2-Nitrophenol | 88-75-5 | ND | 330 |
| 4-Nitrophenol | 100-02-7 | ND | 1600 |
| Pentachlorophenol | 87-86-5 | ND | 1600 |
| Phenol | 108-95-2 | ND | 330 |
| 2,4,5-Trichlorophenol | 95-95-4 | ND | 330 |
| 2,4,6-Trichlorophenol | 88-06-2 | ND | 330 |

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 04/08/92
 DATE ANALYZED: 04/08/92
 CLIENT PROJ. ID: 1649.08

QUANTEQ JOB NO: 9204054
 SAMPLE SPIKED: 9204054-09A
 INSTRUMENT: IR

IR DETERMINATION FOR OIL & GREASE/HYDROCARBONS
 METHOD SPIKE RECOVERY SUMMARY
 (SOIL MATRIX)

| ANALYTE | MS Conc. (mg/kg) | Sample Result (mg/kg) | MS Result (mg/kg) | MSD Result (mg/kg) | Average Percent Recovery | RPD |
|---------|------------------|-----------------------|-------------------|--------------------|--------------------------|-----|
| oil | 222 | 67 | 271 | 271 | 91.9 | 0.0 |

CURRENT QC LIMITS (Revised 01/09/92)

| <u>Analyte</u> | <u>Percent Recovery</u> | <u>RPD</u> |
|----------------|-------------------------|------------|
| Oil | (84-113) | 8.1 |

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference
 ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 04/08/92
 DATE ANALYZED: 04/13/92
 CLIENT PROJ. ID: 1649.08

QUANTEQ JOB NO: 9204054
 SAMPLE SPIKED: 9204054-01A
 INSTRUMENT: C

MATRIX SPIKE RECOVERY SUMMARY
 TPH EXTRACTABLE SOILS
 METHOD 3550 GCFID
 (SOIL MATRIX; EXTRACTION METHOD)

| ANALYTE | Spike Conc. (mg/kg) | Sample Result (mg/kg) | MS Result (mg/kg) | MSD Result (mg/kg) | Average Percent Recovery | RPD |
|---------|---------------------|-----------------------|-------------------|--------------------|--------------------------|-----|
| Diesel | 49.5 | ND | 31.8 | 35.0 | 67.5 | 9.6 |

CURRENT QC LIMITS (Revised 08/15/91)

| Analyte | Percent Recovery | RPD |
|---------|------------------|------|
| Diesel | (60.3-116.2) | 19.7 |

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference
 ND = Not Detected

QUALITY CONTROL DATA

INSTRUMENT: G

QUANTEQ JOB NO: 9204054

CLIENT PROJ. ID: 1649.08

SURROGATE STANDARD RECOVERY SUMMARY

METHOD 8010/8020
(SOIL MATRIX)

| SAMPLE IDENTIFICATION | | | SURROGATE RECOVERY (PERCENT) | | |
|-----------------------|-------------|---------|------------------------------|--------------------------|---------------------------|
| Date Analyzed | Client Id. | Lab No. | Bromochloro-methane | 1-Bromo-2-chloro-propane | 1-Chloro-2-fluoro-benzene |
| 04/09/92 | B/CEB-4-W-8 | 04A | 113.5 | 122.9 | 90.9 |
| 04/09/92 | B/CEB-5-E-8 | 05A | 112.5 | 124.8 | 89.9 |
| 04/09/92 | P-1-1.5 | 09A | 113.9 | 120.6 | 90.6 |

CURRENT QC LIMITS (Revised 01/06/92)

| <u>ANALYTE</u> | <u>PERCENT RECOVERY</u> |
|--------------------------|-------------------------|
| Bromochloromethane | (67-131) |
| 1-Bromo-2-chloropropane | (73-133) |
| 1-Chloro-2-fluorobenzene | (82-124) |

QUALITY CONTROL DATA

DATE ANALYZED: 04/09/92
 INSTRUMENT: G
 CLIENT PROJ. ID: 1649.08

QUANTEQ JOB NO: 9204054
 SAMPLE SPIKED: 9204054-09A

METHOD SPIKE RECOVERY SUMMARY

METHOD 8010/8020
 (SOIL MATRIX)

| ANALYTE | Spike Conc. (ug/kg) | Sample Result (ug/kg) | MS Result (ug/kg) | MSD Result (ug/kg) | Average Percent Recovery | RPD |
|--------------------|---------------------|-----------------------|-------------------|--------------------|--------------------------|-----|
| 1,1-Dichloroethene | 500 | ND | 369 | 398 | 76.7 | 7.6 |
| Trichloroethene | 500 | ND | 466 | 502 | 96.8 | 7.4 |
| Benzene | 500 | ND | 445 | 468 | 91.3 | 5.0 |
| Toluene | 500 | ND | 445 | 468 | 91.3 | 5.0 |
| Chlorobenzene | 500 | ND | 407 | 445 | 85.2 | 8.9 |

