AND

SOIL EXCAVATION REPORT

4-8-91

CAVANAUGH MOTORS 1700 Park Street Alameda, California

Project No. 109001

April 8, 1991

prepared for

Cavanaugh Motors 1700 Park Road Alameda, California 94501

prepared by

TMC Environmental Inc. 13908 San Pablo Avenue, Suite 101 San Pablo, California 94806 O TOR IS THE

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for

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#### TANK REMOVAL AND SOIL EXCAVATION REPORT

Cavanaugh Motors 1700 Park Street Alameda, California

#### 1.0 INTRODUCTION

TMC (TMC Environmental, Inc.) removed an underground waste oil tank then excavated waste oil saturated soil on the property located at 1700 Park Street in Alameda, California (see Plate 1, Site Vicinity Map), called the site in this report. The tasks completed during the tank removal and soil excavation agree with the guidelines of the local lead agency, the Alameda County Health Care Services Agency. We also followed guidelines from the chief State agency, the Bay Area Regional Water Quality Control Board located in Oakland, California. The investigation, reclamation, and reporting guidelines applicable to leaking underground fuel tanks, available through these agencies, apply to the site.

#### 2.0 PURPOSE AND SCOPE OF WORK

The purpose of the work was to remove one 300-gallon, underground waste oil storage tank. Because of obvious soil contamination, we expanded the scope of work to include the excavation of soil surrounding the underground tank.

The scope of the work included: 1) removal of one 300 gallon underground waste oil tank; 2) sampling the soil below the former underground tank; 3) providing for the limited excavation of the contaminated soil associated with the tank; 4) the collection of soil samples from soil borings; 5) providing for the laboratory analyses of selected soil samples; and 5) this report explaining the methods and findings of the tank removal.

#### 3.0 SITE DESCRIPTION AND HISTORY

The Cavanaugh Motors facility is in a commercial area of the city of Alameda, Alameda County, California. The site is at the intersection of Park Street and Buena Vista Avenue. Access to the facility is from both Park Street that borders the property on the northwest and Buena Vista Avenue that borders the property on the southwest. Drainage of the approximately level site is estimated to be northward toward the Inner Harbor waterway. The Inner Harbor connects San Leandro Bay and San Francisco Bay. On the site is a large building containing a showroom and auto repair shop with associated asphalt parking areas.

The site has been occupied by an auto dealership since the property was developed in 1948. Mr. William S. Bean, the first proprietor, owned the property from 1948 until 1981. In 1981, Mr. Bean sold the property to Dave and Lee Cavanaugh, the present owners. It was reported to TMC that two underground tanks were installed on the site in 1948, a 550 gallon gasoline storage tank and a 300 gallon waste oil storage tank. The 550 gallon unleaded gasoline tank was removed by Scott Corporation on December 15, 1989. The former gasoline tank is the subject of a separate ongoing investigation by TMC.

The 300 gallon waste oil storage tank was located beneath the six inch thick concrete floor inside the auto repair shop. The tank was adjacent to a hydraulic lift and the north wall of the building. A fill pipe of approximately four feet in length was connected to the south end of the tank. The tank pit excavation was back filled with sand.

#### 4.0 TANK REMOVAL

The subject tank is a 300 gallon waste oil tank, see Plate 2, Site Map. On August 14, 1990, the tank and related lines were removed by TMC and Gene L. Failing Company personnel according to the TMC tank removal proposal dated July 23, 1990. Numerous corrosion holes were observed in the bottom of the tank. No holes were noted in the approximately four feet of remote fill piping above the tank. The tank removal was witnessed by Senior Hazardous Materials Specialist Katherine A. Chesick of the Alameda County Health Care Services Agency. When inerted, the tank was wrapped in plastic and transported by Erickson, Inc. to their transfer, storage, and disposal facility in Richmond, California. The hazardous waste manifests and permits are attached to this report.

#### 5.0 SOIL SAMPLING BENEATH UNDERGROUND TANKS

On August 31, 1990, TMC personnel recovered one soil sample (designated SS1) from 18 inches below the center of the tank as shown on Plate 3, Soil Sampling Map. No water was observed in the tank pit during the tank removal. Grey-black-green stained soil with an oil-like odor surrounded the former tank location. The soil sampling was witnessed by Inspector Chesick. The soil sample was submitted to a State certified Laboratory, Anametrix, Inc. of San Jose, California for chemical analysis of total petroleum hydrocarbons (TPH) as gasoline and diesel with benzene, toluene, ethylbenzene, and xylenes (BTEX) distinction, total oil and grease;

the metals cadmium, chrome, leak, zinc, and nickel; EPA method 8010, and EPA method 8270.

#### 6.0 RESULTS OF CHEMICAL ANALYSIS OF TANK SAMPLES

The laboratory analysis of the soil sample recovered from below the removed underground tank reported the following results:

Soil sample SS1 recovered 18 inches below the center of the tank contained 730 mg/Kg total petroleum hydrocarbons (TPH) as gasoline with 0.70 mg/Kg benzene, 16 mg/Kg toluene, 6.6 mg/Kg ethylbenzene, and 39 mg/Kg total xylenes; 6400 mg/Kg TPH as diesel; 20000 mg/Kg total oil and grease by standard method 503D; 17000 mg/Kg total oil and grease by standard method 503E; 0.25 mg/Kg cadmium, 31.6 mg/Kg total chrome, 24.0 mg/Kg nickel, 1040 mg/Kg lead, 111 mg/Kg zinc; 1.6 mg/Kg naphthalene, 1.5 mg/Kg 2-methylnaphthalene, 0.3 mg/Kg phenanthrene; and 22.0 mg/Kg methylene chloride, 59.0 mg/Kg chlorobenzene.

The certified analytical reports and chain of custody forms are attached to this report.

#### 7.0 SOIL SAMPLING

On October 10, 1990, TMC personnel cored the concrete floor in five locations surrounding the former location of the underground waste oil tank. Five hand augured borings (designated B-1, B-2, B-3, B-4, and B-5) were drilled to a depth of 8½ feet below grade. The purpose of the sampling was to estimate the lateral extent of soil contamination prior to excavation. The borings encountered dark brown, sandy topsoil and fill to a depth of 36 inches below grade. From 36 to about 64 inches below grade was light brown, medium grained soft sand. From 64 to 96 inches below grade was a light brown, wet, clayey sand.

Selected soil samples from the borings were recovered for laboratory analysis of total petroleum hydrocarbons as diesel. Borings B-1, B-3, and B-5 encountered no noticeable staining or odor. These three borings appeared to be outside of the extent of soil contamination.

Boring B-2 encountered stained and odorous sand at a depth of five feet below grade. No samples were recovered from boring B-2 and the boring was abandoned. Boring B-5 was then located about ten

feet further out from the former tank location then boring B-2. No soil contamination was evident in boring B-5.

Boring B-4 did not contain any noticeable staining or odor. However, the ground water interface sample from 8-8½ feet contained 680 mg/Kg of total petroleum hydrocarbons of diesel as indicated by laboratory analysis. Boring B-4 was located beyond the building wall adjacent to the former tank location and down ground water gradient.

Four soil samples were analyzed for total petroleum hydrocarbons as diesel by Anametrix Inc. of San Jose, California. Total petroleum hydrocarbons as diesel was utilized as a target pollutant. The results of the chemical analysis is as follows:

Sample B-1 was recovered from sand at a depth of 7 to 7.5 feet below grade in boring number B-1. Laboratory analysis indicated no detectable total petroleum hydrocarbons as diesel. No staining or odor was noticeable in the sample.

Sample B-3 was recovered from sand at a depth of 8 to 8.5 feet below grade in boring number B-3. Laboratory analysis indicated no detectable total petroleum hydrocarbons as diesel. No staining or odor was noticeable in the sample.

