# SOIL EXCAVATION, AND DISPOSAL REPORT: PROJECT #060-185-01

COATES PROPERTY 33 LA SALLE AVE. PIEDMONT, CALIFORNIA

PREPARED BY ENVIRONMENTAL BIO-SYSTEMS, INC.

**FOR** 

MRS. DOROTHY COATES
33 LA SALLE AVE.
PIEDMONT, CA

Timothy M. Babcock Environmental Scientist

Reviewed by:

NO. 4815

James A. Jacobs

Registered Geologist #4

December 9, 1991

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### INTRODUCTION

This document contains information regarding the recent excavation and removal of soil conducted for Mrs. Dorothy Coates (the client) at a residential Property located at 33 La Salle Ave. in Piedmont, California (the Site) by Environmental Bio-Systems, Inc. (EBS).

The site was owned and occupied by Mrs. Dorothy Coates at the time of Client Contact - Ms. Audrey Bell, (415) 468-1234. Las france of fitning for Property Owner - Ms. Dorosha.

Piedmont, CA 94611, (510) 420-1744.

Consultant - Environmental Bio-Systems, Inc., 30028 Industrial Parkway Southwest, Suite C, Hayward, CA 94544, (510) 429-9988. Project Manager - Timothy M. Babcock.

# PURPOSE AND SCOPE OF WORK

This scope of work was requested by the client to address the detected presence of hydrocarbon impacted soil as indicated by past environmental explorations performed at the above mentioned site. The description of tasks included in this report encompasses the excavation and removal of the contaminated soil, collection and analysis of soil samples from the perimeter of the excavation, and the presentation a report outlining the observations and results of the work performed.

The reported work included the following tasks:

- 1. Excavation, by backhoe, of soil from the area of the former underground storage tank (UST).
- Chemical analysis of soil samples collected from the perimeter of the excavation for total oil and grease (TOG) and total petroleum hydrocarbons as diesel (TPHd).
- 3. Chemical analysis of a composite of soil samples collected from the excavated soil for the purposes of characterization and profiling.
- 4. Backfilling and compaction of the excavated area.
- 5. Transportation and disposal of excavated soil at a landfill permitted to accept the soil as indicated by characterization and profiling.
- 6. Submission of a report documenting the results of analyses and field observations.

## 3.0) SITE DESCRIPTION

The site is located at 33 La Salle Avenue in the City of Piedmont and County of Alameda. A Site Location Map has been presented as Figure 1. A Site Diagram showing the locations of previous sample locations as well as relevant site structures and references, has been included in this report as Figure 2. The locations of samples collected through this scope of work are included as Figure 3.

At the time of sampling, one single family residence was present on the site. The topography of the site slopes sharply from the back (northwest) of the property southeast toward La Salle Avenue.

### 4.0) PREVIOUS ENVIRONMENTAL WORK

On July 25, 1990, the client contracted Accutite to remove one 550 gallon underground storage tank (UST) from the site. Sampling of soil from beneath the tank was performed by the contractor at the time of sampling. The results of laboratory analysis performed on these soil samples showed detectable concentrations of total petroleum hydrocarbons as diesel (TPHd) and total oil and grease (TOG). No written documentation showing the location of the UST or subsequently collected soil samples was submitted by the contractor.

On August 29, and August 30, 1991 EBS personnel extracted 7 continuously sampled soil cores at the site. Soil samples were retained and analyzed at an appropriately permitted laboratory. A report outlining the results of field observations and laboratory analyses was submitted on September 9, 1991.

## 5.0) FIELD PROCEDURES

On September 29, 1991, soil excavation was performed in the area of the UST pit using a backhoe. The initially planned excavation was centered around the location of soil coring EB3 (Figure 2). Analysis of soil from this coring had previously indicated levels of TOG and TPHd of 150 parts per million (ppm) and 250 ppm, respectively. Additional excavation was

**Coates Property** 33 La Salle Ave. Piedmont, CA

targeted to re-sample the interface of backfill and native soil/rock below the former UST location.

The physical location of the former UST in proximity to the client's house, as well as the driveway of an adjacent residence, imposed limitations on the lateral extent to which excavation was possible. The excavation was extended to the farthest possible point to the northwest of the UST pit without endangering an over-head extension of the house.

The maximum vertical extent of excavation was reached at a depth of 6-1/2feet below grade due to the presence of unfractured sandstone bedrockthrough which the backhoe was unable to dig. Field observations of soil and sandstone rock removed from above this depth were inconclusive as to the presence of fuel-oil. A greenish discoloration and strong septic odor became increasingly evident as the excavation extended toward an alleged sewer line reported to be present in the adjacent driveway near the UST pit. At a depth of 6-1/2-feet below the southeast end of the retaining wall which borders between the UST pit and the adjacent driveway, a small volume of water (less than 2-liters) was noted to have accumulated in the bottom of the excavation. Observation of the water revealed the presence of a heavy, oily sheen, with a strong odor noted to resemble diesel.

15 thingerched water?

The excavation was extended to the edge of the adjacent driveway and approximately 8-feet to the southeast along the driveway. Field observations of sandstone rock removed from beneath the driveway at the northeast wall of the excavation at depths of from 3-1/2 to 6-1/2-feet below grade, indicated staining and a diesel-like odor. At the southwest and southeast walls of the excavation, as well as the southern end of the northeast wall, neither staining nor odor were noted.

Due to the close proximity of the excavation to the house and driveway, and the encountered presence of unfractured bedrock, the maximum practical extent of excavation was assumed to have been reached. Soil samples were collected from approximate intervals of 5-feet in the excavation walls at depths of 3-1/2 to 4-feet below grade. Soil samples were also collected from the bottom of the pit from a depth of 6-1/2-feet below grade. One composite soil sample was collected from the approximately 7-cubic yards of soil excavated.

The excavated soil was placed on top of visqueen. A visqueen cover was applied to protect the storage pile from rainwater intrusion during the interval prior to transportation and disposal.

