



March 10, 1989

PROJECT REPORT

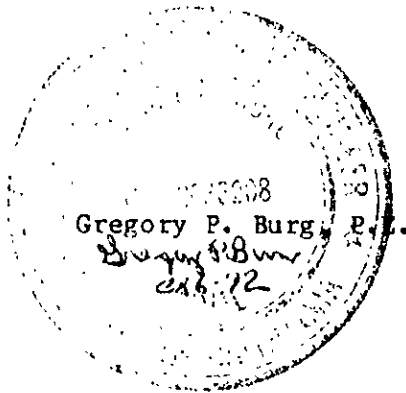
UNDERGROUND STORAGE TANK REMOVAL ASSESSMENT
AT 5293 CROW CANYON ROAD, CASTRO VALLEY, CALIFORNIA

Prepared for:

Dan Dineen
Lakeshore Financial
2100 Lakeshore Avenue
Oakland, Ca. 94606

Submitted by:

Aqua Science Engineers
2500 Old Crow Canyon Rd. # 121
San Ramon, CA 94583



AMIELA COUNTY
DEPT. OF ENVIRONMENTAL HEALTH
HAZARDOUS MATERIALS
AP 6 89

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1. INTRODUCTION

This report documents activities related to removal of the underground storage tanks located at 5293 Crow Canyon Road, Castro Valley, California.

Our scope of work consisted of the following:

1. Collecting soil samples at each end of the tanks to be removed and submit the samples to a state-certified laboratory for analysis of total petroleum hydrocarbons (TPH) and BTX using approved EPA Methods.
2. Submit a report to the client presenting results.

2. INVESTIGATIVE METHODS AND FIELD EXPLORATION

On February 10, 1989, Aqua Science Engineers obtained soil samples from under the storage tanks removed at 5293 Crow Canyon Road, Castro Valley, California. Soil samples were collect by driving a 4-inch by 2-inch brass tube into the soil using a wooden mallet. The samples were secured using aluminum foil, teflon caps, and sealed with duct tape.

The odor of petroleum products was present in the soil after removal of the tanks. Samples were collected at approximately thirteen (13) feet below grade at each end of the gasoline tanks and approximately seven (7) feet below grade for the waste oil tank. Also, four samples were collected from the excavated material.

The native soil was classified as a fractured sandstone and the backfill material as sand.

No groundwater was encountered during the excavation.

The samples were refrigerated and shipped to Pace Laboratories, Inc. in Novato, Ca. The gasoline samples were prepared and analyzed for TPH (light) and BTXE. The waste oil sample was analyzed for TPH (light & heavy), BTEX, and oil & grease.

The tanks were hauled as hazardous waste under manifest to Erickson, Inc. in Richmond for disposal. A copy of the manifest forms are in Appendix A.

3. DISCUSSION AND CONCLUSIONS

The results of laboratory analysis show contamination is present around the tank pit. TPH (Total Petroleum Hydrocarbons) concentrations at the end of the pit are 980 ppm as gasoline. A copy of the certified laboratory results is included as Appendix B.

An investigation into the vertical and lateral extent of contamination will be required. A workplan will need to be developed to define how the contaminated soil will be remediated; this plan must be submitted to Alameda County Health Hazardous Materials Division (Larry Seto) for approval.

Four samples were collected from the excavated material and a composite analysis completed to determine levels of contamination. This shows that high concentrations of oil & grease are present and that levels of gasoline are low. Additional samples should be collected and analyzed to develop the work plan for remediation, which is outside the scope of this report.

The results of this investigation represent conditions at the time and location at which samples were collected and for the parameters analyzed in the laboratory. It does not fully characterize the site for contamination resulting from other sources or parameters not analyzed.

TABLE 1 - SOIL SAMPLE ANALYSIS - TANK REMOVAL

Sample ID Chemical Compound	TA-1 (ppm)	TA-2 (ppm)	TB-1 (ppm)	TB-2 (ppm)	TC-1 (ppm)	TC-2 (ppm)	TD-1 (ppm)
TPH (light)	980.0	210.0	78.0	75.0	ND	19.0	ND
TPH (diesel)	NA	NA	NA	NA	NA	NA	ND
Benzene	4.0	<0.08	0.05	<0.04	ND	0.013	0.007
Ethylbenzene	17.0	0.34	0.29	0.13	0.015	0.022	0.005
Toluene	35.0	0.29	0.26	0.12	0.010	0.035	0.017
Xylenes	75.0	0.27	0.64	0.19	0.062	0.310	0.020
Oil & Grease	NA	NA	NA	NA	NA	NA	35.0