Sample B-5 was recovered from sand at a depth of 8 to 8.5 feet below grade in boring number B-5. Laboratory analysis indicated no detectable total petroleum hydrocarbons as diesel. No staining or odor was noticeable in the sample.

Sample B-4 was recovered from sand at a depth of 8 to 8.5 feet below grade in boring number B-4. Laboratory analysis indicated 680 mg/Kg of total petroleum hydrocarbons as diesel. The certified analytical report indicates the concentration appears to represent a heavier petroleum product, possibly motor oil. No staining or odor was noticeable in the sample.

The certified analytical reports and chain of custody forms are attached to this report.

#### 8.0 SOURCE REMOVAL BY EXCAVATION OF SOIL

On January 11, 1991, TMC Environmental, Inc. removed most of the waste oil contaminated soil by excavation with a backhoe. About

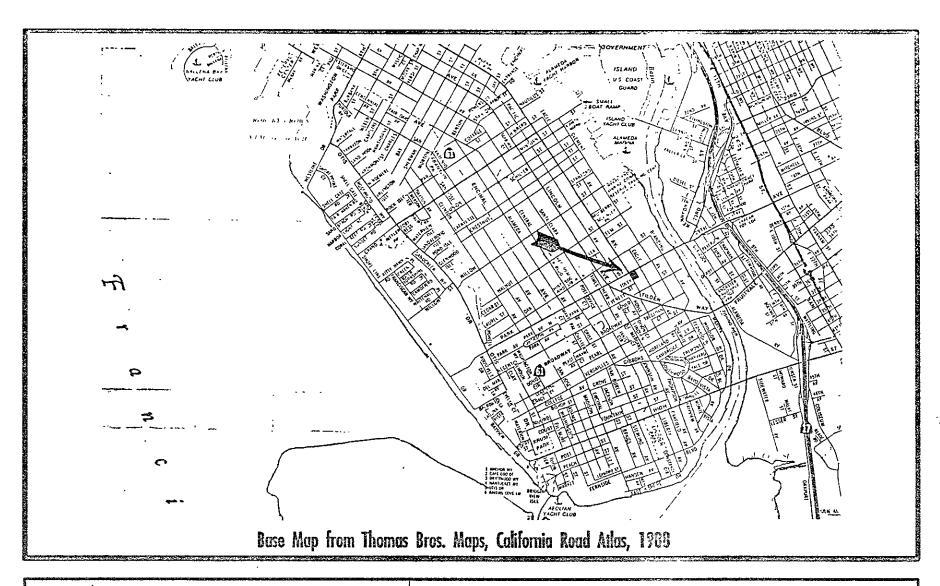
120 cubic yards of soil was excavated from around the former waste oil tank location. A portable hydrocarbon detector screened the excavated soil for hydrocarbon vapors. We stockpiled the waste oil contaminated soil on plastic sheeting and covered with same. The depth of the excavation was about thirteen feet below grade. Ground water was encountered in the excavation at a depth of about eight feet below grade.

The majority of waste oil contaminated soil was removed from surface grade to below the surface of the ground water and continuing to a depth of thirteen feet below grade. The lateral extent of the waste oil contamination was reached on three sides. Some waste oil contaminated soil remains under the adjacent building wall. Stained and odorous soil was still present at the bottom of the excavation at a depth of thirteen feet below grade.

The excavation was back filled and compacted with 150 tons of clean, imported fill dirt. The area was resurfaced with six inches of concrete.

#### 9.0 LIMITATIONS

The conclusions and professional opinions presented in this report agree with generally accepted practice as outlined in the guidelines of the California Regional Water Quality Control Board for addressing fuel leaks from underground tanks. The chemical analysis results are based on limited data collected at the sampling location only and such conditions may not necessarily apply to the general site as a whole, therefore TMC Environmental Inc. cannot have complete knowledge of the underlying conditions. The information supplied in this report is provided to the client in order that the client may make a more informed decision as to site conditions. The professional opinion and judgement expressed herein is subject to revisions in light of new information. No guarantees or warranties are expressed or implied that the property is or is not free of environmental impairment.





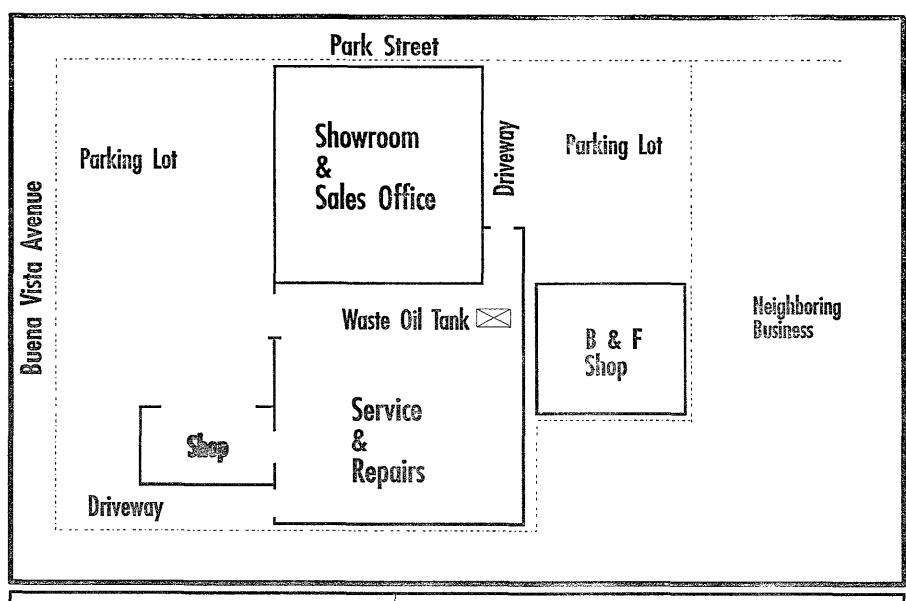
### LEGEND

Scale: 1 inch = 2200 feet

### SITE VICINITY MAP

Cavanaugh Motors

1700 Park Street, Alameda, California





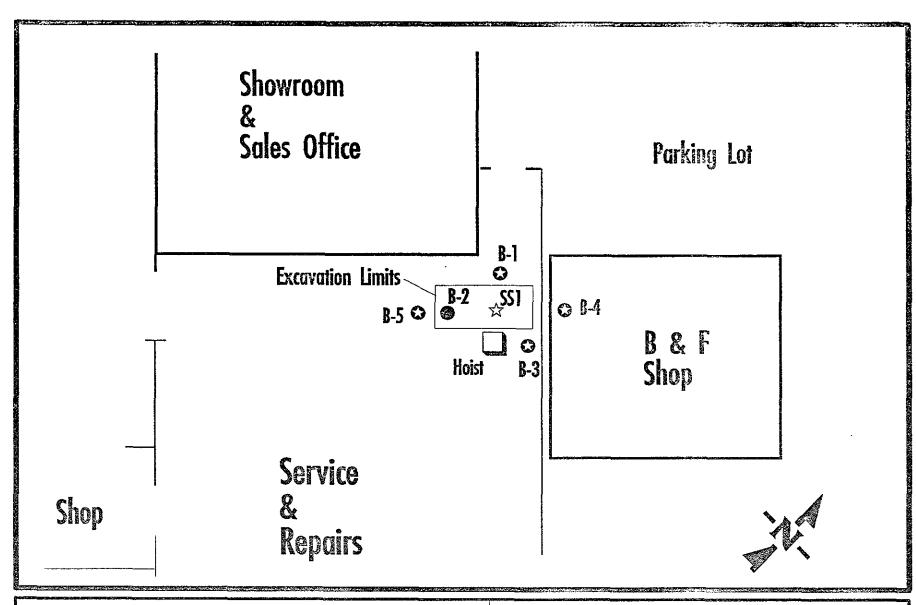
### LEGEND

Scale: 1 inch = 30 feet Project No. 109001

rrojeti iku. 107001 April 8, 1991

### SITE MAIP

Cavanaugh Motors
1700 Park Street, Alameda California



#### LEGEND

- Boring without soil sample
- ◆ Boring with soil sample
  ★ Tank removal soil sample

