

# **Environmental Management**

8430 Amelia Street
Oakland, California 94621
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SUBSURFACE SOIL INVESTIGATION

ΑT

JACK HOLLAND SR. OIL CORPORATION 16301 E. 14TH STREET SAN LEANDRO, CALIFORNIA

Prepared for:

Ms. Ann Marie Holland 16301 E. 14th Street San Laandro, CA 94578

Written By:

Dave Sadoff

Environmental Geologist

Reviewed By:

Rogér Nielson

California Registered Geologist #1801

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# INTRODUCTION

On April 21, 1989, Mr. Larry Seto of the Alameda County
Health Care Services Agency (ACHCSA) conducted an inspection
of the Jack Holland Sr. Oil Corporation facility located at
16301 E. 14th Street in San Leandro, California. During the
inspection, four split soil samples were collected from
surface soils above two diesel underground fuel tanks (UFT).
Laboratory analysis of the samples found diesel in
concentrations of 20,600 parts per million (ppm) in one and
20,100 ppm another.

Ms. Ann Marie Holland contacted and authorized Crosby and Overton, Inc. (C &O) to conduct a subsurface soil investigation to determine the lateral and vertical extent of the diesel contamination, following the San Francisco Bay Regional Water Quality Control Board's (RWQCB) "Tri-Regional Recommendations" (2 June 1988, revised 18 May 1989) for the initial evaluation and investigation of underground fuel tanks.

A work plan for the reinvestigation was prepared by C & O and submitted to ACHCSA on September 29, 1989. Approval of the workplan was issued by ACHCSA on March 13, 1990.

# FIELD WORK

## EXPLORATORY BOREHOLES

On September 18, 1990, Crosby and Overton conducted the proposed project, directing Layne Environmental in the drilling of five exploratory boreholes proximal to the two UFTS (see figure 2) using a B-61 truck mounted drill rig and 6 inch outer diameter continuous flight hollow stem augers. A California split-spoon sampler, holding three clean 6 inch long by 2 inch diameter brass tubes was used to collect undisturbed soil-core samples. Samples were collected from each boring at five feet below ground surface (bgs), and 10 feet bgs. In addition, a soil sample was collected at 15 feet bgs in borehole number 1 (BH-1); at 13.5 feet bgs in BH-2; and at 12 feet bgs in BH-4.

Immediately after each sampling event, the middle brass tube was selected, its ends were covered by aluminum foil, capped with plastic caps, security taped labelled, and placed on blue ice in a closed ice chest. All samples were transported under chain of custody documentation to Anametrix Laboratory (a California state

certified hazardous materials laboratory in San Jose) for chemical analysis. All samples were analyzed for total petroleum hydrocarbon as diesel (TPH-D) by EPA method 3510/3550; and for benzene, toluene, ethylbenzene, and xylenes (BTEX), by EPA method 8020.