CURRENT QC LIMITS (Revised 01/06/92)

| Analyte | Percent Recovery | RPD |
|--------------------|------------------|------|
| 1,1-Dichloroethene | (44-126) | 10.1 |
| Trichloroethene | (69-136) | 14.0 |
| Benzene | (79-118) | 6.4 |
| Toluene | (74-126) | 6.7 |
| Chlorobenzene | (75-122) | 10.4 |

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference
 ND = Not Detected

QUALITY CONTROL DATA

DATE ANALYZED: 04/09/92
SAMPLE SPIKED: 9204018-10A
CLIENT PROJ. ID: 1649.08

QUANTEQ JOB NO: 9204054

INSTRUMENT: H

MATRIX SPIKE RECOVERY SUMMARY
METHOD: EPA 8020, 5030 GCFID
(SOIL MATRIX)

| ANALYTE | Spike Conc. (ug/kg) | Sample Result (ug/kg) | MS Result (ug/kg) | MSD Result (ug/kg) | Average Percent Recovery | RPD |
|--------------------------|---------------------|-----------------------|-------------------|--------------------|--------------------------|-----|
| Benzene | 32.4 | ND | 32.1 | 33.0 | 100.0 | 2.8 |
| Toluene | 97.7 | ND | 94.4 | 102.2 | 101.0 | 7.9 |
| Hydrocarbons as Gasoline | 1100 | 1020 | 1890 | 2080 | 86.9 | 9.6 |

CURRENT QC LIMITS (Revised 08/15/91)

| Analyte | Percent Recovery | RPD |
|----------|------------------|------|
| Benzene | (80.8-125.2) | 9.6 |
| Toluene | (82.7-119.1) | 10.2 |
| Gasoline | (54.0-120.1) | 14.8 |

MS = Matrix Spike
MSD = Matrix Spike Duplicate
RPD = Relative Percent Difference
ND = Not Detected

QUALITY CONTROL DATA

DATE ANALYZED: 04/18/92

QUANTEQ JOB NO: 9204054

CLIENT PROJ. ID: 1649.08

INSTRUMENT: 11

SURROGATE STANDARD RECOVERY SUMMARY

METHOD 8270
(SOIL MATRIX)

| SAMPLE IDENTIFICATION | | | SURROGATE RECOVERY (PERCENT) | | | | | |
|-----------------------|-------------|---------|----------------------------------|-----------------------|-------------------------------|-----------------------|---------------------|---------------------------|
| Date Extracted | Client Id. | Lab No. | Nitro- benzene-d ₅ | 2-Fluoro- biphenyl | Terphenyl- d ₁₄ | Phenol-d ₅ | 2-Fluoro- phenol | 2,4,6-Tribromo- phenol |
| 04/15/92 | B/CEB-5-E-8 | 05A | 53.4 | 72.9 | 119.5 | 66.2 | 55.4 | 103.0 |
| 04/15/92 | P-1-1.5 | 09A | 41.1 | 47.6 | 90.0 | 68.2 | 53.4 | 93.2 |

CURRENT QC LIMITS

| <u>ANALYTE</u> | <u>PERCENT RECOVERY</u> |
|----------------------|-------------------------|
| Nitrobenzene-d5 | (23-120) |
| 2-Fluorobiphenyl | (30-115) |
| Terphenyl-d14 | (18-137) |
| Phenol-d5 | (24-113) |
| 2-Fluorophenol | (25-121) |
| 2,4,6-Tribromophenol | (19-122) |

QUALITY CONTROL DATA

DATE ANALYZED: 04/15/92
 DATE EXTRACTED: 04/18/92
 CLIENT PROJ. ID: 1649.08

QUANTEQ JOB NO: 9204054
 SAMPLE SPIKED: 9204058-03A
 INSTRUMENT: 11

MATRIX SPIKE RECOVERY SUMMARY
 METHOD 8270
 (SOIL MATRIX)

