

September 06, 1990

Mr. Jeffrey Peters
Questa Engineering
P.O. Box 356
Point Richmond, CA 94807

RE: PACE Project No. 400904.502
90178

Dear Mr. Peters:

Enclosed is the report of laboratory analyses for samples received September 04, 1990.

If you have any questions concerning this report, please feel free to contact us.

Sincerely,

Carol Pasthema
Lisa J. Petersen *for*
Project Manager

Enclosures

Questa Engineering
 P.O. Box 356
 Point Richmond, CA 94807

September 06, 1990
 PACE Project
 Number: 400904502

Attn: Mr. Jeffrey Peters
 90178

PACE Sample Number:		70 0802628	70 0802644
Date Collected:		09/04/90	09/04/90
Date Received:		09/04/90	09/04/90
Parameter	<u>Units</u>	<u>MDL</u>	<u>AI of 2</u> <u>B1 of 2</u>

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	-	510
---	------	----	---	-----

PURGEABLE AROMATICS (BTXE BY EPA 8020):

Benzene	ug/L	0.5	56	0.9
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Ethylbenzene	ug/L	0.5	180	ND
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Toluene	ug/L	0.5	74	ND
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Xylenes, Total	ug/L	0.5	1900	38
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MDL Method Detection Limit
 ND Not detected at or above the MDL.

Mr. Jeffrey Peters
 Page 2

September 06, 1990
 PACE Project
 Number: 400904502

90178

PACE Sample Number:		70 0802580	70 0802598	70 0802601
Date Collected:		09/04/90	09/04/90	09/04/90
Date Received:		09/04/90	09/04/90	09/04/90
Parameter	<u>Units</u>	<u>MDL</u>	<u>A1 of 2</u>	<u>A2 of 2</u>
			<u>B1 of 2</u>	

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015)	mg/kg wet	1.0	ND	-	55	380
PURGEABLE AROMATICS (BTXE BY EPA 8020):				-		
Benzene	mg/kg wet	0.005	ND		0.62	0.87
Ethylbenzene	mg/kg wet	0.005	ND		0.91	2.4
Toluene	mg/kg wet	0.005	ND		0.064	0.91
Xylenes, Total	mg/kg wet	0.005	ND		0.48	33

MDL Method Detection Limit
 ND Not detected at or above the MDL.

Mr. Jeffrey Peters
 Page 3

September 06, 1990
 PACE Project
 Number: 400904502

90178

PACE Sample Number: 70 0802610 70 0802679 70 0802695
 Date Collected: 09/04/90 09/04/90 09/04/90
 Date Received: 09/04/90 09/04/90 09/04/90

Parameter Units MDL B2 of 2 Part 1 Part 2
 Composite Composite

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

Parameter	Units	MDL	B2 of 2	Part 1 Composite	Part 2 Composite
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	-	-
Purgeable Fuels, as Gasoline (EPA 8015)	mg/kg wet	1.0	ND	ND	1500
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	-	-
Benzene	mg/kg wet	0.005	ND	ND	1.1
Ethylbenzene	mg/kg wet	0.005	ND	ND	15
Toluene	mg/kg wet	0.005	ND	ND	2.8
Xylenes, Total	mg/kg wet	0.005	ND	ND	120

MDL Method Detection Limit
 ND Not detected at or above the MDL.

The data contained in this report were obtained using EPA or other approved methodologies. All analyses were performed by me or under my supervision.

Ruth Siegmund

Ruth J. Siegmund
 Organic Chemistry Manager

CHAIN-OF-CUSTODY RECORD
Analytical Request

Client QUESTA ENGINEERING

Report To: JEFF PETERS - QUESTA

Pace Client No. _____

Address _____

Bill To: QUESTA

Pace Project Manager _____

Phone 236-6114

P.O. # / Billing Reference _____

Pace Project No. 409104502

Project Name / No. 90178

*Requested Due Date 29 AC

Sampled By (PRINT):

