Soil Investigation and Remediation Activities Report

Yerba Buena/East Bayridge Development Project
Emeryville, California

July 16, 1993
1649.12

Prepared for
Catellus Development Corporation
201 Mission Street, Suite 202
San Francisco, California 94105

LEVINE·FRICKE

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ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

July 16, 1993 LF-1649.12

Ms. Susan Hugo
Alameda County Health Care Services Agency
80 Swan Way, Room 350
Oakland, California 94621

Subject: Soil Investigation and Remediation Activities Report, Former Bashland Property, Yerba Buena/East Baybridge Development Project, Emeryville, California

Dear Ms. Hugo:

The subject report is enclosed for your review. If you have any questions, please call me or Cindy Barclay.

Sincerely,

Jenifer Beatty

Jenifer Beatty
Project Hydrogeologist

Enclosures

cc: Richard Hiett, RWQCB
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**SOIL INVESTIGATION AND REMEDIATION ACTIVITIES REPORT
FORMER BASHLAND PROPERTY
YERBA BUENA/EAST BAYBRIDGE DEVELOPMENT PROJECT
EMERYVILLE, CALIFORNIA**

1.0 INTRODUCTION

This report describes soil investigation and remediation activities conducted by Levine·Fricke at the former Bashland Construction Company ("Bashland") Property ("the Property"), 4015 Hollis Street, located within the Yerba Buena/East Baybridge Development Project ("the Site") in Emeryville, California (Figure 1). This report was prepared by Levine·Fricke for Catellus Development Corporation ("Catellus"), contractor for the Site.

During recent activities to prepare the Site for development, subsurface structures were encountered at the Property. Levine·Fricke personnel notified the Alameda Health Care Services Agency (ACHA) of the presence of these structures, and prepared a February 23, 1993 letter to describe the structures and to present a scope of work to remove the structures and investigate and remediate affected soil encountered in the vicinity of the structures (Levine·Fricke 1993a). This report details the activities conducted.

Background

On behalf of Catellus, Levine·Fricke initiated environmental investigations at the Site in September 1989. Results of a site history review conducted during these investigations indicated that a bus and truck service garage was maintained at 4015 Hollis Street from as early as 1957 to at least 1983 (Levine·Fricke 1990). During that time, three underground storage tanks (USTs) were located at the Property and apparently used for fuel storage. The contents of the USTs association with the service garage reportedly were removed before 1984. The USTs themselves were removed by Levine·Fricke in 1992 (Levine·Fricke 1992b).

Between 1984 and 1991, Bashland maintained an approximately 31,000-square-foot warehouse and office trailers at the Property. The office trailers were removed from the Property before 1990 (Levine·Fricke 1990). The warehouse was

demolished and removed in 1991, except for a concrete floor slab. The floor slab was removed from the Property in February 1993 under the observation of Levine·Fricke personnel. During removal, two hydraulic lifts, an oil/water separator, and a concrete inspection pit were encountered beneath the floor slab. It is believed that these structures were associated with operation of the service garage.

2.0 OBJECTIVE AND SCOPE OF WORK

The objectives of the soil investigation and remediation activities conducted were to remove subsurface structures encountered during removal of the Bashland warehouse floor slab, and to characterize and remediate soil in the vicinity of those structures. The scope of work for soil remediation at the Property consisted of the following:

- removal of an oil/water separator, a concrete inspection pit, and two hydraulic lifts
- characterization of soil in the vicinity of these structures
- disposal of the concrete oil/water separator, the petroleum product and sludge contained within the oil/water separator, and the soil adjacent to the oil/water separator
- remediation of soil affected with total petroleum hydrocarbons (TPH) in the vicinity of the hydraulic lifts
- preparation of this report summarizing the results of the soil investigation and remediation activities.

Sections 4.0 through 6.0 provide descriptions of the field activities, analytical results of confirmation soil sampling, backfilling and compaction activities, and conclusions regarding the remediation of soil at the Property affected by TPH and polychlorinated biphenyls (PCBs).

3.0 REMOVAL OF SUBSURFACE STRUCTURES AND INITIAL SOIL INVESTIGATION AND REMEDIATION

In February 1993, R.C. Goblirsch, Inc., of San Francisco, California, removed the former Bashland warehouse concrete floor slab under the observation of Levine·Fricke personnel. During removal of the floor slab, Levine·Fricke personnel observed an oil/water separator, a concrete inspection pit,

and two hydraulic lifts located directly beneath the floor slab in the northern, central, and southern portions of the slab, respectively (Figure 2).

On February 18, 1993, Levine·Fricke notified Ms. Susan Hugo of the ACHA by telephone of the presence of the these subsurface structures and associated petroleum product. Levine·Fricke then prepared a February 23, 1993 letter describing the structures and presenting a scope of work to remove the structures and investigate and remediate affected soil encountered in the vicinity of the structures. The February 23, 1993 letter also confirmed cleanup goals for the Property as being the cleanup criteria that had been established by the ACHA and Regional Water Quality Control Board (RWQCB) for the former Ransome Property, located just east of the Property across Hollis Street (Levine·Fricke 1992b).

The February 23, 1993 letter proposed that affected soils be removed until sidewall and floor samples indicated remaining soils contained concentrations of less than 10 parts per million (ppm) TPH as gasoline (TPHg), 100 ppm TPH as diesel (TPHd), 1 ppm for combined benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), and 1,000 ppm oil and grease (O&G). A 1 ppm cleanup goal for PCBs in soil, as approved by the ACHA and RWQCB in the Site Remedial Plan for the Site (Levine·Fricke 1991), also was proposed.

3.1 Oil/Water Separator

When the concrete oil/water separator was encountered beneath the northern portion of the floor slab, the separator was approximately half full of a liquid, concrete rubble, mud, and sludge. A sample of the liquid was collected and sent to Friedman and Bruya of Seattle, Washington, for petroleum hydrocarbon characterization and PCB analysis. Results indicated that the liquid was comprised of diesel, heavy oil (i.e., motor oil), and mineral spirits, and that the liquid contained PCBs. Laboratory certificates are contained in Appendix A.

On February 4, 1993, Evergreen Oil Recyclers of Newark, California, pumped the product and some of the sludge from the oil-water separator and transported the product and sludge off site for disposal. Some of the concrete rubble and sludge remaining in the oil-water separator were removed using an excavator or by hand, and placed into drums that were temporarily stored on site. The drums were disposed of with the oil/water separator, as described below.

On March 23 and 24, 1993, Dillard Environmental ("Dillard") of Byron, California, removed the oil/water separator and associated piping under the observation of Levine•Fricke personnel. The oil/water separator and other affected material were transported by Dillard under hazardous waste manifest to the U.S. Ecology Class I landfill in Beatty, Nevada, for disposal.

During removal of the oil/water separator, soils were excavated from an area measuring approximately 20 feet by 15 feet and to a depth of 6.5 feet. To assess whether affected soil had been removed, seven soil samples were collected from the sidewalls and bottom of the completed excavation and from under the discharge pipe (Figure 3). Procedures for soil sample collection are described in Appendix B. Soil samples were submitted for laboratory analysis to Anametrix, Inc., of San Jose, California. The analysis performed and the analytical results reported are summarized in Table 1 and laboratory certificates are presented in Appendix C.

It should be noted that soil samples collected from the Property were generally analyzed for O&G using two methods: Standard Method 5520E for total O&G, including animal fat, vegetable oil, and/or petroleum hydrocarbons; and Standard Method 5520EF for total recoverable petroleum hydrocarbons as O&G (TRPH), which includes only the petroleum hydrocarbon components of O&G. For the purpose of this report, only concentrations of TRPH will be discussed.

Results for soil samples collected from the excavation indicated only concentrations of TRPH, ranging from 33 ppm to 180 ppm. No gasoline, diesel, volatile aromatic, or PCB compounds were detected. These concentrations of TRPH are well below the cleanup goal for O&G of 1,000 ppm, and no further excavation was conducted in this area.

3.2 Concrete Inspection Pit

As shown in Figure 2, a concrete inspection pit was located beneath the central portion of the floor slab. Apparently, this pit had been used for vehicle maintenance and repair. The inspection pit was constructed of approximately 6-inch-thick concrete and appeared to be in good condition with no staining or discoloration.

On February 10, 1993, R.C. Goblirsch removed the concrete inspection pit under the observation of Levine•Fricke personnel. The excavation measured approximately 40 feet by

8 feet by 5 feet deep. No evidence of soil staining or discoloration was observed and no petroleum odors were noted in this area.

One soil sample (SB-3-5.5) was collected from below the concrete inspection pit and submitted to Anametrix, Inc., for laboratory analysis. The analysis methods used and the analytical results reported for this sample are summarized in Table 1. Laboratory certificates are presented in Appendix C.

Results for sample SB-3-5.5 did not indicate the presence of petroleum hydrocarbons or associated compounds. No further excavation was conducted in this area.

3.3 Hydraulic Lifts

As shown in Figure 2, two hydraulic lifts were located beneath the southern portion of the floor slab. The two lifts were in an east-west alignment.

The eastern hydraulic lift was enclosed in a concrete vault approximately 3 feet wide by 20 feet long and approximately 6 feet deep. Liquid and concrete rubble were present in the vault. Levine•Fricke personnel collected a sample of this liquid and submitted it to Friedman and Bruya for petroleum hydrocarbon characterization and PCB analysis. The liquid was characterized as heavy oil and did not contain PCBs above the laboratory detection limit of 1 ppm. Laboratory certificates are contained in Appendix A. Rocks and concrete rubble in the vault were removed by hand and stockpiled on site. Oil absorbent pads used to clean up remaining product in the vault were temporarily stored on site in 55-gallon drums.

The western hydraulic lift was not enclosed in a vault but was surrounded by native soil and supported at approximately 8 feet below ground surface (bgs) by two 4-foot-square concrete slabs that were each approximately 10 inches thick. The concrete slab appeared to be clean with no evidence of staining or discoloration.

On February 3 and 16, 1993, R.C. Goblirsch removed the hydraulic lifts under the observation of Levine•Fricke personnel. No detectable odor was noted from the soil excavated during removal of either lift. Two bottom samples (BS-5-8 and BS-6-8) were collected for laboratory analysis from the excavation for the eastern lift, and four sidewall samples (SW-1-5.5, SW-2-7, SW-3-8, and SW-4-5) were collected at various depths from the excavation for the western hydraulic lift (Figure 3). The analysis methods used and the

analytical results reported for these samples are summarized in Table 1. Laboratory certificates are presented in Appendix C.

No organic lead, PCBs, TPHg, or BTEX compounds were detected in any of the samples analyzed. Analytical results indicated concentrations of TPHd and TRPH above cleanup criteria in two of the sidewall samples (SW-1-5.5 and SW-2-7) collected from the western hydraulic lift (Table 2). The laboratory QA/QC summary indicated that the TPHd concentrations reported appeared to be a mixture of diesel and a light oil.

4.0 ADDITIONAL INVESTIGATION AND SOIL REMEDIATION

Results of initial soil sampling and analysis conducted following the removal of subsurface structures indicated concentrations of TRPH exceeding the cleanup criteria of 1,000 ppm in the vicinity of the western hydraulic lift. Additional excavation of this area was initiated on April 12, 1993, by Trumpp Brothers of San Jose, California, under the supervision of Levine·Fricke personnel.

4.1 Methods and Procedures

Approximately 1,200 cubic yards of soil was removed from the excavation during soil remediation activities. The depth of the final excavation ranged from 9 to 11 feet bgs. Petroleum-affected soil appeared to be restricted to a blue-green clay layer excavated from 5 to approximately 9 to 11 feet bgs.

Soil was excavated using a backhoe and a track-mounted excavator and stockpiled on site. Excavation continued until visual and olfactory observations indicated reduced petroleum hydrocarbon concentrations. Soil samples were then collected for laboratory analyses from the excavation sidewalls and/or floor to confirm observations. All soil samples were collected in accordance with field procedures described in Appendix B.

4.2 Verification Sampling and Analysis

To verify that excavation of the hydraulic lifts and petroleum-affected soil was complete, Levine·Fricke personnel collected 24 sidewall soil samples and 9 bottom samples. Soil samples were submitted for laboratory analysis of O&G using Standard Method 5520 E and TRPH using Standard Method 5520 EF.

Soil was excavated and resampled until results of laboratory analyses indicated that concentrations of TRPH were generally less than the cleanup criteria of 1,000 ppm.

A total of 12 sidewall and 9 bottom samples represent the final excavation boundaries. This represents an average of one sidewall sample per 16 linear feet and one bottom sample per 285 square feet. Final verification soil sample locations and analytical results are presented on Figure 4 and in Table 2. Laboratory certificates are presented in Appendix C.

Of the 21 final samples collected, TRPH was detected at concentrations above the cleanup criteria in two samples (BS-3-10.5 and B5-13) collected from one location beneath the western hydraulic lift. The TRPH concentrations reported for samples BS-3-10.5 and B5-13 (collected at 10.5 and 13 feet bgs) were 1,400 ppm and 1,500 ppm, respectively (Table 2). These samples were collected approximately 2.5 feet and 5 feet below the static ground-water level, approximately 8 feet bgs. On the basis of the depth of the samples relative to the static ground-water level and the minimal lateral extent of affected soil as shown by the analytical results for adjacent samples (samples B8-9.5, NS4-11, B4-11, ES3-10, B10-9, and WS13-9), soil was excavated to approximately 11 feet bgs in this area.

4.3 Shallow Ground-Water Quality

To assess whether shallow ground water in the vicinity of the hydraulic lift has been affected by oil associated with the lift, a grab ground-water sample was collected from the excavation. Upon completion of the hydraulic lift excavation on May 18, 1993, ground water was pumped out of the excavation and allowed to recharge into the excavation. Levine·Fricke personnel collected a ground-water sample from the excavation on May 19, 1993, and submitted it to Anametrix, Inc., for laboratory analysis. The ground-water sample was analyzed for TPHg and BTEX using EPA Methods 8015/8020, TPHd using EPA Method 3510, and TRPH using Standard Method 5520BF.

With the exception of TPHd, analytical results did not indicate the presence of any of compounds above laboratory detection limits. TPHd was detected at a concentration of 1.2 ppm. The laboratory QA/QC summary indicated that concentrations reported as diesel were primarily due to the presence of a heavier petroleum product in the motor oil range (C_{18}-C_{36}). Laboratory certificates are contained in Appendix D.

4.4 Characterization of Stockpiled Soil

To characterize the approximately 1,200 cubic yards (stockpiled volume) of soil excavated and stockpiled on site during these excavation activities, Levine·Fricke personnel collected 19 soil samples from the stockpiles.

The soil samples were submitted for laboratory analysis to AEN and Anametrix, Inc. The analysis methods used and the analytical results reported for the stockpile soil samples are presented in Table 3. Laboratory certificates are presented in Appendix C.

BTEX and organic lead were not detected in any of the samples analyzed. Results indicated concentrations of TRPH above backfill criteria (500 ppm) in samples SP-1, SP-3, SP-4, SP-6, and SP-7, ranging from 830 ppm to 4,500 ppm. It should be noted that while analytical results indicated TPHd concentrations in several soil samples ranging from 12 ppm to 980 ppm, laboratory QA/QC summaries for the majority of these results indicate that the results for TPHd were primarily due to the presence of a heavier petroleum product in the motor oil range (C_{18}-C_{36}). This evaluation is consistent with AEN's evaluation of chromatographs for the project, which indicated the presence of only one fuel product (a lubrication-type oil) in soil samples collected at the Site and submitted for laboratory analysis.

Approximately 500 cubic yards of stockpiled soil was determined to be below backfill criteria for the Property and was used as backfill material as discussed in Section 5.0.

As verbally approved by Ms. Susan Hugo of the ACHA and Mr. Richard Hiett of the RWQCB in a meeting on June 2, 1993, approximately 700 cubic yards of stockpiled soil containing TRPH exceeding backfill criteria will be contained in the Phase I Area of the Yerba Buena/East Baybridge Development Project Site (east of Hollis Street) in accordance with the "Containment Plan for Total Petroleum Hydrocarbon-Affected Soils, Yerba Buena Project Site, Emeryville and Oakland, California," dated March 10, 1992. The plan for containing petroleum hydrocarbon-affected soil beneath paved parking areas and/or building foundations was previously approved by the RWQCB in a letter dated June 24, 1992 to Ric Notini of Catellus.

5.0 BACKFILL AND COMPACTION

Trumpp Bros., Inc., of San Jose California, conducted backfilling and compaction activities between May 19 and June 3, 1993. A Levine·Fricke field engineer was on site during backfill and compaction activities to monitor fill placement and compaction, and to conduct field compaction tests. A detailed description of backfill and compaction procedures is included in Appendix E.

Before beginning backfilling of the excavations, loose soils were removed from the excavations. While removing these loose soils, a fill containing substantial amounts of rubble and debris was observed to extend across the entire excavation area, to approximately 9 feet below ground surface (bgs). The debris and rubble consisted of wood, ceramics, glass, and metal. The fill was considered to be unsatisfactory as a subgrade for the excavation because, to our knowledge, no records of placement were available, the fill was soft and wet, and the debris was present in the fill. Consequently, the fill was removed until undisturbed native soil was encountered. The excavated fill was stockpiled outside of the excavation. Debris, boulders larger than 6 inches in diameter, and soft, saturated clays were removed from the stockpile to make the soil suitable for reuse as backfill in the excavation.

Because of space limitations at the Property, excavation and backfilling of the existing fill was performed in sections. The excavation was divided into four small areas (A, B, C and D; Figure 5). Each area was cleared of stockpiled soil and backfilled to approximately 4.5 feet bgs before the next area was cleared and backfilled. After all four areas had been backfilled to approximately 4.5 feet bgs, the entire excavation was backfilled to approximately 1 foot bgs.

The excavations were backfilled from approximately 9 to 8 feet bgs with 3/4-inch drain rock to stabilize the bottom of the excavation. A geotextile was laid on top of the drain rock to act as a separator before placing the backfill material. Recycled aggregate subbase (ASB) was placed on the drain rock to approximately 4.5 feet bgs, and on-site fill was placed from approximately 4.5 feet bgs to 1 foot bgs. The ASB was compacted to a minimum of 90 percent relative compaction to 5.5 feet bgs. All lifts above 5.5 feet bgs were compacted to a minimum of 95 percent relative compaction. The in-place density of each lift was tested by a Levine·Fricke engineer using a nuclear density gauge (ASTM Method D-2922). Results of laboratory compaction testing of the ASB are presented in

Table E-1 of Appendix E and field density test results are presented in Table E-2 of Appendix E. Field test locations are shown on Figure 5.

6.0 SUMMARY AND CONCLUSIONS

Two hydraulic lifts, an oil/water separator, and a concrete inspection pit were encountered, and subsequently removed from beneath the concrete floor slab of the former Bashland Warehouse building during demolition activities. These subsurface structures appear to be associated with a former bus and truck service garage that operated at Property from as early as 1957 to at least 1983.

With the exception of soil encountered immediately beneath the western hydraulic lift, analytical results for soil samples collected at the Property indicate that soil containing petroleum hydrocarbons exceeding the established cleanup criteria have been removed. The criteria are 10 ppm TPHg, 100 ppm TPHd, 1 ppm BTEX compounds, and 1,000 ppm O&G.

Soil collected from directly beneath the western hydraulic lift contained concentrations of TRPH up to 1,500 ppm, which exceeds the cleanup criteria of 1,000 ppm. However, these soil samples were collected at depths approximately 2.5 to 5 feet below the static ground-water level (approximately 8 feet bgs). On the basis of the depth of these soil samples below ground water, and the limited lateral extent of oil-affected soil in this area (based on analytical results for adjacent soil samples), this area was excavated to 11 feet bgs.

To assess shallow ground-water quality in this area, ground water was pumped out of the completed excavation and allowed to recharge. A ground-water sample was collected the next day by Levine·Fricke personnel and submitted to Anametrix, Inc., for laboratory analysis. With the exception of TPHd, no petroleum hydrocarbons or associated compounds were detected. TPHd was detected at a concentration of 1.2 ppm. The laboratory QA/QC summary indicated that concentrations reported as diesel were primarily due to the presence of a heavier petroleum product in the motor oil range (C_{18}-C_{36}).

The excavation was subsequently backfilled using clean imported material and native soil that was determined to contain chemical concentrations below established backfill criteria.

On the basis of the soil and ground-water quality results presented in this report, soil and/or ground-water investigations in this area are considered complete, pending review of this report by the relevant regulatory agencies.

REFERENCES

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

———. 1991. Site Remedial Plan, Yerba Buena Project Site, Emeryville and Oakland, California. February 11.

———. 1992a. Containment Plan for Total Petroleum Hydrocarbon-Affected Soils, Yerba Buena Project Site, Emeryville and Oakland, California. March 10.

———. 1992b. Soil Remediation Activities Report, Former Ransome Property, Yerba Buena Project Site, Emeryville, California. December 21.

———. 1993a. Correspondence to Ms. Susan Hugo of Alameda County Health Care Services Agency. Subject: Summary of Investigation Activities Performed to Date at the Former Bashland Property, Yerba Buena Project Site, Emeryville, California. February 23

———. 1993b. Combined Soil and Ground-Water Investigation Report and Quarterly Monitoring Report for the Period from January 1 through March 31, 1993, Former Bashland Property, Emeryville, California. April 5

———. 1993c. Quarterly Monitoring Report for the Period from January 1 through March 31, 1993, Former Ransome Property, Yerba Buena Project Site, Emeryville, California. April 12.

TABLE 1

ANALYTICAL RESULTS FOR INITIAL SOIL SAMPLES
FORMER BASHLAND PROPERTY, EMERYVILLE, CALIFORNIA
(results expressed in milligrams per kilograms [mg/kg])

Sample ID	Depth (ft bgs)	Sample Date	TPHg	MS	TPHd	O & G	TRPH	Benzene	Toluene	Ethyl-benzene	Xylenes	Organic Lead	PCBs
Concrete Inspection Pit Excavation													
BS-3-5.5	5.5	10-Feb-93	<0.5	NA	<10	NA	<30	<0.005	<0.005	<0.005	<0.005	<0.30	<0.08/<0.16
Oil/Water Separator													
Pipe-2-3.5	3.5	10-Feb-93	<0.5	NA	<10	NA	120	<0.005	<0.005	<0.005	<0.005	<0.30	<0.08/<0.16
SB-1E-3.0	3.0	23-Mar-93	<0.5	<0.5	<10	NA	60	<0.005	<0.005	<0.005	<0.005	NA	<0.08/<0.16
SB-2W-4.0	4.0	23-Mar-93	<0.5	<0.5	<10	NA	180	<0.005	<0.005	<0.005	<0.005	NA	<0.08/<0.16
SB-3N-3.0	3.0	23-Mar-93	<0.5	<0.5	<10	NA	<30	<0.005	<0.005	<0.005	<0.005	NA	<0.08/<0.16
SB-4S-5.0	5.0	23-Mar-93	<0.5	<0.5	<10	NA	33	<0.005	<0.005	<0.005	<0.005	NA	<0.08/<0.16
SB-5B-5.5	5.5	23-Mar-93	<0.5	<0.5	<10	NA	<30	<0.005	<0.005	<0.005	<0.005	NA	<0.08/<0.16
SB-6B-7.5	7.5	23-Mar-93	<0.5	<0.5	<10	NA	<30	<0.005	<0.005	<0.005	<0.005	NA	<0.08/<0.16
SB-7-3.0	3.0	24-Mar-93	<0.5	<0.5	<10	NA	70	<0.005	<0.005	<0.005	<0.005	NA	<0.08/<0.16
Hydraulic Lift Excavation													
SW-1-5.5	5.5	03-Feb-93	NA	NA	1000 (1)	1300	1100	NA	NA	NA	NA	NA	NA
SW-2-7	7.0	03-Feb-93	<0.3	NA	3600 (1)	2400	2300	<0.005	<0.005	<0.005	<0.005	NA	NA
SW-3-8	8.0	03-Feb-93	NA	NA	NA	170	170	NA	NA	NA	NA	<2	<0.05
WS-6	6.0	12-Apr-93	NA	NA	<1	2600	2400	NA	NA	NA	NA	NA	NA
WS4-11	11.0	16-Apr-93	NA	NA	NA	<10	<10	NA	NA	NA	NA	NA	NA
WS5-7	7.0	16-Apr-93	NA	NA	NA	1300	1300	NA	NA	NA	NA	NA	NA
WS8-4	4.0	16-Apr-93	NA	NA	NA	<10	<10	NA	NA	NA	NA	NA	NA
NS2-6.5	6.5	12-Apr-93	NA	NA	<1	1300	1100	NA	NA	NA	NA	NA	NA
SS2-7	7.0	12-Apr-93	NA	NS	<1	700	590	NA	NA	NA	NA	NA	NA
SS4-7	7.0	16-Apr-93	NA	NA	NA	<10	<10	NA	NA	NA	NA	NA	NA
SS5-13	13.0	16-Apr-93	NA	NA	NA	<10	<10	NA	NA	NA	NA	NA	NA
SS6-7	7.0	16-Apr-93	NA	NA	NA	1100	1000	NA	NA	NA	NA	NA	NA

Data entered by MEK/21-Apr-93, 6-May-93, 25-May-93. Data proofed by _____ QA/QC by _____

NOTES

ft bgs = feet below ground surface.

mg/kg = milligrams per kilogram; equivalent to parts per million.