| ANALYTE | Spike Conc. (ug/kg) | Sample Result (ug/kg) | MS Result (ug/kg) | MSD Result (ug/kg) | Average Percent Recovery | RPD |
|----------------------------|---------------------|-----------------------|-------------------|--------------------|--------------------------|------|
| Phenol | 3910 | ND | 2930 | 3370 | 80.6 | 14.0 |
| 2-Chlorophenol | 3380 | ND | 2540 | 2970 | 81.5 | 15.6 |
| 1,4-Dichlorobenzene | 3340 | ND | 1740 | 1880 | 53.6 | 7.7 |
| N-Nitroso-di-n-propylamine | 3360 | ND | 2350 | 2530 | 73.1 | 7.4 |
| 1,2,4-Trichlorobenzene | 3490 | ND | 1710 | 1940 | 52.3 | 12.6 |
| 4-Chloro-3-methylphenol | 3390 | ND | 2610 | 2730 | 78.8 | 4.5 |
| Acenaphthene | 3410 | ND | 1930 | 2010 | 57.8 | 4.1 |
| 4-Nitrophenol | 3340 | ND | 1130 | 921 | 30.7 | 20.4 |
| 2,4-Dinitrotoluene | 3390 | ND | 2260 | 2400 | 68.7 | 6.0 |
| Pentachlorophenol | 3430 | ND | 2390 | 2260 | 67.8 | 5.6 |
| Pyrene | 3360 | ND | 2260 | 2330 | 68.3 | 3.1 |

CURRENT QC LIMITS

| Analyte | Percent Recovery | RPD |
|----------------------------|------------------|-----|
| Phenol | (35- 81) | 33 |
| 2-Chlorophenol | (28- 88) | 26 |
| 1,4-Dichlorobenzene | (28- 81) | 9 |
| N-Nitroso-di-n-propylamine | (27- 83) | 20 |
| 1,2,4-Trichlorobenzene | (30- 82) | 22 |
| 4-Chloro-3-methylphenol | (31-104) | 28 |
| Acenaphthene | (30-101) | 17 |
| 4-Nitrophenol | (7-102) | 32 |
| 2,4-Dinitrotoluene | (26- 86) | 24 |
| Pentachlorophenol | (11- 94) | 41 |
| Pyrene | (23-128) | 23 |

MS = Matrix Spike
 MSD = Matrix Spike Duplicate
 RPD = Relative Percent Difference
 ND = Not Detected

QUALITY CONTROL DATA

MATRIX: SOIL

QUANTEQ JOB NO: 9204054

CLIENT PROJ. ID: 1649.08

SAMPLE SPIKED: 9203235-01A

MATRIX SPIKE RECOVERY SUMMARY

| COMPOUND | INST./ METHOD | SAMPLE RESULT | SPIKE ADDED | OBSERVED RECOVERIES (mg/kg) | | | QC CONTROL LIMITS | | |
|--------------|------------------|------------------|----------------|--------------------------------|-------|--------|-------------------|-----------------|--------------|
| | | | | MS | MSD | % REC. | RPD | REC. % LIMIT | RPD LIMIT |
| Cd, Cadmium | ICP/6010 | 0.30 | 20 | 15.74 | 16.14 | 78.2 | 2.46 | 66.1- 95.5 | 12.3 |
| Cr, Chromium | ICP/6010 | 61.2 | 100 | 111.8 | 115.4 | 62.4 | 3.15 | 41.6-110.6 | 10.2 |
| Ni, Nickel | ICP/6010 | 56.3 | 100 | 123.1 | 125.2 | 67.8 | 1.67 | 59.8- 94.6 | 10.6 |
| Pb, Lead | ICP/6010 | 24.9 | 100 | 90.8 | 96.1 | 68.5 | 5.65 | 65.0- 96.7 | 15.3 |
| Zn, Zinc | ICP/6010 | 70.0 | 100 | 154.7 | 152.6 | 83.6 | 1.41 | 46.7- 98.6 | 5.0 |

R-4, S-A

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9204654

| | | | |
|-----------------------------|----------------------------------|--------------|------------------|
| Project No.: 1649.08 | Field Logbook No.: | Date: 4/7/92 | Serial No.: 9015 |
| Project Name: Bushland Site | Project Location: Emeryville, CA | | |