Sampler Signature JOEL BUTTERWORTH
Date Sampled 9/4/90

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST	REMARKS	
						UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA			
1	PART 1, COMP. 1, 2, 3, 4		soil	80266D	4	X						MAKE COMPOSITE OF PART 1 COMPS. MAKE COMPOSITE OF PART 2 COMPS
2	PART 2, COMP. 1, 2, 3, 4		soil	802687	4	X						
3												
4												
5												
6												
7												
8												

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT / DATE	RETURNED / DATE					
					<u>Joel Peters</u>	<u>Jana Meyer Pace</u>	<u>9/4</u>	<u>1640</u>

Additional Comments _____

Instructions for completing Chain of Custody (COC)

Complete all Client Information at top of sheet: name, address, phone, contact (person to whom report will be sent and contact can be made if questions arise), billing information if different client, PO#, Project Name and/or Project Number as it will appear on the report.

Client No., Project Manager and Project No. will be completed by PACE.

Separate COC must be filled out for each day of sample collection.

Collector should print their name in the space provided and sign their name followed by the date of sampling event.

Complete Sample Description as it will appear on the laboratory report; include time of sampling, sample matrix, no. of containers and container types.

Analyses Requested: Complete analyses on the lines provided and place a check in the column for the samples requiring the analysis. It may be necessary to use the space provided for additional comments or include attachments for extended lists of parameters.

Indicate the method of shipment used for return of samples and date sent.

Transfer of samples to laboratory: Indicate Item Number of those samples being transferred; date relinquished by, and include your affiliation.

IMPORTANT NOTE:

Standard Turnaround Time is 3-4 weeks. If this does not satisfy your requirements, arrangements must be made prior to samples being submitted to the laboratory. Contact your project manager.

Special Project Requirements such as Low Level Detection Limits or level of QC reported are indicated on the chain of custody. (Use Additional Comments Section.)

90 AUG -2 AM 11:11



REPORT OF LABORATORY ANALYSIS

Questa Engineering
 P.O. Box 356
 Point Richmond, CA 94807

September 05, 1990
 PACE Project
 Number: 400904502

ALMCOA

Attn: Mr. Jeffrey Peters
 90178

PACE Sample Number:
 Date Collected:
 Date Received:

WATER		WATER	
70 0802628	70 0802636	70 0802644	
09/04/90	09/04/90	09/04/90	
09/04/90	09/04/90	09/04/90	
	A2 of 2		
	Dup.		
		B1 of 2	

Parameter	Units	MDL	A1 of 2	Dup.	B1 of 2
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS
 no analysis requested

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS
 TOTAL FUEL HYDROCARBONS, (LIGHT):
 Purgeable Fuels, as Gasoline (EPA 8015)
 PURGEABLE AROMATICS (BTXE BY EPA 8020):
 Benzene
 Ethylbenzene
 Toluene
 Xylenes, Total

ug/L	50	13000	-	510
ug/L	0.5	56	-	0.9
ug/L	0.5	180	-	ND
ug/L	0.5	74	-	ND
ug/L	0.5	1900	-	38

MDL Method Detection Limit
 * Analytical results are not available.
 ND Not detected at or above the MDL.



DRAFT



REPORT OF LABORATORY ANALYSIS

Mr. Jeffrey Peters
Page 2

September 05, 1990
PACE Project
Number: 400904502

90178

PACE Sample Number: 70 0802652
Date Collected: 09/04/90
Date Received: 09/04/90
B2 of 2
Dwp.

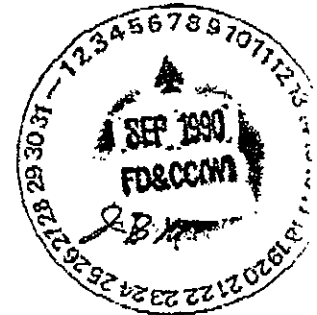
<u>Parameter</u>	<u>Units</u>	<u>MDL</u>
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INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS
no analysis requested

*

MDL
* Method Detection Limit
Analytical results are not available.