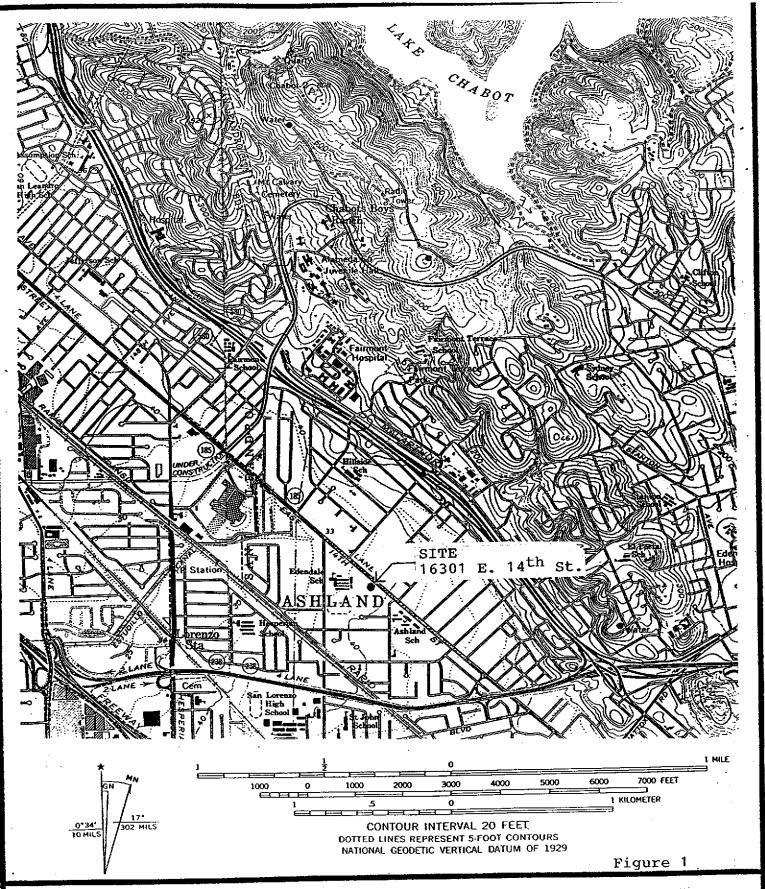
## GEOLOGY

In all borings site subsurface soils encountered a continuous gray and blueish/olive-green silty/sandy clay to total depth. In BH-1 and BH-2, the section included a coarse to very coarse-grained subrounded 6" sand strata at approproximately 10 feet bgs.

All of the exploratory borehole soil cuttings and samples contained a moderate to strong diesel odor.

Groundwater was encountered at 14.5 feet bgs in BH-1 only.

(All other borings were terminated at 13.5 bgs or less)