Project No. 109001 April 8, 1991 Scale 1 inch = 20 feet

### SAMPLING MAP

Cavanaugh Motors
1700 Park Street, Alameda California

### APPENDIX A SAMPLING PROTOCOL

#### 1.0 SOIL SAMPLES

- 1. The soil sampling will commence at a selected depths below surface grade. The samples will be taken at selected increments to the depth of the water-saturated zone estimated at 8 feet below grade. Soil sampling will adhere to the guidelines presented in ASTM Method D 1452-80, Standard Practice for Tank removal and soil excavations and Sampling by Auger Borings.
- 2. Soil sampler casings will be disassembled, steam-cleaned or cleaned in soapy (TSP) water, rinsed with clean tap water and finally rinsed with de-ionized water, and air-dried just prior to taking each sample. The cleaned casings will then be re-assembled with similarly cleaned and dried brass, sample liners and carefully lowered into the sampler for the collection of the sample.
- 3. The soils sample in the brass liner in the sampling casing (if in good condition) will be taken as the sample to be tested. The samples will be labeled and sealed in the field in their original liners. The ends of the sample liners will be capped with aluminum foil, and sealed in place by clean plastic caps and tape.
- 4. The cuttings from the borings will also be examined during the drilling to provide a continuous log of the materials encountered using ASTM Method D-2488-84 for visual description and identification of soils. The cuttings and the soils samples not retained for chemical analysis will be placed in 55-gallon drums or stockpiled on plastic until their chemical disposition is determined, and then appropriately disposed of.
- 5. All samples retained for chemical analysis will be stored on ice in a clean, covered cooler-box for transport to the laboratory. Duplicate samples will be refrigerated.
- 6. The center core material will be extracted from the samples liners in the laboratory for chemical testing.

#### 2.0 SAMPLE RECORDS AND CHAIN OF CUSTODY

- 1. Sample records for each sample will contain information on sample type and source; sampling date; location; significant conditions that may impact the sampling; laboratory name; and sampling method.
- 2. A chain of positive, signature custody and transference will be strictly maintained at all times.
- 3. A hard copy of the laboratory sample results and the completed chain of custody will be provided with the technical report.



MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006 Date Received : 09/04/90 Project ID : 109001 Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9009006- 1	SS-1

This report is paginated for your convenience and ease of review. It contains 15 pages excluding the cover letter. The report is organized into sections. Each section contains all analytical results and quality assurance data related to a specific group or section within Anametrix. The Report Summary that precedes each section will help you determine which group at Anametrix generated the data. The Report Summary will contain the signatures of the department supervisor and a chemist, both of whom reviewed the analytical data. Please refer all questions to the department supervisor that signed the form.

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.

Burt Sutherland

Laboratory Director

09-24-90

Date

### ANAMETRIX REPORT DESCRIPTION GCMS

#### Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and, within each method, organized sequentially in order of increasing Anametrix ID number.

#### Tentatively Identified Compounds (TICs)

TIC forms contain tabulated results for non-target compounds detected in GC/MS analyses. TICs must be requested at the time samples are submitted at Anametrix. TIC forms immediately follow the OADS form for each sample. If TICs are requested but not found, then TIC forms will not be included with the report.

#### Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method, <u>if</u> the method requires surrogate compounds. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "\*", and the total number of surrogates outside the limits will be listed in the column labelled "Total Out".

#### Matrix Spike Recovery Form (MSR)

MSR forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "\*", and the total number outside the limits will be listed at the bottom of the page. Not all reports will contain an MSR form.

#### Qualifiers

Anametrix uses several data qualifiers (Q) in it's report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- Indicates that the compound was analyzed for, but was not detected at or above the specified reporting limit.
- B Indicates that the compound was detected in the associated method blank.
- J Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an approximate value. Tentatively identified compounds will always have a "J" qualifier because they are not included in the instrument calibration.
- E Indicates that the amount reported exceeded the linear range of the instrument calibration.
- 0 Indicates that the compound was detected in an analysis performed at a secondary dilution.
- A Indicates that the tentatively identified compound is a suspected aldol condensation product. This is common in EPA Method 8270 soil analyses.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

#### REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report forms. However, the report cover letter and report summary pages display up to twenty (20) characters of your project and sample IDs.
- ♦ Amounts reported are gross values, i.e., not corrected for method blank contamination.

PG/0m/3274 - Disk 18D

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : CCMS

Department : GCMS Sub-Department: GCMS

#### SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009006- 1	SS-1	SOIL	08/31/90	8270

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : GCMS
Sub-Department: GCMS

#### QA/QC SUMMARY :

- A surrogate recovery was outside established limits in the EPA method 8270 analysis of sample SS-1, probably due to a matrix interference from heavy hydrocarbons. A surrogate was also outside established limits in the method blank.

- PCBs and creosote were scanned for but were not detected in the EPA method 8270 analysis of sample SS-1. The approximate detection limit for these compounds is 1700 ppb.

Saul Jowan 9-24-9
epartment Supervisor Date

Chemist Date

Project ID : 109001 : 9009006-01 Anametrix ID : M Sample ID : SS-1 Analyst

Matrix : SOIL Supervisor : PG

Date Sampled : 8/31/90 Date Sampled

Date Extracted: 9/7/90

Amount Extracted: 30.0 g

Date Analyzed : 9/19/90 Dilution Factor: 1.00 Instrument ID : F2 Conc. Units : ug/Kg

REPORTING AMOUNT CAS NO. COMPOUND NAME LIMIT DETECTED 0 108-95-2 PHENOL 330. NDŲ 111-44-4 BIS (2-CHLOROETHYL) ETHER 330. ND U 95-57-8 2-CHLOROPHENOL 330. ND U 541-73-1 1,3-DICHLOROBENZENE 330. ND U 106-46-7 1,4-DICHLOROBENZENE 330. ND U 100-51-6 BENZYL ALCOHOL 330. NDU 95-50-1 1,2-DICHLOROBENZENE 330. ND Ū 95-48-7 2-METHYLPHENOL 330. ND U 108-60-1 BIS (2-CHLOROIS OPROPYL) ETHER 330. U ND 106-44-5 4-METHYLPHENOL 330. ND U 621-64-7 N-NITROSO-DI-N-PROPYLAMINE 330. ND U 67-72-1 HEXACHLOROETHANE 330. ND Ū 98-95-3 NITROBENZENE 330. ND U 78-59-1 ISOPHORONE 330. ND Ű 88-75-5 2-NITROPHENOL 330. ND U 2,4-DIMETHYLPHENOL 105-67-9 330. ИD IJ BENZOIC ACID 65-85-0 1700. Ũ ND 111-91-1 BIS (2-CHLOROETHOXY) METHANE U 330. ND 120-83-2 2.4-DICHLOROPHENOL 330. ND Ũ 120-82-1 1,2,4-TRICHLOROBENZENE 330. ND U 91-20-3 NAPHTHALENE 1600. 330. 106-47-8 4-CHLOROANILINE 330. ND U 87-68-3 HEXACHLOROBUTADI ENE 330. ND U 59-50-7 4-CHLORO-3-METHYLPHENOL 330. ND U 91-57-6 2-METHYLNAPHTHALENE 330. 1500. 77-47-4 HEXACHLOROCYCLOPENTADIENE 330. ND U 88-06-2 2,4,6-TRICHLOROPHENOL 330. ND U 95-95-4 2,4,5-TRICHLOROPHENOL 1700. ND U 91-58-7 2-CHLORONAPHTHALENE 330. ND U 88-74-4 2-NITROANILINE 1700. ND U 131-11-3 DIMETHYLPHTHALATE 330. U ND208-96-8 ACENAPHTHYLENE 330. ND U 606-20-2 2,6-DINITROTOLUENE 330. ND U