DRAFT



REPORT OF LABORATORY ANALYSIS

Mr. Jeffrey Peters
 Page 3

September 05, 1990
 PACE Project
 Number: 400904502

90178

SOIL

PACE Sample Number:		70 0802580	70 0802598	70 0802601	
Date Collected:		09/04/90	09/04/90	09/04/90	
Date Received:		09/04/90	09/04/90	09/04/90	
Parameter	Units	MDL	A1 of 2	A2 of 2	B1 of 2

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS					
TOTAL FUEL HYDROCARBONS, (LIGHT):					
Purgeable Fuels, as Gasoline (EPA 8015)	mg/kg wet	1.0	ND #	65 #	380
PURGEABLE AROMATICS (BTXE BY EPA 8020):					
Benzene	mg/kg wet	0.005	0.008 #	0.72 #	0.87
Ethylbenzene	mg/kg wet	0.005	ND #	1.1 #	2.4
Toluene	mg/kg wet	0.005	ND #	0.068 #	0.91
Xylenes: Total	mg/kg wet	0.005	ND #	0.57 #	33

MDL Method Detection Limit
 # Data subject to final review.
 ND Not detected at or above the MDL.



DRAFT



REPORT OF LABORATORY ANALYSIS

Mr. Jeffrey Peters
 Page 4

September 05, 1990
 PACE Project
 Number: 400904502

90178

PACE Sample Number:
 Date Collected:
 Date Received:

SOIL
 70 0802618 70 0802660 70 0802679
 09/04/90 09/04/90 09/04/90
 09/04/90 09/04/90 09/04/90

Parameter	Units	MDL	B2 of 2	1,2,3,4	Composite
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ORGANIC ANALYSIS

INDIVIDUAL PARAMETERS
 PACE Sample No. of Lab-Generated Compos.

PURGEABLE FUELS AND AROMATICS
 TOTAL FUEL HYDROCARBONS, (LIGHT):
 Purgeable Fuels, as Gasoline (EPA 8015) mg/kg wet 1.0 ND
 PURGEABLE AROMATICS (BTXE BY EPA 8020):
 Benzene mg/kg wet 0.005 ND
 Ethylbenzene mg/kg wet 0.005 ND
 Toluene mg/kg wet 0.005 ND
 Xylenes, Total mg/kg wet 0.005 ND

MDL Method Detection Limit
 * Analytical results are not available.
 ND Not detected at or above the MDL.





REPORT OF LABORATORY ANALYSIS

Mr. Jeffrey Peters
Page 5

September 05, 1990
PACE Project
Number: 400904502

90178

PACE Sample Number:	70 0802687	70 0802695
Date Collected:	09/04/90	09/04/90
Date Received:	09/04/90	09/04/90

	Part 2	Part 2
	1,2,3,4	1,2,3,4
		Composite

<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>1,2,3,4</u>	<u>Composite</u>
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ORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

PACE Sample No. of Lab-Generated Compos.			*	-
PURGEABLE FUELS AND AROMATICS				
TOTAL FUEL HYDROCARBONS, (LIGHT):			-	- #
Purgeable Fuels, as Gasoline (EPA 8015)	mg/kg wet	1.0	-	1500 #
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	- #
Benzene	mg/kg wet	0.005	-	1.1 #
Ethylbenzene	mg/kg wet	0.005	-	15 #
Toluene	mg/kg wet	0.005	-	2.8 #
Xylenes, Total	mg/kg wet	0.005	-	120 #

MDL Method Detection Limit
 * Analytical results are not available.
 # Data subject to final review.

The data contained in this report were obtained using EPA or other approved methodologies. All analyses were performed by me or under my supervision.