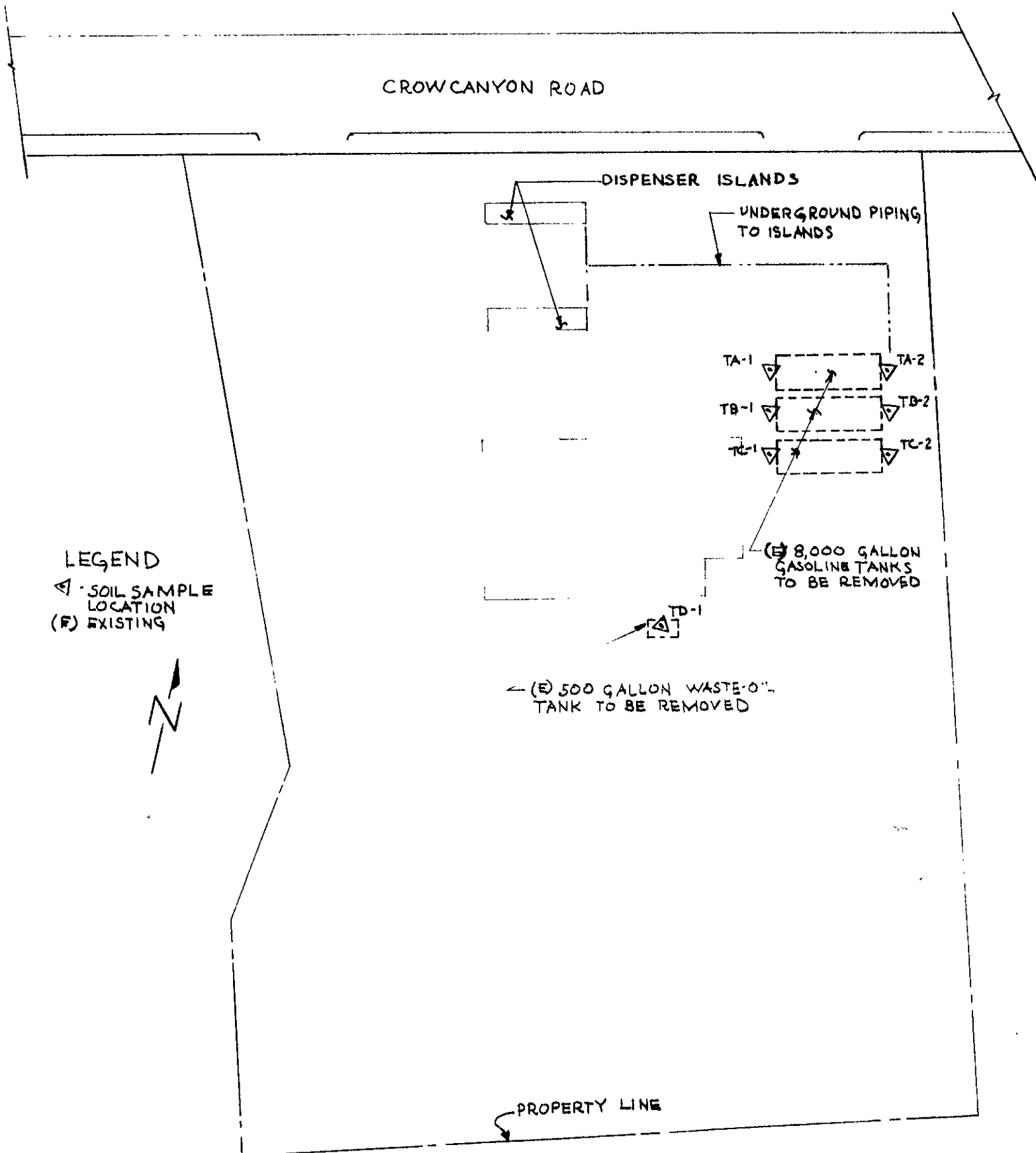
NA - Not Applicable

ND - Not Detected

TABLE 2 - SOIL SAMPLE ANALYSIS - STOCKPILE

Sample ID Chemical Analysis	Composite S1 to S4 (ppm)
TPH (light)	84.0
Oil & Grease	775.0