TPHg = Total petroleum hydrocarbons as gasoline; analyzed using Modified EPA method 8015/5030 (GCFID).

MS = Mineral spirits; analyzed using modified EPA Method 8015/5030 (GCFID).

TPHd = Total petroleum hydrocarbons as diesel; analyzed using EPA Method 3550.

Total O & G = Total oil and grease: all oil and grease compounds (including animal fat, vegetable oil, and/or petroleum hydrocarbons); analyzed using Standard Method 5520E (Quanteq Laboratories - American Environmental Network).

TRPH = Total recoverable petroleum hydrocarbons as oil and grease (only the petroleum components of oil and of grease; analyzed using Standard Method 5520EF).

Benzene, toluene, ethylbenzene, and xylenes analyzed using Modified EPA Method 8020/5030.

(1) Results reported by laboratory to be a mixture of diesel and light oil. The laboratory reviewed chromotographs for subsequent samples collected from the site (WS-6, NS2-6.5, SS-2-7) and determined that only oil was present in the samples.

TABLE 2

ANALYTICAL RESULTS FOR VERIFICATION SOIL SAMPLES COLLECTED FROM THE HYDRAULIC LIFT EXCAVATION
FORMER BASHLAND PROPERTY, EMERYVILLE, CALIFORNIA
(results expressed in milligrams per kilograms [mg/kg])

Sample ID	Depth (ft bgs)	Sample Date	TPHg	TPHd	O & G	TRPH	Benzene	Toluene	Ethyl-benzene	Xylenes	PCBs
BS-5-8	8.0	16-Feb-93	NA	<10	NA	30	NA	NA	NA	NA	<0.08/<0.16
BS-3-10.5*	10.5	13-Apr-93	<0.2	<1	1400	1400	<0.005	<0.005	<0.005	<0.005	<0.05
BS-13*	13.0	16-Apr-93	NA	NA	1600	1500	NA	NA	NA	NA	NA
BN-8	8.0	15-Apr-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
B4-11	11.0	15-Apr-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
B6-7	7.0	16-Apr-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
BW-13	13.0	15-Apr-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
B8-9.5	9.5	12-May-93	NA	NA	970	920	NA	NA	NA	NA	NA
B10-9	9.0	12-May-93	NA	NA	220	210	NA	NA	NA	NA	NA
NS1-4	4.0	12-Apr-93	NA	<1	<10	<10	NA	NA	NA	NA	NA
SS1-5	5.0	12-Apr-93	NA	<1	<10	<10	NA	NA	NA	NA	NA
ES-5	5.0	12-Apr-93	NA	<1	<10	<10	NA	NA	NA	NA	NA
NS3-6.5	6.5	15-Apr-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
ES-2-7.5	7.5	15-Apr-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
WS6-7	7.0	16-Apr-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
ES3-10	10.0	16-Apr-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
NS4-11	11.0	16-Apr-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
WS7-13	13.0	16-Apr-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
WS9-8	8.0	12-May-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
WS12-7	7.0	18-May-93	NA	NA	<10	<10	NA	NA	NA	NA	NA
WS13-9	9.0	18-May-93	NA	NA	<10	<10	NA	NA	NA	NA	NA

Data entered by MEK/21-Apr-93, 6-May-93, 25-May-93. Data proofed by MEK/24-May-93. QA/QC by MEK/25-May-93.

NOTES

ft bgs = feet below ground surface.

mg/kg = milligrams per kilogram; equivalent to parts per million.

TPHg = Total petroleum hydrocarbons as gasoline; analyzed using Modified EPA Method 8015/5030 (GCFID).

TPHd = Total petroleum hydrocarbons as diesel; analyzed using EPA Method 3550.

Total O & G = Total oil and grease: all oil and grease compounds (including animal fat and/or vegetable oil) analyzed using Standard Method 5520E (Quanteq Laboratories - American Environmental Network).

TRPH = Total recoverable petroleum hydrocarbons as oil and grease: only the petroleum components of "Total Grease"; using Standard Method 5520F.

Benzene, toluene, ethylbenzene, and xylenes analyzed using Modified EPA Method 8020/5030.

* Soil samples collected from same location (see Figure 4). This area was excavated to a depth of of approximately 11 feet bgs.

TABLE 3

ANALYTICAL RESULTS FOR STOCKPILE SAMPLES (1)
FORMER BASHLAND PROPERTY, EMERYVILLE, CALIFORNIA
(results expressed in milligrams per kilograms [mg/kg])

Sample ID	Stockpile	Sample Date	Notes	TPHg	TPHd	O & G	TRPH	Benzene	Toluene	Ethyl-benzene	Xylenes	PCBs	Organic Lead
SS-10-1.5		10-Feb-93	(2)	1.7	23	NA	150	<0.005	<0.005	<0.005	<0.005	<0.08/<0.16	<0.30
SP-1	SP-1	08-Apr-93		<0.5	860	NA	1,100	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA
SP-3	SP-2	08-Apr-93		<0.5	220	NA	830	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA
SP-4A	SP-3	08-Apr-93		<0.5	520	NA	2,100	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA
SP-4	SP-4	12-Apr-93	(3)	5.4	860	5,200	4,500	<0.005	<0.005	<0.005	<0.005	0.07	NA
SP-5	SP-5	13-Apr-93		NA	980	NA	500	NA	NA	NA	NA	NA	NA
SP-6A	SP-6	13-Apr-93		NA	12	NA	160	NA	NA	NA	NA	NA	NA
SP-6C	SP-6	13-Apr-93	(4)	NA	<100	NA	2,300	NA	NA	NA	NA	NA	NA
SP-7	SP-7	13-Apr-93		NA	710	NA	1,600	NA	NA	NA	NA	NA	NA
SP-10A	SP-10	18-May-93		NA	NA	60	40	NA	NA	NA	NA	NA	NA
SP-10B	SP-10	18-May-93		NA	NA	140	130	NA	NA	NA	NA	NA	NA
SP-10C	SP-10	18-May-93		NA	NA	170	170	NA	NA	NA	NA	NA	NA
SP-10D	SP-10	18-May-93		NA	NA	210	140	NA	NA	NA	NA	NA	NA
SP-11A	SP-11	18-May-93		NA	NA	490	270	NA	NA	NA	NA	NA	NA
SP-11B	SP-11	18-May-93		NA	NA	190	150	NA	NA	NA	NA	NA	NA
SP-12A	SP-12	18-May-93		NA	NA	430	250	NA	NA	NA	NA	NA	NA
SP-12B	SP-12	18-May-93		NA	NA	80	60	NA	NA	NA	NA	NA	NA
SP-12C	SP-12	18-May-93		NA	NA	100	70	NA	NA	NA	NA	NA	NA
SP-12D	SP-12	18-May-93		NA	NA	100	80	NA	NA	NA	NA	NA	NA

Data entered by MEK/6-May-93, 25-May-93. Data proofed by MEK/25-May-93. QA/QC by MEK/24-May-93.

NOTES

mg/kg = milligrams per kilogram; equivalent to parts per million.

TPHg = Total petroleum hydrocarbons as gasoline; analyzed using Modified EPA Method 8015/5030 (GCFID).

TPHd = Total petroleum hydrocarbons as diesel; analyzed using EPA Method 3550.

Total O & G = Total oil and grease: all oil and grease compounds (including animal fat and/or vegetable oil) analyzed using Standard Method 5520E (Quanteq Laboratories - American Environmental Network).

TRPH = Total recoverable petroleum hydrocarbons as oil and grease: only the petroleum components of "Total Oil and Grease"; using Standard Method 5520F.

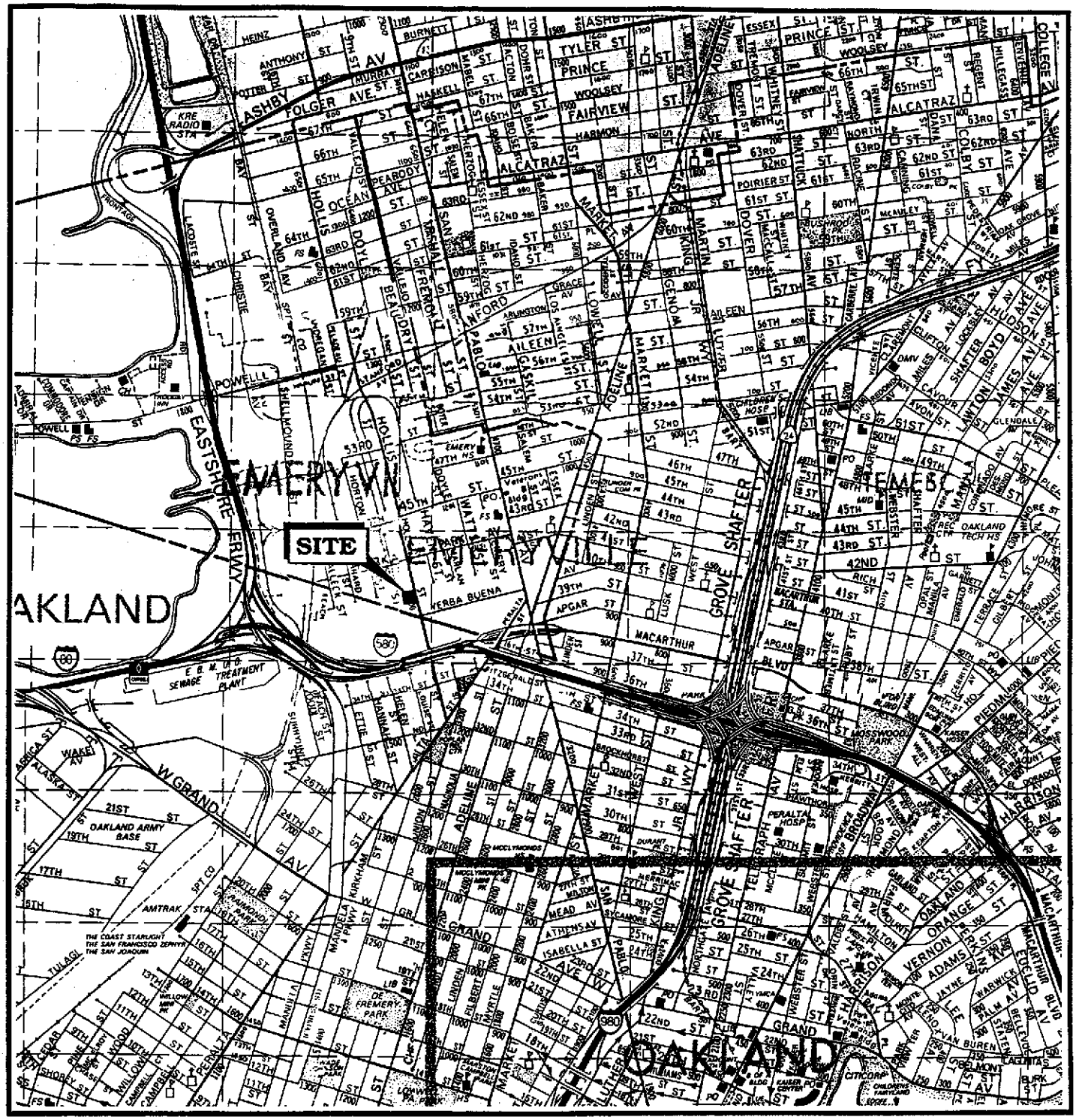
Benzene, toluene, ethylbenzene, and xylenes analyzed using Modified EPA Method 8020/5030.

(1) Laboratory QA/QC summary reports indicated that, with the exception of SP-4, "concentrations reported as diesel are primarily due to the presence of a heavier petroleum product of hydrocarbon range C18-C36, possibly motor oil." American Environmental Network was also asked to review chromatographs for soil samples collected from the site. The laboratory determined that concentrations detected using EPA Method 3550 for diesel were due to a "lubrication-type oil."

(2) Laboratory QA/QC reports indicate the "concentration reported as TPHg is primarily due to a heavier petroleum product, possibly diesel."

(3) Laboratory QA/QC reports indicate the concentration "does not match the pattern of gasoline but is calculated using gasoline response. Possibly mineral spirits and diesel hydrocarbons." Mineral spirits were reported at a concentration of 84 ppm.

(4) 790 ppm of TPH as motor oil (analyzed using EPA Method 3550) was reported for this sample.