Project ID : 109001 Sample ID : SS-1 Matrix : SOIL Anametrix ID : 9009006-01 Analyst : M

Analyst Supervisor : SOIL Matrix : PG

Date Sampled : 8/31/90
Date Extracted : 9/ 7/90
Amount Extracted : 30.0 g

Date Analyzed : 9/19/90
Instrument ID : F2 Dilution Factor: 1.00 Conc. Units : ug/Kg

REPORTING TRUDOMA CAS NO. COMPOUND NAME LIMIT DETECTED Q 99-09-2 3-NITROANILINE 1700. U ND 83-32-9 ACENAPHTHENE 330. ND U 2,4-DINITROPHENOL 1700. 51-28-5 ND IJ 100-02-7 4-NITROPHENOL 1700. ND U 132-64-9 DIBENZOFURAN 330. U ND121-14-2 2,4-DINITROTOLUENE 330. ND U 84-66-2 DIETHYLPHTHALATE 330. ND U 7005-72-3 4-CHLOROPHENYL-PHENYLETHER IJ 330. ND 86-73-7 FLUORENE 330. U ND 100-01-6 4-NITROANILINE 1700. Ũ ND 534-52-1 4,6-DINITRO-2-METHYLPHENOL 1700. U ND N-NITROSODIPHENYLAMINE (1) 86-30-6 330. ND U 101-55-3 4-BROMOPHENYL-PHENYLETHER 330. IJ ND 118-74-1 HEXACHLOROBENZENE 330. ND U 87-86-5 PENTACHLOROPHENOL 1700. ND U 85-01-8 PHENANTHRENE 330. 300. J 120-12-7 ANTHRACENE 330. ND U 84-74-2 DI-N-BUTYLPHTHALATE 330. ND U 206-44-0 FLUORANTHENE 330. U ND 129-00-0 PYRENE 330. ND U 85-68-7 BUTYLBENZYLPHTHALATE 330. ND U 91 - 94 - 13,3'-DICHLOROBENZIDINE 670. U ND 56-55-3 BENZO (A) ANTHRACENE 330. ND U 218-01-9 CHRYSENE 330. ND U 117-81-7 BIS(2-ETHYLHEXYL) PHTHALATE 330. U ND 117-84-0 DI-N-OCTYLPHTHALATE 330. ND U 205-99-2 BENZO (B) FLUOROANTHENE 330. ND U 207-08-9 BENZO (K) FLUOROANTHENE 330. NDU 50-32-8 BENZO (A) PYRENE 330. ND U 193-39-5 INDENO(1,2,3-CD) PYRENE 330. ND U 53-70-3 DIBENZ[A, H] ANTHRACENE 330. ND U BENZO(G,H,I)PERYLENE 191-24-2 330. ND IJ

: 2CB0907C03 : UM : PG Anametrix ID

Project ID Sample ID : BLANK Analyst Matrix : SOIL Supervisor

Date Sampled : 0/ 0/ 0
Date Extracted : 9/ 7/90
Amount Extracted : 30.0 g
Date Analyzed : 9/19/90
Instrument ID : F2

Dilution Factor: 1.00 Conc. Units : ug/Kg

				1
23.2.370		REPORTING	AMOUNT	
CAS NO.	COMPOUND NAME	LIMIT	DETECTED	Q
108-95-2	PHENOL	220	375	T.T.
111-44-4	BIS (2-CHLOROETHYL) ETHER	330. 330.	ND	ָ ט
95-57-8	2-CHLOROPHENOL	330.	ND	Ü
541-73-1	1,3-DICHLOROBENZENE	1	ND	U
106-46-7		330.	ND	
100-46-7	1,4-DICHLOROBENZENE BENZYL ALCOHOL	330.	ND	U
95-50-1		330.	ND	Ū
95-48-7	1,2-DICHLOROBENZENE	330.	ND	ū
108-60-1	2-METHYLPHENOL	330.	ND	U
106-44-5	BIS(2-CHLOROISOPROPYL) ETHER	330.	ND	U
	4-METHYLPHENOL	330.	ND	ū
621-64-7	N-NITROSO-DI-N-PROPYLAMINE	330.	ND	Ū
67-72-1 98-95-3	HEXACHLOROETHANE	330.	ND	U
	NITROBENZENE	330.	ND	U
78-59-1	ISOPHORONE	330.	ND	U
88-75-5	2-NITROPHENOL	330.	ND	U
105-67-9	2,4-DIMETHYLPHENOL	330.	ND	Ū
65-85-0	BENZOIC ACID	1700.	ND	ט
111-91-1	BIS(2-CHLOROETHOXY)METHANE	330.	ND	ַ
120-83-2	2,4-DICHLOROPHENOL	330.	ND	Ŭ
120-82-1	1,2,4-TRICHLOROBENZENE	330.	ND	ט
91-20-3	NAPHTHALENE	330.	ND	Ŭ
106-47-8	4-CHLOROANILINE	330.	ND	U
87-68-3	HEXACHLOROBUTADI ENE	330.	ND	U
59-50-7	4-CHLORO-3-METHYLPHENOL	330.	ND	U
91-57-6	2-METHYLNAPHTHALENE	330.	ND	U
77-47-4	HEXACHLOROCYCLOPENTADIENE	330.	ND	ט
88-06-2	2,4,6-TRICHLOROPHENOL	330.	ND	U
95-95-4	2,4,5-TRICHLOROPHENOL	1700.	ND	U
91-58-7	2-CHLORONAPHTHALENE	330.	ND	U
88-74-4	2-NITROANILINE	1700.	ND	Ū
131-11-3	DIMETHYLPHTHALATE	330.	ND	Ū
208-96-8	ACENAPHTHYLENE	330.	ND	Ū
606-20-2	2,6-DINITROTOLUENE	330.	ND	Ü
· · · · · · · · · · · · · · · · · · ·				

Project ID Sample ID Anametrix ID : 2CB0907C03

: BLANK : (4 : pG Analyst : SOIL Matrix Supervisor

Date Sampled : 0/ 0/ 0
Date Extracted : 9/ 7/90
Amount Extracted : 30.0 g
Date Analyzed : 9/19/90