DRAFT

Robert P. Chrin
Inorganic Chemistry Manager

Ruth J. Slegmund
Organic Chemistry Manager

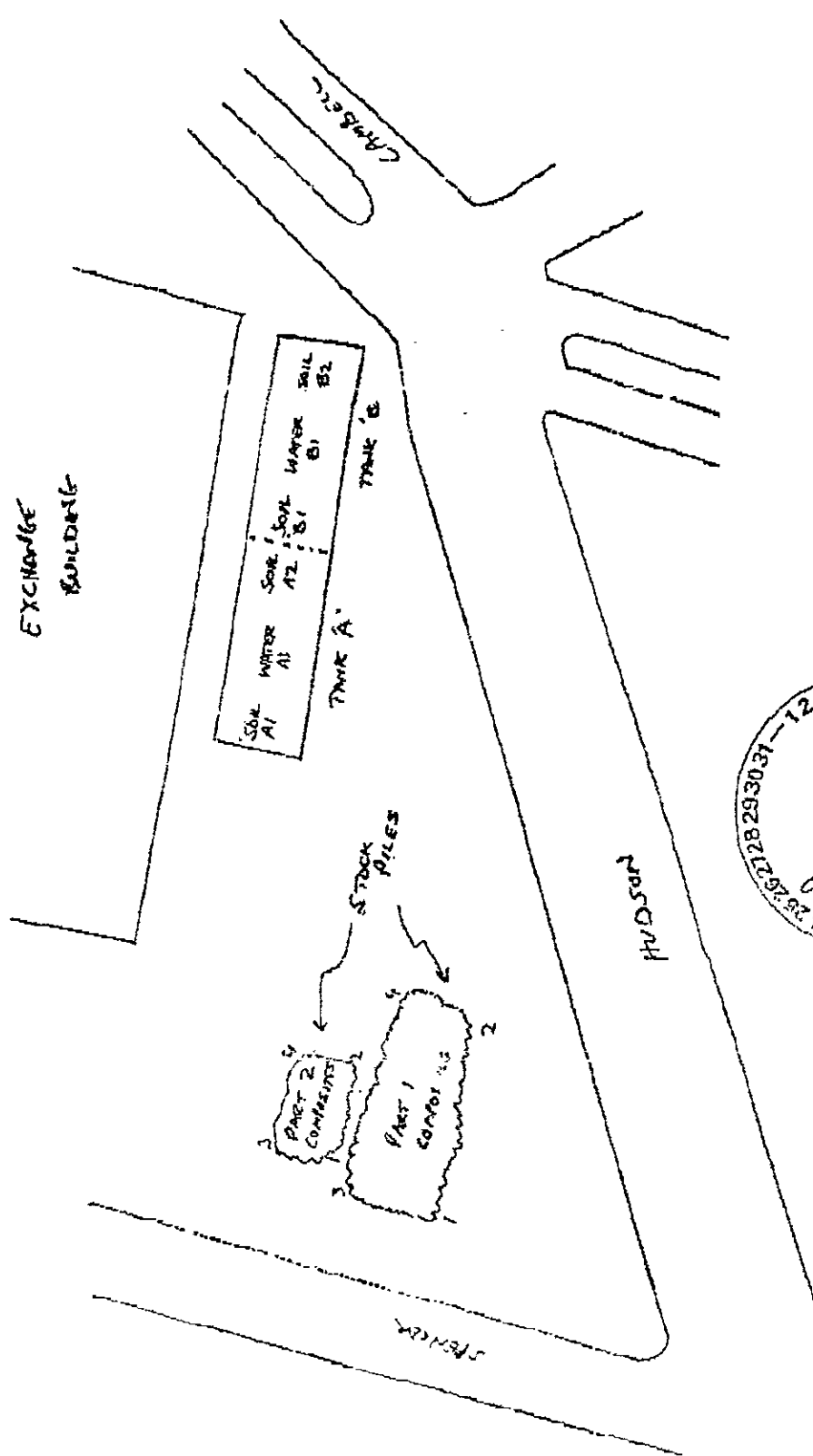
11 Digital Drive
Irvine, CA 92618
TEL: 415-833-8188
FAX: 415-833-2570

Offices Serving: Minneapolis, Minnesota
Tampa, Florida
Iowa City, Iowa
San Francisco, California
Kansas City, Missouri

Los Angeles, California
Charlotte, North Carolina
Asheville, North Carolina
New York, New York
Pittsburgh, Pennsylvania

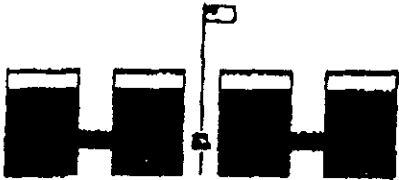
An Equal Opportunity Employer

ALAMEDA ISLAND COAST GUARD STATION
LIFT FUEL AND WATER
Tank Locations - 9/4/90



-C-65101

ALAMEDA
SITE



ENVIRONMENTAL SERVICES
(DIVISION OF H&H SHIP SERVICE CO., INC.)

