

SOIL TECH ENGINEERING

Soil, Foundation and Geological Engineers

298 BROKAW ROAD, SANTA CLARA, CA 95050 ■ (408) 496-0265 OR (408) 496-0266

January 4, 1993

Mr. Edwin Spencer
880 Columbine Court
Danville, California 94526

Dear Mr. Spencer:

Please send a copy of Soil Tech Engineering's report entitled "Soil Sampling at the Former Underground Tanks Storage Area, Livermore Honda Property" by register mail to the following regulatory agencies:

Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

City of Livermore Fire Department
4550 East Avenue
Livermore, California 94550
ATTENTION: MR. ERIC R. CARLSON

✓
Alameda County Health Care Service Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621
ATTENTION: MR. JEFF SHAPIRO

If you have any questions, please feel free to contact our office at your convenience.

Sincerely,

SOIL TECH ENGINEERING, INC.

Dianna Nguyen
Dianna Nguyen

File No. 11-92-528-ST

SOIL SAMPLING AT THE FORMER
UNDERGROUND TANKS STORAGE AREA
LIVERMORE HONDA PROPERTY
LOCATED AT 3800 FIRST STREET
LIVERMORE, CALIFORNIA
JANUARY 4, 1993

PREPARED FOR:
MR. EDWIN SPENCER
880 COLUMBINE COURT
DANVILLE, CALIFORNIA 94526

BY:
SOIL TECH ENGINEERING, INC.
298 BROKAW ROAD
SANTA CLARA, CALIFORNIA 95050

SOIL TECH ENGINEERING, INC.

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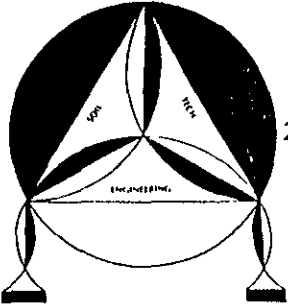
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SOIL TECH ENGINEERING

Soil, Foundation and Geological Engineers

298 BROKAW ROAD, SANTA CLARA, CA 95050 ■ (408) 496-0265 OR (408) 496-0266

January 4, 1993

File No. 11-92-528-ST

Mr. Edwin Spencer
880 Columbine Court
Danville, California 94526

SUBJECT: SOIL SAMPLING AT THE FORMER UNDERGROUND TANKS
STORAGE AREA, LIVERMORE HONDA PROPERTY.
Located at 3800 First Street, in
Livermore, California

Dear Mr. Spencer:

Per your request and authorization, our firm conducted soil sampling service at the former underground tanks complex at the above-referenced site (Figure 1). The sampling and analytical testing were conducted in accordance with state and local agencies' standard procedures. The soil sampling was conducted under the supervision of Mr. Jeff Shapiro with the Alameda County Health Care Services Agency--Department of Environmental Health (ACHCSA--DEH) and Mr. Eric R. Carlson the City of Livermore Fire Department (CLFD).

FIELD ACTIVITIES:

On December 22, 1992, after the excavation and removal of three (one 550 gallon waste oil, one 550 gallon gasoline and one 2,000 gallons gasoline) underground storage tanks by Alpha Geo

Services, and transported by Dexanna, Ltd. to Erickson, Inc. facility in Richmond, four discrete soil samples were collected by Soil Tech Engineering, Inc. (STE) engineer. The soil samples were collected from the tank excavation areas at the depth of approximately two feet below tank. The soil samples from beneath gasoline tanks were labeled as G-1-10, G-2-11 and G-3-11. The soil sample from beneath waste oil tank was labeled as WO-1-9. Figure 2 shows the approximate samples locations, and the depth of samples and condition of the tanks are summarized in Table 2.

The soil samples were collected in a clean brass tube with the aide of backhoe by moving aside slough materials and retrieving native materials from the specified and measured depth. Approximately six-inches of soil was removed from the top of the backhoe bucket with a shovel, and a clean two-inch diameter brass tube sampler was driven into the soil. Immediately upon sampling, the tube ends were covered with aluminum foil and plastic caps, sealed, labeled and placed in a cold ice chest for transport to Priority Environmental Labs, in Milpitas, with the chain-of-custody.