Dilution Factor: 1.00 Instrument ID Conc. Units : ug/Kg

		<del> </del>	<del> </del>	<del></del>
CAS NO.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
99-09-2	3-NITROANILINE	1700.	ND	U
83-32-9	ACENAPHTHENE	330.	ND	Ū
51-28-5	2,4-DINITROPHENOL	1700.	ND	Ŭ
100-02-7	4-NITROPHENOL	1700.	ND	Ŭ
132-64-9	DIBENZOFURAN	330.	ND	Ŭ
121-14-2	2,4-DINITROTOLUENE	330.	ND	บั
84-66-2	DIETHYLPHTHALATE	330.	ND	Ū
7005-72-3	4-CHLOROPHENYL-PHENYLETHER	330.	ND	lΰ
86 <b>-</b> 73-7	FLUORENE	330.	ND	Ŭ
100-01-6	4-NITROANILINE	1700.	ND	ΰ
534-52-1	4,6-DINITRO-2-METHYLPHENOL	1700.	ND	Ü
86-30-6	N-NITROSODIPHENYLAMINE (1)	330.	ДИ	บ
101-55-3	4-BROMOPHENYL-PHENYLETHER	330.	ND	Ū
118-74-1	HEXACHLOROBENZENE	330.	ND	Ū
87-86-5	PENTACHLOROPHENOL	1700.	ND	Ū
85-01-8	PHENANTHRENE	330.	ND	Ū
120-12-7	ANTHRACENE	330.	ИД	Ū
84-74-2	DI-N-BUTYLPHTHALATE	330.	ND	Ū
206-44-0	FLUORANTHENE	330.	ND	Ū
129-00-0	PYRENE	330.	ND	Ū
85-68-7	BUTYLBENZYLPHTHALATE	330.	ND	Ŭ
91-94-1	3,3'-DICHLOROBENZIDINE	670.	ND	Ū
56-55-3	BENZO (A) ANTHRACENE	330.	ND	Ū
218-01-9	CHRYSENE	330.	ND	Ū
117-81-7	BIS(2-ETHYLHEXYL)PHTHALATE	330.	ND	Ū
117-84-0	DI-N-OCTYLPHTHALATE	330.	ND	υ
205-99-2	BENZO(B) FLUOROANTHENE	330.	ND	Ū
207-08-9	BENZO (K) FLUOROANTHENE	330.	ND	Ū
50-32-8	BENZO (A) PYRENE	330.	ND	Ū
193-39-5	INDENO (1,2,3-CD) PYRENE	330.	ND	Ū
53-70-3	DIBENZ[A,H]ANTHRACENE	330.	ND	ΰ
191-24-2	BENZO(G,H,I) PERYLENE	330.	ND	Ū
				1

#### SURROGATE RECOVERY SUMMARY -- EPA METHOD 625/8270 ANAMETRIX, INC. (408)432-8192

Project ID : 109001 Matrix : SOIL

Anametrix ID : 9009006 Analyst :  $\mathcal{M}$ Supervisor : fG

SAMPLE ID	SU1	SU2	SU3	SU4	SU5	SU6	TOTAL OUT
3 BLANK 4 SS-1	89 * 18	83 15 *	52 24	52 11 *	44 62	21 5 *	1 3
3 BLANK 4 SS-1 5 6 7 8 9							
9 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0							
2 3							
4							
8 9 0							
1 2 3							
4 5							
6							
9							

			QC LIMITS
		2-FLUOROPHENOL	(15-83)
SU2	=	PHENOL-D5	(18- 92)
SU3	=	NITROBENZENE-D5	(12 <b>-</b> 80)
SU4	=	2-FLUOROBIPHENYL	(16-100)
SU5	===	2,4,6-TRIBROMOPHENOL	(15-135)
SU6	=	TERPHENYL-D14	(15-117)

<sup>\*</sup> Values outside of Anametrix QC limits

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : GC
Sub-Department: VOA

#### SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009006- 1	SS-1	SOIL	08/31/90	8010

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : GC
Sub-Department: VOA

#### QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Councilhair 09-19-90
Department Supervisor Date

M. Harseinen 09-19-90 Chemist Date

GC/VOA - PAGE 2

Sample I.D. : 109001 SS-1 Anametrix I.D.: 9009006-01

Matrix : SOIL Analyst Date sampled: 08/31/90 Date analyzed: 09/13/90 Dilution: 2000 Supervisor

Date released : 09/18/90

Instrument ID : HP15

			~
CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
74-87-3 74-83-9 75-71-8 75-01-4 75-00-3 75-09-2 79-69-4 75-35-4 75-35-4 75-34-3 156-59-2 156-60-5 67-66-3 76-13-1 107-06-2 71-55-6 56-23-5 75-27-4 78-87-5 10061-02-6 79-01-6 124-48-1 79-00-5 10061-01-5 110-75-8 75-25-2 127-18-4 79-34-5 108-90-7 541-73-1 95-50-1 106-46-7	* Chloromethane  * Bromomethane  * Dichlorodifluoromethane  * Vinyl Chloride  * Chloroethane  * Methylene Chloride  * Trichlorofluoromethane  * 1,1-Dichloroethene  * 1,1-Dichloroethene  * Trans-1,2-Dichloroethene  * Chloroform  # Trichlorotrifluoroethane  * 1,2-Dichloroethane  * 1,1,1-Trichloroethane  * 1,2-Dichloromethane  * 1,2-Dichloromethane  * Trans-1,3-Dichloropropane  * Trans-1,3-Dichloropropene  * Trichloroethene  * Dibromochloromethane  * 1,1,2-Trichloroethane  * 1,1,2-Trichloroethane  * 1,1,2-Trichloroethane  * 1,1,2-Trichloroethane  * 1,1,2-Trichloroethane  * 1,1,2-Trichloropropene  * 2-Chloroethylvinylether  * Bromoform  * Tetrachloroethene  * 1,1,2,2-Tetrachloroethane  * Chlorobenzene  * 1,3-Dichlorobenzene  * 1,2-Dichlorobenzene  * 1,4-Dichlorobenzene	2000 1000 2000 1000 1000 1000 1000 1000	ND N
	% Surrogate Recovery	33-134%	121%

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

A 601/8010 approved compound (Federal Register, 10/26/84). A compound added by Anametrix, Inc.

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : GC
Sub-Department: TPH

#### SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009006- 1	SS-1	SOIL	08/31/90	TPHd
9009006- 1	SS-1	SOIL	08/31/90	TPHg/BTEX

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : GC
Sub-Department: TPH

#### QA/QC SUMMARY :

- No QA/QC problems encountered for workorder.

Operation Date

Schemist Voret 9/18/90 Date

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

Anametrix W.O.#: 9009006
Matrix : SOIL
Date Sampled : 08/31/90

Project Number: 109001 Date Released: 09/18/90

	Reporting Limit	Sample I.D.# SS1	Sample I.D.# 04B0910A		
COMPOUNDS	(mg/Kg)	-01	BLANK	 	
Benzene	0.005	0.70	ND		
Toluene	0.005	16	ND		
Ethylbenzene	0.005	6.6	ИD		
Total Xylenes	0.005	39	ND		
TPH as Gasoline	0.5	730	ND		
% Surrogate Rec.		119%	89%		
Instrument #		HP4	HP4		
Date Analyzed		09/11/90	09/10/90		
RLMF		100	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 EPA Method 5030.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

RLMF - Reporting Limit Multiplication Factor.

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

Harth Virigt 9/10/90
Analyst Virigt Date

Chengl Cala 1/18/50 Supervisor Date

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

Anametrix W.O.#: 9009006
Matrix : SOIL
Date Sampled : 08/31/90
Date Extracted : 09/07/90

Client Project# : 109001 Date released : 09/18/90 Instrument I.D. : HP19

ate Sampled : 00/31/90 Instrument 1.D.

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9009006-01	SS-1	09/14/90	10	6400
DSBL090790	METHOD BLANK	09/14/90	10	ND

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

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.

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

Analyst Date

Cheul Balmer 10/5/90 Supervisor Date

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

#### SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009006- 1	SS-1	SOIL	08/31/90	503D
9009006- 1	SS-1	SOIL	08/31/90	503E

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

#### QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Department Supervisor Date

Maria C. Lucrero 9/18/90 Chemist Date

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

Project # : 109001 Anametrix I.D. : 9009006

Matrix : SOIL Analyst : 776 Date sampled: 08/31/90 Date ext. TOG: 09/10/90 Date anl. TOG: 09/10/90 Supervisor : (60)

Date released : 09/18/90

Workorder # Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9009006-01   SS-1	30	20000

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

TOG - Total Oil & Grease is determined by Standard Method 503D.

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

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

Project # : 109001 Anametrix I.D. : 9009006
Matrix : SOIL Analyst : 77.6
Date sampled : 08/31/90 Supervisor : 67.7
Date ext. TOG: 09/10/90 Date released : 09/18/90
Date anl. TOG: 09/10/90

Workorder # Sample I.D.	Reporting Limit (mg/Kg)	Amount   Found   (mg/Kg)
9009006-01   SS-1	30	17000

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

TOG - Total Oil & Grease is determined by Standard Method 503E.