WASTE CHARACTERIZATION FORM

LAB: (415)543-0906

I. WASTE GENERATOR

US EPA IDN: CA7690390037
Facility: US COAST GUARD SUPPORT CENTER
Address: COAST GUARD ISLAND
City/State: Alameda CA zip: 94501
Contact: TIM MADDEN Telephone: (415) 937 8725

II. DESCRIPTION OF WASTE

1. General Description: FUEL OIL & WATER
2. Process Generating this Waste: TANK CLEANING
3. Is this listed under F, K, P, or U? yes ___ no
4. Quantity: 00800 tons ___ yards ___ gallons
5. Frequency: weekly ___ monthly ___ annually ___ once
other ___
6. Shipment Mode: bulk drums ___ other ___

III. WASTE CLASSIFICATION & SHIPPING DESCRIPTION

1. California Waste Category Number: 241 / 134
2. EPA Waste Code Number: N/A
3. Proper DOT Shipping Name: HAZARDOUS WASTE LIQUID, N.S., O.G.M.E. NA 9189

IV. HAZARD CLASS

Toxic Corrosive ___ Radioactive ___
Reactive ___ Ignitable ___ Etiological ___

V. CHARACTERISTICS OF WASTE

1. Is this a: liquid sludge ___ solid ___
Stratification: none ___ two multi- ___ (layers)
2. Viscosity (Liquids) similar to: water motor oil ___ honey ___
3. Odor: none ___ mild ___ strong describe: FUEL OIL
Specific Gravity (range): 0.9-1.2
4. pH: < 3 ___ > 12 ___ Actual ___ Range 5-9
5. Flash Point: < 70°F ___ > 140°F Actual ___
Determined by: Closed Cup Open Cup ___

220 CHINA BASIN, SAN FRANCISCO, CA 94107 - DAY AND NIGHT: 543-4835



70-C-65101

VI. CHEMICAL COMPOSITION

	RANGE		%
	MIN.	MAX.	
1. H ₂ O	85	97	%
FUEL OIL	1	15	%
	-	-	%
	-	-	%
	-	-	%
	-	-	%
	-	-	%
	-	-	%
	-	-	%
Must be equal or greater than 100% - Total:			100

2. Indicate if this waste contains any of the following:

Cyanides	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
PCBs	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Phenolics	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Sulfides	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm

3. Indicate if this waste contains any of the following (total concentration of each metal must be given):

Arsenic	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Barium	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Beryllium	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Cadmium	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Chromium	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Chromium-Hex	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Cobalt	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Copper	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Lead	no	<input checked="" type="checkbox"/>	yes	<input checked="" type="checkbox"/>	_____	ppm
Mercury	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Molybdenum	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Nickel	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Selenium	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Silver	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Thallium	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Vanadium	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Zinc	no	<input checked="" type="checkbox"/>	yes	_____	_____	ppm
Other				<u>NONE</u>		ppm

VII. ADDITIONAL INFORMATION

Provide additional comments, analyses or wastestream information necessary for proper safe handling of this waste.

VIII. CERTIFICATION

I hereby certify that all information submitted in this and all attached documents contains true and accurate descriptions of this waste material, and all relevant information regarding known or suspected hazards in the possession of the generator has been disclosed.