0 1/2 1 MILE

MAP SOURCE:
Thomas Bros. Map
Alameda and Contra Costa Counties
1992 Edition

Figure 1: SITE LOCATION MAP
FORMER BASHLAND PROPERTY

Project No. 1649.12

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

1649.12WEM16JUL93F2.DRYL

9999-00

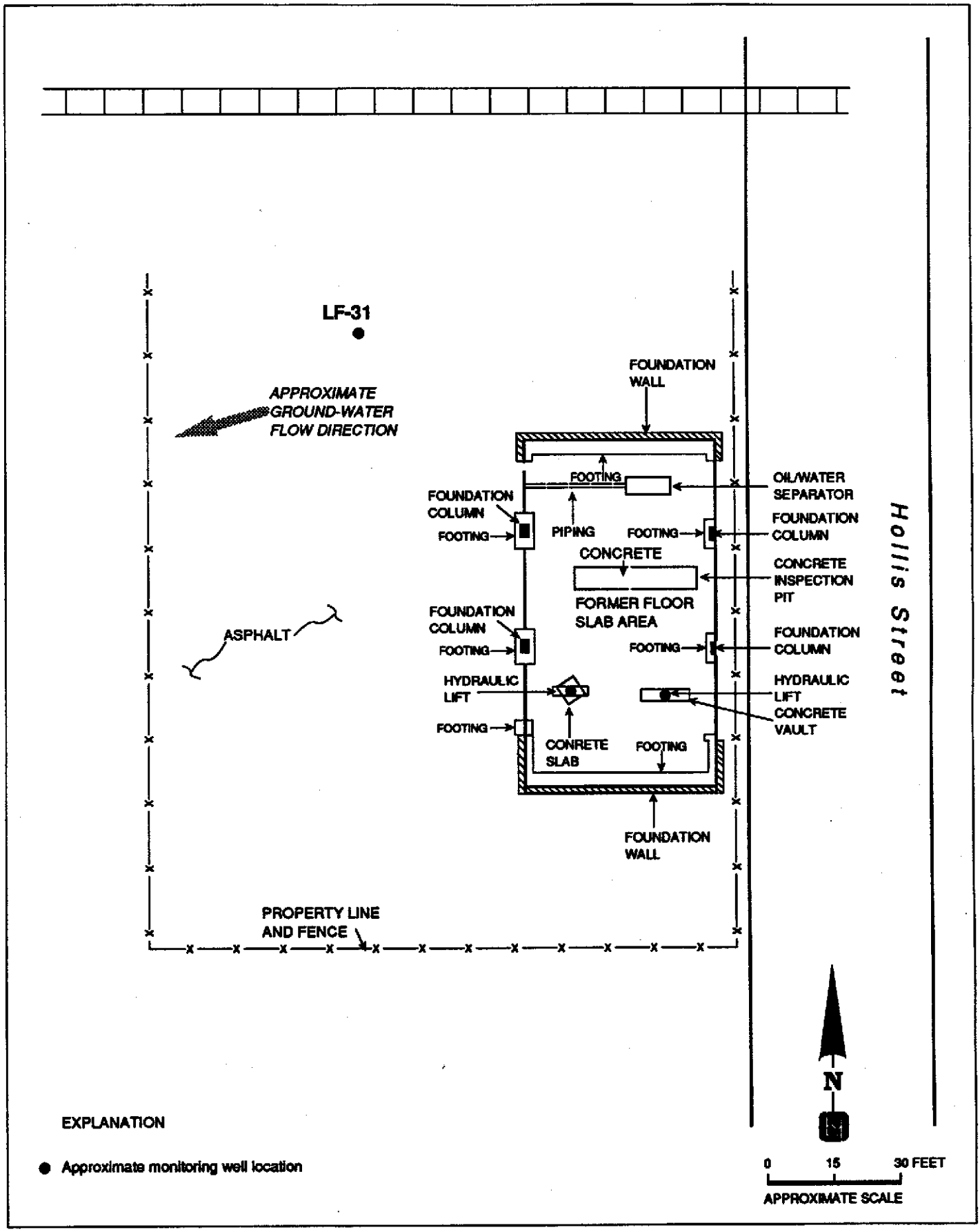


Figure 2: LOCATIONS OF SUBSURFACE STRUCTURES

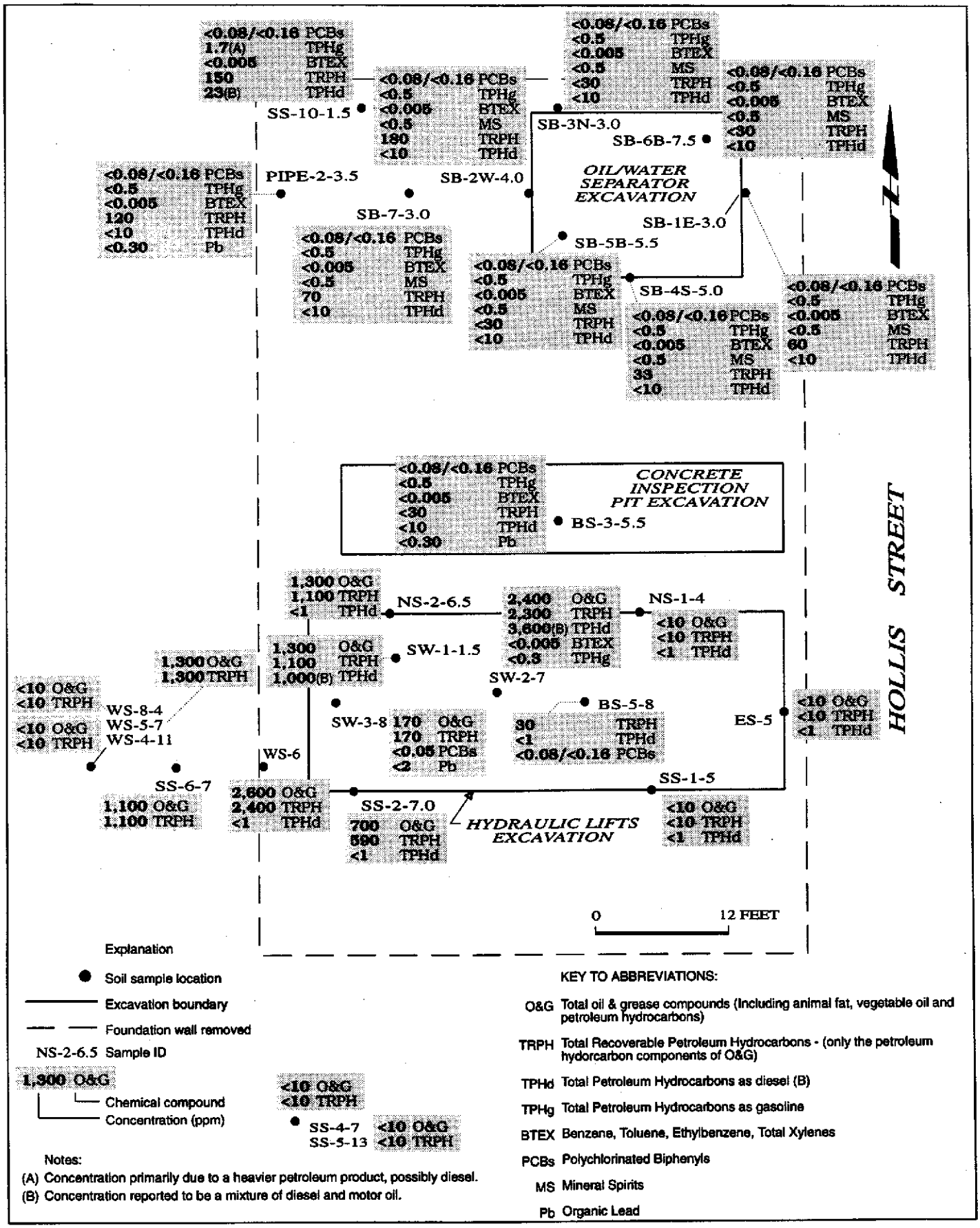


Figure 3 : INITIAL EXCAVATIONS AND SOIL SAMPLE RESULTS

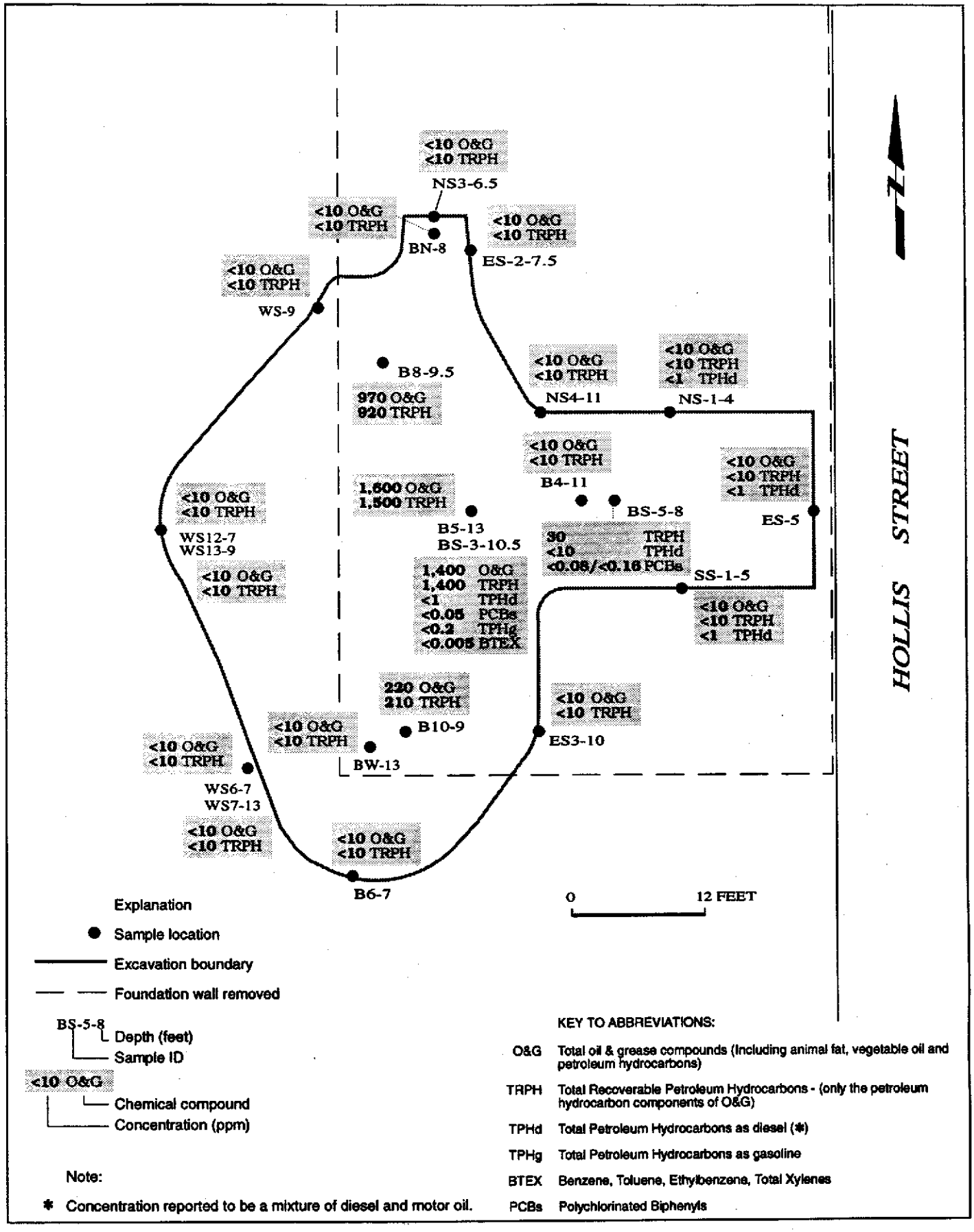


Figure 4 : HYDRAULIC LIFT EXCAVATION AND VERIFICATION SAMPLE RESULTS

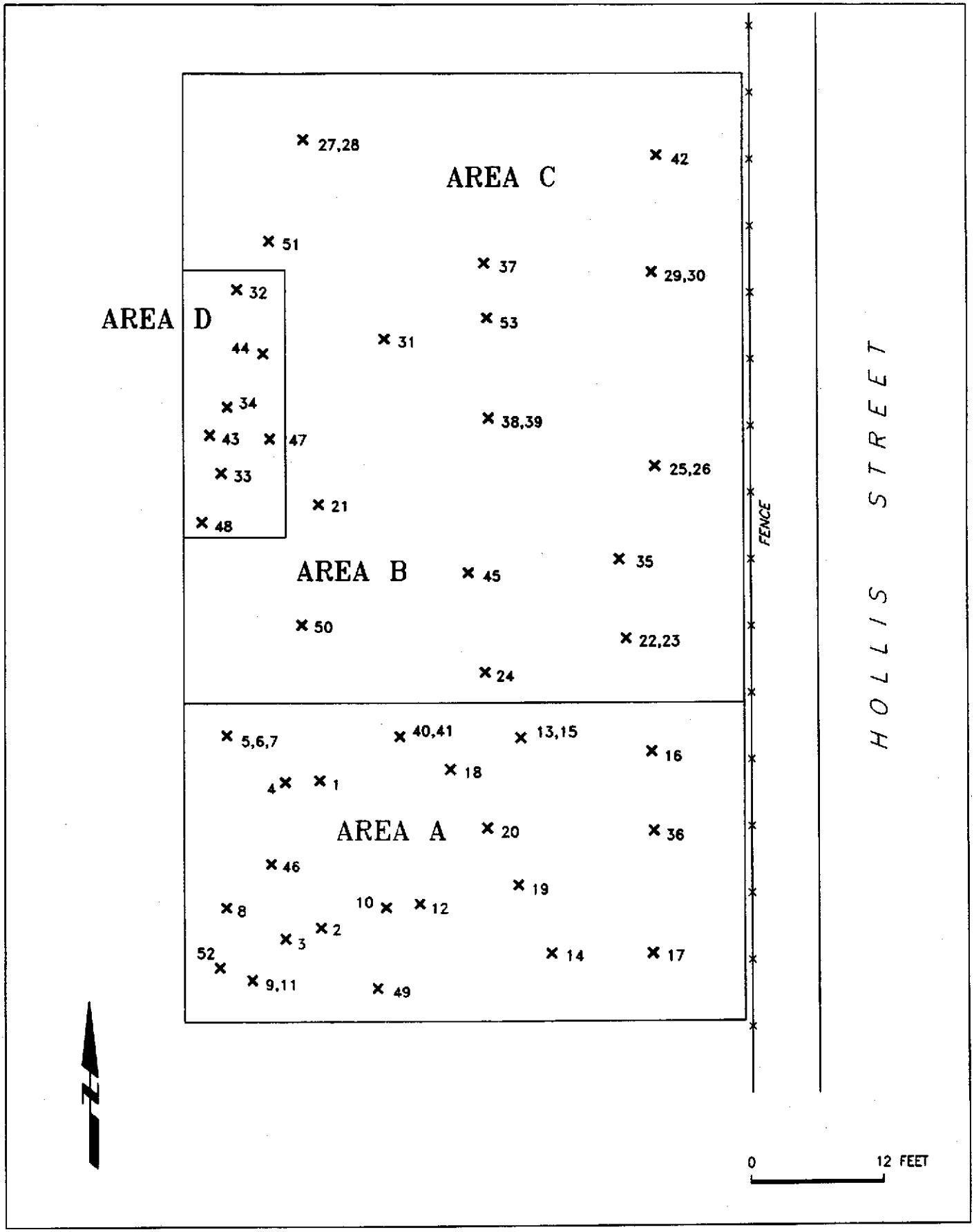


Figure 5 : LOCATIONS OF IN-SITU DENSITY TESTS PERFORMED WITH A NUCLEAR DENSITY GAUGE

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Andrew John Friedman
James E. Bruya, Ph.D.
(206) 285-8282

3008-B 16th Avenue West
Seattle, WA 98119
FAX: (206) 283-5044

February 5, 1993

Jennifer Beatty, Project Leader
Levine-Fricke, Inc.
1900 Powell, 12th Floor
Emeryville, CA 94608

Dear Ms Beatty:

Enclosed are the results from the testing of material submitted on February 4, 1993 from Project 1649.10, Bashland.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

Stephen D. Zappone
Chemist

SDZ/dp

Enclosures

FAX: (510) 652-2246

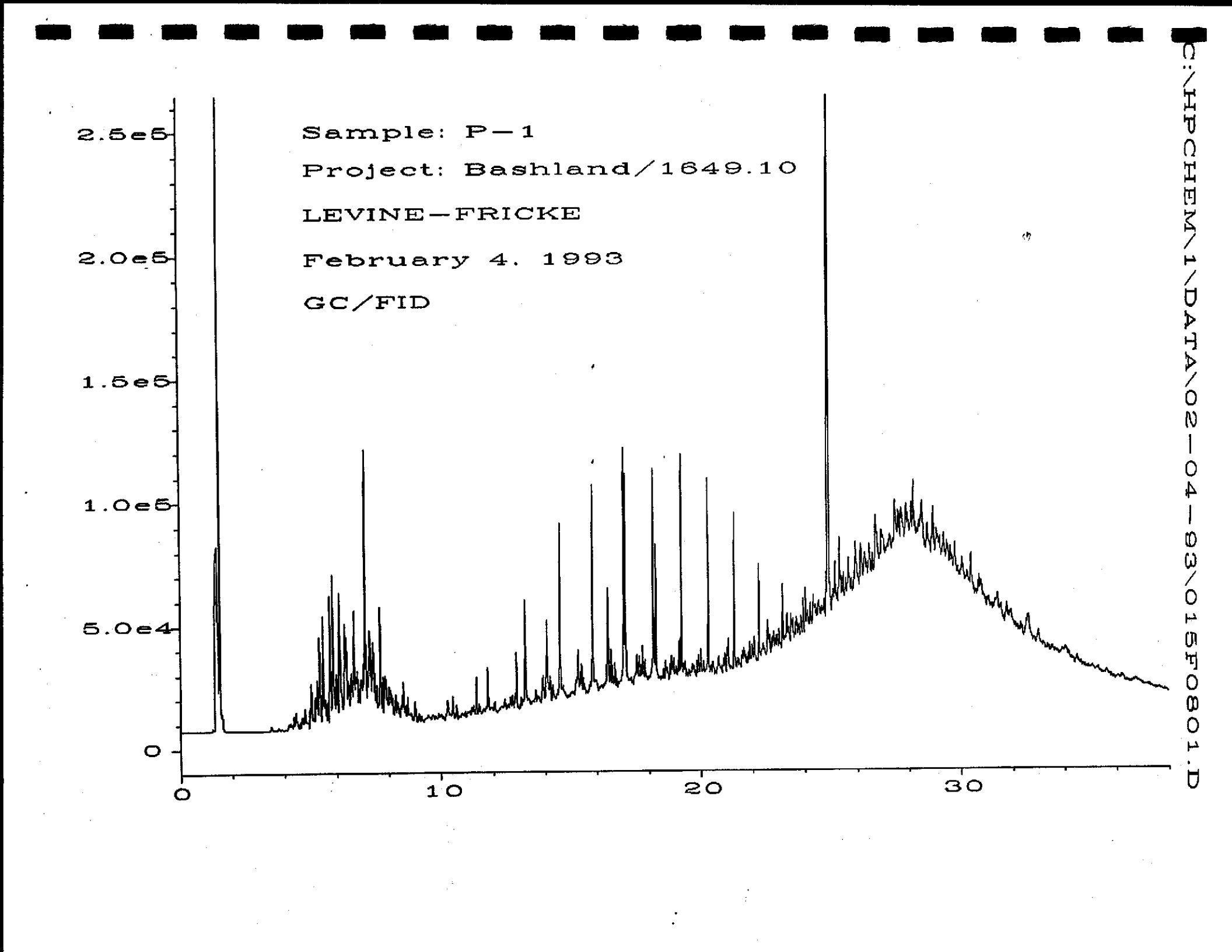
FRIEDMAN & BRUYA, INC.

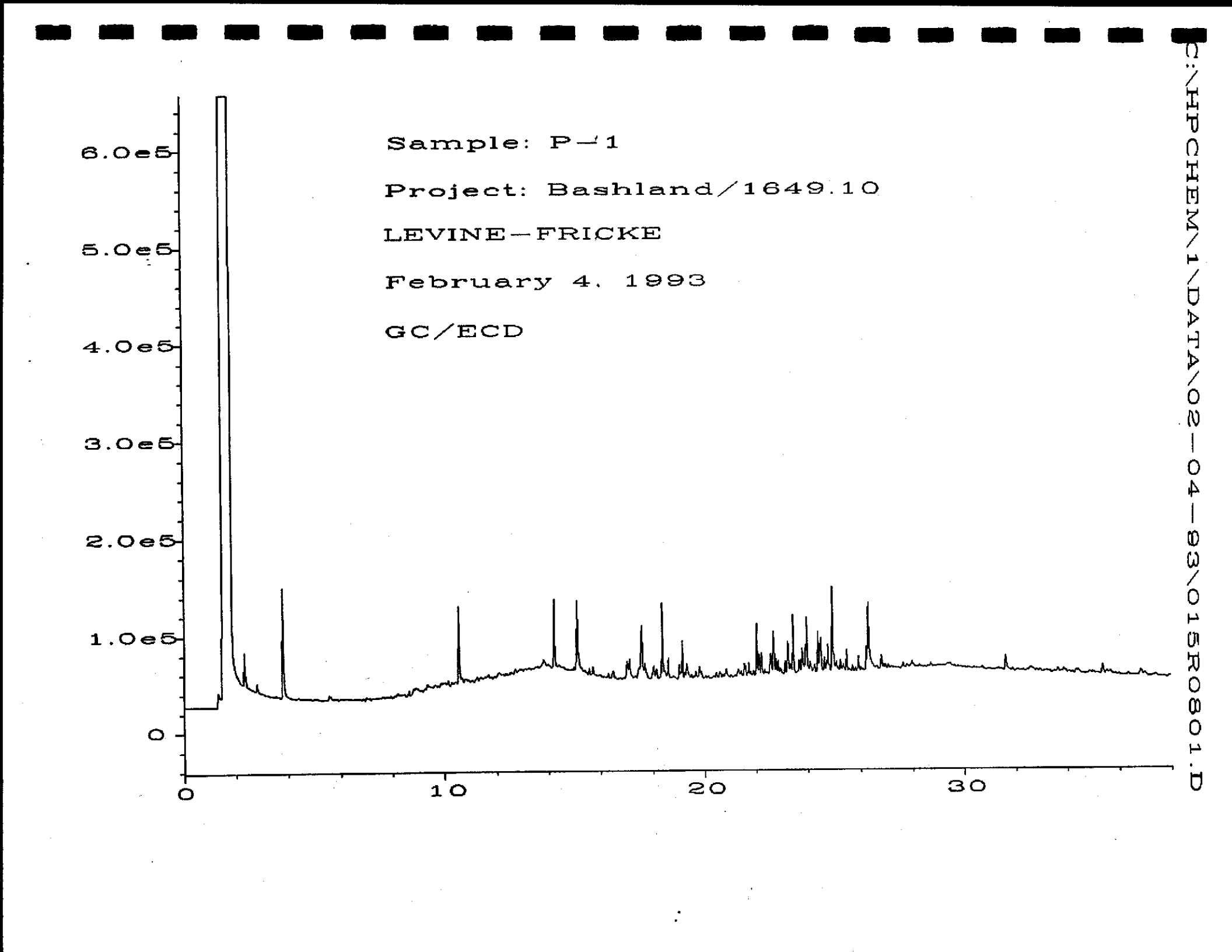
ENVIRONMENTAL CHEMISTS

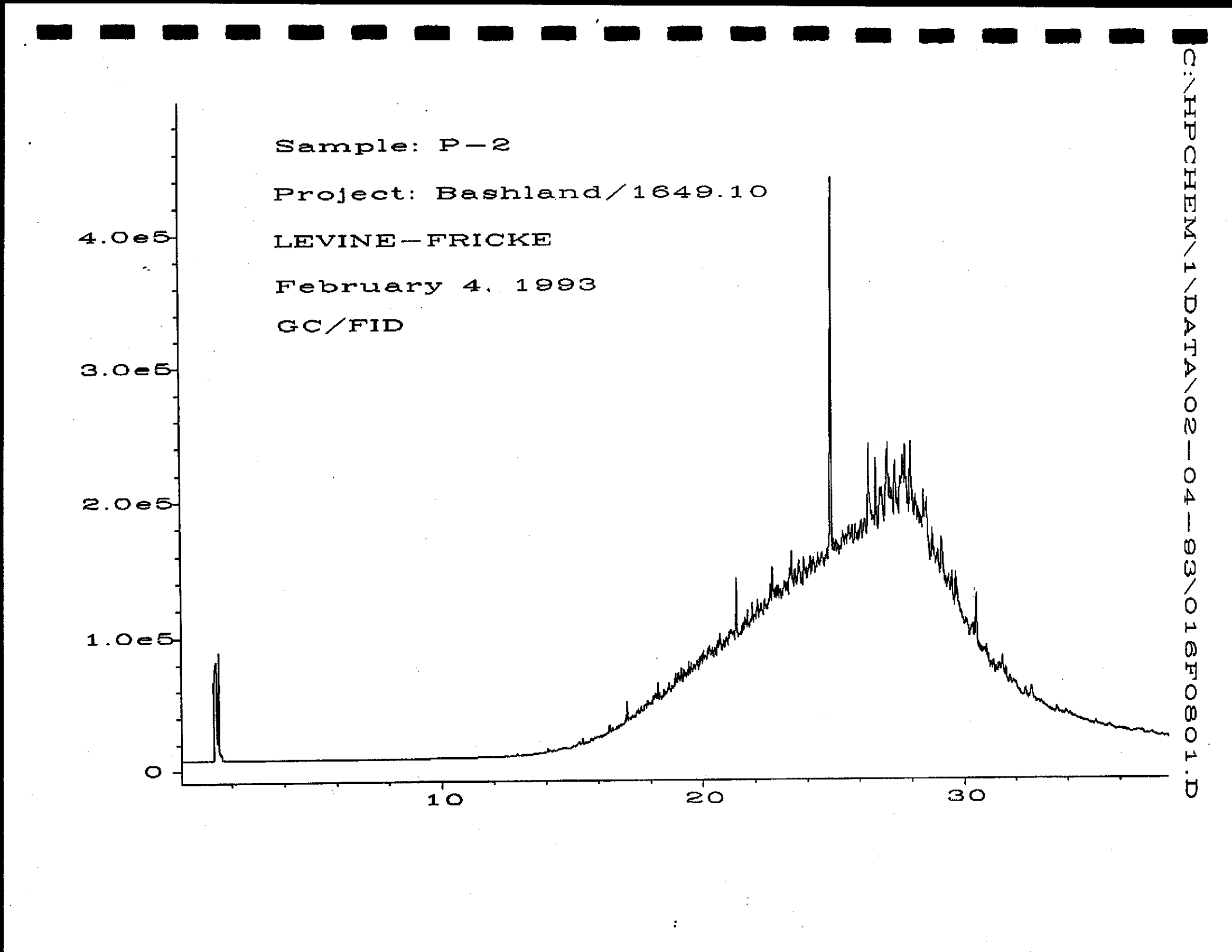
Date of Report: February 5, 1993
Date Received: February 4, 1993
Project: 1649.10, Bashland

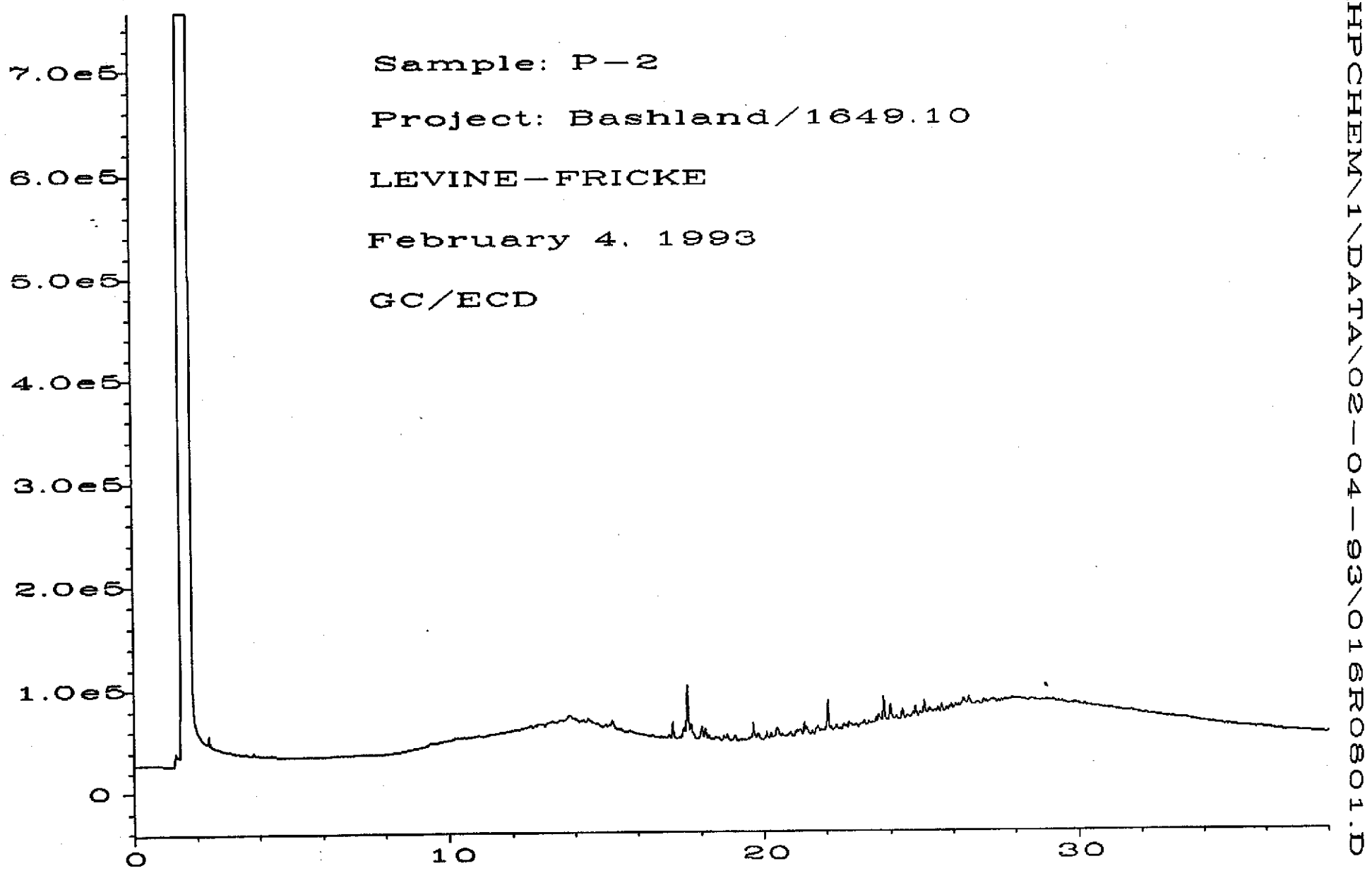
RESULTS FROM THE ANALYSIS OF PRODUCT SAMPLES FOR FINGERPRINT CHARACTERIZATION BY CAPILLARY GAS CHROMATOGRAPHY USING A FLAME IONIZATION DETECTOR (FID) AND ELECTRON CAPTURE DETECTOR (ECD)

Sample #	GC Characterization
P-1	The gas chromatographic FID trace showed the presence of low, medium and high boiling compounds, such as those found in mineral spirits, diesel fuel and motor oil or waste oil, respectively. This characterization is based on the presence of three distinct envelopes of peaks, the first from *n*-C_9 to *n*-C_{11} with a maximum near *n*-C_{10}, the second from *n*-C_{11} to *n*-C_{22} with a maximum near *n*-C_{17}, and the third beginning near *n*-C_{20} and continuing past *n*-C_{32} with a maximum near *n*-C_{28} . The large peak seen at 25 minutes is pentacosane, a compound added as a QA/QC check. The GC/ECD trace showed the presence of what appears to be halogenated compounds such as PCB's.
P-2	The gas chromatographic FID trace showed the presence of high boiling compounds, such as those found in motor oil or waste oil. This characterization is based on the presence of a relatively smooth envelope of peaks present from ca *n*-C_{17} to beyond *n*-C_{32} with a maximum near *n*-C_{28}. The large peak seen near 25 minutes is pentacosane, a compound added as a QA/QC check. The GC/ECD trace showed an absence of significant levels of halogenated or oxygenated compounds.


Sample: P-1
Project: Bashland/1649.10
LEVINE-FRICKE
February 4. 1993
GC/FID
2.5e5
2.0e5
1.5e5
1.0e5
5.0e4
0
0
10
20
30
C:\HPCHEM\1\DATA\02-04-93\015F0801.D


Sample: P-1
Project: Bashland/1649.10
LEVINE-FRICKE
February 4, 1993
GC/ECD
6.0e5
5.0e5
4.0e5
3.0e5
2.0e5
1.0e5
0
0
10
20
30
C:\HPCHEM\1\DATA\02-04-93\015R0801.D


Sample: P-2
Project: Bashland/1649.10
LEVINE-FRICKE
February 4, 1993
GC/FID
4.0e5
3.0e5
2.0e5
1.0e5
0
10
20
30
C:\HPCHEM\1\DATA\02-04-93\016F0801.D


Sample: P-2
Project: Bashland/1649.10
LEVINE-FRICKE
February 4, 1993
GC/ECD
7.0e5
6.0e5
5.0e5
4.0e5
3.0e5
2.0e5
1.0e5
0
0
10
20
30
C:\HPCHEM\1\DATA\02-04-93\016R0801.D

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: February 5, 1993
Date Received: February 4, 1993
Project: 1649.10, Bashland

RESULTS FROM THE ANALYSIS OF PRODUCT SAMPLES FOR PCB AS AROCHLOR 1254 BY GC/ECD (MODIFIED 8080)

Results Reported as µg/g (ppm)

Sample #	PCB	Internal Standard (% Recovery)
P-1	23	100%
P-2	<1	83%
Quality Assurance		
Blank	<1	106%
P-2 (Duplicate)	<1	86%
P-2 (Matrix Spike) % Recovery	90%	86%
P-2 (Matrix Spike Duplicate) % Recovery	80%	75%
Spike Blank % Recovery	106%	130%
Spike Level	50	

[redacted]

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.10	Field Logbook No.:	Date: 2/3/93	Serial No.: 10850
Project Name: BASHLAND	Project Location: EMERYVILLE		
Sampler (Signature):			Samplers: WEM

SAMPLES / **ANALYSES**

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	EPA 601	EPA 624	Fuel characteriz.	PCBs only	CAM 17 Met.		HOLD	RUSH	REMARKS
P-1	2/3/93	3	36888-89	2	Product			✓	✓	✓				
P-2	2/3/93	3	36890-92	3	Product			✓	✓					• Fuel Characterization
														• PCBs
														on both samples.
														☒ CAM 17 Metals on
														P-1 sample only
														↑ Please call to confirm this in the morning 2/4 – Not clear whether metals are required –
														Thanks! Jennifer Beaty

Samples Discarded 3.26.93 AJ

cancel as per Jennifer 2/4/93

RELINQUISHED BY: (Signature) Jennifer Beaty (Jenifer Beaty)	DATE 2/3/93	TIME 7 30	RECEIVED BY: (Signature) C R Hicks	DATE 2.4.93	TIME 10:00AM
RELINQUISHED BY: (Signature) CRHICKS	DATE 3.26.93	TIME 10:55a	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT: Fed-EX	DATE 2/3/93	TIME 5 30	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, Ca 94608 (415) 652-4500	Analytical Laboratory: Friedman + Bryan

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

PROCEDURES FOR SOIL SAMPLING

Sampling Procedures

Soil samples were collected for chemical analysis to provide data to evaluate the extent of chemicals in soils at the Site. Soil samples were collected from excavations by driving a precleaned brass tube into the soil using a clean rubber mallet. Soil was collected and sampled in the bucket of the excavator. A brass tube was driven into the representative soil in the bucket using a rubber mallet. The sample tubes were filled completely to minimize headspace and loss of volatile compounds, if present. The ends of the tubes were covered with aluminum foil, and capped with air-tight plastic caps to prevent possible moisture and chemical loss.

Soil samples were collected from the soil stockpiles by driving a precleaned brass tube into representative soil with a rubber mallet in several locations per tube. Approximately 6 inches to 10 inches of soil were removed from each location before sampling.