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

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

#### SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009006- 1	SS-1	SOIL	08/31/90	6010

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006 Date Received: 09/04/90 Project ID : 109001 Purchase Order: N/A Department : METALS Sub-Department: METALS

#### QA/QC SUMMARY :

- Spikes for chromium and zinc are outside of control limits due to variable contributions from the sample.

Department Supervisor

09-24-90

The chemist follows of the party of the part

### ANALYSIS DATA SHEET - INDIVIDUAL METALS ANAMETRIX, INC. - (408) 432-8192

Anametrix I.D.: 9009006 Date Prepared: 09/11/90
Matrix: SOIL Date Analyzed: 09/13/90
Date Sampled: 08/31/90 Date Released: 09/17/90
Project Number: 109001 Instrument I.D.: ICP1

	EPA Method#	Reporting Limit	Sample I.D.# SS-1	Sample I.D.# BLANK		
ELEMENTS		(mg/Kg)	-01	MB0911S	 	
Cadmium (Cd) Total Cr Nickel (Ni) Lead (Pb) Zinc (Zn)	6010 6010 6010 6010 6010	0.25 0.5 2.0 2.0	0.25 31.6 24.0 1040 111	ND ND ND ND		

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

All Metals by EPA Method 6010/7000, Test Methods for Evaluating Solid Waste, SW-846 3rd Edition November 1986.

Chemist / Date

Oleg Venchenok 09-17-90
Chemist Date

#### ANAMETRIX, INC. 1961 CONCOURSE DRIVE, SUITE E SAN JOSE, CA 95131, (408) 432-8192

### INDIVIDUAL METALS METHOD SPIKE REPORT

Spike I.D. : 9009006-01MS,MD

Inst. ID: ICP1

Date Prepared: 09/11/90 Date Analyzed: 09/13/90 Assoc. WO # : 9009006

Date : 09/17/90 Matrix : SOIL Units : mg/Kg

ELEMENTS	METHOD	SPIKE AMOUNT	SAMPLE CONC.	M S CONC.	% REC	M S D CONC.	% REC	R P D
Cd	6010	2.5	0.27	2.7	98.6	2.8	101	2.4
TTl Cr	6010	10.0	31.6	39.3	77.0	38.4	68.0	12.4
Ni	6010	25.0	24.0	48.7	98.8	50.9	108	8.5
Pb	6010	25.0	1040	1110	280	1420	1520	138
Zn	6010	25.0	111	143	128	157	184	35.9

COMMENT: Quality control limits for percent recovery are 75-125% and 25% for RPD.

Manyhaugan 9/17/90 Date

Oles Venchent 09-17-90
Chemist Date

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : GC
Sub-Department: VOA

#### SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009006- 1	SS-1	SOIL	08/31/90	8010

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : GC
Sub-Department: VOA

### QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Corumethan 09-19-90
Department Supervisor Date

19. Harslinen 09-19-90 Chemist Date

GC/VOA - PAGE 2

# ORGANIC ANALYSIS DATA SHEET - EPA METHOD 601/8010 ANAMETRIX, INC. (408) 432-8192

Sample I.D. : 109001 SS-1 Anametrix I.D. : 9009006-01

Matrix : SOIL Analyst : The Date sampled: 08/31/90 Supervisor : CP

Date analyzed: 09/13/90 Date released: 09/18/90

Dilution : 2000 Instrument ID : HP15

CAS #	Compound Name	Reporting Limit (ug/Kg)	Amount Found (ug/Kg)
74-87-3 74-83-9 75-71-8 75-01-4 75-00-3 75-09-2 79-69-4 75-35-4 75-34-3 156-59-2 156-60-5 67-66-3 76-13-1 107-06-2 71-55-6 56-23-5 75-27-4 78-87-5 10061-02-6 124-48-1 79-00-5 100-75-8 75-25-2 127-18-4 79-34-5 108-90-7 541-73-1 95-50-1 106-46-7	* Chloromethane  * Bromomethane  * Dichlorodifluoromethane  * Vinyl Chloride  * Chloroethane  * Methylene Chloride  * Trichlorofluoromethane  * 1,1-Dichloroethene  * 1,1-Dichloroethene  * Trans-1,2-Dichloroethene  * Chloroform  # Trichlorotrifluoroethane  * 1,2-Dichloroethane  * 1,1,1-Trichloroethane  * Carbon Tetrachloride  * Bromodichloromethane  * 1,2-Dichloropropane  * Trans-1,3-Dichloropropene  * Trichloroethene  * Dibromochloromethane  * 1,1,2-Trichloroethane  * 1,1,2-Trichloroethane  * 1,1,2-Trichloropropene  * 2-Chloroethylvinylether  * Bromoform  * Tetrachloroethene  * 1,1,2,2-Tetrachloroethane  * 1,1,2,2-Tetrachloroethane  * Chlorobenzene  * 1,3-Dichlorobenzene  * 1,3-Dichlorobenzene  * 1,4-Dichlorobenzene  * 1,4-Dichlorobenzene	2000 1000 2000 1000 1000 1000 1000 1000	ND N
ł	% Surrogate Recovery	33-134%	121%

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

# A compound added by Anametrix, Inc.

<sup>\*</sup> A 601/8010 approved compound (Federal Register, 10/26/84).

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : GC
Sub-Department: TPH

### SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009006- 1	ss-1	SOIL	08/31/90	TPHd
9009006- 1	SS-1	SOIL	08/31/90	TPHg/BTEX

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : GC
Sub-Department: TPH

### QA/QC SUMMARY :

- No QA/QC problems encountered for workorder.

Department Supervisor Date

Starth Vot 9/18/90
Chemist Date

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

Project Number: 109001 Anametrix W.O.#: 9009006 Date Released: 09/18/90 Matrix : SOIL

Date Sampled: 08/31/90

	Reporting Limit	Sample I.D.# SS1			
COMPOUNDS	(mg/Kg)	-01	BLANK	 	
Benzene Toluene Ethylbenzene Total Xylenes TPH as Gasoline	0.005 0.005 0.005 0.005 0.5	0.70 16 6.6 39 730	ND ND ND ND		
<pre>% Surrogate Rec. Instrument # Date Analyzed RLMF</pre>		119% HP4 09/11/90 100	89% HP4 09/10/90 1		

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

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

4 Voiet 4/10/90

Claring Condition 7/18/515

TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID

using EPA Method 5030.

BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

RLMF - Reporting Limit Multiplication Factor.

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

Anametrix W.O.#: 9009006 Matrix : SOIL
Date Sampled : 08/31/90 Date Extracted: 09/07/90

Client Project# : 109001 Date released : 09/18/90 Instrument I.D. : HP19

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9009006-01	SS-1	09/14/90	6400	ND
DSBL090790	METHOD BLANK	09/14/90	10	ND

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

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following either EPA Method 3510 or 3550.

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

7 med 9/18/90

Supervisor Date

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

#### SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009006- 1	SS-1	SOIL	08/31/90	503D
9009006- 1	SS-1	SOIL	08/31/90	503E

MR. TOM EDWARDS
TMC ENVIRONMENTAL
13908 SAN PABLO AVE
SAN PABLO, CA 94806

Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : PREP
Sub-Department: PREP

#### QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Department Supervisor Date

Marin C. Lucrero 9/18/90 Chemist Date

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

Project # : 109001 Anametrix I.D. : 9009006
Matrix : SOIL Analyst : 77 6
Date sampled : 08/31/90 Supervisor : 67
Date ext. TOG: 09/10/90 Date released : 09/18/90
Date anl. TOG: 09/10/90

Workorder # Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9009006-01   SS-1	30	17000

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

TOG - Total Oil & Grease is determined by Standard Method 503E.