The excavation was backfilled to grade with clean, imported soil and compacted using the backhoe bucket.

On October 2, 1991, the soil storage pile was removed from the site for ultimate disposal at Port Costa Materials, a facility permitted to accept the soil as profiled.

### 6.0) SAMPLING METHODOLOGY

Soil samples were collected using 6" brass liners and a wooden hammer. The ends of the brass liners containing soil designated for laboratory analysis were wrapped with aluminum foil and sealed with plastic caps. Duct tape was wrapped around the cap at its joint with the liner to reduce the loss of volatile constituents.

Coates Property 33 La Salle Ave. Piedmont, CA

Composite samples consisted of 4 brass tubes of soil, collected and prepared as described above. Each of the tubes was transported intact for compositing at the laboratory.

The sample tubes were labelled and stored in a cooler on ice. A chain of custody was maintained for the samples throughout transmittal.

### SAMPLE ANALYSIS

The soil samples collected from the walls and floor of the excavation (C1 -C10) were analyzed at Anametrix, Inc., a certified hazardous materials testing laboratory. Analyses run on the samples included TPH calculated as diesel using a modified EPA method 8015, and TOG using method 5520 B&F.

The composite soil sample collected from the storage pile of excavated soil and rock (C11) was analyzed at Sequoia Analytical, a hazardous materials testing laboratory certified to perform additional analyses required for the characterization and profiling of the soil. Analyses run on the sample included reactivity, corrosivity, and ignitability (RCI), TPH as heating oil (equivalent to TPHd), and the heavy metals Arsenic, Barrium, Cadmium, Chromium, Copper, Lead, Nickel Silver, Zinc, Selenium, and Mercury.

Analytical methods used by Anametrix, Inc. and Sequoia Analytical were consistent with the San Francisco Regional Water Quality Control Board. (SFRWQCB) guidelines and approved analytical methodologies specified in EPA document SW-846.

### 8.0) RESULTS OF ANALYSES

Copies of the laboratory reports and chain of custody documentation maintained during transportation of the samples are included in Appendix A. The results of analyses are summarized in Table 1.

### 9.0) CONCLUSIONS

The area of excavation is bracketed by a house to the southwest, an overhead extension of the house to the northwest, and a driveway (owned by the adjacent neighbor) to the northeast.

A UST of unknown volume is present in the subsurface of the adjacent property. The neighbor's UST lies approximately 10 to 15-feet to the northeast of the excavation,

A small volume of water with a septic odor was observed to have accumulated in the excavation at its' border with the adjacent property's driveway. A sewer line is alleged by the client and owners of the adjacent property, to run along the driveway at the northeast edge of the excavation.

Weathered and fractured sandstone bedrock was encountered at a depth of 1-foot. Unfractured sandstone bedrock was encountered throughout the excavation from a depth of approximately 5-feet. Excavation using a CASE 580 backhoe was not practical below a depth of 6-1/2-feet.

Concentrations of both TPHd and TOG in excess of 1,000 ppm were encountered at a majority of the sampling locations chosen in both the walls and floor of the excavation. Concentrations of TPHd and TOG in excess of

1,000 ppm were found in bedrock at 3 to 4-feet below grade at the boundary of the site to the property directly adjacent to the pit.

The results of analyses run on a composite sample of the excavated soil revealed a profile consistent with the requirements of Port Costa Materials, the disposal destination.

### 10.0) REPORTAGE

We recommend that you forward copies of this report to the regulatory agencies and representatives listed below. Copies of this report have been included for this purpose. It is important that a signed cover letter from you be included with each forwarded report.

California Regional Water Quality Control Board San Francisco Bay Region 1800 Harrison Street, Suite 3 Oakland, CA 94559 Attn: Richard C. Hiett

Alameda County Health Agency Division of Hazardous Materials Dept. of Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Attn: Larry Seto

#### 11.0) LIMITATIONS

The recommendations in this report were developed in accordance with generally accepted standards of current environmental practice in Northern California. These recommendations are time-dependant and should not be considered valid after one year from the date of issue of this report. After the one year period, site conditions and these recommendations should be reviewed.

This exploration was done solely for the purpose of evaluating environmental conditions of the soil related to hydrocarbon product contamination at the subject site. No soil engineering or geotechnical references are implied or should be inferred.

Evaluation of the conditions of the site, for the purposes of this study, was made from a limited number of observation points. Subsurface conditions may deviate away from these points. Additional work, including further study of the subsurface, can reduce the inherent uncertainties associated with this type of study.

This study was performed and the report was prepared for the sole use of our client, Ms. Dorothy Coates. It is the responsibility of the Client to convey these recommendations to regulatory agencies and other parties, as appropriate.

The recommendations herein are professional opinions that our firm has endeavored to provide with competence and reasonable care. We are not able to eliminate the risks associated with environmental work. No guarantees or warrants, express or implied, are provided regarding our recommendations.

TABLE 1 - ANALYTICAL RESULTS FOR SOIL SAMPLES FROM THE PIT WALL AND FLOOR (results in mg/L)

| SAMPLE # | TPH AS HEATING OIL | TOTAL OIL AND GREASE |
|----------|--------------------|----------------------|
| C1       | 4,500              | 2,400                |
| C2       | 13,000             | 12,000               |
| C3       | 5,600              | 4,300                |
| C4       | 7,500              | 4,500                |
| C5       | 9,100              | 6,500                |
| C6       | 15,000             | 8,000                |
| C7       | 2,400              | 4,900                |
| C8       | 750                | 750                  |
| C9       | <b>3,300</b>       | 980                  |
| C10      | 7,600              | 990                  |

\* ND = Analyte not detected.