After being sealed and labeled, soil samples were immediately placed in a chilled cooler containing ice for delivery to the analytical laboratory under strict chain-of-custody protocols.

Decontamination Procedures

All equipment used for collecting soil samples during the investigation was properly decontaminated before and after each use, and before initial use at the Site. This was accomplished through washing with Alconox (a laboratory-grade detergent) and rinsing with deionized, distilled, or fresh water.

ANAMETRIX INC
Environmental & Analytical Chemistry
Part of INCHCAPE ENVIRONMENTAL

REPORT

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302257
Date Received : 02/18/93
Project ID : 1649.10
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9302257- 1	BS-5-8
9302257- 2	BS-6-8

This report consists of 13 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

03-08-93
Date

COPY

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302257
Date Received : 02/18/93
Project ID : 1649.10
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9302257- 1	BS-5-8	SOIL	02/16/93	TPHd

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302257
Date Received : 02/18/93
Project ID : 1649.10
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for this sample.

Cheryl Balmer 3/4/93
Department Supervisor Date

Charleston Bench 3-4-93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9302257
Matrix : SOIL
Date Sampled : 02/16/93
Date Extracted: 02/24/93

Project Number : 1649.10
Date Released : 03/04/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9302257-01	BS-5-8	03/03/93	10	ND
DSBL022493	METHOD BLANK	03/03/93	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Charlotte Rench 3.4.93
Analyst Date

Cheryl Balmer 3/4/93
Supervisor Date

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3550 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Extracted: 02/24/93
Date Analyzed : 03/03/93

Anametrix I.D. : LCSS0224
Analyst : CMB
Supervisor : CJ
Date Released : 03/04/93
Instrument I.D.: HP9

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS
Diesel	125	110	88%	72-143

*Limits established by Anametrix, Inc.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302257
Date Received : 02/18/93
Project ID : 1649.10
Purchase Order: N/A
Department : GC
Sub-Department: PEST

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9302257- 1	BS-5-8	SOIL	02/16/93	8080 PCB

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302257
Date Received : 02/18/93
Project ID : 1649.10
Purchase Order: N/A
Department : GC
Sub-Department: pest

QA/QC SUMMARY :

- No QA/QC problems encountered for sample.

Department Supervisor Date

Chemist Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.10	Anametrix I.D.	: 9302257-01
Sample ID	: BS-5-8	Elec. Fil I.D.	: EPF25701
Matrix	: SOIL	Analyst	: DL
Date Sampled	: 02/16/93	Supervisor	: SR
Date Extracted	: 02/22/93	Weight ext. (g)	: 30
Date Analyzed	: 02/26/93	Final Vol. (ml)	: 10
Instrument ID	: HP5	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	95%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: N/A	Anametrix I.D.	: PSBLK022293
Sample ID	: METHOD BLANK	Elec. Fil I.D.	: BF2601P1
Matrix	: SOIL	Analyst	:
Date Sampled	: N/A	Supervisor	:
Date Extracted	: 02/22/93	Weight ext. (g)	: 30
Date Analyzed	: 02/26/93	Final Vol. (ml)	: 10
Instrument ID	: HP5	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	100%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

PESTICIDE LAB CONTROL SPIKE REPORT
EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: N/A	Anametrix I.D.	: PSLCS2293A
Sample ID	: LCS	Elec. File I.D.	: MF2601P1
Matrix	: SOIL	Analyst	:
Date Sampled	: N/A	Supervisor	:
Date Extracted	: 02/22/93	Weight ext. (g)	: 30
Date Analyzed	: 02/26/93	Final Vol. (ml)	: 10
Instrument ID	: HP5	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

COMPOUND	Spike Added (ug/Kg)	LCS CONC. (ug/Kg)	LCS %Rec		%REC LIMITS*
Aroclor 1248	500	382	76%		30-130%

SURROGATE	LCS %REC		%REC LIMITS*
Decachlorobiphenyl	105%		30-130%

* Anametrix advisory limits

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302257
Date Received : 02/18/93
Project ID : 1649.10
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9302257- 1	BS-5-8	SOIL	02/16/93	5520EF

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302257
Date Received : 02/18/93
Project ID : 1649.10
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for this sample.

Department Supervisor — Date: 3/2/93

Chemist — Date: 03.02.93

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
ANAMETRIX, INC. (408) 432-8192

Project # : 1649.10
Matrix : SOIL
Date sampled : 02/16/93
Date extracted: 02/22/93
Date analyzed : 03/05/93

Anametrix I.D. : 9302257
Analyst : TS
Supervisor : [signature]
Date released : 03/08/93

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9302257-01	BS-5-8	30	30
GSBL022293	METHOD BLANK	30	ND

ND - Not detected at or above the practical quantitation limit for the method.
TRPH - Total Recoverable Petroleum Hydrocarbons are determined by - Standard Method 5520EF.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS LAB CONTROL SAMPLE REPORT
STANDARD METHOD 5520EF
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date sampled : N/A
Date extracted : 02/22/93
Date analyzed : 02/23/93

Anametrix I.D. : 9302257
Analyst : TS
Supervisor : CM
Date Released : 02/27/93

COMPOUND	SPIKE AMT. (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS
Motor Oil	300	310	103%	68-113%

Quality control established by Anametrix, Inc.

(10/4) 9302 25-1

BTM 10Z 0E

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.10	Field Logbook No.:	Date: 2/18/93	Serial No.: 9836
Project Name: Yerba Buena-Bashland	Project Location: Emeryville		
Sampler (Signature): William Quadrini			Samplers: WEQ

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	~~EPA 601~~	~~EPA 624~~	EPA 8080 PCB's ONLY	TPH Diesel	SM 5520 E+F	HOLD	RUSH	REMARKS
(1) BS-5-8	2/16/93			1	Soil			X	X	X			PCB's ONLY for EPA 8080 analysis
(2) BS-6-8	2/16/93			1	Soil						X		Results to Jenifer Beatty
													Normal TAT

	DATE	TIME		DATE	TIME
RELINQUISHED BY: (Signature) William Quadrini	2/18/93	8:50A	RECEIVED BY: (Signature) William Hess	2/18/93	8:50A
RELINQUISHED BY: (Signature) William Hess	2/18/93	1210	RECEIVED BY: (Signature) Benny S. Carrizosa	2/18/93	1210
RELINQUISHED BY: (Signature) Benny S. Carrizosa	2/18/93	1635	RECEIVED BY: (Signature) [illegible]	2/18/93	16:35
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
(415) 652-4500

Analytical Laboratory: Anametrix

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

ANAMETRIX INC
Environmental & Analytical Chemistry
Part of INCHCAPE ENVIRONMENTAL

REPORT

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304142
Date Received : 04/13/93
Project ID : 1649.12
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9304142- 1	SP5
9304142- 2	SP-6A
9304142- 3	SP-6B
9304142- 4	SP7
9304142- 5	SP8
9304142- 6	CUTTINGS

This report consists of 8 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen,Ph.D.
Laboratory Director

APR 28 1993

04-27-93
Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304142
Date Received : 04/13/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9304142- 1	SP5	SOIL	04/13/93	TPHd
9304142- 2	SP-6A	SOIL	04/13/93	TPHd
9304142- 4	SP7	SOIL	04/13/93	TPHd

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304142
Date Received : 04/13/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as diesel for all samples in this workorder are primarily due to the presence of a heavier hydrocarbon product of hydrocarbon range C18-C36, possibly motor oil.

Cheryl Balmin 6/7/93
Department Supervisor Date

C R Patel 06/08/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9304142
Matrix : SOIL
Date Sampled : 04/13/93
Date Extracted: 04/15/93

Project Number : 1649.12
Date Released : 04/27/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9304142-01	SP5	04/22/93	100	980
9304142-02	SP-6A	04/19/93	10	12
9304142-04	SP7	04/22/93	100	710
DSBL041593	METHOD BLANK	04/16/93	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Reggie Davison 4/27/93
Analyst Date

Irma Sher 4/27/93
Supervisor Date

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3550 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Extracted: 04/15/93
Date Analyzed : 04/16/93

Anametrix I.D. : LCSS0415
Analyst : RD
Supervisor : IS
Date Released : 04/22/93
Instrument I.D.: HP19

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS
Diesel	125	91	73%	72-143

*Limits established by Anametrix, Inc.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304142
Date Received : 04/13/93
Project ID : 1649.12
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9304142- 1	SP5	SOIL	04/13/93	5520EF
9304142- 2	SP-6A	SOIL	04/13/93	5520EF
9304142- 4	SP7	SOIL	04/13/93	5520EF

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304142
Date Received : 04/13/93
Project ID : 1649.12
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Department Supervisor 4/27/93 Date

Chemist 04.27.93 Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX LABORATORIES (408) 432-8192

Project # : 1649.12
atrix : SOIL
ate sampled : 04/13/93
Date extracted: 04/16/93
Date analyzed : 04/19/93

Anametrix I.D. : 9304142
Analyst : YL
Supervisor : CW
Date released : 04/27/93

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9304142-01	SP5	30	500
9304142-02	SP-6A	30	160
9304142-04	SP7	30	1,600
BA16H1W9	METHOD BLANK	30	ND

D - Not detected above the reporting limit for the method.
TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF, 18th edition.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

LAB CONTROL SAMPLE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX LABORATORIES (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MA16H1W9
Matrix	: SOIL	Analyst	: YL
Date sampled	: N/A	Supervisor	: CM
Date extracted	: 04/16/93	Date Released	: 04/19/93
Date analyzed	: 04/19/93		

COMPOUND	SPIKE AMT. (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS
Motor Oil	300	290	97%	68-113%

Quality control established by Anametrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF, 18th edition.

4304142 (10/38)

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.12	Field Logbook No.: —	Date: 4/13/93	Serial No.: **11554**
Project Name: Yerba Buena - Barkblvd	Project Location: Emeryville		
Sampler (Signature): [signature]			Samplers: WEM

SAMPLES / ANALYSES

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	~~EPA 601~~	~~EPA 624~~	Diesel	SM 5520EF O+G*			HOLD	RUSH	REMARKS
(1) SP 5	4/13/93			1	Soil			X	X					* TPH as O+G
(2) SP-6A				1				X	X					Standard TAT
(3) SP-6B				1				X	X					Results to Jenifer
(4) SP7				1				X	X					Beatty
(5) SP8				1				~~X~~	~~X~~			X		
~~SP9~~				1								~~X~~		
(6) Cuttings				1								X		

RELINQUISHED BY: (Signature) [signature]	DATE 4/13/93	TIME 14:25	RECEIVED BY: (Signature) [signature]	DATE 4/13/93	TIME 1425
RELINQUISHED BY: (Signature) [signature]	DATE 4/13/93	TIME 1530	RECEIVED BY: (Signature) [signature]	DATE 4/13/93	TIME 15:30
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: Anametrix

Shipping C[illegible]hite) Lab Copy (Green) File Copy (Yellow) [illegible]d Copy (Pink) FORM N[illegible]6/COC/ARF

LEVINE-FRICKE

SAMPLE ID: SP4
CLIENT PROJ. ID: 1649.12
DATE SAMPLED: 04/12/93
DATE RECEIVED: 04/12/93
REPORT DATE: 06/08/93

AEN LAB NO: 9304087-07A
AEN JOB NO: 9304087
DATE ANALYZED: 04/13/93
INSTRUMENT: H

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

COMPOUND	CAS #	CONCENTRATION (ug/kg)	REPORTING 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		5.4 mg/kg	0.2 mg/kg

ND = Not Detected

* Does not match the pattern of gasoline but is calculated using gasoline response. Possibly mineral spirits and diesel hydrocarbons.

LEVINE-FRICKE

SAMPLE ID: SP4
CLIENT PROJ. ID: 1649.12
DATE SAMPLED: 04/12/93
DATE RECEIVED: 04/12/93
REPORT DATE: 06/08/93

AEN LAB NO: 9304087-07A
AEN JOB NO: 9304087
DATE EXTRACTED: 04/13/93
DATE ANALYZED: 04/13/93
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(SOIL MATRIX)

COMPOUND	CAS #	CONCENTRATION (mg/kg)	REPORTING LIMIT (mg/kg)
Aroclor 1016	12674-11-2	ND	0.05
Aroclor 1221	11104-28-2	ND	0.05
Aroclor 1232	11141-16-5	ND	0.05
Aroclor 1242	53469-21-9	ND	0.05
Aroclor 1248	12672-29-6	ND	0.05
Aroclor 1254	**11097-69-1**	**0.07**	**0.05**
Aroclor 1260	11096-82-5	ND	0.05

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 04/13/93
DATE ANALYZED: 04/14/93
CLIENT PROJ. ID: 1649.12

AEN JOB NO: 9304087
SAMPLE SPIKED: 9304087-04A
INSTRUMENT: IR

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

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	195	ND	190	190	97.4	0.0

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(84-113)	8.1

METHOD BLANK RESULT

Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
041393-METHOD BLANK	ND	ND
Reporting Limit:	10	10
Method:	5520E	5520F

Instrument: IR
Date Extracted: 04/13/93
Date Analyzed: 04/14/93

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

QUALITY CONTROL DATA

DATE EXTRACTED: 04/12/93
DATE ANALYZED: 04/14/93
CLIENT PROJ. ID: 1649.12

AEN JOB NO: 9304087
SAMPLE SPIKED: 9304087-02A
INSTRUMENT: C

MATRIX SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE SOIL
METHOD: EPA 3550 GCFID

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Diesel	40.0	ND	33.6	34.9	85.6	3.8

CURRENT QC LIMITS (Revised 05/15/92)

Analyte	Percent Recovery	RPD
Diesel	(44.1-105.8)	24.3

METHOD BLANK RESULT

Lab Id.	Extractable Hydrocarbons as Diesel (mg/kg)
041293-METHOD BLANK	ND

Reporting Limit: 1
Method: 3550 GCFID
Instrument: C
Date Extracted: 04/12/93
Date Analyzed: 04/14/93

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

INSTRUMENT: H

AEN LAB NO: DAILY BLANK

CLIENT PROJ. ID: 1649.12

DATE ANALYZED: 04/13/93

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

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Benzene	71-43-2	ND	5
Toluene	108-88-3	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

QUALITY CONTROL DATA

DATE ANALYZED: 04/12/93
SAMPLE SPIKED: 9304022-18A
CLIENT PROJ. ID: 1649.12

AEN JOB NO: 9304087
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	29.6	ND	32.2	32.1	108.6	0.3
Toluene	94.5	ND	99.8	99.8	105.6	0.0
Hydrocarbons as Gasoline	1000	ND	932	906	91.9	2.8

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Benzene	(79.4-125.2)	9.8
Toluene	(84.4-116.8)	10.0
Gasoline	(53.7-124.2)	15.1

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

INSTRUMENT: A

CLIENT PROJ. ID: 1649.12

AEN LAB NO: 0413-METHOD BLANK
DATE EXTRACTED: 04/13/93
DATE ANALYZED: 04/13/93

POLYCHLORINATED BIPHENYLS
METHOD: EPA 8080
(SOIL MATRIX)

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Aroclor 1016	12674-11-2	ND	0.05
Aroclor 1216	11104-28-2	ND	0.05
Aroclor 1232	11141-16-5	ND	0.05
Aroclor 1242	53469-21-9	ND	0.05
Aroclor 1248	12672-29-6	ND	0.05
Aroclor 1254	11097-69-1	ND	0.05
Aroclor 1260	11096-82-5	ND	0.05

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 04/13/93

AEN JOB NO: 9304087

CLIENT PROJ. ID: 1649.12

INSTRUMENT: A

SURROGATE STANDARD RECOVERY SUMMARY

METHOD: EPA 8080
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Sample Id.	Lab Id.	2,4,5,6-Tetrachloro-meta-xylene
04/13/93	SP4	07A	90
04/13/93		0413 METHOD BLANK	104

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(59-115)

QUALITY CONTROL DATA

DATE EXTRACTED: 04/13/93
DATE ANALYZED: 04/13/93
CLIENT PROJ. ID: 1649.12

AEN JOB NO: 9304087
SAMPLE SPIKED: 9304087-06A
INSTRUMENT: A

MATRIX SPIKE RECOVERY SUMMARY

METHOD: EPA 8080 (PCBs)
(SOIL MATRIX)

COMPOUND	Spike Amount (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
A1260	0.133	ND	0.144	0.141	107.1	2.1

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
A1260	(34-134)	25

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

QuanteQ Laboratories

An Ecologics Company

Certificate of Analysis

DOHS CERTIFICATION NO. E772

AIHA ACCREDITATION NO. 332

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

ATTN: JENIFER BEATTY

CLIENT PROJECT ID: 1649.12
C.O.C. SERIAL NO: 11559
PROJ. NAME: YERBA BUENA-BASHLAND

REPORT DATE: 04/22/93

DATE SAMPLED: 04/13/93

DATE RECEIVED: 04/14/93

QUANTEQ JOB NO: 9304104

PROJECT SUMMARY:

On April 14, 1993, this laboratory received one (1) soil sample.

Client requested sample be analyzed for organic parameters. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Manager

Results FAXed 04/15/93

LEVINE-FRICKE

DATE SAMPLED: 04/13/93
DATE RECEIVED: 04/14/93
CLIENT PROJECT ID: 1649.12

REPORT DATE: 04/22/93

QUANTEQ JOB NO: 9304104

Client Sample Id.	Quanteq Lab Id.	Extractable Hydrocarbons as Diesel (mg/kg)	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
BS-3-10.5	01A	ND	1,400	1,400
Reporting Limit		1	10	10
Method:		EPA 3550 GCFID	SM5520E	SM5520F
Instrument:		C	IR	IR
Date Extracted:		04/14/93	04/15/93	04/15/93
Date Analyzed:		04/14/93	04/15/93	04/15/93

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: BS-3-10.5
CLIENT PROJ. ID: 1649.12
DATE SAMPLED: 04/13/93
DATE RECEIVED: 04/14/93
REPORT DATE: 04/22/93

QUANTEQ LAB NO: 9304104-01A
QUANTEQ JOB NO: 9304104
DATE ANALYZED: 04/14/93
INSTRUMENT: H

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

COMPOUND	CAS #	CONCENTRATION (ug/kg)	REPORTING 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: BS-3-10.5
CLIENT PROJ. ID: 1649.12
DATE SAMPLED: 04/13/93
DATE RECEIVED: 04/14/93
REPORT DATE: 04/22/93

QUANTEQ LAB NO: 9304104-01A
QUANTEQ JOB NO: 9304104
DATE EXTRACTED: 04/14/93
DATE ANALYZED: 04/15/93
INSTRUMENT: A

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(SOIL MATRIX)

COMPOUND	CAS #	CONCENTRATION (mg/kg)	REPORTING LIMIT (mg/kg)
Aroclor 1016	12674-11-2	ND	0.05
Aroclor 1221	11104-28-2	ND	0.05
Aroclor 1232	11141-16-5	ND	0.05
Aroclor 1242	53469-21-9	ND	0.05
Aroclor 1248	12672-29-6	ND	0.05
Aroclor 1254	11097-69-1	ND	0.05
Aroclor 1260	11096-82-5	ND	0.05

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 04/13/93
DATE ANALYZED: 04/14/93
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304104
SAMPLE SPIKED: 9304087-04A
INSTRUMENT: IR

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

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	195	ND	190	190	97.4	0.0

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(84-113)	8.1

METHOD BLANK RESULT

Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
041593-METHOD BLANK	ND	ND
Reporting Limit:	10	10
Method:	SM5520E	SM5520F

Instrument: IR
Date Extracted: 04/15/93
Date Analyzed: 04/15/93

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

QUALITY CONTROL DATA

DATE EXTRACTED: 04/12/93
DATE ANALYZED: 04/14/93
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304104
SAMPLE SPIKED: 9304087-02A
INSTRUMENT: C

MATRIX SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE SOIL
METHOD: EPA 3550 GCFID

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Diesel	40.0	ND	33.6	34.9	85.6	3.8

CURRENT QC LIMITS (Revised 05/15/92)

Analyte	Percent Recovery	RPD
Diesel	(44.1-105.8)	24.3

METHOD BLANK RESULT

Lab Id.	Extractable Hydrocarbons as Diesel (mg/kg)
041493-METHOD BLANK	ND

Reporting Limit: 1
Method: 3550 GCFID
Instrument: C
Date Extracted: 04/14/93
Date Analyzed: 04/14/93

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

INSTRUMENT: H

QUANTEQ LAB NO: DAILY BLANK

CLIENT PROJ. ID: 1649.12

DATE ANALYZED: 04/14/93

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

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Benzene	71-43-2	ND	5
Toluene	108-88-3	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

QUALITY CONTROL DATA

DATE ANALYZED: 04/14/93
SAMPLE SPIKED: 9304070-02A
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304104
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	30.0	ND	27.4	28.7	93.5	4.6
Toluene	95.4	ND	96.3	95.1	100.3	1.3
Hydrocarbons as Gasoline	1000	ND	856	882	86.9	3.0

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Benzene	(79.4-125.2)	9.8
Toluene	(84.4-116.8)	10.0
Gasoline	(53.7-124.2)	15.1

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

INSTRUMENT: A

CLIENT PROJ. ID: 1649.12

QUANTEQ LAB NO: 0414-METHOD BLANK
DATE EXTRACTED: 04/14/93
DATE ANALYZED: 04/15/93

POLYCHLORINATED BIPHENYLS
METHOD: EPA 8080
(SOIL MATRIX)

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Aroclor 1016	12674-11-2	ND	0.05
Aroclor 1216	11104-28-2	ND	0.05
Aroclor 1232	11141-16-5	ND	0.05
Aroclor 1242	53469-21-9	ND	0.05
Aroclor 1248	12672-29-6	ND	0.05
Aroclor 1254	11097-69-1	ND	0.05
Aroclor 1260	11096-82-5	ND	0.05

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 04/14/93

QUANTEQ JOB NO: 9304104

CLIENT PROJ. ID: 1649.12

INSTRUMENT: A

SURROGATE STANDARD RECOVERY SUMMARY

METHOD: EPA 8080
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Sample Id.	Lab Id.	2,4,5,6-Tetrachloro-meta-xylene
04/15/93	BS-3-10.5	01A	89
04/15/93		0414 METHOD BLANK	100

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(59-115)

QUALITY CONTROL DATA

DATE EXTRACTED: 04/13/93
DATE ANALYZED: 04/13/93
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304104
SAMPLE SPIKED: 9304087-06A
INSTRUMENT: A

MATRIX SPIKE RECOVERY SUMMARY

METHOD: EPA 8080 (PCBs)
(SOIL MATRIX)

COMPOUND	Spike Amount (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
A1260	0.133	ND	0.144	0.141	107.1	2.1

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
A1260	(34-134)	25

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

R-4S-C

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

930404

Project No.: 1649.12	Field Logbook No.:	Date: 4/14/93	Serial No.: 11559
Project Name: Verba Buena Bashland	Project Location: Emeryville		
Sampler (Signature): [signature]			Samplers: WEM

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	Diesel	8080 PCBs ONLY	Gas BTEX	O&G 5520EF	HOLD	RUSH	REMARKS
BS-3105	4/13/93		01A	1	Soil			X	X	X	X		X	24-Hour TAT 8080 is PCBs only Results to Jennifer Beatty Verbal Results + hard Copy

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
[signature]	4/14/93	15:00	[signature]	4-14-93	1500
[signature]	4-14-93	16:02	Robert W. Mann	4-14-93	16:03
Robert W. Mann	4-14-93	17:10	Jamie Gillespie	4-14-93	1710
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, Ca 94608
(415) 652-4500

Analytical Laboratory: American Environ. Network

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

QuanteQ Laboratories

An Ecologics Company

Certificate of Analysis

DOHS CERTIFICATION NO. E772

AIHA ACCREDITATION NO. 332

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

ATTN: JENIFER BEATTY

CLIENT PROJECT ID: 1649.12
PROJ. NAME: YERBA BUENA
CLIENT C.O.C. NO: 11589,11591

REPORT DATE: 04/30/93

DATE SAMPLED: 04/15-16/93
DATE RECEIVED: 04/16/93

ADDITIONAL ANALYSIS
REQUESTED: 04/27/93

QUANTEQ JOB NO: 9304127

PROJECT SUMMARY:

On April 16, 1993, this laboratory received twenty-one (21) soil samples.

Client requested fifteen (15) samples be analyzed for Oil and Grease and Hydrocarbons by Standard Methods 5520E and F. Six (6) samples were placed on hold.