LABORATORY ANALYSIS:

The soil samples from the gasoline tanks were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX). Soil sample from the waste oil tank was analyzed for TPHd, TPHg, BTEX, Total Oil and Grease (TOG), Organic Compounds (EPA Method 8010), Cadmium, Chromium,

Lead, Nickel and Zinc. The results of all soil analysis are summarized in Table 1. The laboratory test results with the chain-of-custody are attached in Appendix "B".

SOIL ANALYTICAL RESULTS:

No TPHg and BTEX were detected in the soil samples G-2-11 and G-3-11. Moderate levels of TPHg and BTEX were detected in the soil sample G-1-10. A moderate level of TOG [96 milligrams per kilogram (mg/Kg)] was detected in the waste oil sample WO-1-9, and low levels of TPHg, Benzene, Toluene, Ethylbenzene and Total Xylenes.

CONCLUSION AND RECOMMENDATION:

The presence of low levels of BTEX in the tank excavation area appears to be due to inadvertent spillage. The presence of moderate level of TPHg and TOG warrants further investigation per existing Alameda County Health Department Fuel Leak Requirements. STE will be happy to prepare a work plan for further investigation as required by the local regulatory agency (ACHCSA-DEH) per your authorization.

This report must be submitted to Alameda County Health Care Services Agency--Department of Environmental Health (ACHCSA--DEH) and California Regional Water Quality Control Board (CRWQCB).

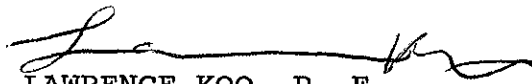
LIMITATIONS:

This report was prepared in accordance with the currently accepted standards for environmental investigations. The contents of this report reflect the conditions of the subject site during the sampling. No other warranties, expressed or implied, as to the professional advice provided are made.

It has been our pleasure to be of service to you on this project. If you have any questions or require additional information, please feel free to contact our office at your convenience.

Sincerely,

SOIL TECH ENGINEERING, INC.


LAWRENCE KOO, P. E.
C. E. #34928

NOORODDIN AMELI
PROJECT ENGINEER



FRANK HAMEDI-FARD
GENERAL MANAGER

TABLE 1
SUMMARY OF SOIL ANALYSIS RESULTS
IN
MILLIGRAM PER KILOGRAMS (mg/Kg)

I. TPHg, BTEX and TOG Results from Gasoline Tank Area

| Date | Sample # | Depth feet | TPHg | B | T | E | X | TOG |
|----------|----------|------------|------|------|------|------|------|-----|
| 12/22/92 | G-1-10 | 10 | 98 | 0.03 | 0.15 | 0.17 | 0.47 | NA |
| | G-2-11 | 11 | ND | ND | ND | ND | ND | NA |
| | G-3-11 | 11 | NA | ND | ND | ND | ND | NA |

II. TPHd, BTEX, TOG and VOC's Results from Waste Oil Tank Area

| Date | Sample # | Depth feet | TPHd | B | T | E | X | TOG | VOC |
|----------|----------|------------|------|----|--------|--------|-------|-----|-----|
| 12/22/92 | WO-1-9 | 9 | 1.6 | ND | 0.0052 | 0.0054 | 0.052 | 95 | ND |

TPHd - Total Petroleum Hydrocarbons as diesel
 TPHg - Total Petroleum Hydrocarbons as gasoline
 BTEX - Benzene, Toluene, Ethylbenzene, Total Xylenes
 TOG - Total Oil and Grease
 VOC - Volatile Organic Compounds (EPA Method 8010)
 NA - Not Analyzed
 ND - Not Detected (Below Laboratory Detection Limit)