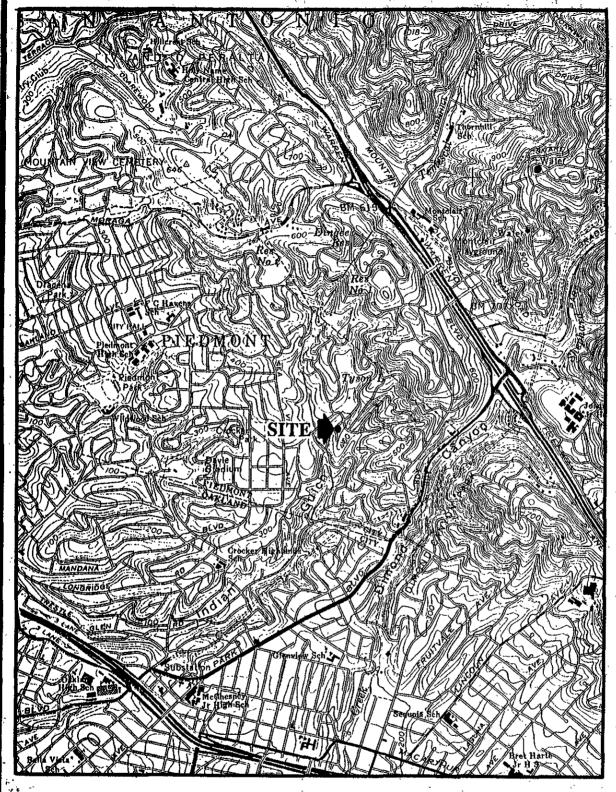
Note: Detection limits used - TPH as diesel = 10 mg/L, TOG = 30 mg/L.

TABLE 1- ANALYTICAL RESULTS FOR COMPOSITE SAMPLE FROM THE SOIL STORAGE PILE (results in mg/L or as stated)

| SAMPLE # | TPH heating oil | REACTIVITY                                      | CORROSIVITY | IGNITABILITY | **METALS   |   |
|----------|-----------------|---|-------------|--------------|--|---|
| C1       | 350             | with sulfide- *ND "" water- ND "" cyanide- Neg. | pH = 7.5    | >100 Celsius | As- 3.0<br>Ba- 60<br>Cd- ND<br>Cr- 10<br>Cu- 5.0<br>Pb- 19<br>Ni- 13<br>Ag- 1.4<br>Zn- 50<br>Se- 1.5<br>Hg- 0.11 | v |

\* ND = Analyte not detected.

Note: Detection limits used - TPH as diesel = 10 mg/L, RCI & metals as stated on Laboratory reports.



Source: USGS Topographic Map SW/4 Concord Quandrangle

SCALE - 1:24000



# ENVIRONMENTAL BIO-SYSTEMS, INC.

Innovative Solutions for a Better Environment

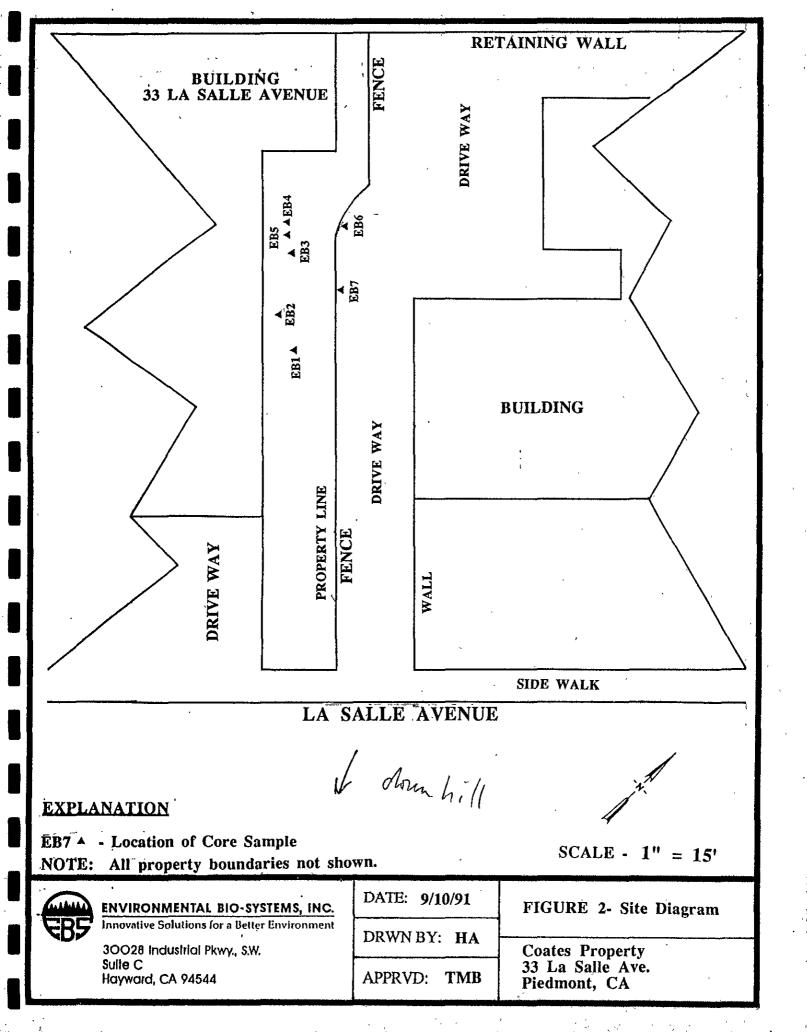
30028 Industrial Pkwy., S.W. Sulle C Hayward, CA 94544 DATE: AUG 1991