On April 27, 1993, client requested two (2) samples be taken off hold and be analyzed for Oil and Grease and Hydrocarbons by Standard Methods 5520E and F. Four (4) samples remain on hold. Sample identification, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Andrew Bradem for
Larry Klein
Laboratory Manager

Results FAXed 04/26-29/93

LEVINE-FRICKE

DATE SAMPLED: 04/15-16/93
DATE RECEIVED: 04/16/93
CLIENT PROJECT ID: 1649.12

REPORT DATE: 04/30/93

QUANTEQ JOB NO: 9304127

Client Sample Id.	Quanteq Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
WS4-11	01A	ND	ND
WS5-7	02A	1,300	1,300
WS6-7	03A	ND	ND
WS7-13	04A	ND	ND
B6-7	06A	ND	ND
SS4-7	07A	ND	ND
SS5-13	08A	ND	ND
SS6-7	09A	1,100	1,000
WS8-4	10A	ND	ND
NS4-11	11A	ND	ND
B5-13	12A	1,600	1,500
ES3-10	13A	ND	ND
BW-13	14A	ND	ND
BN-8	18A	ND	ND
ES-2-7.5	19A	ND	ND
NS3-6.5	20A	ND	ND
B4-11	21A	ND	ND
Reporting Limit		10	10
Standard Method:		5520E	5520F

Instrument: IR

Date Extracted: 04/19,20,27/93
Date Analyzed: 04/20-28/93

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 04/19/93
DATE ANALYZED: 04/20/93
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304127
SAMPLE SPIKED: 9304127-07A
INSTRUMENT: IR

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

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	205	ND	169	178	84.6	5.2

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(84-113)	8.1

METHOD BLANK RESULT

Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
041993-METHOD BLANK	ND	ND
Reporting Limit:	10	10
Method:	SM5520E	SM5520F

Instrument: IR
Date Extracted: 04/19/93
Date Analyzed: 04/20/93

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

QUALITY CONTROL DATA

DATE EXTRACTED: 04/20/93
DATE ANALYZED: 04/21/93
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304127
SAMPLE SPIKED: 9304127-13A
INSTRUMENT: IR

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

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	205	ND	182	196	92.2	7.4

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(84-113)	8.1

METHOD BLANK RESULT

Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
042093-METHOD BLANK	ND	ND
Reporting Limit:	10	10
Method:	SM5520E	SM5520F

Instrument: IR
Date Extracted: 04/20/93
Date Analyzed: 04/21/93

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

QUALITY CONTROL DATA

DATE EXTRACTED: 04/23/93
DATE ANALYZED: 04/23/93
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304127
SAMPLE SPIKED: 9304127-08A
INSTRUMENT: IR

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

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	209	ND	185	194	90.7	4.7

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(84-113)	8.1

METHOD BLANK RESULT

Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
042793-METHOD BLANK	ND	ND
Reporting Limit:	10	10
Method:	SM5520E	SM5520F

Instrument: IR
Date Extracted: 04/27/93
Date Analyzed: 04/28/93

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

[redacted] L-4,5 [redacted]

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9304127

Project No.: 1649.12	Field Logbook No.:	Date: 4/16/93	Serial No.: 11589
Project Name: Jerry Buena	Project Location: Emeryville		
Sampler (Signature): Robin Barber			Samplers: RMB WEM

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	Oil & Grease 5520 E&F	Modified 8015	5520 E F	HOLD	RUSH	REMARKS
WS4-11	4/16/93		01A	1-Brass	Soil								* samples to be put on Hold
WS5-7			02A										
WS6-7			03A										** for oil/diesel Canceled RB
WS7-13			04A										
* SS7-4			05A							X			Call Jennifer Beatty
* B6-7			06A							X** X			regarding analysis
SS4-7			07A										
SS5-13			08A										
SS6-7			09A										4/19/93 Per Jenifer Beatty,
WS8-4			10A										Cancel MON 8015 analysis
NS4-11			11A										4/27 Per William Madison, take
B5-13			12A										Samples B6-7 & ES-2-7.5
ES3-10	↓		13A	↓	↓								off hold & Run 5520EF on
													Standard TAT

RELINQUISHED BY: (Signature) Robin Barber	DATE 4/16/93	TIME 3:05	RECEIVED BY: (Signature) Ofelia Gillespie	DATE 4-16-93	TIME 1505
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: AEN

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9304127

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.12	Field Logbook No.:	Date: 4/16/93	Serial No.: 11591
Project Name: Yerba Buena	Project Location: Emeryville		
Sampler (Signature): Robin Barker			Samplers: RWB WEM

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	EPA 601	EPA 624	Oil & Grease 5520ES	Modified 8015**	5520EF	HOLD	RUSH	REMARKS
BW-13	4/5/93		14A	1-Bags	soil			X	X				* samples to be put on
*SS3-7-foot	↓		15A	↓	↓			X	X		X		hold.
*WS2-7-foot			16A					X	X		X		
*WS3-2			17A					X	X		X		** for oil / diesel cancelled RB
BN-8			18A					X	X				
*ES-2-7.5			19A					X	X	X RB	X		Call Jennifer Beatty
NS3-6.5			20A					X	X				regarding analysis
B4-11	↓		21A	↓	↓			X	X				

RELINQUISHED BY: (Signature) Robin Barker	DATE 4/16/93	TIME 3:05	RECEIVED BY: (Signature) Azina Gillespie	DATE 4-16-93	TIME 1505
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: AEN

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FORM NO. 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation 94523-001

LEVINE-FRICKE
1900 POWELL STREET
12TH FLOOR
EMERYVILLE, CA 94608
ATTN: WILLIAM MADISON

MAY 24 [illegible]

CLIENT PROJECT ID: 1649.12
PROJ. NAME: YERBA BUENA
CLIENT C.O.C. NO: 11602

REPORT DATE: 05/19/93

DATE SAMPLED: 05/12/93

DATE RECEIVED: 05/13/93

AEN JOB NO: 9305075

PROJECT SUMMARY:

On May 13, 1993, this laboratory received seven (7) soil samples.

Client requested three (3) samples be analyzed for Oil and Grease and Hydrocarbons by Standard Methods 5520E and F. Four (4) samples were placed on hold. Sample identification, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Manager

Results FAXed 05/17/93

COPY

LEVINE-FRICKE

DATE SAMPLED: 05/12/93
DATE RECEIVED: 05/13/93
CLIENT PROJECT ID: 1649.12

REPORT DATE: 05/19/93

AEN JOB NO: 9305075

Client Sample Id.	AEN Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
B8-9.5	01A	970	920
WS9-8	03A	ND	ND
B10-9	06A	220	210
Reporting Limit		10	10
Standard Method:		5520E	5520F

Instrument: IR

Date Extracted: 05/13/93
Date Analyzed: 05/14/93

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 05/07/93
DATE ANALYZED: 05/10/93
CLIENT PROJ. ID: 1649.12

AEN JOB NO: 9305075
SAMPLE SPIKED: 9304127-06A
INSTRUMENT: IR

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

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	214	ND	203	194	92.8	4.5

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(84-113)	8.1

METHOD BLANK RESULT

Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
051393-METHOD BLANK	ND	ND
Reporting Limit:	10	10
Method:	SM5520E	SM5520F

Instrument: IR
Date Extracted: 05/13/93
Date Analyzed: 05/14/93

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

R-4.5-A

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9305075

Project No.: 1649.12	Field Logbook No.:	Date: 5/13/93	Serial No.: No. 11602
Project Name: Yerba Buena - Bus + Truck Garage	Project Location: Emeryville		
Sampler (Signature): William Madison			Samplers: WEM

SAMPLES: SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	ANALYSES: EPA 601	EPA 624	SM6532D E+F				HOLD	RUSH	REMARKS
BS-9.5	5/12/93		01A	1	Soil			X					X	2-DAY TAT
B9-11			02A	1								X		
WS9-8			03A	1				X					X	Results to William Madison
WS-1065			04A	1								X		
WS11-9			05A	1								X		
B10-9			06A	1				X				X	X	
B11-11			07A	1								X		

RELINQUISHED BY: (Signature) William Madison	DATE 5/13/93	TIME 9:15	RECEIVED BY: (Signature)	DATE 5/13/93	TIME 10:15
RELINQUISHED BY: (Signature)	DATE 5/13/93	TIME 12:05	RECEIVED BY: (Signature) Danelle Vance	DATE 5/13/93	TIME 12:05
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: American Environmental Network

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ANAMETRIX INC
Environmental & Analytical Chemistry

Part of INCHCAPE ENVIRONMENTAL

REPORT

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9303295
Date Received : 03/24/93
Project ID : 1649.12
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9303295- 1	SB-1E3.0
9303295- 2	SB-2W4.0
9303295- 3	SB-3N3.0
9303295- 4	SB-4S5.0
9303295- 5	SB-5B5.5
9303295- 6	SB-6B7.5
9303295- 7	SB-7-3.0

This report consists of 33 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

04-09-93
Date

COPY

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9303295
Date Received : 03/24/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: PEST

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9303295- 1	SB-1E3.0	SOIL	03/23/93	8080 PCB
9303295- 2	SB-2W4.0	SOIL	03/23/93	8080 PCB
9303295- 3	SB-3N3.0	SOIL	03/23/93	8080 PCB
9303295- 4	SB-4S5.0	SOIL	03/23/93	8080 PCB
9303295- 5	SB-5B5.5	SOIL	03/23/93	8080 PCB
9303295- 6	SB-6B7.5	SOIL	03/23/93	8080 PCB
9303295- 7	SB-7-3.0	SOIL	03/23/93	8080 PCB

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9303295
Date Received : 03/24/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: PEST

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Department Supervisor 4/7/93 Date

Chemist 4/7/93 Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.12	Anametrix I.D.	: 9303295-01
Sample ID	: SB-1E3.0	Elec. Fil I.D.	: EPM29501
Matrix	: SOIL	Analyst	: NL
Date Sampled	: 03/23/93	Supervisor	: SR
Date Extracted	: 04/05/93	Weight ext. (g)	: 30
Date Analyzed	: 04/06/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	108%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.12	Anametrix I.D.	: 9303295-02
Sample ID	: SB-2W4.0	Elec. Fil I.D.	: EPM29502
Matrix	: SOIL	Analyst	: SK
Date Sampled	: 03/23/93	Supervisor	:
Date Extracted	: 04/05/93	Weight ext. (g)	: 30
Date Analyzed	: 04/06/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	105%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.12	Anametrix I.D.	: 9303295-03
Sample ID	: SB-3N3.0	Elec. Fil I.D.	: EPM29503
Matrix	: SOIL	Analyst	: DL
Date Sampled	: 03/23/93	Supervisor	: SR
Date Extracted	: 04/05/93	Weight ext. (g)	: 30
Date Analyzed	: 04/06/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	109%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.12	Anametrix I.D.	: 9303295-04
Sample ID	: SB-4S5.0	Elec. Fil I.D.	: EPM29504
Matrix	: SOIL	Analyst	:
Date Sampled	: 03/23/93	Supervisor	:
Date Extracted	: 03/31/93	Weight ext. (g)	: 30
Date Analyzed	: 04/05/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	97%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.12	Anametrix I.D.	: 9303295-05
Sample ID	: SB-5B5.5	Elec. Fil I.D.	: EPM29505
Matrix	: SOIL	Analyst	:
Date Sampled	: 03/23/93	Supervisor	:
Date Extracted	: 03/31/93	Weight ext. (g)	: 30
Date Analyzed	: 04/05/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	121%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.12	Anametrix I.D.	: 9303295-06
Sample ID	: SB-6B7.5	Elec. Fil I.D.	: EPM29506
Matrix	: SOIL	Analyst	:
Date Sampled	: 03/23/93	Supervisor	:
Date Extracted	: 03/31/93	Weight ext. (g)	: 30
Date Analyzed	: 04/05/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	101%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.12	Anametrix I.D.	: 9303295-07
Sample ID	: SB-7-3.0	Elec. Fil I.D.	: EPM29507
Matrix	: SOIL	Analyst	:
Date Sampled	: 03/23/93	Supervisor	:
Date Extracted	: 03/31/93	Weight ext. (g)	: 30
Date Analyzed	: 04/05/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	103%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: N/A	Anametrix I.D.	: BA05H1PE
Sample ID	: BLANK	Analyst	:
Matrix	: SOIL	Supervisor	:
Date Sampled	: N/A	Weight ext. (g)	: 30
Date Extracted	: 04/05/93	Final Vol. (ml)	: 10
Date Analyzed	: 04/06/93	Inj. Vol. (ul)	: 1
Instrument ID	: HP22	% Moisture	: N/A
Dilution	: NONE		

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	105%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: N/A	Anametrix I.D.	: BM31H1PE
Sample ID	: BLANK	Analyst	:
Matrix	: SOIL	Supervisor	: SR
Date Sampled	: N/A	Weight ext. (g)	: 30
Date Extracted	: 03/31/93	Final Vol. (ml)	: 10
Date Analyzed	: 04/05/93	Inj. Vol. (ul)	: 1
Instrument ID	: HP22	% Moisture	: N/A
Dilution	: NONE		

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	117%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

MATRIX SPIKE REPORT - EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.12	Anametrix I.D.	: 9303295-01
Sample ID	: SB-1E3.0	Elec. File I.D.	: EMM29501
Matrix	: SOIL	Analyst	:
Date Sampled	: 03/23/93	Supervisor	:
Date Extracted	: 04/05/93	Weight ext. (g)	: 30
Date Analyzed	: 04/07/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

COMPOUND	Spike Added (ug/Kg)	MS (ug/Kg)	MS %Rec		%REC LIMITS*
Aroclor 1248	500	455	91%		30-130%
COMPOUND	Spike Added (ug/Kg)	MSD (ug/Kg)	MSD %Rec	RPD	%RPD LIMITS*
Aroclor 1248	500	450	90%	1%	25
SURROGATE	MS %REC		MSD %REC		%REC LIMITS*
Decachlorobiphenyl	106%		108%		30-130%

* Anametrix advisory limits

PESTICIDE LAB CONTROL SPIKE REPORT
EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: N/A	Anametrix I.D.	: MM05H1PE
Sample ID	: LCS	Analyst	:
Matrix	: SOIL	Supervisor	:
Date Sampled	: N/A	Weight ext. (g)	: 30
Date Extracted	: 04/05/93	Final Vol. (ml)	: 10
Date Analyzed	: 04/06/93	Inj. Vol. (ul)	: 1
Instrument ID	: HP22	% Moisture	: N/A
Dilution	: NONE		

COMPOUND	Spike Added (ug/Kg)	LCS CONC. (ug/Kg)	LCS %Rec		%REC LIMITS*
Aroclor 1248	500	440	88%		30-130%

SURROGATE	LCS %REC		%REC LIMITS*
Decachlorobiphenyl	108%		30-130%

* Anametrix advisory limits

MATRIX SPIKE REPORT - EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.12	Anametrix I.D.	: 9303295-04
Sample ID	: SB-4S5.0	Elec. File I.D.	: EMM29504
Matrix	: SOIL	Analyst	:
Date Sampled	: 03/23/93	Supervisor	:
Date Extracted	: 03/31/93	Weight ext. (g)	: 30
Date Analyzed	: 04/06/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

COMPOUND	Spike Added (ug/Kg)	MS (ug/Kg)	MS %Rec		%REC LIMITS*
Aroclor 1248	500	455	91%		30-130%
COMPOUND	Spike Added (ug/Kg)	MSD (ug/Kg)	MSD %Rec	RPD	%RPD LIMITS*
Aroclor 1248	500	475	95%	4%	25

SURROGATE	MS %REC		MSD %REC		%REC LIMITS*
Decachlorobiphenyl	107%		108%		30-130%

* Anametrix advisory limits

PESTICIDE LAB CONTROL SPIKE REPORT
EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: N/A	Anametrix I.D.	: MM31H1PE
Sample ID	: LCS	Analyst	:
Matrix	: SOIL	Supervisor	:
Date Sampled	: N/A	Weight ext. (g)	: 30
Date Extracted	: 03/31/93	Final Vol. (ml)	: 10
Date Analyzed	: 04/05/93	Inj. Vol. (ul)	: 1
Instrument ID	: HP22	% Moisture	: N/A
Dilution	: NONE		

COMPOUND	Spike Added (ug/Kg)	LCS CONC. (ug/Kg)	LCS %Rec		%REC LIMITS*
Aroclor 1248	500	470	94%		30-130%

SURROGATE	LCS %REC		%REC LIMITS*
Decachlorobiphenyl	115%		30-130%

* Anametrix advisory limits

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9303295
Date Received : 03/24/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9303295- 1	SB-1E3.0	SOIL	03/23/93	TPHd
9303295- 2	SB-2W4.0	SOIL	03/23/93	TPHd
9303295- 3	SB-3N3.0	SOIL	03/23/93	TPHd
9303295- 4	SB-4S5.0	SOIL	03/23/93	TPHd
9303295- 5	SB-5B5.5	SOIL	03/23/93	TPHd
9303295- 6	SB-6B7.5	SOIL	03/23/93	TPHd
9303295- 7	SB-7-3.0	SOIL	03/23/93	TPHd
9303295- 1	SB-1E3.0	SOIL	03/23/93	TPHG/BTEX
9303295- 2	SB-2W4.0	SOIL	03/23/93	TPHg/BTEX
9303295- 3	SB-3N3.0	SOIL	03/23/93	TPHg/BTEX
9303295- 4	SB-4S5.0	SOIL	03/23/93	TPHg/BTEX
9303295- 5	SB-5B5.5	SOIL	03/23/93	TPHg/BTEX
9303295- 6	SB-6B7.5	SOIL	03/23/93	TPHg/BTEX
9303295- 7	SB-7-3.0	SOIL	03/23/93	TPHg/BTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9303295
Date Received : 03/24/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Cheryl Balsner 4/8/93
Department Supervisor Date

Anna Shor 4/8/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9303295
Matrix : SOIL
Date Sampled : 03/23/93

Project Number : 1649.12
Date Released : 04/08/93

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# SB-1E3.0 -01	Sample I.D.# SB-2W4.0 -02	Sample I.D.# SB-3N3.0 -03	Sample I.D.# SB-4S5.0 -04	Sample I.D.# SB-5B5.5 -05
Benzene	0.005	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND	ND
TPH as Gasoline	0.5	ND	ND	ND	ND	ND
Mineral Spirits	0.5	ND	ND	ND	ND	ND
% Surrogate Recovery		131%	103%	113%	110%	100%
Instrument I.D.		HP21	HP21	HP21	HP21	HP21
Date Analyzed		04/06/93	04/06/93	04/06/93	03/26/93	03/26/93
RLMF		1	1	1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline and mineral spirits is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Lucia Shor 4/8/93
Analyst Date

Cheryl Balman 4/8/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9303295
Matrix : SOIL
Date Sampled : 03/23/93

Project Number : 1649.12
Date Released : 04/08/93

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# SB-6B7.5 -06	Sample I.D.# SB-7-3.0 -07	Sample I.D.# BM2601E3 BLANK	Sample I.D.# BA0602E3 BLANK
Benzene	0.005	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND
TPH as Gasoline	0.5	ND	ND	ND	ND
Mineral Spirits	0.5	ND	ND	ND	ND
% Surrogate Recovery		115%	82%	113%	106%
Instrument I.D.		HP21	HP21	HP21	HP21
Date Analyzed		03/26/93	03/26/93	03/26/93	04/06/93
RLMF		1	1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline and mineral spirits is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Irma Shor 4/8/93
Analyst Date

Cheryl Barmen 4/6/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9303295
Matrix : SOIL
Date Sampled : 03/23/93
Date Extracted: 03/30 & 04/05/93

Project Number : 1649.12
Date Released : 04/08/93
Instrument I.D.: HP23

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9303295-01	SB-1E3.0	04/07/93	10	ND
9303295-02	SB-2W4.0	04/07/93	10	ND
9303295-03	SB-3N3.0	04/06/93	10	ND
9303295-04	SB-4S5.0	03/30/93	10	ND
9303295-05	SB-5B5.5	03/30/93	10	ND
9303295-06	SB-6B7.5	03/30/93	10	ND
9303295-07	SB-7-3.0	03/30/93	10	ND
DSBL033093	METHOD BLANK	03/30/93	10	ND
DSBL040593	METHOD BLANK	04/06/93	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 04/09/93 Date

Supervisor 4/9/93 Date

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: 1649.12 SB-7-3.0	Anametrix I.D.	: 03295-07
Matrix	: SOIL	Analyst	: IS
Date Sampled	: 03/23/93	Supervisor	: [illegible]
Date Analyzed	: 03/26/93	Date Released	: 04/01/93
		Instrument ID	: HP21

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	REC MS (mg/Kg)	% REC MS	REC MD (mg/Kg)	% REC MD	RPD	% REC LIMITS
MINERAL SPIRITS	0.25	0.00	0.16	64%	0.12	48%	-29%	48-145
P-BFB				72%		60%		53-147

* Limits established by Anametrix, Inc.

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 1649.12 SB-3N3.0
Matrix : SOIL
Date Sampled : 03/23/93
Date Analyzed : 04/06/93

Anametrix I.D. : 03295-03
Analyst : IS
Supervisor : [illegible]
Date Released : 04/08/93
Instrument ID : HP21

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	REC MS (mg/Kg)	% REC MS	REC MD (mg/Kg)	% REC MD	RPD	% REC LIMITS
MINERAL SPIRITS	0.25	0.00	0.22	88%	0.22	88%	0%	48-149
P-BFB				99%		110%		53-147

* Limits established by Anametrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Analyzed : 03/26/93

Anametrix I.D. : LCSS0326
Analyst : IS
Supervisor : [illegible]
Date Released : 04/01/93
Instrument I.D.: HP21

COMPOUND	SPIKE AMT. (mg/Kg)	REC LCS (mg/Kg)	%REC LCS	% REC LIMITS
MINERAL SPIRITS	0.25	0.23	92%	58-130
SURROGATE		110%		53-147

* Quality control established by Anametrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Analyzed : 04/06/93

Anametrix I.D. : LCSS0406
Analyst : IS CM
Supervisor :
Date Released : 04/08/93
Instrument I.D.: HP21

COMPOUND	SPIKE AMT. (mg/Kg)	REC LCS (mg/Kg)	%REC LCS	% REC LIMITS
MINERAL SPIRITS	0.25	0.24	96%	58-130
p-BFB			129%	53-147

* Quality control established by Anametrix, Inc.

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3550 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: LCSS0330
Matrix	: SOIL	Analyst	: IT
Date Sampled	: N/A	Supervisor	: [illegible]
Date Extracted	: 03/30/93	Date Released	: 04/01/93
Date Analyzed	: 03/30/93	Instrument I.D.	: HP23

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS
Diesel	125	99	79%	72-143

*Limits established by Anametrix, Inc.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9303295
Date Received : 03/24/93
Project ID : 1649.12
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9303295- 1	SB-1E3.0	SOIL	03/23/93	5520EF
9303295- 2	SB-2W4.0	SOIL	03/23/93	5520EF
9303295- 3	SB-3N3.0	SOIL	03/23/93	5520EF
9303295- 4	SB-4S5.0	SOIL	03/23/93	5520EF
9303295- 5	SB-5B5.5	SOIL	03/23/93	5520EF
9303295- 6	SB-6B7.5	SOIL	03/23/93	5520EF
9303295- 7	SB-7-3.0	SOIL	03/23/93	5520EF

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9303295
Date Received : 03/24/93
Project ID : 1649.12
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems were encountered for these samples.

Department Supervisor 4/7/93 Date

Chemist 4/7/93 Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX, INC. (408) 432-8192

Project # : 1649.12
Matrix : SOIL
Date sampled : 03/23/93
Date extracted: 03/31/93
Date analyzed : 04/01/93

Anametrix I.D. : 9303295
Analyst :
Supervisor : CR 4/2
Date released : 04/12/93

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9303295-04	SB-4S5.0	30	33
9303295-05	SB-5B5.5	30	ND
9303295-06	SB-6B7.5	30	ND
9303295-07	SB-7-3.0	30	70
BM31H1W9	METHOD BLANK	30	ND

ND - Not detected at or above the practical quantitation limit for the method.
TRPH - Total Recoverable Petroleum Hydrocarbons are determined by - Standard Method 5520EF.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX, INC. (408) 432-8192

Project # : 1649.12
Matrix : SOIL
Date sampled : 03/23/93
Date extracted: 04/06/93
Date analyzed : 04/07/93

Anametrix I.D. : 9303295
Analyst :
Supervisor : VL
Date released : 04/12/93

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9303295-01	SB-1E3.0	30	60
9303295-02	SB-2W4.0	30	180
9303295-03	SB-3N3.0	30	ND
BA06H1W9	METHOD BLANK	30	ND

ND - Not detected at or above the practical quantitation limit for the method.
TRPH - Total Recoverable Petroleum Hydrocarbons are determined by - Standard Method 5520EF.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS MATRIX SPIKE REPORT
STANDARD METHOD 5520EF
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: 1649.12 SB-5B5.5	Anametrix I.D.	: 9303295-05
Matrix	: SOIL	Analyst	:
Date sampled	: 03/23/93	Supervisor	:
Date extracted	: 03/31/93	Date Released	: 04/07/93
Date analyzed	: 04/01/93		

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	MS AMT (mg/Kg)	%REC MS	MD AMT (mg/Kg)	%REC MD	%RPD	% REC LIMITS
Motor Oil	300	27	260	78%	270	81%	4%	48-114%

* Quality control limits established by Anametrix, Inc.