(Signature)

(Date)

(Title)

ASSISTANT ENGINEER LT, USCC

8/27/90

90280015
 IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-9302; WITHIN CALIFORNIA CALL 1-800-952-7650

UNIFORM HAZARDOUS WASTE MANIFEST		Generator's US EPA ID No. <u>01A76910131010137810101010</u>		Manifest Document No. <u>90017</u>	Page 1 of 1	Information in the shaded areas is not required by Federal law.	
2. Generator's Name and Mailing Address U.S. COAST GUARD, SUPPORT CENTER COAST GUARD ISLAND 915 2nd Avenue, Room 2664, Seattle, WA 98174-1011				A. State Manifest Document Number 90280015		B. State Generator's ID	
4. Generator's Phone (700) 442-1683 Alameda, CA 94501 (415) 437-5220				C. State Transporter's ID 103567		D. Transporter's Phone (415) 543-4835	
6. Transporter 1 Company Name H & H Ship Service Company				E. State Transporter's ID		F. Transporter's Phone	
8. Designated Facility Name and Site Address H & H Ship Service Company 220 China Basin Street San Francisco, CA 94107				G. State Facility's ID		H. Facility's Phone (415) 543-4835	
11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number) HAZARDOUS WASTE LIQUID, N.O.S. ORM-E NA 9189				12. Containers No. Type		13. Total Quantity Unit Wt/Vol	
a. HAZARDOUS WASTE LIQUID, N.O.S. ORM-E NA 9189 b. FUEL, OIL AND WATER				1. 0101		1. 008100	
				2.		2.	
				3.		3.	
				4.		4.	
16. Special Handling Instructions and Additional Information JOB #5388 APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR.				K. Handling Codes for Wastes Listed Above a. 01 b. c. d.			
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name: Scott E. Williams, LT, USCG Signature: <i>[Signature]</i> Month Day Year: 10/8/90				17. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name: ESTEBAN M. PENALVER Signature: <i>[Signature]</i> Month Day Year: 10/8/90			
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:				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:			

OTHER (Specify)

Address

Phone

GENE POTTER (707) 545-0360
 CONTACT FOR INVESTIGATION

XI

ALAMEDA COUNTY HEALTH AGENCY
CARE SERVICES

Cynthia Chapman
Hazardous Materials Specialist

09 04 90



DIVISION OF HAZARDOUS MATERIALS
DEPARTMENT OF ENVIRONMENTAL HEALTH
80 Swan Way, Rm. 200, Oakland, CA 94612 • (415) 271-4320

FINAL	House Sewer	
	Septic Tank	
	Absorption Field	
OTHER	Absorption Bed	

11th DIST. FUEL TANKS

KS

Date	By	REMARKS	Date	By	50-90-C-65101
5/90	GAG	Approval of tank removal and installation plans. Gene Potter of Petroleum Engineering told me that this probably won't be done for a couple more months.			pit. No associated piping; dispensers were suction. Hole is closed. Both tanks in good shape - no visible holes. Steel tanks/tan wrapped. Both tanks were triple roused and hauled by H+H. Hauler # 103562 (1/9) 103565 (1/9)
9/4/90		Tank pull IEL-3 for both tanks. Tanks sitting in sandy soil water present in pit bottom. Minor hydrocarbon odor from			Water samples were taken 3 1/2 liter bottles Soil samples are being taken at each end of each tank below water table.

LOCATION

P
F

F.U.Z
12.01
04.190
SEP
0003
CCC
CIT
CEL
NU
CD.
H/CR
HIDMED
C/AC
FUSC

09-04-90

11TH DIST FUEL TANKS 50-90-E-65101

REMARKS

REMARKS

Date	By	Date	By
	TANK		
	Manifest # 8951151		
	8951149		

ALAMEDA COUNTY HEALTH AGENCY
CARE SERVICES

Cynthia Chapman
Hazardous Materials Specialist



DIVISION OF HAZARDOUS MATERIALS
DEPARTMENT OF ENVIRONMENTAL HEALTH
88 Swan Way, Rm. 200, Oakland, CA 94621 • (415) 271-4120



REPORT OF LABORATORY ANALYSIS

Questa Engineering
 P.O. Box 356
 Point Richmond, CA 94807

September 05, 1990
 PACE Project
 Number: 400904502

Attn: Mr. Jeffrey Peters
 415-236-6114
 90178

PACE Sample Number:
 Date Collected:
 Date Received:

70 0802628	70 0802636	70 0802544
09/04/90	09/04/90	09/04/90
09/04/90	09/04/90	09/04/90
	A2 of 2	
	Dup.	E1 of 2

Parameter	Units	MDL	A1 of 2	A2 of 2	E1 of 2
-----------	-------	-----	---------	---------	---------

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS
 no analysis requested

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

Parameter	Units	MDL	A1 of 2	A2 of 2	E1 of 2
TOTAL FUEL HYDROCARBONS, (LIGHT):					
Purgeable Fuels, as Gasoline (EPA 8015)	ug/L	50	13000	-	510
PURGEABLE AROMATICS (BTXE BY EPA 8020):					
Benzene	ug/L	0.5	56	-	0.9
Ethylbenzene	ug/L	0.5	180	-	ND
Toluene	ug/L	0.5	74	-	ND
Xylenes, Total	ug/L	0.5	1900	-	38

MDL Method Detection Limit
 * Analytical results are not available.
 ND Not detected at or above the MDL.

DRAFT

Mr. Jeffrey Peters
Page 2

September 05, 1990
PACE Project
Number: 400904502

90178

PACE Sample Number:
Date Collected:
Date Received:

70 0802652
09/04/90
09/04/90
B2 of 2
Dup.

Parameter

Units

MDL

INORGANIC ANALYSIS

INDIVIDUAL PARAMETERS
no analysis requested

*

MDL Method Detection Limit
* Analytical results are not available.

DRAFT

Mr. Jeffrey Peters
Page 3

September 05, 1990
PACE Project
Number: 400904502

90178

PACE Sample Number:		70 0802580	70 0802598	70 0802601
Date Collected:		09/04/90	09/04/90	09/04/90
Date Received:		09/04/90	09/04/90	09/04/90
<u>Parameter</u>	<u>Units</u>	<u>MDL</u>	<u>A1 of 2</u>	<u>A2 of 2</u>

ORGANIC ANALYSIS

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):		- #	- #	-
Purgeable Fuels, as Gasoline (EPA 8015)	mg/kg wet	1.0	ND #	65 #
PURGEABLE AROMATICS (BTXE BY EPA 8020):		- #	- #	-
Benzene	mg/kg wet	0.005	0.008 #	0.72 #
Ethylbenzene	mg/kg wet	0.005	ND #	1.1 #
Toluene	mg/kg wet	0.005	ND #	0.068 #
Xylenes, Total	mg/kg wet	0.005	ND #	0.57 #

MDL Method Detection Limit
Data subject to final review.
ND Not detected at or above the MDL.

DRAFT

Mr. Jeffrey Peters
 Page 4

September 05, 1990
 PACE Project
 Number: 400904502

90178

PACE Sample Number: 70 0802610 70 0802660 70 0802679
 Date Collected: 09/04/90 09/04/90 09/04/90
 Date Received: 09/04/90 09/04/90 09/04/90

Parameter	Units	MDL	B2 of 2	Part 1 1,2,3,4	Part 1 1,2,3,4	Composite
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ORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

PACE Sample No. of Lab-Generated Compos. - * -

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):			-	-	-	-
Purgeable Fuels, as Gasoline (EPA 8015)	mg/kg wet	1.0	ND	-	-	ND
PURGEABLE AROMATICS (BTXE BY EPA 8020):			-	-	-	-
Benzene	mg/kg wet	0.005	ND	-	-	ND
Ethylbenzene	mg/kg wet	0.005	ND	-	-	ND
Toluene	mg/kg wet	0.005	ND	-	-	ND
Xylenes, Total	mg/kg wet	0.005	ND	-	-	ND

MDL Method Detection Limit
 * Analytical results are not available.
 ND Not detected at or above the MDL.