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

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

Project # : 109001 Matrix : SOIL Matrix

Date sampled : 08/31/90

Date ext. TOG: 09/10/90 Date anl. TOG: 09/10/90

Anametrix I.D. : 9009006

Analyst : 776
Supervisor : 66

: (RP)

Date released: 09/18/90

Workorder # Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9009006-01   SS-1	30	20000

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

TOG - Total Oil & Grease is determined by Standard Method 503D.

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

MR. TOM EDWARDS TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

#### SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009006- 1	SS-1	SOIL	08/31/90	6010

MR. TOM EDWARDS
TMC ENVIRONMENTAL
13908 SAN PABLO AVE
SAN PABLO, CA 94806

Workorder # : 9009006
Date Received : 09/04/90
Project ID : 109001
Purchase Order: N/A
Department : METALS
Sub-Department: METALS

#### QA/QC SUMMARY :

- Spikes for chromium and zinc are outside of control limits due to variable contributions from the sample.

Department Supervisor

Date

many house 9/17/90
Chemist Date

### ANALYSIS DATA SHEET - INDIVIDUAL METALS ANAMETRIX, INC. - (408) 432-8192

	EPA Method#	Reporting Limit	Sample I.D.# SS-1	Sample I.D.# BLANK	 	
ELEMENTS		(mg/Kg)	-01	MB0911S	 	
Cadmium (Cd) Total Cr Nickel (Ni) Lead (Pb) Zinc (Zn)	6010 6010 6010 6010 6010	0.25 0.5 2.0 2.0	0.25 31.6 24.0 1040 111	ND ND ND ND ND		

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

All Metals by EPA Method 6010/7000, Test Methods for Evaluating Solid Waste, SW-846 3rd Edition November 1986.

Manufayyen 9/17/90 Chemist / Date Oleg Penchensk 09-17-90 Chemist Date

### ANAMETRIX, INC. 1961 CONCOURSE DRIVE, SUITE E SAN JOSE, CA 95131, (408) 432-8192

### INDIVIDUAL METALS METHOD SPIKE REPORT

Spike I.D. : 9009006-01MS,MD Date Prepared: 09/11/90 Date Analyzed: 09/13/90 Assoc. WO # : 9009006

Inst. ID: ICP1

Date : 09/17/90
Matrix : SOIL
Units : mg/Kg

ELEMENTS	METHOD	SPIKE AMOUNT	SAMPLE CONC.	M S CONC.	% REC	M S D CONC.	* REC	R P D
Cd	6010	2.5	0.27	2.7	98.6	2.8	101	2.4
TTl Cr	6010	10.0	31.6	39.3	77.0	38.4	68.0	12.4
Ni	6010	25.0	24.0	48.7	98.8	50.9	108	8.5
Pb	6010	25.0	1040	1110	280	1420	1520	138
Zn	6010	25.0	111	143	128	157	184	35.9

COMMENT: Quality control limits for percent recovery are 75-125% and 25% for RPD.

Manyhouyan 9/17/90 Chemist/ Water Date

s Venchurk 09-17-90 emist Date

PROJECT NO.	SAMPLE	RS (Signatu		09	1066	CHAIN OF C		1	ALYS:	rs		Just	2	المرا المراد	REMARK		)    -
PROJECT NAME AT	ID ADDRESS:	· C/102		210	cl 11/1	etore	<del></del>		QUEST	red /	را ترار		1911	26.39.	J. J.	P	
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Environ related & Abarytical Chemistry 19-1 Con Joursal Error, State El San Jose CA 96/31 (46.E) 432-3140 • Fax (408) 432-6498



MR. MARK YOUNGKIN TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9010181
Date Received : 10/12/90
Project ID : CAVINAUGH

Purchase Order: N/A

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

ANAMETRIX ID	CLIENT SAMPLE ID
9010181- 1	B1, 7-7.5
9010181- 2	B3, 8-8.5
9010181- 3	B4, 8-8.5
9010181- 4	B5, 8-8.5

This report is paginated for your convenience and ease of review. It contains 6 pages excluding the cover letter. The report is organized into sections. Each section contains all analytical results and quality assurance data related to a specific group or section within Anametrix. The Report Summary that precedes each section will help you determine which group at Anametrix generated the data. The Report Summary will contain the signatures of the department supervisor and a chemist, both of whom reviewed the analytical data. Please refer all questions to the department supervisor that signed the form.

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.

Burt Sutherland

Laboratory Director

MR. MARK YOUNGKIN TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9010181
Date Received : 10/12/90
Project ID : CAVINAUGH
Purchase Order: N/A

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

#### SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9010181- 1	B1, 7-7.5	SOIL	10/10/90	TPHd
9010181- 2	B3, 8-8.5	SOIL	10/10/90	TPHd
9010181- 3	B4, 8-8.5	SOIL	10/10/90	TPHd
9010181- 4	B5, 8-8.5	SOIL	10/10/90	TPHd

MR. MARK YOUNGKIN TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9010181
Date Received : 10/12/90
Project ID : CAVINAUGH

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

#### QA/QC SUMMARY :

1) Concentration reported as TPHd for sample B4, 8-8.5 appears to be due to a heavier petroleum product, possibly motor oil.
2) Samples were extracted past the fourteen day hold time for TPHd.

Department Supervisor Date

Ikene Juries 10-31-90
Chemist Date

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

Anametrix W.O.: 9010181 Project Number : CAVINAUGH Date released : 10/30/90 Instrument I.D.: HP9 Matrix : SOIL
Date Sampled : 10/10/90
Date Extracted: 10/25/90

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9010181-01	B1, 7-7.5	10/26/90	10	ND
9010181-02	B3, 8-8.5	10/26/90	10	ND
9010181-03	B4, 8-8.5	10/26/90	10	680
9010181-04	B5, 8-8.5	10/26/90	10	ИD
DSBL102590	METHOD BLANK	10/26/90	10	ND
		• •		

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

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

Jacux Justike 10-31-90
Analyst Date Cherry Baran 10/32/90
Supervisor Date

TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3510.

MR. MARK YOUNGKIN TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9010181
Date Received : 10/12/90
Project ID : CAVINAUGH
Purchase Order: N/A
Department : PREP

Sub-Department: PREP

#### SAMPLE INFORMATION:

	ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
	9010181 1	B1, 7-7.5	SOIL	10/10/90	5520EF
	9010181- 2	B3, 8-8.5	SOIL	10/10/90	5520EF
ĺ	9010181- 3	B4, 8-8.5	SOIL	10/10/90	5520EF
	9010181- 4	B5, 8-8.5	SOIL	10/10/90	5520EF

MR. MARK YOUNGKIN TMC ENVIRONMENTAL 13908 SAN PABLO AVE SAN PABLO, CA 94806 Workorder # : 9010181
Date Received : 10/12/90
Project ID : CAVINAUGH

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

### QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Department Supervisor Date

Chemist

10|31|70 Date

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

Anametrix I.D. : 9010181 : PD

Project # : CAVINAUGH
Matrix : SOIL
Date sampled : 10/10/90
Date ext. TOG: 10/26/90
Date anl. TOG: 10/26/90 Analyst (A) Supervisor Date released : 10/30/90

Workorder # Sample I.D.	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9010181-01	30 30 30 30 30 30	ND ND 710 ND ND

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.