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS LAB CONTROL SAMPLE REPORT
STANDARD METHOD 5520EF
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MM31H1W9
Matrix	: SOIL	Analyst	:
Date sampled	: N/A	Supervisor	:
Date extracted	: 03/31/93	Date Released	: 04/07/93
Date analyzed	: 04/01/93		

COMPOUND	SPIKE AMT. (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS
Motor Oil	300	260	87%	68-113%

Quality control established by Anametrix, Inc.

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS LAB CONTROL SAMPLE REPORT
STANDARD METHOD 5520EF
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MA06H1W9
Matrix	: SOIL	Analyst	:
Date sampled	: N/A	Supervisor	:
Date extracted	: 04/06/93	Date Released	: 04/07/93
Date analyzed	: 04/07/93		

COMPOUND	SPIKE AMT. (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS
Motor Oil	300	270	90%	68-113%

Quality control established by Anametrix, Inc.

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3550 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Extracted: 04/05/93
Date Analyzed : 04/09/93

Anametrix I.D. : LCSS0405
Analyst : AP
Supervisor : IS
Date Released : 04/08/93
Instrument I.D.: HP9

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS
Diesel	125	99	79%	72-143

*Limits established by Anametrix, Inc.

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

(2)

Project No.: 1649.12	Field Logbook No.:	Date: 3/24/93	Serial No.: **11509**
Project Name: Yerba Buena - Bushland	Project Location: Emeryville		
Sampler (Signature): William Chadwin			Samplers: WEM

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	Metals/EPA 6010	diesel/EPA 624	O+G	gasoline BTEX	PCB's		HOLD	RUSH	REMARKS
(1) SB-1E-3.0	3/24/93			1	Soil	X	X	X	X	X		X		Standard TAT
(2) SB-2W-4.0				1		X	X	X	X	X		X		Results to Jenifer Beatty
(3) SB-3N-3.0				1		X	X	X	X	X		X		
(4) SB-4S-5.0				1		X	X	X	X	X		X		
(5) SB-5B-5.5				1		X	X	X	X	X			X	
(6) SB-6B-7.5				1		X	X	X	X	X			X	
(7) SB-7-3.0				1		X	X	X	X	X				

RELINQUISHED BY: (Signature) William Chadwin	DATE 3/24/93	TIME 8:00	RECEIVED BY: (Signature) Tommy S. Arrijosa	DATE 3/24/93	TIME 0800
RELINQUISHED BY: (Signature) Tommy S. Arrijosa	DATE 3/24/93	TIME 1450	RECEIVED BY: (Signature) [illegible]	DATE 3/24/93	TIME 14:50
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: Anametrix

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

QuanteQ Laboratories

An Ecologics Company

Certificate of Analysis

DOHS CERTIFICATION NO. E772

AIHA ACCREDITATION NO. 332

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

ATTN: JENIFER BEATTY

CLIENT PROJECT ID: 1649.10
C.O.C. SERIAL NO: 9895
PROJ. NAME: YERBA BUENA (BASHLAND)

REPORT DATE: 02/18/93

DATE SAMPLED: 02/03/93
DATE RECEIVED: 02/04/93

ADDITIONAL ANALYSIS
REQUESTED: 02/05/93

QUANTEQ JOB NO: 9302045

PROJECT SUMMARY:

On February 4, 1993, this laboratory received four (4) soil samples.

Client requested one (1) sample be analyzed for organic and inorganic parameters. Three (3) samples were placed on hold. Sample identification, methodologies, results and dates analyzed are summarized on the following pages.

On February 5, 1993, client requested two (2) samples be taken off hold and analyzed for organic parameters.

Reporting limit for purgeable hydrocarbons as gasoline for sample SW-2-7 (9302045-02A) is elevated due to the presence of diesel hydrocarbons. Results for extractable hydrocarbons as diesel for sample SW-1-5.5 and SW-2-7 (9302045-01A, 02A) may include a light oil that is found in the diesel range.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Manager

Results FAXed 02/05-16/93

COPY

LEVINE-FRICKE

DATE SAMPLED: 02/03/93
DATE RECEIVED: 02/04/93
CLIENT PROJECT ID: 1649.10

REPORT DATE: 02/18/93
QUANTEQ JOB NO: 9302045

Client Sample Id.	Quanteq Lab Id.	Extractable Hydrocarbons as Diesel (mg/kg)	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)	Lead (mg/kg)
SW-1-5.5	01A	1,000 *	1,300	1,100	---
SW-2-7	02A	3,600 *	2,400	2,300	---
SW-3-8	03A	---	170	170	ND
Reporting Limit		1	10	10	2
Method:		EPA 3550 GCFID	SM-5520E	SM-5520F	EPA 6010
Instrument:		C	IR	IR	ICP
Date Extracted:		02/08/93	02/04,12/93	02/04,12/93	---
Date Analyzed:		02/09-10/93	02/04-12/93	02/04-12/93	02/04/93

ND = Not Detected

* Appears to be a mixture of diesel and a light oil.

LEVINE-FRICKE

SAMPLE ID: SW-2-7
CLIENT PROJ. ID: 1649.10
DATE SAMPLED: 02/03/93
DATE RECEIVED: 02/04/93
REPORT DATE: 02/18/93

QUANTEQ LAB NO: 9302045-02A
QUANTEQ JOB NO: 9302045
DATE ANALYZED: 02/08/93
INSTRUMENT: H

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

COMPOUND	CAS #	CONCENTRATION (ug/kg)	REPORTING 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	* 0.3 mg/kg

ND = Not Detected

* Reporting limit elevated due to the presence of diesel hydrocarbons.

LEVINE-FRICKE

SAMPLE ID: SW-3-8
CLIENT PROJ. ID: 1649.10
DATE SAMPLED: 02/03/93
DATE RECEIVED: 02/04/93
REPORT DATE: 02/18/93

QUANTEQ LAB NO: 9302045-03A
QUANTEQ JOB NO: 9302045
DATE EXTRACTED: 02/04/93
DATE ANALYZED: 02/04/93
INSTRUMENT: B

EPA METHOD 8080
POLYCHLORINATED BIPHENYLS
(SOIL MATRIX)

COMPOUND	CAS #	CONCENTRATION (mg/kg)	REPORTING LIMIT (mg/kg)
Aroclor 1016	12674-11-2	ND	0.05
Aroclor 1221	11104-28-2	ND	0.05
Aroclor 1232	11141-16-5	ND	0.05
Aroclor 1242	53469-21-9	ND	0.05
Aroclor 1248	12672-29-6	ND	0.05
Aroclor 1254	11097-69-1	ND	0.05
Aroclor 1260	11096-82-5	ND	0.05

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 02/04/93
DATE ANALYZED: 02/04/93
CLIENT PROJ. ID: 1649.10

QUANTEQ JOB NO: 9302045
SAMPLE SPIKED: 9301158-09A
INSTRUMENT: IR

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

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	206	ND	185	183	89.3	1.1

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(84-113)	8.1

METHOD BLANK RESULT

Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
020493-METHOD BLANK	ND	ND
021293-METHOD BLANK	ND	ND
Reporting Limit:	10	10
Method:	5520E	5520F

Instrument: IR
Date Extracted: 02/04,12/93
Date Analyzed: 02/04-12/93

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

QUALITY CONTROL DATA

DATE EXTRACTED: 02/05/93
DATE ANALYZED: 02/09/93
CLIENT PROJ. ID: 1649.10

QUANTEQ JOB NO: 9302045
SAMPLE SPIKED: 9301117-03A
INSTRUMENT: C

MATRIX SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE SOIL
METHOD 3550 GCFID

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Diesel	40.0	ND	19.7	19.2	48.6	2.6

CURRENT QC LIMITS (Revised 05/15/92)

Analyte	Percent Recovery	RPD
Diesel	(44.1-105.8)	24.3

METHOD BLANK RESULT

Lab Id.	Extractable Hydrocarbons as Diesel (mg/kg)
020893 METHOD BLANK	ND

Reporting Limit: 1
Method: 3550 GCFID
Instrument: C
Date Extracted: 02/08/93
Date Analyzed: 02/09/93

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

INSTRUMENT: H

QUANTEQ LAB NO: DAILY BLANK

CLIENT PROJ. ID: 1649.10

DATE ANALYZED: 02/08/93

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

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Benzene	71-43-2	ND	5
Toluene	108-88-3	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

QUALITY CONTROL DATA

DATE ANALYZED: 02/08/93
SAMPLE SPIKED: 9302027-08A
CLIENT PROJ. ID: 1649.10

QUANTEQ JOB NO: 9302045
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	29.6	ND	27.7	30.1	97.6	8.3
Toluene	96.2	ND	88.6	95.5	95.7	7.5
Hydrocarbons as Gasoline	1000	ND	848	906	87.7	6.6

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Benzene	(79.4-125.2)	9.8
Toluene	(84.4-116.8)	10.0
Gasoline	(53.7-124.2)	15.1

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

INSTRUMENT: B

CLIENT PROJ. ID: 1649.10

QUANTEQ LAB NO: 0204-METHOD BLANK
DATE EXTRACTED: 02/04/93
DATE ANALYZED: 02/04/93

POLYCHLORINATED BIPHENYLS
METHOD: EPA 8080
(SOIL MATRIX)

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Aroclor 1016	12674-11-2	ND	0.05
Aroclor 1216	11104-28-2	ND	0.05
Aroclor 1232	11141-16-5	ND	0.05
Aroclor 1242	53469-21-9	ND	0.05
Aroclor 1248	12672-29-6	ND	0.05
Aroclor 1254	11097-69-1	ND	0.05
Aroclor 1260	11096-82-5	ND	0.05

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 02/04/93

QUANTEQ JOB NO: 9302045

CLIENT PROJ. ID: 1649.10

INSTRUMENT: B

SURROGATE STANDARD RECOVERY SUMMARY

METHOD 8080
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Sample Id.	Lab Id.	2,4,5,6-Tetrachloro-meta-xylene
02/04/93	SW-3-8	03A	91
02/04/93		0204 METHOD BLANK	93

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(59-115)

QUALITY CONTROL DATA

DATE EXTRACTED: 02/04/93
DATE ANALYZED: 02/04/93
CLIENT PROJ. ID: 1649.10

QUANTEQ JOB NO: 9302045
SAMPLE SPIKED: 9302049-06A
INSTRUMENT: B

MATRIX SPIKE RECOVERY SUMMARY

METHOD 8080 (PCBs)
(SOIL MATRIX)

COMPOUND	Spike Amount (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
A1260	0.167	ND	0.160	0.157	94.9	1.9

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
A1260	(34-134)	25

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

QUALITY CONTROL DATA

MATRIX: SOIL

QUANTEQ JOB NO: 9302045

CLIENT PROJ. ID: 1649.10

MATRIX SPIKE RECOVERY SUMMARY

COMPOUND	INST./ METHOD	SAMPLE SPIKED	SAMPLE RESULT	SPIKE ADDED	OBSERVED RECOVERIES (mg/kg) MS	MSD	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Pb, Lead	ICP/6010	9302045-03A	ND	100	80.5	84.1	82	4	50-115	10

METHOD BLANK AND STANDARD RECOVERY SUMMARY

COMPOUND	INST./ METHOD	BLANK RESULT	TRUE VALUE	OBSERVED RECOVERIES (ug) MS	MSD	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Pb, Lead	ICP/6010	ND	100	90.2	92.1	91	2	79-109	8

MATRIX: SAND & SPIKED SAND

MATRIX BLANK SPIKE RECOVERY SUMMARY
ERA LOT #0590

COMPOUND	INST./ METHOD	SAMPLE RESULT	SPIKE ADDED	OBSERVED RECOVERIES (mg/kg) MS	MSD	% REC.	RPD	QC CONTROL LIMITS % REC. LIMIT	RPD LIMIT
Pb, Lead	ICP/6010	ND	100	91.8	93.0	92	1	50-115	10

ND = Not Detected
< = Less than

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CHANGE ORDER REQUEST

QUANTEQ Laboratories

LEVINE•FRICKE

To	Robin Byars
Co.	Quanteq
Dept.	
Fax No.	510-930-0256

No. of Pages 1

From	Jenifer Beatty
	Emeryville Office
Phone No.	(510) 652-4500
Fax No.	(510) 652-2246

REPLY REQUESTED

QUANTEQ FAX (510) 930-0256

DATE/TIME OF CALL 2/8/93

QUANTEQ REP. Robin Byars

QUANTEQ PROJ. # 9302045

CLIENT Jenifer Beatty

COMPANY Levine Fricke

JOB # 1649.10

COC # 9895

We hereby agree to make the change(s) specified below:

Additional Analysis

SW-1-5.5 (01A) 5520EF, TPN-diesel

SW-2-7 (02A) 5520EF, TPN-diesel, TPN gas BTEX

Standard TAT

Due 2/16

ACCEPTED - The above specifications of this Change Order are satisfactory and are hereby accepted.

X Date of acceptance 2/8/93

X Signature Jenifer Beatty

LEVINE-FRICKE

DATE SAMPLED: 04/12/93
DATE RECEIVED: 04/12/93
CLIENT PROJECT ID: 1649.12

REPORT DATE: 04/22/93

QUANTEQ JOB NO: 9304087

Client Sample Id.	Quanteq Lab Id.	Extractable Hydrocarbons as Diesel (mg/kg)	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)	Extractable Hydrocarbons Mineral Spirits (mg/kg)
WS-6	01A	ND	2,600	2,400	---
NS1-4	02A	ND	ND	ND	---
NS2-6.5	03A	ND	1,300	1,100	---
SS1-5	04A	ND	ND	ND	---
SS2-7	05A	ND	700	590	---
ES-5	06A	ND	ND	ND	---
SP4	07A	860	5,200	4,500	84
Reporting Limit		1	10	10	1
Method:		EPA 3550 GCFID	SM5520E	SM5520F	EPA 3550 GCFID
Instrument:		C	IR	IR	C
Date Extracted:		04/12/93	04/13/93	04/13/93	04/12/93
Date Analyzed:		04/13-14/93	04/14/93	04/14/93	04/13-14/93

ND = Not Detected

LEVINE-FRICKE

SAMPLE ID: SP4
CLIENT PROJ. ID: 1649.12
DATE SAMPLED: 04/12/93
DATE RECEIVED: 04/12/93
REPORT DATE: 04/22/93

QUANTEQ LAB NO: 9304087-07A
QUANTEQ JOB NO: 9304087
DATE ANALYZED: 04/13/93
INSTRUMENT: H

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

COMPOUND	CAS #	CONCENTRATION (ug/kg)	REPORTING 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		5.4 mg/kg	0.2 mg/kg

ND = Not Detected

Does not match the pattern of gasoline but is calculated using gasoline response. Possibly mineral spirits and diesel hydrocarbons.

QUALITY CONTROL DATA

DATE EXTRACTED: 04/13/93
DATE ANALYZED: 04/14/93
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304087
SAMPLE SPIKED: 9304087-04A
INSTRUMENT: IR

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

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	195	ND	190	190	97.4	0.0

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(84-113)	8.1

METHOD BLANK RESULT

Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
041393-METHOD BLANK	ND	ND
Reporting Limit:	10	10
Method:	5520E	5520F

Instrument: IR
Date Extracted: 04/13/93
Date Analyzed: 04/14/93

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

QUALITY CONTROL DATA

DATE EXTRACTED: 04/12/93
DATE ANALYZED: 04/14/93
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304087
SAMPLE SPIKED: 9304087-02A
INSTRUMENT: C

MATRIX SPIKE RECOVERY SUMMARY
TPH EXTRACTABLE SOIL
METHOD: EPA 3550 GCFID

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Diesel	40.0	ND	33.6	34.9	85.6	3.8

CURRENT QC LIMITS (Revised 05/15/92)

Analyte	Percent Recovery	RPD
Diesel	(44.1-105.8)	24.3

METHOD BLANK RESULT

Lab Id.	Extractable Hydrocarbons as Diesel (mg/kg)
041293-METHOD BLANK	ND

Reporting Limit: 1
Method: 3550 GCFID
Instrument: C
Date Extracted: 04/12/93
Date Analyzed: 04/14/93

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

INSTRUMENT: H

QUANTEQ LAB NO: DAILY BLANK

CLIENT PROJ. ID: 1649.12

DATE ANALYZED: 04/13/93

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

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Benzene	71-43-2	ND	5
Toluene	108-88-3	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

QUALITY CONTROL DATA

DATE ANALYZED: 04/12/93
SAMPLE SPIKED: 9304022-18A
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304087
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	29.6	ND	32.2	32.1	108.6	0.3
Toluene	94.5	ND	99.8	99.8	105.6	0.0
Hydrocarbons as Gasoline	1000	ND	932	906	91.9	2.8

CURRENT QC LIMITS (Revised 05/14/92)

Analyte	Percent Recovery	RPD
Benzene	(79.4-125.2)	9.8
Toluene	(84.4-116.8)	10.0
Gasoline	(53.7-124.2)	15.1

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

INSTRUMENT: A

CLIENT PROJ. ID: 1649.12

QUANTEQ LAB NO: 0413-METHOD BLANK
DATE EXTRACTED: 04/13/93
DATE ANALYZED: 04/13/93

POLYCHLORINATED BIPHENYLS
METHOD: EPA 8080
(SOIL MATRIX)

	CAS #	CONCENTRATION (ug/kg)	REPORTING LIMIT (ug/kg)
Aroclor 1016	12674-11-2	ND	0.05
Aroclor 1216	11104-28-2	ND	0.05
Aroclor 1232	11141-16-5	ND	0.05
Aroclor 1242	53469-21-9	ND	0.05
Aroclor 1248	12672-29-6	ND	0.05
Aroclor 1254	11097-69-1	ND	0.05
Aroclor 1260	11096-82-5	ND	0.05

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 04/13/93 QUANTEQ JOB NO: 9304087

CLIENT PROJ. ID: 1649.12 INSTRUMENT: A

SURROGATE STANDARD RECOVERY SUMMARY

METHOD: EPA 8080
(SOIL MATRIX)

SAMPLE IDENTIFICATION			SURROGATE RECOVERY (PERCENT)
Date Analyzed	Sample Id.	Lab Id.	2,4,5,6-Tetrachloro-meta-xylene
04/13/93	SP4	07A	90
04/13/93		0413 METHOD BLANK	104

CURRENT QC LIMITS

ANALYTE	PERCENT RECOVERY
2,4,5,6-Tetrachloro-meta-xylene	(59-115)

QUALITY CONTROL DATA

DATE EXTRACTED: 04/13/93
DATE ANALYZED: 04/13/93
CLIENT PROJ. ID: 1649.12

QUANTEQ JOB NO: 9304087
SAMPLE SPIKED: 9304087-06A
INSTRUMENT: A

MATRIX SPIKE RECOVERY SUMMARY

METHOD: EPA 8080 (PCBs)
(SOIL MATRIX)

COMPOUND	Spike Amount (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
A1260	0.133	ND	0.144	0.141	107.1	2.1

CURRENT QC LIMITS

Analyte	Percent Recovery	RPD
A1260	(34-134)	25

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

R-4,5-A

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9304087

Project No.: 1649.12	Field Logbook No.:	Date: 4/12/93	Serial No.: 11549
Project Name: Yerba Buena - Bashland	Project Location: Emeryville		
Sampler (Signature): William Madison			Samplers: WEM

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	#8080 PCB's ONLY	Diesel	SM5520EF Oil & Grease	TPH-G w/ BTEX		HOLD	RUSH	REMARKS
WS-6	4/12	Date sample taken for sample ID	D1A					X	X	X			X		* PCB's ONLY
NS1-4			02A						X	X			X		
NS2-6,5			03A						X	X			X		Sample Results to Jenifer Beatty
SS1-5			04A						X	X			X		
SS2-7			05A						X	X			X		
ES-5			06A						X	X			X		48-Hour TAT
SP4			07A					X	X	X	X		X		
															Results over phone by Wed 4/14
															* per clients request, sample SP4 (-07A) has an additional analysis of TPH-gas w/ BTEX
															** sample SP4 changed to SP-4B for client

RELINQUISHED BY: (Signature) William Madison	DATE 4/12/93	TIME 17:05	RECEIVED BY: (Signature)	DATE 4/12/93	TIME 17:05
RELINQUISHED BY: (Signature)	DATE 4/12/93	TIME 17:40	RECEIVED BY: (Signature) Gina Gillespie	DATE 4-12-93	TIME 1740
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:	Analytical Laboratory:
LEVINE-FRICKE 1900 Powell Street, 12th Floor Emeryville, Ca 94608 (415) 652-4500	American Environmental Network

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

ANAMETRIX INC
Environmental & Analytical Chemistry

Part of INCHCAPE ENVIRONMENTAL

REPORT

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302190
Date Received : 02/12/93
Project ID : 1649.10
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9302190- 1	CUTTINGS
9302190- 2	B-1-4
9302190- 3	B-2-4.5
9302190- 4	BS-3-5.5
9302190- 5	BS-4-5.5
9302190- 6	SS10-1.5
9302190- 7	PIP1-1.5
9302190- 8	PIP2-3.5

This report consists of 24 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

02-27-93
Date

COPY

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302190
Date Received : 02/12/93
Project ID : 1649.10
Purchase Order: N/A
Department : GC
Sub-Department: PEST

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9302190- 4	BS-3-5.5	SOIL	02/10/93	8080 PCB
9302190- 6	SS10-1.5	SOIL	02/10/93	8080 PCB
9302190- 8	PIP2-3.5	SOIL	02/10/93	8080 PCB

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302190
Date Received : 02/12/93
Project ID : 1649.10
Purchase Order: N/A
Department : GC
Sub-Department: PEST

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Department Supervisor 2/24/93 Date

Chemist 2/24/93 Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1449.10	Anametrix I.D.	: 9302190-04
Sample ID	: BS-3-5.5	Elec. Fil I.D.	: EPF19004
Matrix	: SOIL	Analyst	:
Date Sampled	: 02/10/93	Supervisor	:
Date Extracted	: 02/19/93	Weight ext. (g)	: 30
Date Analyzed	: 02/23/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	84%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.10	Anametrix I.D.	: 9302190-06
Sample ID	: SS10-1.5	Elec. Fil I.D.	: EPF19006
Matrix	: SOIL	Analyst	:
Date Sampled	: 02/10/93	Supervisor	:
Date Extracted	: 02/19/93	Weight ext. (g)	: 30
Date Analyzed	: 02/22/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	78%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

PROJECT ID	: 1649.10	Anametrix I.D.	: 9302190-08
Sample ID	: PIP2-3.5	Elec. Fil I.D.	: EPF19008
Matrix	: SOIL	Analyst	:
Date Sampled	: 02/10/93	Supervisor	:
Date Extracted	: 02/19/93	Weight ext. (g)	: 30
Date Analyzed	: 02/22/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	118%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: N/A	Anametrix I.D.	: SBLK011993
Sample ID	: METHOD BLANK	Elec. Fil I.D.	: BF2103P1
Matrix	: SOIL	Analyst	:
Date Sampled	: N/A	Supervisor	:
Date Extracted	: 02/19/93	Weight ext. (g)	: 30
Date Analyzed	: 02/22/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
12674-11-2	Aroclor 1016	80	ND
1104-28-2	Aroclor 1221	80	ND
11141-16-5	Aroclor 1232	80	ND
53469-21-9	Aroclor 1242	80	ND
12672-29-6	Aroclor 1248	80	ND
11097-69-1	Aroclor 1254	160	ND
11096-82-5	Aroclor 1260	160	ND
	SURROGATE	% Recovery	Limits *
2051-24-3	Decachlorobiphenyl	75%	30-130%

ND : Not detected at or above the practical quantitation limit for the method.
* Anametrix advisory limits

MATRIX SPIKE REPORT - EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.10	Anametrix I.D.	: 9302190-04
Sample ID	: BS-3-5.5	Elec. File I.D.	: EMF19004
Matrix	: SOIL	Analyst	:
Date Sampled	: 02/10/93	Supervisor	:
Date Extracted	: 02/19/93	Weight ext. (g)	: 30
Date Analyzed	: 02/22/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

COMPOUND	Spike Added (ug/Kg)	MS (ug/Kg)	MS %Rec		%REC LIMITS*
Aroclor 1248	500	424	85%		30-130%
COMPOUND	Spike Added (ug/Kg)	MSD (ug/Kg)	MSD %Rec	RPD	%RPD LIMITS*
Aroclor 1248	500	439	88%	4%	25
SURROGATE	MS %REC		MSD %REC		%REC LIMITS*
Decachlorobiphenyl	92%		95%		30-130%

* Anametrix advisory limits

PESTICIDE LAB CONTROL SPIKE REPORT
EPA METHOD 8080/PCBs
ANAMETRIX, INC. (408)432-8192

Project ID	: 1649.10	Anametrix I.D.	: SLCS021993
Sample ID	: LCS	Elec. File I.D.	: MF2301P1
Matrix	: SOIL	Analyst	:
Date Sampled	: N/A	Supervisor	:
Date Extracted	: 02/19/93	Weight ext. (g)	: 30
Date Analyzed	: 02/23/93	Final Vol. (ml)	: 10
Instrument ID	: HP22	Inj. Vol. (ul)	: 1
Dilution	: NONE	% Moisture	: N/A

COMPOUND	Spike Added (ug/Kg)	LCS CONC. (ug/Kg)	LCS %Rec	%REC LIMITS*
Aroclor 1248	500	374	75%	30-130%

SURROGATE	LCS %REC	%REC LIMITS*
Decachlorobiphenyl	75%	30-130%

* Anametrix advisory limits

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302190
Date Received : 02/12/93
Project ID : 1649.10
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9302190- 4	BS-3-5.5	SOIL	02/10/93	TPHd
9302190- 6	SS10-1.5	SOIL	02/10/93	TPHd
9302190- 8	PIP2-3.5	SOIL	02/10/93	TPHd
9302190- 4	BS-3-5.5	SOIL	02/10/93	TPHg/BTEX
9302190- 6	SS10-1.5	SOIL	02/10/93	TPHg/BTEX
9302190- 8	PIP2-3.5	SOIL	02/10/93	TPHg/BTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302190
Date Received : 02/12/93
Project ID : 1649.10
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentration reported as TPHg for sample SS10-1.5 is primarily due to a heavier petroleum product, possibly diesel.