Sampler (Signature): *Michael Stoll* ANALYSES Samplers: MJS

| SAMPLE NO. | DATE | TIME | LAB SAMPLE NO. | NO. OF CONTAINERS | SAMPLE TYPE | ANALYSES | | | | | | | | | | REMARKS | | | |
|-------------|--------|------|----------------|-------------------|-------------|------------|--------------------------|-------|-------|------|-------------------|------|---|---|---|---------|------------------------------|-------------------------|-------------------------------------------------------------------------|
| | | | | | | TOTAL LEAD | CHLORINATED HYDROCARBONS | TPH-6 | TPH-D | BTXE | O+6 (SS20) METALS | RUSH | | | | | | | |
| AEW-1-V-9 | 4/7/92 | | 01A | 1 | SOIL | | | | | | | | | | | | Total Lead by AA | | |
| AEW-2-S-9 | } | | 02A | 1 | } | X | X | X | X | | | | | | | | CHLORINATED Hydrocarbon 8010 | | |
| AEW-3-S-9 | | 03A | 1 | X | | X | X | X | | | | | | | | | | TPH-6 - TPH as Gasoline | |
| B/CEB-4-V-8 | | 04A | 1 | X | | X | X | X | X | X | X | X | | | | | | | TPH-D - TPH as Diesel |
| B/CEB-5-F-8 | | 05A | 1 | X | | X | X | X | X | X | X | X | | | | | | | BTXE - 8020 |
| DEW-6-W-9 | | 06A | 1 | X | | X | X | X | X | | | | | | | | | | O+6 - Oil & Grease SS20 DAF |
| DEW-7-S-9 | | 07A | 1 | X | | X | X | X | | | | | | | | | | | Metals: Cd, Cr, Pb, Zn, Ni |
| DEW-8-E-9 | | 08A | 1 | X | | X | X | X | | | | | | | | | | | |
| P-1-LS | | X | | 09A | | 1 | X | X | X | X | X | X | X | X | X | X | X | X | * Will possibly request 8270 depending on results requested currently * |

48-hr Rush TAT

| | | | | | |
|---------------------------------------------------|-------------|------------|---------------------------------------------|--------------|------------|
| RELINQUISHED BY: (Signature) <i>Michael Stoll</i> | DATE 4/7/92 | TIME 19:00 | RECEIVED BY: (Signature) <i>[Signature]</i> | DATE 4/07/92 | TIME 19:00 |
| RELINQUISHED BY: (Signature) | DATE | TIME | RECEIVED BY: (Signature) | DATE | TIME |
| RELINQUISHED BY: (Signature) | DATE | TIME | RECEIVED BY: (Signature) | DATE | TIME |
| METHOD OF SHIPMENT: | DATE | TIME | LAB COMMENTS: | | |

| | |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| Sample Collector: LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, Ca 94608 (415) 652-4500 | Analytical Laboratory: QUANTEQ, Pleasant Hill, CA |
|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 04/08/92
Extraction: 04/08/92
Reported: 04/09/92
Job #: 73398

Attn: Michael Stoll
Levine-Fricke
1900 Powell Street, 12th Floor
Emeryville, CA 94608


Project: Bashland/11049.08
Matrix: Soil
CC: 9014

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

| <u>Lab ID</u> | <u>Client ID</u> | <u>Oil</u> | <u>MDL</u> |
|---------------|------------------|------------|------------|
| 73398-1 | SP-1 | ND<50 | 50 |
| 73398-2 | SP-2 | ND<50 | 50 |
| 73398-3 | SP-3 | ND<50 | 50 |
| 73398-4 | SP-4 | ND<50 | 50 |

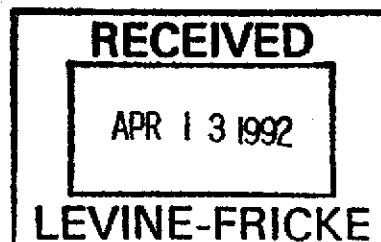
QA/QC: Spike Recovery: 115%

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



Jaime Chow
Laboratory Director

JC/td





Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806

PHONE (510) 222-3002

FAX (510) 222-1251

CERTIFICATE OF ANALYSIS

STATE LICENSE NO. E 750

Received: 04/08/92
Extraction: 04/08/92
Reported: 04/09/92
Job #: 73398

Attn: Michael Stoll
Levine-Fricke
1900 Powell Street, 12th Floor
Emeryville, CA 94608

Project: Bashland
Matrix: Soil

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

| <u>Lab ID</u> | <u>Client ID</u> | <u>Diesel</u> | <u>MDL</u> |
|---------------|------------------|---------------|------------|
| 73398-1 | SP-1 | ND<10 | 10 |
| 73398-2 | SP-2 | 18 | 10 |
| 73398-3 | SP-3 | ND<10 | 10 |
| 73398-4 | SP-4 | ND<10 | 10 |

QA/QC: Spike Recovery: 117%

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

Jaime Chow
Laboratory Director

JC/td



Precision Analytical Laboratory, Inc.