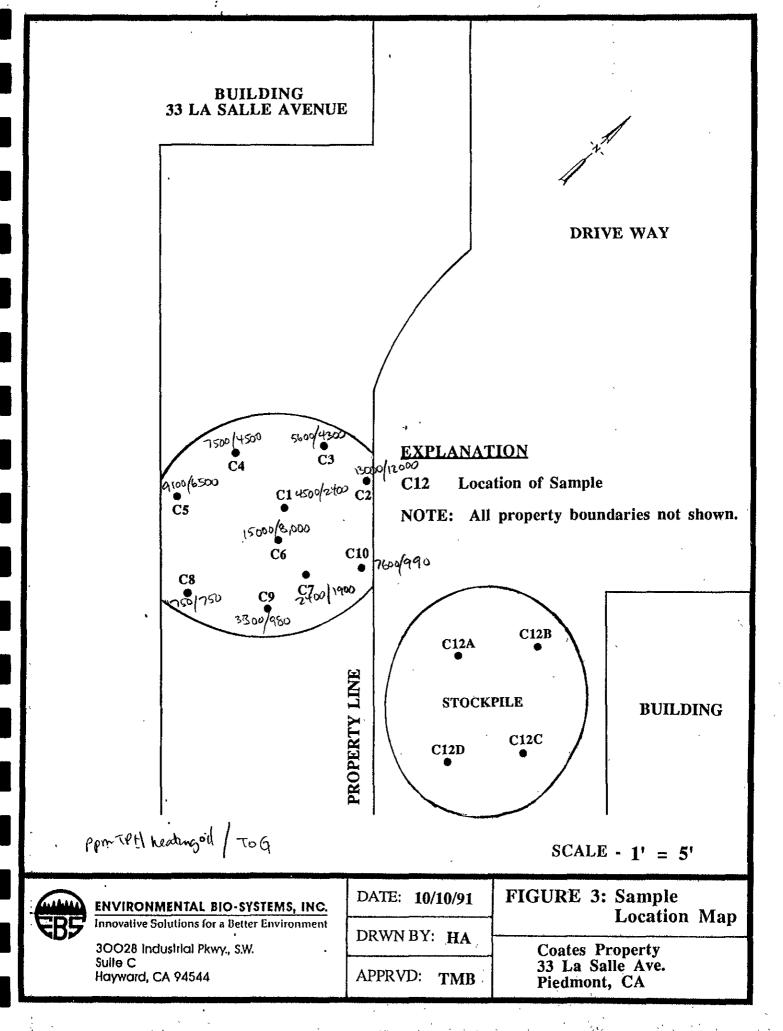
DRWN BY: SLS

APPRVD: TMB

FIGURE 1: SITE LOCATION MAP

Coates Property 33 LaSalle Ave. Piedmont, CA





# APPENDIX A

LABORATORY REPORTS &
CHAIN OF CUSTODY DOCUMENTATION
FOR SOIL SAMPLES

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

MR. TIM BABCOCK
ENVIRONMENTAL BIO-SYSTEMS
30028 INDUSTRIAL PARKWAY.S.W., SUITE C
HAYWARD, CA 94544

Workorder # : 9109301 Date Received : 09/30/91 Project ID : 060-185-01

Purchase Order: N/A
Department : GC
Sub-Department: TPH

### SAMPLE INFORMATION:

| ANAMETRIX<br>SAMPLE ID | CLIENT<br>SAMPLE ID | MATRIX | DATE<br>SAMPLED | METHOD |
|------------------------|---------------------|--------|-----------------|--------|
| 9109301- 1             | C1                  | SOIL   | 09/29/91        | TPHd , |
| 9109301- 2             | C2                  | SOIL   | 09/29/91        | TPHd   |
| 9109301- 3             | С3                  | SOIL   | 09/29/91        | TPHd   |
| 9109301- 4             | C4                  | SOIL   | 09/29/91        | TPHd   |
| 9109301- 5             | C5                  | SOIL   | 09/29/91        | TPHd   |
| 9109301- 6             | C6                  | SOIL   | 09/29/91        | TPHd   |
| 9109301- 7             | C7                  | SOIL   | 09/29/91        | TPHd   |
| 9109301- 8             | C8                  | SOIL   | 09/29/91        | TPHd   |
| 9109301- 9             | C9                  | SOIL   | 09/29/91        | ТРНd   |
| 9109301-10             | C10                 | SOIL   | 09/29/91        | TPHd   |

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

MR. TIM BABCOCK
ENVIRONMENTAL BIO-SYSTEMS
30028 INDUSTRIAL PARKWAY.S.W., SUITE C
HAYWARD, CA 94544

Workorder # : 9109301 Date Received : 09/30/91 Project ID : 060-185-01

Purchase Order: N/A
Department : GC
Sub-Department: TPH

### QA/QC SUMMARY :

- No QA/QC problems encountered for these samples.

Department Supervisor Date

fina Sher 10/9/9/ Chemist Date

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

Anametrix W.O.: 9109301
Matrix : SOIL
Date Sampled : 09/29/91

Project Number: 060-185-01
Date Released: 10/09/91

Instrument I.D.: HP19

Date Extracted: 10/02/91

| Anametrix<br>I.D. | Client I.D.  | Date<br>Analyzed | Reporting<br>Limit<br>(mg/Kg) | Amount<br>Found<br>(mg/Kg) |
|-------------------|--------------|------------------|-------------------------------|----------------------------|
| 9109301-01        | C1           | 10/03/91         | 100                           | 4500                       |
| 9109301-02        | C2           | 10/04/91         | 200                           | 13000                      |
| 9109301-03        | C3           | 10/03/91         | 100                           | 5600                       |
| 9109301-04        | C4           | 10/03/91         | 100                           | 7500                       |
| 9109301-05        | C5           | 10/03/91         | 100                           | 9100                       |
| 9109301-06        | C6           | 10/04/91         | 200                           | 15000                      |
| 9109301-07        | C7           | 10/04/91         | 100                           | <b>42400</b>               |
| 9109301-08        | C8 4         | ' '              | 100                           | 750                        |
| 9109301-09        | C9           | 10/04/91         | 100                           | 3300                       |
| 9109301-10        | C10          | 10/04/91         | 100                           | 7600                       |
| DSBL100291        | METHOD BLANK | 10/03/91         | 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 Date