Cheryl Balman 2/27/93
Department Supervisor Date

S Fahn 2-27-93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9203190
Matrix : SOIL
Date Sampled : 02/10/93

Project Number : 1649.10
Date Released : 02/27/93

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# BS-3-5.5 -04	Sample I.D.# SS10-1.5 -06	Sample I.D.# PIP2-3.5 -08	Sample I.D.# BF1901E2 BLANK
Benzene	0.005	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND
TPH as Gasoline	0.5	ND	1.7	ND	ND
% Surrogate Recovery		98%	120%	105%	127%
Instrument I.D.		HP4	HP4	HP4	HP4
Date Analyzed		02/19/93	02/19/93	02/19/93	02/19/93
RLMF		1	1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

J. Fisher 2-27-93
Analyst Date

Cheryl Brenner 3/3/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9302190
Matrix : SOIL
Date Sampled : 02/10/93
Date Extracted: 02/19/93

Project Number : 1649.10
Date Released : 02/27/93
Instrument I.D.: HP23

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9302190-04	BS-3-5.5	02/20/93	10	ND
9302190-06	SS10-1.5	02/20/93	10	23
9302190-08	PIP2-3.5	02/20/93	10	ND
DSBL021993	METHOD BLANK	02/22/93	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

T. Schon 2-27-93
Analyst Date

Cheryl Bateman 2/27/93
Supervisor Date

TOTAL VOLATILE HYDROCARBON MATRIX SPIKE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: 1649.10 PIP2-3.5	Anametrix I.D.	: 02190-08
Matrix	: SOIL	Analyst	: RJ
Date Sampled	: 02/10/93	Supervisor	: CK
Date Analyzed	: 02/19/93	Date Released	: 02/27/93
		Instrument I.D.	: HP4

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	REC MS (mg/Kg)	% REC MS	REC MD (mg/Kg)	% REC MD	RPD	% REC LIMITS
BENZENE	0.020	0.000	0.017	85%	0.019	95%	11%	45-139
TOLUENE	0.020	0.000	0.018	90%	0.020	100%	11%	51-138
ETHYLBENZENE	0.020	0.000	0.017	85%	0.019	95%	11%	48-146
TOTAL XYLENES	0.020	0.000	0.016	80%	0.018	90%	12%	50-139
p-BFB				98%		86%		53-147

* Quality control limit established by Anametrix, Inc.

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Analyzed : 02/19/93

Anametrix I.D. : LCSS0219
Analyst : SJ
Supervisor : [illegible]
Date Released : 02/27/93
Instrument ID : HP4

COMPOUND	SPIKE AMT (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS
BENZENE	0.020	0.020	100%	52-133
TOLUENE	0.020	0.020	100%	57-136
ETHYLBENZENE	0.020	0.020	100%	56-139
TOTAL XYLENES	0.020	0.020	100%	53-147
P-BFB			88%	53-147

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3550 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: LCSS0219
Matrix	: SOIL	Analyst	:
Date Sampled	: N/A	Supervisor	:
Date Extracted	: 02/19/93	Date Released	: 02/27/93
Date Analyzed	: 02/20/93	Instrument I.D.	: HP9

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS
Diesel	125	124	99%	72-143

*Limits established by Anametrix, Inc.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302190
Date Received : 02/12/93
Project ID : 1649.10
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9302190- 4	BS-3-5.5	SOIL	02/10/93	5520EF
9302190- 6	SS10-1.5	SOIL	02/10/93	5520EF
9302190- 8	PIP2-3.5	SOIL	02/10/93	5520EF

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302190
Date Received : 02/12/93
Project ID : 1649.10
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Department Supervisor 02-27-93 Date

Chemist 02-27-93 Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
ANAMETRIX, INC. (408) 432-8192

Project #	: 1649.10	Anametrix I.D.	: 9302190
Matrix	: SOIL	Analyst	: PD
Date sampled	: 02/10/93	Supervisor	: [illegible]
Date extracted	: 02/19/22	Date released	: 02/26/93
Date analyzed	: 02/22/93		

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9302190-04	BS-3-5.5	30	ND
9302190-06	SS10-1.5	30	150
9302190-08	PIP2-3.5	30	120
GSBL021993A	METHOD BLANK	30	ND

ND - Not detected at or above the practical quantitation limit for the method.
TRPH - Total Recoverable Petroleum Hydrocarbons are determined by - Standard Method 5520EF.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS MATRIX SPIKE REPORT
STANDARD METHOD 5520EF
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: BS-3-5.5	Anametrix I.D.	: 9302190
Matrix	: SOIL	Analyst	: PD
Date sampled	: 02/10/93	Supervisor	: [illegible]
Date extracted	: 02/19/93	Date Released	: 02/23/93
Date analyzed	: 02/22/93		

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	MS AMT (mg/Kg)	%REC MS	MD AMT (mg/Kg)	%REC MD	%RPD	% REC LIMITS
Motor Oil	300	0	270	90%	310	103%	14%	48-114%

* Quality control limits established by Anametrix, Inc.

ANAMETRIX REPORT DESCRIPTION
INORGANICS

Analytical Data Report (ADR)

The ADR contains tabulated results for inorganic analytes. All field samples, QC samples and blanks were prepared and analyzed according to procedures in the following references:

- EPA Method 6010/7000/9000 series - "Test Methods for Evaluating Solid Waste," SW-846, EPA, 3rd Edition, November 1986.
- EPA Method 100, 200, 300 series - "Methods for Chemical Analysis of Water and Wastes," EPA, 3rd Edition, 1983.
- Toxicity Characteristic Leaching Procedure (EPA Method 1311) - 40 CFR, Part 268, Appendix 1, June 1990.
- Waste Extraction Test - Results are reported in mg/L of extract according to procedures of CCR Title 22, Section 66261, Appendix II.
- Organic Lead - CCR Title 22, Section 66261, Appendix XI.
- Standard Method 2340B - "Standard Methods for the Examination of Water and Wastewater," APHA, AWWA, WEF, 18th Edition, 1992.

Matrix Spike Report (MSR)

The MSR summarizes percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. MSRs may not be provided with all analytical reports. Anametrix control limit for MSR is 75-125% with 25% for RPD limits.

Laboratory Control Sample Report (LCSR)

The LCSR summarizes percent recovery information for laboratory control spikes on reagent water or soil. This information is a statement of performance for the method, i.e., the samples are properly prepared and analyzed according to the applicable methods. Anametrix control limit for LCSR is 80-120%.

Method Blank Report (MBR)

The MBR summarizes quality control information for reagents used in preparing samples. The absolute value of each analyte measured in the method blank should be below the method reporting limit for that analyte.

Post Digestion Spike Report (PDSR)

The PDSR summarizes percent recovery information for post digestion spikes. A post digestion spike is performed for a particular analyte if the matrix spike recovery is outside of established control limits. Any percent recovery for a post digestion spike outside of established limits for an analyte indicates probable matrix effects and interferences for that analyte. Anametrix control limit for PDSR is 85-115%.

Qualifiers (Q)

Anametrix uses several data qualifiers in inorganic reports. These qualifiers give additional information on the analytes reported. The following is a list of qualifiers and their meanings:

I - Sample was analyzed at the stated dilution due to spectral interferences.
U - Analyte concentration was below the method reporting limit. For matrix and post digestion spike reports, a value of "0.0" is entered for calculation of the percent recovery.
B - Sample concentration was below the reporting limit but above the instrument detection limit. Result is entered for calculation of the percent recovery only.
H - Spike percent recovery was outside of Anametrix control limits due to interferences from relatively high concentration level of the analyte in the unspiked sample.

Comment Codes

In addition to qualifiers, the following codes are used in the comment section of all reports to give additional information about sample preparation methods:

A - Sample was prepared for silver based on the silver digestion method developed by the Southern California Laboratory, Department of Health Services, "Acid Digestion for Sediments, Sludges, Soils and Solid Wastes. A Proposed Alternative to EPA SW846, Method 3050." Environmental Science and Technology, 1989, 23, 898-900.
T - Spikes were prepared after extraction by the Toxicity Characteristic Leaching Procedure (TCLP).
C - Spikes were prepared after extraction by the California Waste Extraction Test (CWET) method.
D - Reported results are dissolved, not total, metals.

Reporting Conventions

Analytical values reported are gross values, i.e., not corrected for method blank contamination.
Solid matrices are reported on a wet weight basis, unless specifically requested otherwise.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302190
Date Received : 02/12/93
Project ID : 1649.10
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9302190- 4	BS-3-5.5	SOIL	02/10/93	Org Pb
9302190- 6	SS10-1.5	SOIL	02/10/93	Org Pb
9302190- 8	PIP2-3.5	SOIL	02/10/93	Org Pb

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9302190
Date Received : 02/12/93
Project ID : 1649.10
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Mona Kamel For 2/26/93
Department Supervisor Date

Chemist Date

INORGANIC ANALYSIS DATA SHEET
ANAMETRIX, INC. (408) 432-8192

Analyte-Method: Organic Lead-938
Project I.D. : 1649.10
Matrix : SOIL
Reporting Unit: mg/Kg

Analyst : FW
Supervisor : MK
Date Sampled : 02/10/93
Date Released : 02/26/93
Instrument I.D. : AA1

ANAMETRIX SAMPLE I.D.	CLIENT I.D.	DATE PREPARED	DATE ANALYZED	REP. LIMIT	DIL. FACTOR	RESULT	Q
9302190-04	BS-3-5.5	02/22/93	02/23/93	0.30	1	ND	
9302190-06	SS10-1.5	02/22/93	02/23/93	0.30	1	ND	
9302190-08	PIP2-3.5	02/22/93	02/23/93	0.30	1	ND	
MB0222S	METHOD BLANK	02/22/93	02/23/93	0.30	1	ND	

COMMENT:

LABORATORY CONTROL SAMPLE REPORT
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.# : 9302190
Spike I.D. : LCS0222S
Project I.D. : 1649.10
Matrix : SOIL
Reporting Unit : mg/Kg

Analyst : FW
Supervisor : MK
Date Released : 02/26/93
Instrument I.D : AA1

ANALYTE-METHOD	DATE PREPARED	DATE ANALYZED	SPIKE AMT.	METHOD SPIKE	% REC.	Q
Organic Lead-938	02/22/93	02/23/93	2000	2300	115	

COMMENT:

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.10	Field Logbook No.:	Date: 2/12/93	Serial No.: 9875
Project Name: Yerba Buena - Bashlad	Project Location: Emeryville, CA		
Sampler (Signature): William Madison			Samplers: WEM

SAMPLES / ANALYSES

	SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPH DIESEL LUFT GC	TPH/BTEX LUFT GC	PCB'S ONLY 8080 *	STLC 5520 E&F Lead	HOLD	RUSH	REMARKS
1	Cuttings	2/8/93			1	Soil					X		
2	B-1-4	2/9/93			1						X		Reference # 2097 J
3	B-2-4.5	2/9/93			1						X		
4	BS-3-5.5	2/10/93			1		X	X	X	X	X		
5	BS-4-5.5	2/10/93			1						X		Results to Jennifer Beatty
6	SS-10-1.5	2/10/93			1		X	X	X	X	X		
7	Pipe-1-1.5	2/10/93			1						X		
8	Pipe-2-3.5	2/10/93			1	↓	X	X	X	X	X		
													* PCB'S ONLY for 8080 Analysis

RELINQUISHED BY: (Signature) William Madison	DATE 2/12/93	TIME ~~19:30~~	RECEIVED BY: (Signature) [illegible]	DATE 2/12/93	TIME 1900
RELINQUISHED BY: (Signature) [illegible]	DATE 2/12/93	TIME 18:00 20:10	RECEIVED BY: (Signature) Michele D Aguilar	DATE 2-12-93	TIME 20:10
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:
Aramatrix

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

ANAMETRIX INC
Environmental & Analytical Chemistry
A part of INCHCAPE ENVIRONMENTAL

REPORT

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304082
Date Received : 04/08/93
Project ID : 1649.12
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9304082- 1	SP-2
9304082- 2	SP-3
9304082- 3	SP-4A
9304082- 4	SP-1

This report consists of 13 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

4-22-93
Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304082
Date Received : 04/08/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9304082- 2	SP-3	SOIL	04/08/93	TPHd
9304082- 3	SP-4A	SOIL	04/08/93	TPHd
9304082- 4	SP-1	SOIL	04/08/93	TPHd
9304082- 2	SP-3	SOIL	04/08/93	TPHg/BTEX
9304082- 3	SP-4A	SOIL	04/08/93	TPHg/BTEX
9304082- 4	SP-1	SOIL	04/08/93	TPHg/BTEX

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9304082
Matrix : SOIL
Date Sampled : 04/08/93

Project Number : 1649.12
Date Released : 04/15/93

COMPOUNDS	Reporting Limit (mg/Kg)	Sample I.D.# SP-3 -02	Sample I.D.# SP-4A -03	Sample I.D.# SP-1 -04	Sample I.D.# BA0901E3 BLANK	Sample I.D.# BA1302E3 BLANK
Benzene	0.005	ND	ND	ND	ND	ND
Toluene	0.005	ND	ND	ND	ND	ND
Ethylbenzene	0.005	ND	ND	ND	ND	ND
Total Xylenes	0.005	ND	ND	ND	ND	ND
TPH as Gasoline	0.5	ND	ND	ND	ND	ND
% Surrogate Recovery		92%	81%	101%	109%	88%
Instrument I.D.		HP21	HP21	HP8	HP21	HP8
Date Analyzed		04/09/93	04/09/93	04/13/93	04/09/93	04/13/93
RLMF		1	1	1	1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Steve Sma 4/22/93
Analyst Date

Donna Shor 4/22/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9304082
Matrix : SOIL
Date Sampled : 04/08/93
Date Extracted: 04/09/93

Project Number : 1649.12
Date Released : 04/15/93
Instrument I.D.: HP23

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9304082-02	SP-3	04/12/93	10	220
9304082-03	SP-4A	04/13/93	50	520
DSBL040993	METHOD BLANK	04/09/93	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Steve Ames 4/22/93
Analyst Date

Lucia Shor 4/22/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9304082
Matrix : SOIL
Date Sampled : 04/08/93
Date Extracted: 04/12/93

Project Number : 1649.12
Date Released : 04/15/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9304082-04	SP-1	04/14/93	100	860
DSBL041293	METHOD BLANK	04/12/93	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Steve Sma 4/22/93
Analyst Date

Donna Shor 4/22/93
Supervisor Date

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Analyzed : 04/13/93

Anametrix I.D. : LCSS0413
Analyst : IS
Supervisor : [illegible]
Date Released : 04/15/93
Instrument I.D.: HP8

COMPOUND	SPIKE AMT. (mg/Kg)	REC LCS (mg/Kg)	%REC LCS	% REC LIMITS
GASOLINE	0.375	0.466	124%	58-130
p-BFB			118%	53-147

* Quality control established by Anametrix, Inc.

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3550 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: LCSS0409
Matrix	: SOIL	Analyst	: IS
Date Sampled	: N/A	Supervisor	: [illegible]
Date Extracted	: 04/09/93	Date Released	: 04/15/93
Date Analyzed	: 04/09/93	Instrument I.D.	: HP23

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS
Diesel	125	92	74%	72-143

*Limits established by Anametrix, Inc.

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3550 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Extracted: 04/12/93
Date Analyzed : 04/13/93

Anametrix I.D. : LCSS0412
Analyst : IS
Supervisor : [illegible]
Date Released : 04/15/93
Instrument I.D.: HP9

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS
Diesel	125	90	72%	72-143

*Limits established by Anametrix, Inc.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304082
Date Received : 04/08/93
Project ID : 1649.12
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9304082- 2	SP-3	SOIL	04/08/93	5520EF
9304082- 3	SP-4A	SOIL	04/08/93	5520EF
9304082- 4	SP-1	SOIL	04/08/93	5520EF

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304082
Date Received : 04/08/93
Project ID : 1649.12
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- Despite homogenization of the sample prior to extraction, the recovery of the matrix spike and matrix spike duplicate and the relative percent difference between the spike and spike duplicate exceeded the quality control limits. It is suspected that the aliquot of soil taken for the matrix spikes were saturated with oil and grease, which is fairly immobile.

Doesn't affect the sample

Department Supervisor 4/15/93 Date

Chemist 04/15/93 Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX, INC. (408) 432-8192

Project # : 1649.12
Matrix : SOIL
Date sampled : 04/08/93
Date extracted: 04/12/93
Date analyzed : 04/13/93

Anametrix I.D. : 9304082
Analyst :
Supervisor :
Date released : 04/20/93

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9304082-02	SP-3	30	830
9304082-03	SP-4A	30	2,100
9304082-04	SP-1	30	1,100
BA12H1W9	METHOD BLANK	30	ND

ND - Not detected at or above the practical quantitation limit for the method.
TRPH - Total Recoverable Petroleum Hydrocarbons are determined by - Standard Method 5520EF.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS MATRIX SPIKE REPORT
STANDARD METHOD 5520EF
AS OIL AND GREASE
ANAMETRIX, INC. (408) 432-8192

ample I.D.	: 1649.12, SP-3	Anametrix I.D.	: 9304082-02
Matrix	: SOIL	Analyst	: TS
Date sampled	: 04/08/93	Supervisor	: CM
ate extracted	: 04/12/93	Date Released	: 04/15/93
ate analyzed	: 04/13/93		

OMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	MS AMT (mg/Kg)	%REC MS	MD AMT (mg/Kg)	%REC MD	%RPD	% REC LIMITS
Motor Oil	300	830	2100	423%	1200	123%	55%	48-114%

Quality control limits established by Anametrix, Inc.

TOTAL RECOVERABLE PETROLEUM HYDROCARBONS LAB CONTROL SAMPLE REPORT
STANDARD METHOD 5520EF
AS OIL AND GREASE
ANAMETRIX, INC. (408) 432-8192

ample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MA12H1W9
Matrix	: SOIL	Analyst	: TS
Date sampled	: N/A	Supervisor	: CW
ate extracted	: 04/12/93	Date Released	: 04/15/93
ate analyzed	: 04/13/93		

COMPOUND	SPIKE AMT. (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS
Motor Oil	300	340	113%	68-113%

uality control established by Anametrix, Inc.

9304082 (2) 14:10 MA

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.12	Field Logbook No.:	Date: 4/8/93	Serial No.: 11539
Project Name: Verba Buena - Bay Ward	Project Location: Emeryville		
Sampler (Signature): William Madison			Samplers: WEM

ANALYSES

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	~~EPA 601~~	~~EPA 624~~	%SM 5520E&F	GAS/BTEX	DIESEL		HOLD	RUSH	REMARKS
(4) SP-1	4/8/93			1	Soil			X	X	X			X	5-Day TAT RUSH
(1) SP-2				1								X		* Oil and Grease SM 5520E&F
(2) SP-3				1				X	X	X			X	Results to Jennifer Beatty
(3) SP-4				1				X	X	X			X	

SP-1 not received on 4-8-93

Sample SP-1 received on 4/9/93 at Anametrix. J.D.

RELINQUISHED BY: (Signature) William Madison	DATE 4/8/93	TIME 8:30	RECEIVED BY: (Signature) Jenny S. Carrizosa	DATE 4/8/93	TIME 0830
RELINQUISHED BY: (Signature) Jenny S. Carrizosa	DATE 4/8/93	TIME 1100	RECEIVED BY: (Signature) Michele O. Aguilar	DATE 4/8/93	TIME 11:50
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: Anametrix (Lab)

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

ANAMETRIX INC
Environmental & Analytical Chemistry
rt of INCHCAPE ENVIRONMENTAL

REPORT

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304178
Date Received : 04/15/93
Project ID : 1649.12
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9304178- 1	SP-6C

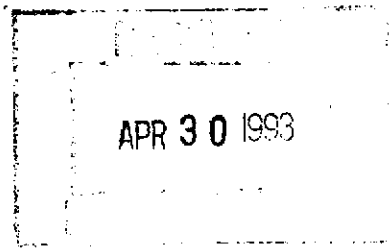
This report consists of 10 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen, Ph.D.
Laboratory Director

04-29-93
Date



REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304178
Date Received : 04/15/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9304178- 1	SP-6C	SOIL	04/13/93	TPHd

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304178
Date Received : 04/15/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The contamination reported in the TPHd method blank does not match the chromatographic pattern of motor oil or diesel. The contamination is reported for the motor oil method blank because it falls within the motor oil range of our temperature program.

Cheryl Balmer 5/4/93
Department Supervisor Date

Chemist 05/04/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS C12-C22
(DIESEL)
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9304178
Matrix : SOIL
Date Sampled : 04/13/93
Date Extracted: 04/20/93

Project Number : 1649.12
Date Released : 04/28/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9304178-01	SP-6C	04/23/93	100	ND
DSBL042093	METHOD BLANK	04/22/93	10	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C12-C22 (diesel) is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 04/29/93
Date

Supervisor 4/29/93
Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS C22-C36
(MOTOR OIL)
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9304178
Matrix : SOIL
Date Sampled : 04/13/93
Date Extracted: 04/20/93

Project Number : 1649.12
Date Released : 04/28/93
Instrument I.D.: HP9

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9304178-01	SP-6C	04/23/93	100	790
DSBL042093	METHOD BLANK	04/22/93	10	24

Note : Reporting limit is obtained by multiplying the dilution factor times 10 mg/Kg.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as C22-C36 (motor oil) is determined by GCFID following sample extraction by EPA Method 3550.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst 04/29/93 Date

Supervisor 4/29/93 Date

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3550 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : SOIL
Date Sampled : N/A
Date Extracted: 04/20/93
Date Analyzed : 04/21/93

Anametrix I.D. : LCSS0420
Analyst : RD
Supervisor : [illegible]
Date Released : 04/28/93
Instrument I.D.: HP23

COMPOUND	SPIKE AMT (mg/Kg)	REC LCS (mg/Kg)	% REC LCS	% REC LIMITS
Diesel	125	81	65%	72-143

*Limits established by Anametrix, Inc.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304178
Date Received : 04/15/93
Project ID : 1649.12
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9304178- 1	SP-6C	SOIL	04/13/93	5520EF

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9304178
Date Received : 04/15/93
Project ID : 1649.12
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

-Due to high concentration of total petroleum hydrocarbons as oil and grease in sample SP-6C, the matrix and matrix spike duplicate recoveries are outside of quality control limits.