4136 LAKESIDE DRIVE, RICHMOND, CA 94806

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Reported: 04/09/92
Job #: 73398

Project: Bashland
Matrix: Soil

Total Petroleum Hydrocarbon Analysis
EPA Method 5030
mg/Kg

| <u>Lab ID</u> | <u>Client ID</u> | <u>Gasoline</u> | <u>MDL</u> |
|---------------|------------------|-----------------|------------|
| 73398-1 | SP-1 | 1.0 | 1.0 |
| 73398-2 | SP-2 | 2.4 | 1.0 |
| 73398-3 | SP-3 | 1.1 | 1.0 |
| 73398-4 | SP-4 | ND<1.0 | 1.0 |

QA/QC: Spike Recovery: 86%

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

Jaime Chow
Laboratory Director

JC/td



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Emeryville, CA 94608

Received: 04/08/92
Reported: 04/09/92
Job #: 73398

Project: Bashland
Matrix: Soil

Aromatic Volatile Hydrocarbon Analysis
EPA Method 8020
mg/Kg

| <u>Lab ID</u> | <u>Client ID</u> | <u>Benzene</u> | <u>MDL</u> | <u>Toluene</u> | <u>MDL</u> |
|---------------|------------------|----------------|------------|----------------|------------|
| 73398-1 | SP-1 | ND<0.005 | 0.005 | 0.009 | 0.005 |
| 73398-2 | SP-2 | ND<0.005 | 0.005 | 0.018 | 0.005 |
| 73398-3 | SP-3 | ND<0.005 | 0.005 | 0.012 | 0.005 |
| 73398-4 | SP-4 | ND<0.005 | 0.005 | 0.013 | 0.005 |

| <u>Lab ID</u> | <u>Client ID</u> | <u>Ethyl- benzene</u> | <u>MDL</u> | <u>Xylenes</u> | <u>MDL</u> |
|---------------|------------------|---------------------------|------------|----------------|------------|
| 73398-1 | SP-1 | ND<0.005 | 0.005 | 0.036 | 0.005 |
| 73398-2 | SP-2 | ND<0.005 | 0.005 | 0.107 | 0.005 |
| 73398-3 | SP-3 | ND<0.005 | 0.005 | 0.092 | 0.005 |
| 73398-4 | SP-4 | ND<0.005 | 0.005 | 0.097 | 0.005 |

QA/QC: Spike Recovery for Benzene: 87%
Spike Recovery for Toluene: 87%
Spike Recovery for Xylene: 81%

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

Jaime Chow
Laboratory Director

JC/td

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

| | | | |
|-------------------------------|-----------------------------------------|---------------------|-------------------------|
| Project No.: 1649.08 | Field Logbook No.: | Date: 4/8/92 | Serial No.: 9014 |
| Project Name: Bashland | Project Location: Emeryville, CA | | |

| SAMPLER (Signature): <i>Michael Stoll</i> | | | | | ANALYSES | | | | | | | SAMPLERS: | REMARKS | |
|-------------------------------------------|--------|------|----------------|--------------------|-------------|---------|---------|------------|---------|--------------|------|-----------|----------------|---------------------------------|
| SAMPLE NO. | DATE | TIME | LAB SAMPLE NO. | NO. OF CON-TAINERS | SAMPLE TYPE | EPA 601 | EPA 624 | TPH-Diesel | TPH-Oil | TPH-Galoline | BTXE | HOLD | | RUSH |
| SP-1 | 4/8/92 | | | 1 | SOIL | | | X | X | X | | X | | |
| SP-2 | | | | | | | | X | X | X | | X | | TPH-D - detection Limit 10mg/kg |
| SP-3 | | | | | | | | X | X | X | | X | | TPH-O - " " 50mg/kg |
| SP-4 | | | | | | | | X | X | X | | X | | TPH-G - " " 1mg/kg |
| | | | | | | | | | | | | | | BTXE - " " 0.005 #/kg |
| | | | | | | | | | | | | | RUSH 24-hr TAT | |

| | | | | | |
|---------------------------------------------------|------|------|--------------------------------------------------|------|------|
| RELINQUISHED BY: (Signature) <i>Michael Stoll</i> | DATE | TIME | RECEIVED BY: (Signature) <i>Karlwinda Sichen</i> | DATE | TIME |
| RELINQUISHED BY: (Signature) | DATE | TIME | RECEIVED BY: (Signature) | DATE | TIME |
| RELINQUISHED BY: (Signature) | DATE | TIME | RECEIVED BY: (Signature) | DATE | TIME |
| METHOD OF SHIPMENT: | DATE | TIME | LAB COMMENTS: | | |

| | |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Sample Collector: LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, Ca 94608 (415) 652-4500 | Analytical Laboratory: <i>Attn: Swinder</i> Precision Analytical, Richmond, CA |
|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|