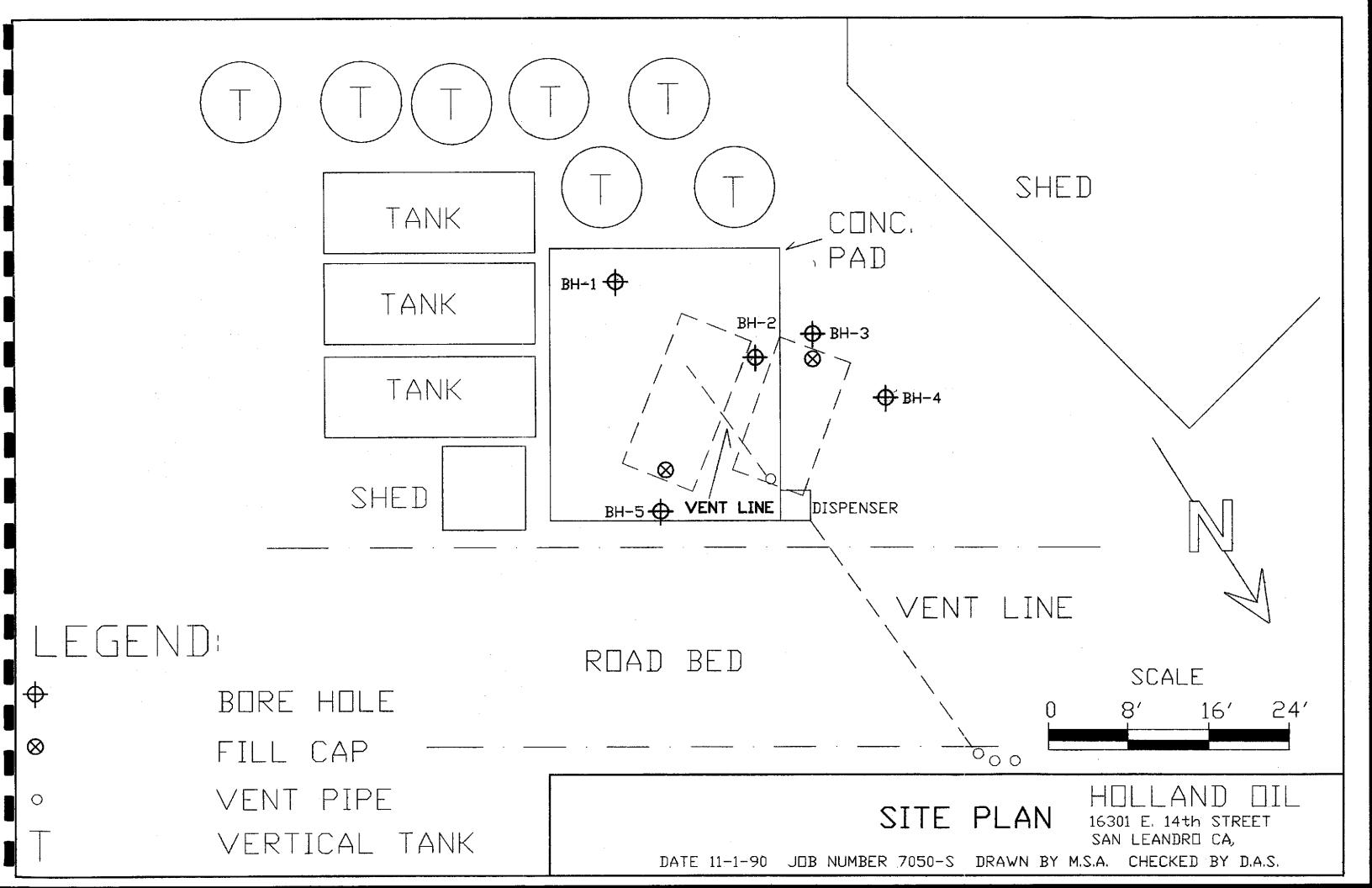


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After USGS 7.5' Hayward & 7.5' San Leandro, 1959 quadrangles. Rev. 1980.

DATE: 10/31/90 JOB NUMBER: 7050-S

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## ANALYTICAL RESULTS

## EXPLORATORY BOREHOLES

All of the exploratory borehole soil samples had detectable diesel contamination, ranging from 310 ppm to 25,000 ppm (see Table 1). The highest levels of diesel contamination were detected in soil samples from BH-3, which had 17,000 ppm at 5 feet bgs, and 25,000 ppm at 10 feet bgs. The lowest levels of diesel were detected in soil samples from BH-4, which had 310 ppm at 5 feet bgs, 450 ppm at 10 feet bgs, and 740 ppm at 12 feet bgs.

Benzene was not detected in the core samples collected from BH-1 (5 feet bgs and 15 feet bgs), BH-2 (10 feet bgs and 13.5 feet bgs), and BH-4 at 12 feet bgs. All other soil samples had detectable benzene, ranging from 0.015 ppm (BH-4 at 10 feet bgs) to 2.5 ppm (BH-4 at 5 feet bgs).

Toluene was not detected in the soil sample collected from BH-4 at 12 feet bgs only. All other soil samples had detectable toluene, ranging from 0.053 ppm (BH-4 at 10 feet bgs) to 4.0 ppm (BH-1 at 10 feet bgs).

Ethylbenzene was not detected in the soil sample collected from BH-4 at 12 feet bgs; but was found in all other soil samples, ranging from 0.059 ppm in BH-4 at 10 feet bgs, to 16 ppm in BH-1 at 10 feet bgs.

Xylenes were detected in all of the soil samples, ranging from 0.058 ppm in BH-4 at 12 feet bgs to 74 ppm in BH-1 at 10 feet bgs.