Cheul Balme 10/9/9, Supervisor Date

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

MR. TIM BABCOCK ENVIRONMENTAL BIO-SYSTEMS 30028 INDUSTRIAL PARKWAY.S.W., SUITE C HAYWARD, CA 94544 Workorder # : 9109301 Date Received : 09/30/91 Project ID : 060-185-01

Purchase Order: N/A
Department: PREP
Sub-Department: PREP

### SAMPLE INFORMATION:

| ANAMETRIX<br>SAMPLE ID | CLIENT<br>SAMPLE ID | MATRIX | DATE<br>SAMPLED | METHOD |
|------------------------|---------------------|--------|-----------------|--------|
| 9109301- 1             | C1.                 | SOIL   | 09/29/91        | 5520EF |
| 9109301- 2             | C2                  | SOIL   | 09/29/91        | 5520EF |
| 9109301- 3             | C3                  | SOIL   | 09/29/91        | 5520EF |
| 9109301- 4             | C4                  | SOIL   | 09/29/91        | 5520EF |
| 9109301- 5             | C5                  | SOIL   | 09/29/91        | 5520EF |
| 9109301- 6             | C6                  | SOIL   | 09/29/91        | 5520EF |
| 9109301- 7             | C7                  | SOIL   | 09/29/91        | 5520EF |
| 9109301- 8             | C8                  | SOIL   | 09/29/91        | 5520EF |
| 9109301- 9             | C9                  | SOIL   | 09/29/91        | 5520EF |
| 9109301-10             | C10                 | SOIL   | 09/29/91        | 5520EF |

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

MR. TIM BABCOCK

ENVIRONMENTAL BIO-SYSTEMS

30028 INDUSTRIAL PARKWAY.S.W., SUITE C

HAYWARD, CA 94544

Workorder # : 9109301 Date Received : 09/30/91 Project ID : 060-185-01

Purchase Order: N/A
Department : PREP
Sub-Department: PREP

### QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Department Supervisor Date

CRPalel

10-09-91

Chemis

Date

#### ANALYSIS DATA SHEET - TOTAL OIL AND GREASE ANAMETRIX, INC. (408) 432-8192

Project # : 060-185-01 Matrix

: SOIL

Date sampled : 09/29/91

Date ext. TOG: 10/04/91 Date anl. TOG: 10/04/91

Anametrix I.D. : 9109301

Analyst

: bbl ills Supervisor

Date released : Ĭ0/08/91

| <br> Workorder # | Sample I.D.  | Reporting<br>Limit<br>(mg/Kg) | Amount<br>Found<br>(mg/Kg) |
|------------------|--------------|-------------------------------|----------------------------|
| 9109301-01       | C1           | 30                            | 2,400                      |
| 9109301-02       | C2           | 30                            | 12,000                     |
| 9109301-03       | C3           | 30                            | 4,300                      |
| 9109301-04       | C4           | 30                            | 4,500                      |
| 9109301-05       | C5           | 30                            | 6,500                      |
| 9109301-06       | C6           | 30                            | 87800                      |
| 9109301-07       | C7           | 30                            | 17,900                     |
| 9109301-08       | C8           | 30                            | <u>  3750   </u>           |
| 9109301-09       | C9           | 30                            | 980                        |
| 9109301-10       | C10          | 30                            | 990                        |
| GSBL100491       | METHOD BLANK | 30                            | ND                         |

Not detected at or above the practical quantitation limit for the method.

TOG Total Oil & Grease is determined by Standard Method 5520E&F.

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

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

: 060-185-01 C1 Sample I.D.

: SOIL

Date sampled: 09/29/91 Date extracted: 10/04/91 Date analyzed: 10/04/91

Matrix

Anametrix I.D.: 9109301-01

Analyst

Supervisor Date Released : 10/08/91

| ÇOMPOUND  | SPIKE<br>AMT.<br>(mg/Kg) | MS<br>(mg/Kg) | %REC<br>MS | MSD<br>(mg/Kg) | <br>%REC<br>MSD | %RPD | % REC<br>LIMITS |
|-----------|--------------------------|---------------|------------|----------------|-----------------|------|-----------------|
| Motor Oil | 300                      | 2700          | 100%       | 2700           | 100%            | 0%   | 48-114%         |

Quality control limits established by Anametrix, Inc.