4. Site Plan at 5293 Crow Canyon Road, Castro Valley



**APPENDIX A
HAZARDOUS WASTE MANIFEST FORM**

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of 1

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

CA1900137015

87005572

3. Generator's Name and Mailing Address

LAKE SHORE FINANCIAL 512 5293 2100 LAKE SHORE AV OAK - CALIF

4. Generator's Phone (415) 444-6658

5. Transporter 1 Company Name

ROGERS TR. & EQUIP

6. US EPA ID Number

KAD1048624910

7. Transporter 2 Company Name

6. US EPA ID Number

9. Designated Facility Name and Site Address

255 PARK BLVD RICHMOND CA

ERICKSON INC.

10. US EPA ID Number

KAD109466392

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

WASTE EMPTY STORAGE TANKS CAL. REGULATED WASTE ONLY

12. Containers No. Type

0102 TP2000P

13. Total Quantity

14. Unit Wt/Vol

1. Waste No.

State 512

EPA/Other NONE

14. Additional Descriptions for Materials Listed Above

EMPTY GASOLINE TANK # 1532
EMPTY GASOLINE TANK # 1533

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Gloves & SAFETY GLASSES

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

MARTIN W. CLARK

Signature

[Signature]

Month Day Year

12/1/89

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

TOM HOMER

Signature

[Signature]

Month Day Year

12/21/89

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name

Signature

Month Day Year

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

GENERATOR

TRANSPORTER

FACILITY

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

CAC000137005

Manifest Document No.

2. Page 1 of

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

3. Generator's Name and Mailing Address

LAKE SHORE FINANCIAL
2100 LAKE SHORE AVE OAK

SITE
CATTRO VALLEY

87005569

4. Generator's Phone (415) 444-6658

5193 CRAW CANYON RD

5. Transporter 1 Company Name

ROGERS TR. & EQUIPMENT

6. US EPA ID Number

CAD048624910

7. Transporter 2 Company Name

8. US EPA ID Number

9. Designated Facility Name and Site Address

ERICKSON INK
255 PARR BLVD
RICHMOND

10. US EPA ID Number

CAD0109466392 415-235-1393

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

a. WASTE EMPTY STORAGE TANKS
CAL. REGULATED WASTE ONLY

12. Containers No. Type

002 T/P 10550 P

13. Total Quantity

14. Unit

15. Waste No.

State 12
EPA/Other NONE

16. Additional Descriptions for Materials Listed Above

1 EMPTY GASOLINE TANK # 1534
2 EMPTY OIL TANK # 1535

17. Handling Codes for Wastes Listed Above

18. Special Handling Instructions and Additional Information

Gloves & SAFETY GLASSES

19. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name

MARTIN W. CLARK

Signature

Martin W. Clark

Month Day Year

1 21 1989

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name

JOHN H ALLEN

Signature

John H Allen

Month Day Year

1 21 1989

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name

Signature

Month Day Year

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7650

GENERATOR

TRANSPORTER

FACILITY

APPENDIX B
LABORATORY ANALYSIS AND CHAIN-OF-CUSTODY FORM

490213.506

C00280

* P.O. Box 535, San Ramon, CA 94583-0535



(415) 820-9391

Project Name: LAKE SHORE FINANCIAL Site: 5223 CROW CANYON RD Date: FEB 10, 1989 Laboratory: PACE

Sample ID	Sample/Container Type	Analyze/ Hold	Analyze For:	Method - Detection Limit	Notes/Remarks
TA1	S/BT	A	TPH LIGHT, BTEX		10 day turnaround
TA2					
TB1					
TB2					
TC1					
TC2					
TD1 WASTE OIL	B	A	TPH LIGHT, BTEX TPH HEAVY OIL & GREASE		10 day turnaround
SI-1		A/H			
SI-2					
SI-3			TPH LIGHT OIL & GREASE		24hr turnaround TPH 10 day turnaround OIL & GREASE COLLATE FOR ONE ANALYSIS ON SI-1 thru SI-4
SI-4	S/BT	A/H			

S = Soil W = Water O = Other
G = Glass BT = Brass Tube P = Plastic V = Vial O = Other

Chain of Custody

1. Sampled by: Gregory R. Burg
 2. Courier: _____
 3. Received by Lab: E. Haran
 Date: 2/13/89 Time: 2:35pm
 4. Received in Office: Date: _____

- = Collate all samples for single analysis.
- = Collate and analyze two top samples and if clean, do not analyze other sample.
- = Call ASE for instructions.
- = See attached protocol.