DRAFT

Mr. Jeffrey Peters
Page 5

September 05, 1990
PACE Project
Number: 400904502

90178

PACE Sample Number:
Date Collected:
Date Received:

70 0802687 70 0802695
09/04/90 09/04/90
09/04/90 09/04/90
Part 2
Part 2
1,2,3,4 1,2,3,4
Composite

Parameter

Units

MDL

ORGANIC ANALYSIS

INDIVIDUAL PARAMETERS

PACE Sample No. of Lab-Generated Compos. *

PURGEABLE FUELS AND AROMATICS

TOTAL FUEL HYDROCARBONS, (LIGHT):

Purgeable Fuels, as Gasoline (EPA 8015) mg/kg wet 1.0 - #

PURGEABLE AROMATICS (BTXE BY EPA 8020):

Benzene mg/kg wet 0.005 - #

Ethylbenzene mg/kg wet 0.005 - #

Toluene mg/kg wet 0.005 - #

Xylenes, Total mg/kg wet 0.005 - #

MDL Method Detection Limit
* Analytical results are not available.
Data subject to final review.

The data contained in this report were obtained using EPA or other approved methodologies. All analyses were performed by me or under my supervision.

Robert P. Chrin
Inorganic Chemistry Manager

Ruth J. Siegmund
Organic Chemistry Manager

DRAFT



17193 102

CHAIN-OF-CUSTODY RECORD Analytical Request

Client QUESTA ENGINEERING
Address _____
Phone 236-6114

Report To: JEFF PETERS - QUESTA

Client No. _____

Bill To: QUESTA ENGINEERING

Project Manager _____

P.O. # / Billing Reference _____

Project No. 400904.502

Project Name / No. 90178

*Requested Due Date: 24 hr

Sampled By (PRINT):
JOEL BUTTERWORTH
Sample Signer _____ Date Sampled _____

NO. OF CONTAINERS	PRESERVATIVES				
	UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	HLI

ANALYSES REQUEST										
DIS - PURG	DIS - BTX									

ITEM ID	SAMPLE DESCRIPTION	TIME	MATRIX	PAGE NO.	NO. OF CONTAINERS	UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	HLI	REMARKS
A1 of 2		60.2		59.8							
A2 of 2		60.7		60.7							
B1 of 2		61.0		61.0							
B2 of 2		62.8		62.8							
A1 of 2		63.6		63.6							(DUP. of A1)
A2 of 2 (DUP.)		64.4		64.4							
B1 of 2		65.2		65.2							(DUP. of B1)
B2 of 2 (DUP.)											

COOLER Nos. _____
SAILERS _____
SHIPMENT OUT DATE _____
METHOD RETURNED DATE _____
ITEM NUMBER _____
Comments
02
ITORY A.

RELINQUISHED BY: Joel Butterworth AFFILIATION: _____
ACCEPTED BY: Jim Mares Pace AFFILIATION: _____ DATE: 9/4/90 TIME: _____

SEP 05 15:17 P.07/07



17195 2d

CHAIN-OF-CUSTODY RECORD Analytical Request

Client QUESTA ENGINEERING
Address _____
Phone 236-6114

Report To: JEFF PETERS - QUESTA
Bill To: QUESTA
P.O. # / Billing Reference _____
Project Name / No. 90178

Pace Client No. _____
Pace Project Manager _____
Pace Project No. 400904
Requested Due Date: 24h

Sampled By (PRINT): JOEL BUTTERWORTH
Sampler Signature [Signature] Date Sampled 9/4/90

NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST	REMARKS
	UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA		
					8015 - PURE	Comp #1's
					8020 - GTEX	

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PAGE NO.	NO. OF CONTAINERS	UNPRESERVED	H ₂ SO ₄	HNO ₃	VOA	ANALYSES REQUEST	REMARKS
1	COMP. 1, 2, 3, 4			80266	1					80261A	PART 1 COMPS
2	COMP. 1, 2, 3, 4			80265	1					80261B	PART 2 COMPS

COOLER NOS.	BAILERS	SHIPMENT METHOD	RETURNED DATE	ITEM NUMBER	RELINQUISHED BY AFFILIATION	ACCEPTED BY AFFILIATION	DATE	TIME
					<u>[Signature]</u>	<u>Sina Meyers Pace</u>	<u>9/4</u>	<u>1600</u>

Additional Comments