| Ė              |                       |                                   |                         |        |             |          |                   |        |        |        | )        | 0        |             | 109           | 3.0   | De la companya della companya della companya de la companya della |
|----------------|-----------------------|-----------------------------------|-------------------------|--------|-------------|----------|-------------------|--------|--------|--------|----------|----------|-------------|---------------|---|---|
| . ya           | ENVIRON Innovative    | MENTAL BIO-<br>Solutions for a Bi | SYSTEMS, INC.           | •      |             | C        | HAIN              | l OF ( | cus    | TOD    | Y        | F.B      | 1940        | ((~ ) .       |   | •   |
|                | <b>CDC</b> 30028 Indi | ustrial Pkwy., S.                 | .W.                     |        |             |          |                   | ANALY  | /SIS   |        |          |          | ·           |               | ف   | •   |
| : <u>-</u>     | Suite C               | CA 04544                          |                         |        |             |          |                   |        |        |        |          |          |             | IPLES TO BE A |   | SING  |
| , Tile.        | Hayward,              | CA 94544                          |                         |        | }           | ] [1]    |                   | ]      |        |        | 1        |          |             | S AND DETECT  |   |   |
|                | PROJECT NUMBER        |                                   |                         | ٦      | =           |          | _                 |        |        |        |          |          |             | SHED BY REGI  |   |   |
| •              | 060-185-              | 01                                |                         |        |             |          | ٠.                | 1      |        |        | l        | 1 1      |             | STATE WATER   | RESOURCES   | 5   |
| •              | CLIENT                | 1 _                               |                         | 1      | . 4         | 0        |                   | •      |        |        | j        |          | CONTRO      | L BUARD.      |   | <i>:</i>  |
|                | 1)010thy (60          | a-les:                            |                         | 4      |             |          |                   |        | - 1    |        |          |          | INSTRUCTA   | ONS:          | <del> </del>                                      |   |
|                | 33 La Sal C           | Aceni                             | ~                       |        |             | 100      | 1                 | - 1    | ł      |        |          | 1 !      |             |               |   | ,<br>,  |
| •              |                       | (A)                               | 10                      | - 1    | £ 2         | 10       |                   |        | 1      |        |          |          |             |               | · · · · · · · · · · · · · · · · · · ·             |   |
|                | Tied mont             | •                                 |                         | 1 .    |             | 1        | .                 | -      |        |        |          |          | •           |               | .`  |   |
|                |                       |                                   |                         | 1 1    | 5           |          | ]                 | 1      | 1      |        |          | 1 1      |             |               |   |   |
|                |                       |                                   | <del></del>             | 2      | 9           | 5        |                   | - 1    |        |        |          |          |             |               |   | * 3   |
|                |                       |                                   |                         | ISO    | 7           |          | -                 | į      | -      |        | 1        |          |             |               | •   | 3   |
|                |                       | <del> </del>                      | MUMBEROE                | COMPOS | -           | 12       | Ì                 |        | - 1    |        |          |          |             |               |   | <u> </u>  |
|                | SAMPLE I.D.           | MATRIX                            | NUMBER OF<br>CONTAINERS | Ö,     | -           | 1        |                   |        |        |        |          |          |             | TURNAROUND /  | SAMPLE CONDITION                                  | LAB SAMPLE#   |
| 1              | CI                    | Barak.                            | 1_                      |        | 1/          | V        |                   |        |        |        |          |          | Ju          | rek           | i Jama  | Sample Rain   |
| 2              | <i>(</i> 2)           | Rock                              | 1                       |        | 0           |          | 1                 | Ϊ      |        |        |          |          |             |               | 1   | 114   |
| ラ <sub>字</sub> | 021                   |                                   |                         |        | 0           | 0        |                   |        |        |        | -        |          |             | <del> </del>  | Y .   | 418 65 (1)  |
| /, r           |                       |                                   |                         |        |             |          | $\longrightarrow$ |        |        | - +    |          |          |             | <u> </u>      | N 1 6 11.11                                       | DICVER CENTRUM  |
| 14             | C4:                   | -                                 |                         |        | 1           | 0        |                   | į      | . [    | -      | į        | ļ ·      | L           |               | 111   |   |
| 5              | 15                    |                                   |                         |        | 11          | 1/       |                   |        |        |        |          |          | <u> </u>    |               | <del>                                      </del> | * 50  |
| 1              |                       |                                   |                         | +      | -           |          |                   |        |        |        | -        |          | ·           | <u> </u>      | -   | · · · · · · · · · · · · · · · · · · ·   |
| 0              | CO                    |                                   |                         |        | 11          | 0        |                   |        |        |        |          |          | -           | ·             | with ride   |   |
| 7              | 117                   |                                   |                         |        | . /         | 1        |                   |        | 1      |        |          |          | ,           |               |   |   |
| 2              | · c <                 |                                   |                         |        |             | 17       | <del>- +</del>    |        |        | ···    | <u> </u> |          |             | <u> </u>      |   | *   |
| <i>O</i> ,     | <u> </u>              |                                   |                         |        | -           |          |                   |        |        |        |          |          | ,           | `             | <b>V</b>  | <u> </u>  |
| 4              | 09                    | ₩                                 | <b>Y</b>                |        | · V         | 1        |                   |        | İ      |        |          | i i      | ,           |               | 1   |   |
| 10             | CiU                   | /                                 | V                       |        | 1           | 2        |                   |        |        |        | -        | -        |             | 7             | 1   | <del></del>   |
|                | SAMPLING DATE TO      | SAMPL                             | ING<br>RMED BY          | , 2    |             | rock     | ļ.,               |        |        |        |          | <u> </u> |             |               | , ,   |   |
| 101            | 7/3/9/                | 10.00                             | 1100                    |        |             |          | <u> </u>          | \      |        | i.     |          |          |             | -             |   |   |
| , [            | RELEASED BY           | MBO                               | DAT                     | 29/4   | /  1<br>2./ | TIME     | 21                | 1      | RECE   | VED BY |          |          |             | -             | DATE  | TIME  |
|                | RELEASED BY           | 7                                 | DAT                     | 14/4   |             | 19:      | <u> 7 U</u>       | 7      | · ==== |        | A 3      | s e He   |             |               | e-1-30-   | A 1672  |
|                |                       |                                   | 1 par                   |        | į i         | TIME     |                   | ´-, 🖠  | RECE   | VED BY | ~ !      | - `      |             | . '           | DATE  | TIME  |
| -              | RELEASED BY           | <u> </u>                          | DAT                     | E      | [7          | IME      |                   |        | RECE   | VED BY |          | -        |             |               | I DÁTE  | - I - u.e.  |
| , '            |                       | *                                 | 1                       | -      | F '         |          |                   | •      |        |        |          |          | - *         |               | DATE  | TIME  |
| 1              | SHIPPED VIA           |                                   | DAT                     | ESEN   | T 1         | IME SENT | Cr                | OOLER# |        |        |          | ,        | <del></del> |               |   |   |
| *              | -                     |                                   |                         |        | 1           |          |                   |        |        | ,      |          |          |             | • 1           |   |   |
|                |                       |                                   |                         |        | <del></del> |          |                   |        |        |        |          |          |             |               |   |   |

**Environmental Biosystems** 30028 Industrial Parkway SW Hayward, CA 94544

Attention: Cheryl Silva

Client Project ID: 060-185-01 Sample Descript:

Rock, C-11

Lab Number: 110-0251

Sampled: Sep 30, 1991 Received:

Oct 1, 1991 Analyzed: 10/1-7/91 Reported: Oct 9, 1991

## CORROSIVITY, IGNITABILITY, AND REACTIVITY

| Analyte   | Detection Limit   | Sample Results |
|---|-------------------|----------------|
| Corrosivity:  | N.A               | 7.5            |
| Ignitability: Flashpoint (Pensky-Martens), °C                 | N.A               | > 100 °C       |
| Reactivity: Sulfide, mg/kg Cyanide, mg/kg Reaction with water | 10<br>1.0<br>N.A. | N.D.           |

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

-Deepak M. Sukthankar <sup>V</sup> **Project Manager** 

1100251,EBS <1>



Environmental Biosystems 30028 Industrial Parkway SW Hayward, CA 94544 Attention: Cheryl Silva Client Project ID: 060-185-01
Matrix Descript: Rock, C-11
Analysis Method: EPA 3550/8015
First Sample #: 110-0251

Sampled: Sep 30, 1991
Received: Oct 1, 1991
Extracted: Oct 4, 1991
Analyzed: Oct 8, 1991
Reported: Oct 9, 1991

TOTAL PETROLEUM FUEL HYDROCARBONS (EPA 8015)/AS HEATING OIL

Sample Sample High B.P.
Number Description Hydrocarbons
mg/kg
(ppm)

110-0251 Rock, C-12 350

**Detection Limits:** 

1.0

High Boiling Point Hydrocarbons are quantitated against a heating oil standard. Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Deepak M. Sukthankar Project Manager

1100251.EBS <2>



Environmental Biosystems 30028 Industrial Parkway SW Hayward, CA 94544 Client Project ID: 060-185-01

Hayward, CA 94544 Attention: Cheryl Silva

QC Sample Group: 110-0251

Reported: Oct 9, 1991

### **QUALITY CONTROL DATA REPORT**

| ANALYTE   | Ounde  | Sulfide  | N   | Diesel   |   | 7 |     |            |
|---|--|--|---|--|---|---|-----|------------|
| L   | Cyanide  | Sullide  | pH  | Diesei   |   |   | .,, |            |
| Method:<br>Analyst:<br>Reporting Units:<br>Date Analyzed:<br>QC Sample #: | EPA 9010<br>L. A. Colon<br>mg/kg<br>Sep 30, 1991<br>109-4222 | EPA 9030<br>T. Granicher<br>mg/kg<br>Oct 3, 1991<br>110-0371 | EPA 9040<br>L. Marinez<br>N.A.<br>Oct 1, 1991<br>110-0251 | EPA 8015<br>R. Lee<br>mg/kg<br>Oct 7, 1991<br>DBLK100491 |   | , |     |            |
| Sample Conc.:   | N.D.   | N.D.   | 7.5   | N.D.   |   |   |     |            |
| Spike Conc.<br>Added:   | 2.5  | 1300   | N.A.  | 15   |   |   | ,   |            |
| Conc. Matrix<br>Spike:  | 1.9  | 1100   | N.A.  | 10   |   | 4 |     |            |
| Matrix Spike<br>% Recovery:   | 76   | 85   | N.A.  | 67   |   |   | •   |            |
| Conc. Matrix<br>Spike Dup.:   | 2.1  | 1100   | 7.5   | 13   | , | , |     |            |
| Matrix Spike<br>Duplicate<br>% Recovery:                                  | 84   | 85   | N.A.  | 87   | 1 | ; |     | ,          |
| Relative<br>% Difference:   | . 10   | 0.0  | 0.0   | 26   |   |   |     | <b>, 1</b> |

**SEQUOIA ANALYTICAL** 

Deepak M. Sukthankar Project Manager

| % Recovery:            | Conc. of M.S Conc. of Sample          | x 100           |
|------------------------|---------------------------------------|-----------------|
| _                      | Spike Conc. Added                     | <b>*</b>        |
| Relative % Difference: | Conc. of M.S Conc. of M.S.D.          | x 100           |
|                        | (Conc. of M.S. + Conc. of M.S.D.) / 2 |                 |
|                        |                                       | 1100251.EBS <3> |



Environmental Biosystems Client Project ID: 060-185-01 30028 Industrial Parkway SW

Hayward, CA 94544 Attention: Cheryl Silva

Lab Number:

Sample Descript: Rock, C-11

Sampled: Sep 30, 1991

Received:

Oct 1, 1991

Analyzed:

Oct 16, 1991

Oct 17, 1991 Reported:

#### LABORATORY ANALYSIS

110-0251

Sample Results **Detection Limit Analyte** mg/kg mg/kg

| Arsenio  | 0.25        |   | 3.0       |
|----------|-------------|---|-----------|
| Barium   | 0.10        |   | 60        |
| Cadmium  | 0.010       | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,      | N.D.      |
| Ghromlum | 0.010       | *******************************         | 10        |
| Copper   | 0.010       |   | 5.0       |
| Lead     | 0.25        | ************************                | 19        |
| Nickel   | 0.050       |   | . J       |
| Silver   | 5 0 0 1 0   | *************************************** | 50        |
| Zinc     | 0.010       | *************************************** | 30<br>4 E |
| Selenium | 0.25        |   | 0.11      |
| Mercury  | SANTA AINTA | *******************************         | V.1.1     |

Analytes reported as N.D. were not present above the stated limit of detection.