AquaScience Engineers, Inc.
2500 Old Crow Canyon Rd.
Suite 121
San Ramon, CA 94583

March 02, 1989
PACE Project Number: 490213.506

Attn: Mr. Terry Carter

Re: Lakeshore Financial

Date Sample(s) Collected: 02/10/89
Date Sample(s) Received: 02/13/89

PACE Sample Number:
Parameter

<u>Units</u>	<u>MDL</u>	70659 <u>TA-1</u>	70660 <u>TA-2</u>	70661 <u>TB-1</u>
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ORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Petroleum Fuels, Purgeable, as Gasoline mg/kg
(EPA Method 8015, Modified)

3.0 980 210 78

PURGEABLE AROMATIC COMPOUNDS, EPA 8020

Benzene	mg/kg	0.004	4.0	LT 0.08	0.05
Ethylbenzene	mg/kg	0.004	17	0.34	0.29
Toluene	mg/kg	0.004	35	0.29	0.26
Xylenes, Total	mg/kg	0.004	75	0.27	0.64

MDL Method Detection Limit, Estimated Value.

LT Compound not detected at or below LT value, dilution required.

RECEIVED

MAR 08 1989

AQUA SCIENCE ENG.

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March 02, 1989
PACE Project Number: 490213.506

PACE Sample Number:
Parameter

<u>Units</u>	<u>MDL</u>	<u>70662 TB-2</u>	<u>70663 TC-1</u>	<u>70664 TC-2</u>
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ORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Petroleum Fuels, Purgeable, as Gasoline (EPA Method 8015, Modified)	mg/kg	3.0	75	ND	19
PURGEABLE AROMATIC COMPOUNDS, EPA 8020					
Benzene	mg/kg	0.004	LT 0.04	ND	0.013
Ethylbenzene	mg/kg	0.004	0.13	0.015	0.022
Toluene	mg/kg	0.004	0.12	0.010	0.035
Xylenes, Total	mg/kg	0.004	0.19	0.062	0.31

MDL Method Detection Limit, Estimated Value.
ND Not detected at or above the MDL.
LT Compound not detected at or below LT value, dilution required.

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March 02, 1989
PACE Project Number: 490213.506

PACE Sample Number:

70665

TD-1

Parameter

Units

MDL

Waste Oil

ORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Petroleum Fuels, Purgeable, as Gasoline (EPA Method 8015, Modified)	mg/kg	3.0	ND
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PURGEABLE AROMATIC COMPOUNDS, EPA 8020

Benzene	mg/kg	0.004	0.007
Ethylbenzene	mg/kg	0.004	0.005
Toluene	mg/kg	0.004	0.017
Xylenes, Total	mg/kg	0.004	0.020

EXTRACTABLE FUELS

Extractable Fuels, as Diesel Soxhlet Extraction Date Started	mg/kg	10	ND 02-15-89
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TOTAL OIL AND GREASE (GRAV. EPA 9071)

Total Oil and Grease (Freon Extractable) Date Extracted	mg/kg wet	10	35 2-14-89
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MDL Method Detection Limit, Estimated Value.
ND Not detected at or above the MDL.

Offices:
Minneapolis, Minnesota
Tampa, Florida
Coralville, Iowa
Novato, California

REPORT OF LABORATORY ANALYSIS

laboratories, inc
FORMERLY WESCO LABORATORIES



Mr. Terry Carter
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March 02, 1989
PACE Project Number: 490213.506

PACE Sample Number:

70670
COMPOSITE
S1-1 to
S1-4

Parameter

Units

MDL

ORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

Petroleum Fuels, Purgeable, as Gasoline mg/kg 3.0 84
(EPA Method 8015, Modified)


TOTAL OIL AND GREASE (GRAV. EPA 9071)
Total Oil and Grease (Freon Extractable) mg/kg wet 10 775
Date Extracted 2-14-89

MDL Method Detection Limit, Estimated Value.

Approval:



Wasfi Y. Attalla, Ph.D
Project Manager for
PACE Laboratories



Douglas E. Oram, Ph.D
Technical Reviewer for
PACE Laboratories