**TABLE 2
FIELD OBSERVATION AT THE TANKS**

| Type of Tank | Size (gallon) | Construction | Piping |
|--------------|---------------|-------------------|-------------------|
| Waste oil | 550 | Single Wall Steel | Single Wall Steel |
| Condition | | No Hole Observed | No Hole Observed |

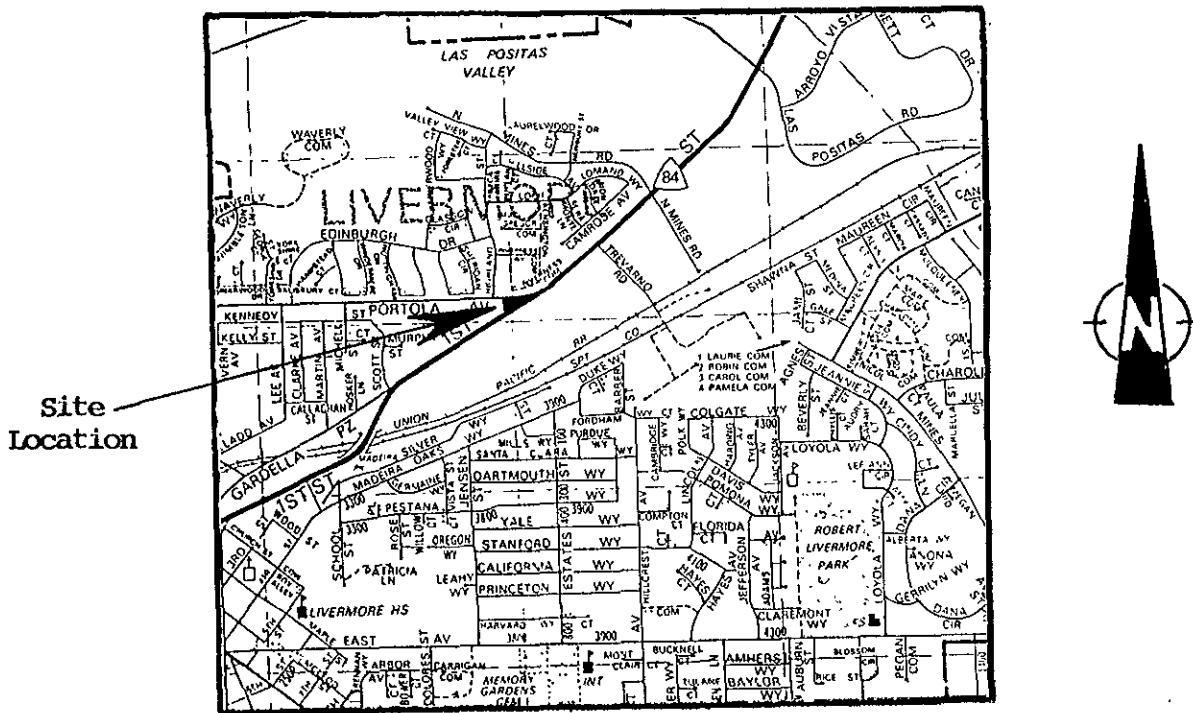
| Type of Tank | Size (gallon) | Construction | Piping |
|--------------|---------------|-------------------|-------------------|
| Gasoline | 550 | Single Wall Steel | Single Wall Steel |
| Condition | | No Hole Observed | No Hole Observed |

| Type of Tank | Size (gallon) | Construction | Piping |
|--------------|---------------|-------------------|-------------------|
| Gasoline | 2,000 | Single Wall Steel | Single Wall Steel |
| Condition | | No Hole Observed | No Hole Observed |

File No. 11-92-528-ST

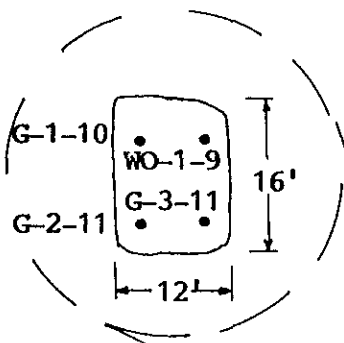
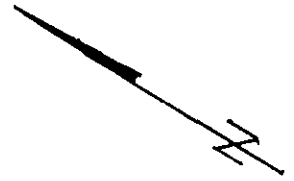
A P P E N D I X "A"

SOIL TECH ENGINEERING, INC.