**SEQUOIA ANALYTICAL** 

Deepak M. Sukthankar () Project Manager

1100251.EBS <4>

|  | ENVIRON<br>Innovative |   |   |           |      |          |            |        |       |             | <del>-</del> |           |   |             |          |            |  |
|--|-----------------------|---|---|-----------|------|----------|------------|--------|-------|-------------|--------------|-----------|---|-------------|----------|------------|--|
| 30028 Industrial Pkwy., S.W.<br>Suite G<br>Hayward, CA 94544 |                       |   |   |           |      | 0        |            | ANAI   | YSIS  | · · ·       |              | <u></u>   | ALL SAMPLES TO BE ANALYZED USING METHODS AND DETECTION LIMITS ESTABLISHED BY REGION |             |          |            |  |
| PROJECT NUMBER 000 - 185-01                                  |                       |   |   |           |      | 1 5      | <b>5</b>   |        |       |             |              |           | OF THE STATE WATER RESOURCES CONTROL BOARD.   |             |          |            |  |
| SITE 33 La Salle Ave. Predment CA                            |                       |   |   |           | اليا | as Hayli | LuDe       | ( )~   |       |             |              |           | instructions:  H will call with incliniclus  metals analyses                        |             |          |            |  |
|  |                       |   |   | COMPOSITE | 12/2 | 五        | Mestal     |        |       |             |              |           |   |             | •.       | ,          |  |
| SAMPLE I.D.  |                       | MATRIX  | NUMBER C  | OF S      |      |          | 十          |        | 1     | [<br>]<br>! |              |           | TURNAROUÑI  | <del></del> | SAMPLE - | LASSAMPLE# |  |
| Ċ11  |                       | Rock,   | 4   | V         | 0    | 1        |            |        |       |             |              |           | 2 week -  |             | 11002    | 251        |  |
|  | 1.                    |   |   |           |      |          |            | , ·    |       |             |              |           |   | . (         | * .      |            |  |
|  |                       | 20  |   |           |      |          |            |        |       | 4           |              |           |   | ^ <b>,</b>  | \$       |            |  |
|  |                       | Li  |   |           |      |          |            |        |       | ·           |              |           |   | ,           | -        | ,          |  |
|  | A                     |   |   |           |      | -        |            |        |       |             |              | - "-      | -   |             |          |            |  |
|  |                       | · L   |   |           |      |          |            |        |       |             |              |           |   | ·····       |          | , ,        |  |
|  |                       |   |   |           |      |          |            |        | ,     |             |              |           |   |             | -        | ,          |  |
|  |                       |   | `   |           |      |          |            |        |       | N.          |              |           |   |             |          |            |  |
|  | - ,                   |   |   |           |      |          |            |        |       |             |              |           |   | <del></del> |          | · .        |  |
|  |                       |   |   |           |      | T .      |            |        |       | _           |              |           |   |             |          |            |  |
| SAMPLING<br>COMPLETED  | 9 May                 | TIME SAMP                                     | LING<br>ORMED BY  | Tim       | B    | abor     | 冰          |        | į.    |             | <u> </u>     |           |   |             | -        |            |  |
| RÈLEASED BY  | 7                     | ton Bull                                      | hit   | DATE /    | 191  | TIME     | <u>-</u> ; | 20-2   | RÉC   | EIVED BY    | Sh.          | <u>.</u>  | - YOV   | •           | DATE -9  | 1 Ma3      |  |
| RELEASED BY  | MIL                   | <u> </u>                                      | 1   | DATE      | 91   | TIME     |            | :20    | , BEC | EIVED BY    |              | 7         |   |             | DATE     | TIME       |  |
| RELEASED BY  | -                     | , <u>, , , , , , , , , , , , , , , , , , </u> | , in the second | DATE      |      | TĮME     | <u>-</u> - |        |       | EIVED B/    | (            | <u></u> . |   |             | DATE     | TIME       |  |
| SHIPPED VIA  | :                     | ` .   | •   | DATES     | ≣NT  | TIMESEN  | ¥Τ         | COOLER | #     |             |              |           | ***   |             |          |            |  |

55 204 - . =

# APPENDIX B

# STATE WATER RESOURCES CONTROL BOARD CORRESPONDENCE

STATE WATER RESOURCES CONTROL BOARD DIVISION OF CLEAN WATER PROGRAMS 2014 T STREET, SUITE 130 P.O. BOX 944212 SACRAMENTO. CA. 94244-2120 (910) 739-4332

S1 007 81 (1111: 6)



Z399

SEP 3 0 1991

The Honorable Barry Keene Member of the Senate State Capitol, Room 313 Sacramento, CA 95814 The Honorable Dan Hauser Member of the Assembly State Capitol, Room 2003 Sacramento, CA 95814

Dear Senator Keene and Mr. Hauser:

CLOSURE OF HOME HEATING FUEL TANKS

We recently responded to your letter of September 4, 1991 concerning closure requirements of the Underground Storage Tank (UST) law by indicating we would review the issue and the Legislative Counsel's analysis. After a careful review, we have concluded that home heating fuel tanks, which are exempt by virtue of use, retain their exemption upon closure. Only when a farm or home heating fuel tank changes from an exempt use to a regulated use does it become subject to the UST law, therefore we will revise our regulations and guidance to reflect this interpretation of State law.

Thank you for bringing your concerns to our attention. If you have any further questions about this matter, please telephone Harry M. Schueller, Chief, Division of Clean Water Programs at (916) 739-4332.

Sincerely,

ORIGINAL SIGNED BY

Walt-Pettit Executive Director STATE WATER RESOURCES CONTROL BOARD DIVISION OF CLEAN WATER PROGRAMS 2014 T STREET, SUITE 130 P.O. BOX 944212 SACRAMENTO, CA 94244-2120



(916) 739-4436 (916) 739-2300(Fax)

Local Implementing Agencies and Interested Parties:

STATUS OF HOME HEATING FUEL AND FARM TANKS

This letter provides updated information on the status of home heating fuel and farm tanks. The recently adopted Underground Storage Tank (UST) regulations, Title 23, Chapter 16, Section 2621(c) require a home heating fuel or farm tank taken out of use to close in accordance with Article 7 of the regulations. Based on correspondence received from the Legislature (see enclosure), the State Board intends to delete this requirement. The Legislature intended that these tanks would be exempt from the UST law in its entirety.

Following revisions of the regulations, staff will revise LG-109 "Determination of Farm Tank Status".

If you have any questions, please contact David Holtry at (916) 739-4436.

Sincerely,

Mike McDonald, Manager

Underground Storage Tank Program

Enclosure