17.10	ENVTRO				13908 San Pa	ablo Avenue S		lo,						(415)	232-8366	(2)
OJECT NO.	SAMPLE	RS (Signatu		<del></del>	uk Young				LYS	IS	250	ا مراجي				· .
OJECT NAME AT	DJECT NAHE AND ADDRESS: CAUNAUGH						KE(	QUES'	red /		لمصولا	ررر	أمرار	para para		
		ALA	M E	DA_	, <u>CA</u>				مر	NO NO	12 J	أممر	,	or or or	part.	
CROSS EFERENCE HUMBER	DATE	TIME	SOIL	WATER	STATION LO	CATION		10		J. J.	)	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	or or	REMARKS	
0/	10/10/20	12145p	X		B1, 7.	- ጉ½ '		$\leq$	$\geq$	]						
	10/10/20				BZ, No	, Sample		U	0	10						
02	19/10/90	2130p	$\times$			-8/21		$\leq$	$\geq$	 						
03	10/10/90	1:20p	X		B4, 8	-812'		$\leq$	$\geq$							
04	191490	2:45p	X		B5, 8	-8.21		$\leq$	$\geq$							
	10/19/90				B6, No	Sample	\	/ (	) [	D						
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ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY
DEPARTMENT OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS DIVISION
80 SWAN WAY, ROOM 200
OAKLAND, CA 94621
PHONE NO. 415/271-4320

### UNDERGROUND TANK CLOSURE/MODIFICATION PLANS

)

ı.	Business NameCavanaugh Motors
	Business Owner Dave and Lee cavanaugh
2.	Site Address1700 park street
	City Alameda Zip 94501 Phone 415-523-5246
3.	Mailing Address Same as Above
	City Zip Phone
4.	Land Owner Dave and Lee Cavanaugh
	Address Same as Above City, State Zip
5.	EPA I.D. No.
6.	Contractor Gene L. Failing
	Address 3924 Middletown Ct.
	City Campbeel, California 95008 Phone 408-246-4217
	License Type "A", Hazmat ID# A-488826
7.	ConsultantTMC Environmental, Inc.
	Address 13908 san pablo Ave.,
	City San pablo, California Phone 415-232-8366

8.	Contact Person for Investigation	on .
	Name Tom Edwards	Title President
	Phone 415-232-8366	
9.	Total No. of Tanks at facility	1
10.	Have permit applications for al office? Yes [x]	l tanks been submitted to this No [ ]
11.	State Registered Hazardous Wast	e Transporters/Facilities
	a) Product/Waste Tranporter	
	NameErickson, Inc.	EPA I.D. No. CAD 009 466 392
	Address 255 parr Blvd.	
	City Richmond	State <u>CA</u> Zip <u>94801</u>
	b) Rinsate Transporter	
	Name Same	EPA I.D. No.
	Address	
	City	State Zip
	c) Tank Transporter	
	Name Same	EPA I.D. No.
	Address	
		State Zip
	d) Tank Disposal Site	
	Name Same	EPA I.D. No
		•
		State Zip
	e) Contaminated Soil Transporte	
	<del>-</del>	EPA I.D. No
	City	

12.	. Sample	Collector	•	
	Name	Chris Nielson-Ce	rquone	
	Compa	anyTMC Environmenta	l, Inc.	
		ess 13908 San pablo A	Ve.	
	city	San pablo Sta	•	
13.		ng Information for each		
<del></del>	r	ank or Area	Material	Location
Cap	pacity	Historic Contents (past 5 years)	sampled	& Depth
	300 g.	Waste Oil	Soil	Center, 1.5'beebw tank
			,•	
14.	Have ta	nks or pipes leaked in	the past? Yes [	1 No ( vi
		describe.		
	11 1 -07			**************************************
15.	NFPA me	thods used for renderin	g tank inert? Ye	s [X] No [^]
	If yes,	describe. Minimum 20	lbs. dry ice per	1,000 gallon tank 4
	hours p	rior to removal. Verif	y less than 10% L	EL and oxygen prior to
	An expl	and transport. LEL an		
		ertness.		
16.	Laborat	ories		
	Name	Anametrix, Inc.		
	Address	1961 concourse Dr.,	Suite E	
	city	San jose	State <u>CA</u>	Zip 95131
	State Co	ertification No. 151		

### 17. Chemical Methods to be used for Analyzing Samples

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Number
TPH as gas		GCFID (5030)
TPH as diesel	`	py tş
BTEX	·	EPA 8020
Halo. org.		EPA 8010
Oil & Grease		EPA 50% D
	, ·	
	,	

- 18. Submit Site Safety Plan
- 19. Workman's Compensation: Yes [x] No []

  Copy of Certificate enclosed? Yes [x] No []

  Name of Insurer American States Insurance
- 20. Plot Plan submitted? Yes [ X No [ ]
- 21. Deposit enclosed? Yes [ x] No [ ]
- 22. Please forward to this office the following information within 60 days after receipt of sample results.
  - a) Chain of Custody Sheets
  - b) Original Signed Laboratory Reports
  - c) TSD to Generator copies of wastes shipped and received
  - d) Attachment A summarizing laboratory results

I declare that to the best of my knowledge and belief the statements and information provided above are correct and true. I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved.

I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained.

I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Saftey and Health Administration) requirements concerning personnel and safety.

I will notify the Department of Environmental Health at least two (2) working days (48 hours) after approval of this closure plan in advance to schedule any required inspections. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda.

Signature of Contractor

Printed/Typed Name	Signature	
at a me to the discount		
17. Transporter 1 Acknowledgement of Receipt of Materials		
Printed/Typed Name	Signature	Month Day Year
18. Transporter 2 Acknowledgement of Receipt of Materials	<u> </u>	
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.

Signature Printed/Typed Name

Do Not Write Below This Line

A C I

Day

Year

CIT: OF ALAMEDA CENTRAL PERMITS OFFICE 2263 Santa Clara Ave. . Room 204 Alameda, CA 94501 748-4530

Permit No: P90-6242 Status: FINAL

> Page 1 of 1 12/04/90 15:40

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Applied : 08:22:90 100/22/90 Fari and

: 08/31/90 To Expire : 12/20/90

Valuation

Spharuse

CHECKIC TOPE - FLUMBING PERKIT

JOS ADDRESS : 1700 PARK ST

Farcel number : 070 -0192-021-01

: CAVANAUGH LEE R & LEOLA & DAVI UWNET

1547 GIBBONS DR

ALAMEDA CA 94501

HOURS OF CONSTRUCTION

Group-Occ/Use :

Class code : 088

MONDAY - FRIDAY 7 A.H. TO 7 P.M. SATURDAY & SUNDAY 8 A.M. TO 5 P.M.

Application · TEME L. PARLING

CONTRACTOR MEDICAL MANAGEMENT CONTRACTOR MEDICAL MANAGEMENT CONTRACTOR MANAGEMENT CONTRA

ATO BELLO TA DEGLES

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Construction · OTH

Project Title : STORAGE TANK REMOVAL Project Desc. : STORAGE TANK REMOVAL

Fee description	Units	Fee/Unit `	Ext fee	Data
Storage Tanks	1.00	20.00	er den senden som over vill framsom som som som so 2000 graft	- 1944 1944 4944 4844
Fixture Fee			230,420	
Filing Fee			50.447	
S.M.I.P Fee -			.54	
Assembly Bill 941	. •		5.00	•
Micro-fiche Fee	10.00		10.00	,
*** Fees Required *** ***	Fees Co	llected & o	Credits	* * *

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į.		Receipt 1123	No,	Date 08/22/90	. Þá	yment 41.50	
Fees: .	41.50						
Adjustments:	,00		Tota	l Credits:		, đớ	
Total Fees:	41.50	t	rotal	Payments:		41.50	
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		Adjustments:) ,00	Fees: 41.50 Adjustments: ,00	Fees: 41.50 Adjustments: ,00 Total Total Fees: 41.50 Total	Fees: 41.50 Adjustments: ,00 Total Credits:	Fees: 41.50 Adjustments: .00 Total Credits: Total Fees: 41.50 Total Payments:	