Department Supervisor 4/29/93 Date

Chemist Tejna Doshi 4/29/93. Date

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX LABORATORIES (408) 432-8192

Project #	: 1649.12	Anametrix I.D.	: 9304178
Matrix	: SOIL	Analyst	: JO
Date sampled	: 04/13/93	Supervisor	:
Date extracted	: 04/23/93	Date released	: 04/29/93
Date analyzed	: 04/26/93		

Workorder #	Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9304178-01	SP-6C	30	2,300
BA23H1W9	METHOD BLANK	30	ND

ND - Not detected above the reporting limit for the method.
TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF, 18th edition.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

MATRIX SPIKE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX LABORATORIES (408) 432-8192

Sample I.D. : 1649.12, SP-6C
Matrix : SOIL
Date sampled : 04/13/93
Date extracted : 04/23/93
Date analyzed : 04/26/93

Anametrix I.D. : 9304178-01
Analyst : FD
Supervisor : CM
Date Released : 04/29/93

COMPOUND	SPIKE AMT (mg/Kg)	SAMPLE CONC (mg/Kg)	MS AMT (mg/Kg)	%REC MS	MD AMT (mg/Kg)	%REC MD	%RPD	% REC LIMITS
Motor Oil	300	2300	2700	133%	2900	200%	40%	48-114%

* Quality control limits established by Anametrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF, 18th edition.

AB CONTROL SAMPLE REPORT - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
ANAMETRIX LABORATORIES (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: MA23H1W9
Matrix	: SOIL	Analyst	:
Date sampled	: N/A	Supervisor	:
Date extracted	: 04/23/93	Date Released	: 04/29/93
Date analyzed	: 04/26/93		

COMPOUND	SPIKE AMT. (mg/Kg)	LCS (mg/Kg)	%REC LCS	%REC LIMITS
Motor Oil	300	280	93%	68-113%

Quality control established by Anametrix Laboratories.

TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520EF.

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 1649.12	Field Logbook No.:	Date: 4/15/93	Serial No.: **11556**
Project Name: Yerba Buena	Project Location: Emeryville		
Sampler (Signature): William Anderson			Samplers: WEM

SAMPLES / **ANALYSES**

	SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	~~EPA 601~~	~~EPA 624~~	Diesel	SM 5520 EF			HOLD	RUSH	REMARKS
1)	SP-6C	4/13/93	—		1	Soil			X	X					Standard TAT Results to Jennifer Beatty -SM 5520 EF report as Oil + Grease

RELINQUISHED BY: (Signature) William Anderson	DATE 4/15/93	TIME 18:00	RECEIVED BY: (Signature) [signature]	DATE 4/15/93	TIME 18:00
RELINQUISHED BY: (Signature) [signature]	DATE 4/15/93	TIME 19:20	RECEIVED BY: (Signature) [signature]	DATE 4/16/93	TIME 19:20
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: Anametrix

Shipping [illegible]y (White) Lab Copy (Green) File Copy (Yellow) [illegible]ld Copy (Pink) FORM [illegible] 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation 94523-001

LEVINE-FRICKE
1900 POWELL STREET
12TH FLOOR
EMERYVILLE, CA 94608
ATTN: JENIFER BEATTY

CLIENT PROJECT ID: 1649.12
PROJ. NAME: YERBA BUENA
CLIENT C.O.C. NO: 11621

REPORT DATE: 05/24/93

DATE SAMPLED: 05/18/93

DATE RECEIVED: 05/18/93

AEN JOB NO: 9305113

PROJECT SUMMARY:

On May 18, 1993, this laboratory received twelve (12) soil samples.

Client requested samples be analyzed for Oil and Grease and Hydrocarbons by Standard Methods 5520E and F. Sample identification, results and dates analyzed are summarized on the following pages.

All laboratory quality control parameters were found to be within established limits. Batch QC data is included at the end of this report.

If you have any questions, please contact Client Services at (510) 930-9090.

Andrew Bradeen for
Larry Klein
General Manager

Results FAXed 05/20/93

RECEIVED
MAY 28

LEVINE-FRICKE

DATE SAMPLED: 05/18/93
DATE RECEIVED: 05/18/93
CLIENT PROJECT ID: 1649.12

REPORT DATE: 05/24/93

AEN JOB NO: 9305113

Client Sample Id.	AEN Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
SP-10A	01A	60	40
SP-10B	02A	140	130
SP-10C	03A	170	170
SP-10D	04A	210	140
SP-11A	05A	490	270
SP-11B	06A	190	150
SP-12A	07A	430	250
SP-12B	08A	80	60
SP-12C	09A	100	70
SP-12D	10A	100	80
WS12-7	11A	ND	ND
WS13-9	12A	ND	ND
Reporting Limit		10	10
Standard Method:		5520E	5520F

Instrument: IR

Date Extracted: 05/19/93
Date Analyzed: 05/20/93

ND = Not Detected

QUALITY CONTROL DATA

DATE EXTRACTED: 05/07/93
DATE ANALYZED: 05/10/93
CLIENT PROJ. ID: 1649.12

AEN JOB NO: 9305113
SAMPLE SPIKED: 9304127-06A
INSTRUMENT: IR

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

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	214	ND	203	194	92.8	4.5

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(84-113)	8.1

METHOD BLANK RESULT

Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
051993-METHOD BLANK	ND	ND
Reporting Limit:	10	10
Method:	SM5520E	SM5520F

Instrument: IR
Date Extracted: 05/19/93
Date Analyzed: 05/20/93

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

QUALITY CONTROL DATA

DATE EXTRACTED: 05/19/93
DATE ANALYZED: 05/20/93
CLIENT PROJ. ID: 1649.12

AEN JOB NO: 9305113
SAMPLE SPIKED: 9305113-12A
INSTRUMENT: IR

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

ANALYTE	Spike Conc. (mg/kg)	Sample Result (mg/kg)	MS Result (mg/kg)	MSD Result (mg/kg)	Average Percent Recovery	RPD
Oil	219	ND	209	214	96.6	1.4

CURRENT QC LIMITS (Revised 06/22/92)

Analyte	Percent Recovery	RPD
Oil	(84-113)	8.1

METHOD BLANK RESULT

Lab Id.	Oil & Grease (mg/kg)	Hydrocarbons (mg/kg)
051993-METHOD BLANK	ND	ND
Reporting Limit:	10	10
Method:	SM5520E	SM5520F

Instrument: IR
Date Extracted: 05/19/93
Date Analyzed: 05/20/93

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

R-4.5-G

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9305113

Project No.: 1649.12	Field Logbook No.:	Date: 5/18/93	Serial No.: 11621
Project Name: Yerba Buena-Bashland	Project Location: Emeryville		
Sampler (Signature): Guillermo Gradstein			Samplers: WEM

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	~~EPA 601~~	~~EPA 624~~	SM5520EF*					HOLD	RUSH	REMARKS
SP-10A	5/18/93		01A	1	Soil			X					X		* Report as Oil and Grease
SP-10B			02A	1				X					X		
SP-10C			03A	1				X					X		2-DAY TAT
SP-10D			04A	1				X					X		
SP-11A			05A	1				X					X		Results to
SP-11B			06A	1				X					X		Jennifer Beatty
SP-12A			07A	1				X					X		
SP-12B			08A	1				X					X		
SP-12C			09A	1				X					X		
SP-12D			10A	1				X					X		
WS12-7			11A	1				X					X		
WS13-9			12A	1				X					X		

RELINQUISHED BY: (Signature) Guillermo Gradstein	DATE 5/18/93	TIME 13:30	RECEIVED BY: (Signature)	DATE 5/18/93	TIME 13:45
RELINQUISHED BY: (Signature)	DATE 5/18/93	TIME 14:55	RECEIVED BY: (Signature) Danielle Vance	DATE 5/18/93	TIME 14:55
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:
American Environmental Network

Shipping (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM 86/COC/ARF

ANAMETRIX INC
Environmental & Analytical Chemistry
Part of INCHCAPE ENVIRONMENTAL

REPORT

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9305190
Date Received : 05/19/93
Project ID : 1649.12
Purchase Order: N/A

The following samples were received at Anametrix, Inc. for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9305190- 1	GGW

This report consists of 9 pages not including the cover letter, and is organized in sections according to the specific Anametrix laboratory group or section which performed the analysis(es) and generated the data. The Report Summary that precedes each section will help you determine which Anametrix group is responsible for those test results, and will bear the signatures of the department supervisor and the chemist who have reviewed the analytical data. Please refer all questions to the department supervisor who signed the form.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234. A detailed list of the approved fields of testing can be obtained by calling our office, or the DHS Environmental Laboratory Accreditation Program at (415)540-2800.

If you have any further questions or comments on this report, please give us a call as soon as possible. Thank you for using Anametrix.

Sarah Schoen,Ph.D.
Laboratory Director

Date

COPY

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9305190
Date Received : 05/19/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9305190- 1	GGW	WATER	05/19/93	TPHd
9305190- 1	GGW	WATER	05/19/93	TPHgBTEX

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9305190
Date Received : 05/19/93
Project ID : 1649.12
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as diesel for sample GGW is primarily due to the presence of a heavier petroleum product, of hydrocarbon range C18-C36, possibly motor oil.

Cheryl Balmer 6/6/93
Department Supervisor Date

Lucia Shor 6/8/93
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anametrix W.O.: 9305190
Matrix : WATER
Date Sampled : 05/19/93

Project Number : 1649.12
Date Released : 06/01/93

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# GGW -01	Sample I.D.# BY2401E3 BLANK
Benzene	0.5	ND	ND
Toluene	0.5	ND	ND
Ethylbenzene	0.5	ND	ND
Total Xylenes	0.5	ND	ND
TPH as Gasoline	50	ND	ND
% Surrogate Recovery		100%	118%
Instrument I.D.		HP12	HP12
Date Analyzed		05/24/93	05/24/93
RLMF		1	1

ND - Not detected at or above the practical quantitation limit for the method.
TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using modified EPA Method 8015 following sample purge and trap by EPA Method 5030.
BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA Method 8020 following sample purge and trap by EPA Method 5030.
RLMF - Reporting Limit Multiplication Factor.

Anametrix control limits for surrogate p-Bromofluorobenzene recovery are 61-139%

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Dina Shor 6/8/93
Analyst Date

Cheryl Balmer 6/8/93
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9305190
Matrix : WATER
Date Sampled : 05/19/93
Date Extracted: 05/21/93

Project Number : 1649.12
Date Released : 06/08/93
Instrument I.D.: HP23

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)
9305190-01	GGW	05/26/93	50	1200
BY2111F1	METHOD BLANK	05/26/93	50	ND

Note : Reporting limit is obtained by multiplying the dilution factor times 50 ug/L.
ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3510.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Analyst Date: 6/8/93

Supervisor Date: 6/8/93

TOTAL VOLATILE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 5030 WITH GC/PID
ANAMETRIX, INC. (408) 432-8192

Sample I.D.	: LAB CONTROL SAMPLE	Anametrix I.D.	: LCSW0524
Matrix	: WATER	Analyst	: IS
Date Sampled	: N/A	Supervisor	: CS
Date Analyzed	: 05/24/93	Date Released	: 05/28/93
		Instrument I.D.	: HP12

COMPOUND	SPIKE AMT. (ug/L)	LCS (ug/L)	REC LCS	%REC LIMITS
Benzene	20.0	18.2	91%	52-133
Toluene	20.0	18.4	92%	57-136
Ethylbenzene	20.0	18.9	95%	56-139
TOTAL Xylenes	20.0	18.7	94%	61-139
P-BFB			100%	61-139

* Limits established by Anametrix, Inc.

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3510 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : WATER
Date Sampled : N/A
Date Extracted: 05/21/93
Date Analyzed : 05/26/93

Anametrix I.D. : LCSW0526
Analyst : TS
Supervisor : CP
Date Released : 06/01/93
Instrument I.D.: HP23

COMPOUND	SPIKE AMT (ug/L)	LCS REC (ug/L)	% REC LCS	LCSD REC (ug/L)	% REC LCSD	RPD	% REC LIMITS
DIESEL	1250	610	49%	600	48%	-2%	47-130

*Quality control established by Anametrix, Inc.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9305190
Date Received : 05/19/93
Project ID : 1649.12
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

QA/QC SUMMARY :

- No QA/QC problems encountered for these sample.

Department Supervisor 6/8/93 Date

Chemist 06/08/93 Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MS. JENIFER BEATTY
LEVINE-FRICKE
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608

Workorder # : 9305190
Date Received : 05/19/93
Project ID : 1649.12
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9305190- 1	GGW	WATER	05/19/93	5520BF

ANALYSIS DATA SHEET - TOTAL RECOVERABLE PETROLEUM HYDROCARBONS
AS OIL AND GREASE
ANAMETRIX LABORATORY (408) 432-8192

Project I.D. : 1649.12
Matrix : WATER
Date sampled : 05/19/93
Date extracted: 05/21/93
Date analyzed : 05/24/93

Anametrix I.D. : 9305190
Analyst :
Supervisor :
Date released : 06/04/93

Workorder #	Sample I.D.	Reporting Limit (mg/L)	Amount Found (mg/L)
9305190-01	GGW	5	ND
BY2111WY	METHOD BLANK	5	ND

ND - Not detected above the reporting limit for the method.
TRPH - Total Recoverable Petroleum Hydrocarbons are determined by Standard Method 5520BF.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

ANAMETRIX, INC.
1961 Concourse Drive, #E, San Jose, CA. 95131
(408) 432-8192
LOG IN FORM and INTERNAL CHAIN OF CUSTODY

06/08/93 15:17:04

ANAMETRIX
workorder: # 9305190 p.o #: N/A
report to: LEVINE-FRICKE project #: 1649.12
1900 POWELL STREET 12TH FLOOR
EMERYVILLE, CA 94608
date received: 05/19/93
phone # : (415)652-4500 date due : 06/03/93
fax phone: (415)652-2246
attention: MS. JENIFER BEATTY

ORKORDER	SAMPLE ID	MATRIX	METHOD	FRIG ID#	CONTAINER	DATE SAMPLED
9305190- 2	TANK	WATER	5520BF	10	2XLITER	05/19/93
9305190- 2	TANK	WATER	TPHd	10	2XLITER	05/19/93
9305190- 2	TANK	WATER	TPHg/BTEX	18	3X40ML	05/19/93

OMMENTS : NONE. CVR

1

Custodian's Signature Cristina V. Rayburn

Date/Time into Refrigerator 6/8/93 update

GEOTECHNICAL ENGINEERING FIELD SERVICES
BACKFILL AND COMPACTION PROCEDURES

Trumpp Bros., Inc., of San Jose, California, conducted excavation backfilling and compaction activities at the former Bashland Property, 4015 Hollis Street, within the Yerba Buena/East Baybridge Development Project site in Emeryville and Oakland, California, under the observation of Levine·Fricke personnel from May 19 to June 3, 1993. The on-site Levine·Fricke field engineer monitored fill placement and compaction activities, and conducted compaction density tests.

All backfill materials were submitted to Woodward-Clyde Consultants of Pleasant Hill, California, for laboratory compaction testing ASTM D1557 (see Table E-1). Backfill materials included on-site material and imported backfill material. Two compaction curves of soil from the former Ransome Company property were averaged and used to represent the on-site backfill material because Ransome property soils closely resembled on-site soils. Field and laboratory compaction test curves are included in this appendix.

Imported materials were supplied by Specialty Crushing of Emeryville, California. Soils were placed and compacted in thin lifts, not to exceed 8 inches in loose thickness, and moisture conditioned to within 3 percent of optimum moisture content. Soils were compacted with a vibratory sheepsfoot roller. Soils placed from 5.5 feet below ground surface (bgs) and deeper were compacted to achieve at least 90 percent relative compaction. Soils placed at depths of 5.5 feet bgs or less were compacted to achieve at least 95 percent relative compaction, as determined by the ASTM D1557 Laboratory Compaction Test.

Field compaction tests were conducted using a nuclear density/moisture testing instrument after the lifts of fill were placed, moisture conditioned, and compacted. Field compaction test locations were selected on the basis of random sampling and are shown on Figure 5 of the main text. The fill was recompacted and retested until test results indicated the required percent compaction (Table E-2).

For excavations that extended below the ground-water table (approximately 8 feet bgs at the time of excavation), clean imported drain rock was placed to a depth of approximately 1 to 2 feet above the ground-water level. The actual level of the drain rock was determined by the field engineer. Geotextile fabric was laid on top of the drain rock to act as a separator before placing the backfill material.

TABLE E-1
LABORATORY COMPACTION TESTS
FORMER BASHLAND PROPERTY
HOLLIS STREET, EMERYVILLE, CALIFORNIA

Backfill Material	Color and Description	Maximum Dry Density (pcf)	Optimum Moisture Content (% Dry Wt.)
1. Native Soil	Gray lean sandy clay	123.5	10.7
2. Native Soil	Brown sandy clay	122.9	11.5
3. Class II Recyled Aggregate Subbase	Gray gravelly sand	125.5	10.1

Notes:

Laboratory compaction tests were conducted by Woodward-Clyde Consultants of Pleasant Hill, California, using Test Method ASTM 1557.

pcf = pounds per cubic foot

Compaction curves 1 and 2 represent soils from the former Ransome Company property. An average of these curves was used to approximate backfill soil for the Garage area.

TABLE E-2
RESULTS OF FIELD DENSITY TESTS
FORMER BASHLAND PROPERTY
HOLLIS STREET, EMERYVILLE, CALIFORNIA

Date	Test Number	Soil Type	Approximate Elevation Below Final Grad (ft)	Dry Density (pcf)	Moisure Content (% Dry Wt.)	Percent Relative Compaction (% of max. Dry Density)	Specified Percent Relative Compaction	Retest of Test Number
19-May-93	1	ASB	7	110	12.8	88		
	2	ASB	7	109.3	13.1	87		
	3	ASB	7	111.1	12.4	89		2
	4	ASB	7	110.7	13.6	88		1
	5	ASB	6	111.7	12.2	89	90	
	6	ASB	6	111.4	12.1	88	90	5
	7	ASB	6	114.9	12.2	92	90	6
	8	ASB	6	114.0	12.0	91	90	
20-May-93	9	ASB	6	110.0	17.2	88	90	
	10	ASB	6	114.4	14.5	91	90	
	11	ASB	6	117.8	15.1	94	90	9
	12	ASB	6	117.7	14.3	94	90	
	13	ASB	5.5	117.3	14.7	93	90	
	14	ASB	5.5	118.1	12.7	94	90	
	15	ASB	5.5	119.8	14.7	96	90	
21-May-93	16	ASB	5	118.6	14.8	95	95	
	17	ASB	4.5	119.6	15	95	95	
25-May-93	18	ASB	5.5	122.4	9.9	98	90	
	19	ASB	5	121.0	10.4	97	95	
	20	ASB	4.5	120.1	9.3	96	95	
26-May-93	21	ASB	6	120.6	11.1	96	90	
	22	ASB	5	115.7	13.6	92	95	
	23	ASB	5	124.3	10.7	99	95	22
	24	ASB	4.5	118.6	10.9	95	95	
	25	ASB	4.5	117.8	12.5	94	95	
	26	ASB	4.5	119.9	12.5	96	95	25
27-May-93	27	ASB	6	116.4	11.7	93	90	
	28	ASB	6	117.8	10.3	96	90	27
	29	ASB	5.5	117.3	11.1	93	90	
	30	ASB	5	118.9	12.2	95	95	29
	31	ASB	4.5	119.2	11.4	95	95	
	32	ASB	6	116.3	12.2	93	90	
	33	ASB	6	120.0	12.5	96	90	
28-May-93	34	ASB	6	119.5	9.9	95	90	
	35	NS	3	120.6	10.6	98	95	
	36	NS	3	117.3	8.0	95	95	
	37	ASB	5.5	119.0	11.7	95	90	
	38	NS	4	118.2	12.8	95	95	
	39	NS	4	118.9	12.1	95	95	
	40	NS	2.5	112.0	14.4	91	95	
	41	NS	2.5	118.2	13.3	96	95	40
	42	NS	2.5	121.1	12.5	99	95	
01-Jun-93	43	NS	3.5	118.8	9.7	95	95	
	44	NS	2.5	119.4	11	95	95	
	45	NS	2.5	122.9	8.4	99	95	
	46	NS	2	117.4	13.4	95	95	
	47	NS	2	116.6	11.1	97	95	
	48	NS	2	116.7	11	97	95	
	49	NS	1.5	117.2	12.5	95	95	
		NS	1.5	116.5	10.9	95	95	
		NS	1.5	117.7	12.8	96	95	

TABLE E-2
RESULTS OF FIELD DENSITY TESTS
FORMER BASHLAND PROPERTY
HOLLIS STREET, EMERYVILLE, CALIFORNIA

Date	Test Number	Soil Type	Approximate Elevation Below Final Grad (ft)	Dry Density (pcf)	Moisure Content (% Dry Wt.)	Percent Relative Compaction (% of max. Dry Density)	Specified Percent Relative Compaction	Retest of Test Number
03-Jun-93		NS	1	118.1	11.5	96	95	
		NS	1	116.8	14.6	95	95	

NS Native Soil
ASB Class II Recyled Aggregate Subbase

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

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.
CAD983585716			

GENERATOR

3. Generator's Name and Mailing Address
Catellus Development Corp.
201 Mission Street, Suit 202
San Francisco California 94105

4. Generator's Phone (415) 974-3705

5. Transporter 1 Company Name	6. US EPA ID Number
Dillard Trucking Inc.	CAD981692809
7. Transporter 2 Company Name	8. US EPA ID Number

9. Designated Facility Name and Site Address	10. US EPA ID Number
U.S. Ecology Hwy 95 12 miles South of Beatty Beatty Nevada 89003 Phone (702) 553-2203	NVT330100000

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. NON RCA Hazardous Waste Solid 1)	001	DT	00018	Y
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
Proper Clothing
Rubber Boots, gloves safty glasses
Tyvac Hood Hat.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the 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 federal, state and international laws.

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

Printed/Typed Name	Signature	Month	Day	Year
William Madison Agent for Catellus Development Corp.	William Madison Agent for Catellus Develop. Corp.	03	23	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Percy Rogers	Percy Rogers	03	23	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (7/92)
EPA 8700—22

Yellow: GENERATOR RETAINS

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

State of California—Environmental Protection Agency
Form Approved OMB No. 2050-0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1	Information in the shaded areas is not required by Federal law.
CAD983585746	000002	1 of 1	

3. Generator's Name and Mailing Address
Catellus Development Corp
201 Mission St. Suite 202
San Francisco, CA 94105

4. Generator's Phone (415) 974-3705

5. Transporter 1 Company Name	6. US EPA ID Number
Dillard Trucking, Inc	CAD981692809

7. Transporter 2 Company Name	8. US EPA ID Number

9. Designated Facility Name and Site Address	10. US EPA ID Number
US Ecology Nevada Hwy 95, 12 miles S of Beatty Beatty, Nevada 89003	NVT330010000

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol
a. Non RCRA Hazardous Waste Solid	001	DT	99018	T
b.				
c.				
d.				

15. Special Handling Instructions and Additional Information
USE proper safety precaution when handling waste

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of the 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 federal, state and international laws.

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

Printed/Typed Name	Signature	Month	Day	Year
William Madison Agent for Catellus Dev. Corp.	William Madison Agent for Catellus Dev. Corp.	03	23	93

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
STEVE COSSITT	Steve Cossitt	03	23	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

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

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

GENERATOR
TRANSPORTER
FACILITY

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

DTSC 8022A (7/92)
EPA 8700—22

Yellow: GENERATOR RETAINS

State of California—Environmental Protection Agency
Form Approved OMB No. 2050–0039 (Expires 9-30-94)
Please print or type. *Form designed for use on elite (12-pitch) typewriter.*

See Instructions on back of page 6.

Department of Toxic Substances Control
Sacramento, California

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

92752138

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAD983585446 Manifest Document No. 00003
2. Page 1 of 1

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

GENERATOR

3. Generator's Name and Mailing Address
CATELLUS DEVELOPMENT CORP.
201 MISSION ST SUITE 202 SAN FRANCISCO CA 94105

[redacted]

4. Generator's Phone 415 974-3705

5. Transporter 1 Company Name
DILLARD TRUCKING INC

6. US EPA ID Number
CAD981692809

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address
U.S ECOLOGY NEVADA
HWY 95, 12 mi South of BEATTY
BEATTY, NV. 89003

10. US EPA ID Number
NVT330010000

11. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol
a. NON-RCRA HAZARDOUS WASTE SOLID	001	DT	00018	Y
b.				
c.				
d.				

[redacted]

15. Special Handling Instructions and Additional Information
WEAR PROTECTIVE EQUIPMENT
24 hr EMERGENCY CONTACT:
(510) 736-6180
ERG#0

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 federal, state and international laws.

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

Printed/Typed Name	Signature	Month	Day	Year
William Madison Agent for Catellus Develop	William Madison Agent for Catellus Develop. Corp	03	23	93

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
JIM FERREIRA	Jim Ferreira	03	23	93

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

19. Discrepancy Indication Space

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

Printed/Typed Name	Signature	Month	Day	Year

DO NOT WRITE BELOW THIS LINE.

DTSC 8022A (7/92)
EPA 8700—22

Yellow: GENERATOR RETAINS