Thomas Brothers Map 1993 Edition
San Francisco, Alameda,
and Contra Costa Counties

Figure 1

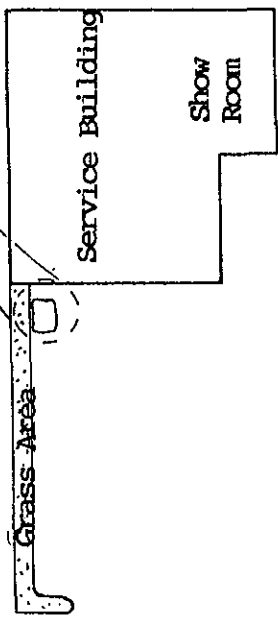


Former Underground Tanks
Excavation Area

Used Car Lot

PORTELA AVENUE

Brick Wall



FIRST STREET

- *- Chain Link Fence
- Approximate Soil Samples Locations

SCALE: 1"=100'

Figure 2

File No. 11-92-528-ST

A P P E N D I X "B"

SOIL TECH ENGINEERING, INC.



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

December 28, 1992

PEL # 9212049

SOIL TECH ENGINEERING

Attn: Noori Ameli

Re: Four soil samples for Gasoline/BTEX, Diesel, and Oil & Grease analyses.

Project name: 3800 1st Sr., -Livermore

Project number: 11--92-528-ST

Date sampled: Dec 22, 1992

Date submitted: Dec 23, 1992

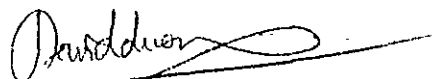
Date extracted: Dec 24-25, 1992

Date analyzed: Dec 24-25, 1992

RESULTS:

| SAMPLE I.D. | Gasoline (mg/Kg) | Diesel (mg/Kg) | Benzene (ug/Kg) | Toluene (ug/Kg) | Ethyl Benzene (ug/Kg) | Total Xylenes (ug/Kg) | Oil & Grease (mg/Kg) |
|---------------------------|------------------|----------------|-----------------|-----------------|-----------------------|-----------------------|----------------------|
| G-1-10 | 98 | --- | 30 | 150 | 170 | 470 | --- |
| G-2-11 | N.D. | --- | N.D. | N.D. | N.D. | N.D. | --- |
| G-3-11 | N.D. | --- | N.D. | N.D. | N.D. | N.D. | --- |
| WO-1-9 | 1.6 | N.D. | N.D. | 5.2 | 5.4 | 52 | 95 |
| Blank | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. | N.D. |
| Spiked Recovery | 85.4% | 96.8% | 83.1% | 90.2% | 88.6% | 81.0% | --- |
| Duplicate Spiked Recovery | 97.6% | 93.1% | 90.8% | 101.3% | 97.5% | 104.7% | --- |
| Detection limit | 1.0 | 1.0 | 5.0 | 5.0 | 5.0 | 5.0 | 50 |
| Method of Analysis | 5030 / 8015 | 3550 / 8015 | 8020 | 8020 | 8020 | 8020 | 5520 D & F |

7/15/94 Per Victor at Priority Labs, metal analysis is usually sent to Superior Analytical Labs for analysis. He has results but will get permission of F. Flameddi to fax me results.


David Duong
Laboratory Director



PRIORITY ENVIRONMENTAL LABS

Precision Environmental Analytical Laboratory

December 28, 1992

PEL # 9212049

SOIL TECH ENGINEERING
Project name :3800 1st St. -Livermore

Attn: Noori Ameli
Project number: 11-92-528-ST

Sample I.D.: WO-1-9

Date Sampled: Dec 22, 1992
Date Analyzed: Dec 24, 1992

Date Submitted: Dec 23, 1992

Method of Analysis: EPA 8010

Detection limit: 5.0 ug/Kg

| COMPOUND NAME | CONCENTRATION (ug/Kg) | SPIKE RECOVERY (%) |
|----------------------------|----------------------------|-------------------------|
| Chloromethane | N.D. | ----- |
| Vinyl Chloride | N.D. | 83.9 |
| Bromomethane | N.D. | ----- |
| Chloroethane | N.D. | ----- |
| Trichlorofluoromethane | N.D. | ----- |
| 1,1-Dichloroethene | N.D. | ----- |
| Methylene Chloride | N.D. | 87.8 |
| 1,2-Dichloroethene (TOTAL) | N.D. | ----- |
| 1,1-Dichloroethane | N.D. | ----- |
| Chloroform | N.D. | ----- |
| 1,1,1-Trichloroethane | N.D. | ----- |
| Carbon Tetrachloride | N.D. | 102.1 |
| 1,2-Dichloroethane | N.D. | ----- |
| Trichloroethene | N.D. | 85.2 |
| 1,2-Dichloropropane | N.D. | ----- |
| Bromodichloromethane | N.D. | ----- |
| 2-Chloroethylvinylether | N.D. | ----- |
| Trans-1,3-Dichloropropene | N.D. | ----- |
| Cis-1,3-Dichloropropene | N.D. | ----- |
| 1,1,2-Trichloroethane | N.D. | ----- |
| Tetrachloroethene | N.D. | 90.7 |
| Dibromochloromethane | N.D. | ----- |
| Chlorobenzene | N.D. | ----- |
| Bromoform | N.D. | ----- |
| 1,1,2,2-Tetrachloroethane | N.D. | ----- |
| 1,3-Dichlorobenzene | N.D. | ----- |
| 1,4-Dichlorobenzene | N.D. | ----- |
| 1,2-Dichlorobenzene | N.D. | ----- |

David Duong
Laboratory Director

CHAIN OF CUSTODY RECORD

PROJ. NO. 11-92-528-ST NAME 3800 1st. St. LIVERMORE

SAMPLERS: (Signature) *J. Ameli*

CON-TAINER

ANALYSES REQUESTED
 TPH G/BTEX
 TPH D
 TO&G
 SOLO
 Ni, Cd, Cr, Pb, Zn
 CL & HC

PEL # 9212049
 INV # 23285

| NO. | DATE | TIME | SOIL | WATER | LOCATION | CON-TAINER | ANALYSES REQUESTED | TPH G/BTEX | TPH D | TO&G | SOLO | Ni, Cd, Cr, Pb, Zn | CL & HC |
|-----|----------|------------------|------|-------|----------|------------|--------------------|------------|-------|------|------|--------------------|---------|
| 1 | 12/22/92 | 16 ²⁵ | ✓ | | G-1-10 | 1 | ✓ | | | | | | |
| 2 | 12/22/92 | 17 ²⁵ | ✓ | | G-2-11 | 1 | ✓ | | | | | | |
| 3 | 12/22/92 | 16 ⁴⁵ | ✓ | | W0-1-9 | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| 4 | 12/22/92 | 18 ⁰⁵ | ✓ | | G-3-11 | 1 | ✓ | | | | | | |

| | | | | | |
|---|---------------------------------------|--|------------------------------|-------------|--------------------------|
| Relinquished by: (Signature) <i>[Signature]</i> | Date / Time 12/23/92 16 ³⁵ | Received by: (Signature) <i>[Signature]</i> | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
| Relinquished by: (Signature) | Date / Time | Received by: (Signature) <i>J. HANHAM</i> | Relinquished by: (Signature) | Date / Time | Received by: (Signature) |
| Relinquished by: (Signature) | Date / Time 12/23/92 16 ³⁵ | Received for Laboratory by: (Signature) <i>PEL</i> | Date / Time | Remarks | |



SOIL TECH ENGINEERING
 Soil, Foundation and Geological Engineers

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