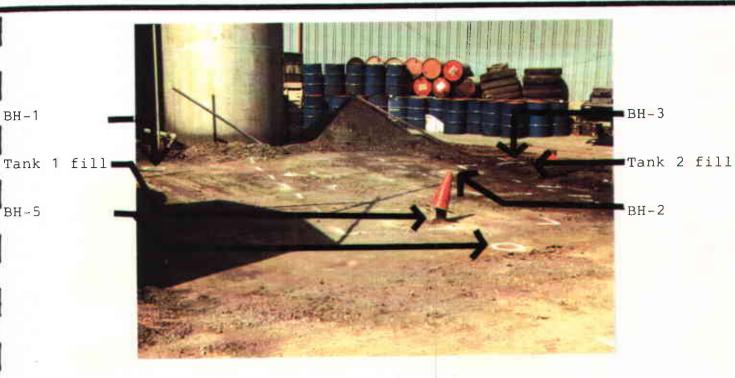


Figure 3A. Delineation of tank 1, viewed to the SW. Also shown: BH-1, fill-pipe, BH-2, BH-5, BH-3, and fill-pipe tank 2.



Figure 3B. View North, N. side of tank 1, S. side of tank 2. BH-2 at extreme left, vent lines are dashed.



Vent lines ■ tank 1&2.

BH-2

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Figure 4A. Delineation of tank 2, viewed to the NE. BH-3 center foreground, tank 2 fill top center.



Figure 4B. Tank 2 viewed to the South. Fill pipe tank 2, BH-3 and BH-4, also shown.



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BA# 7050-S

## ANALYTICAL PARAMETERS & RESULTS

STATION	LOCATION	DIESEL	BENZENE	TOLUENE	ETHYL- BENZENE	XYLENES
Sl	BH-1 5'	990	ND	0.650	0.920	6.100
S2	BH-1 10'	6800	1.100	4.000	16.000	74.000
S3	BH-1 15'	3600	ND	1.000	2.100	16.000
=======			=======			
S4	<b>14</b> 2 5 '	11000	0.240	1.100	2.300	6.300
<b>S</b> 5	BH-2 10'	3500	ND	<b>0.</b> 35 <b>0</b>	<b>0.</b> 58 <b>0</b>	2.300
S6	BH-2 13.5'	650	ND	0.310	0.230	1.600
=======	=========	=======			======================================	========
S7	<b>944-3</b> 5'	17800	0.360	1.000	2.200	11.000
S8	10'	25900	0.110	0.720	0.960	4.100
========		=======	========			=======
S9	BH-4 5'	310	2.500	1.200	ø. 86ø	3.200
S10	BH-4 10'	450	0.015	0.053	0.05 <del>9</del>	0.350
S11	BH-4 12'	740	ND	ND	ND	0.058
=======	=========		========	=======	=======	========
S12	BH-5 5'	1100	0.300	0.400	0.880	3.200
S13	BH-5 10'	5600	ND	0.110	0.110	0.620

ND = NOT DETECTED ALL VALUES GIVEN IN PPM CHECKED BY:

TABLE 1.

# CONCLUSIONS AND RECOMMENDATIONS

Based on field and analytical data generated during this investigation, Crosby and Overton draws the following conclusions and recommendations:

## EXPLORATORY BOREHOLES

Elevated levels of TPH as diesel and BTXE have been detected in all of the exploratory boreholes from the surface to total depth. The source of the contamination is most probably from repeated overfill and/or spillage. In addition, a tank system failure (e.g. a leaking tank or piping connection) may be contributing to the contamination found on site.

Soil sample S3, taken from 15 feet bgs in BH-1 (groundwater was observed at 14.5 feet bgs in BH-1) had significant contamination, indicating that groundwater has probably been impacted at the subject site.

Soil contamination appears to be heaviest in the vicinity of BH-3; less concentrated in BH-1, BH-2, and BH-5; and lightest in the vicinity of BH-4. The high levels of

contamination at BH-3 may be attributable to 1) its' proximity to the tank #2 fill pipe (overfilling), and 2) the absence of a concrete pad for containment of spills proximal to BH-3. The presence of a concrete pad above BH-1, BH-2, and BH-5 probably has prevented the release to soils of most fuel spills and overfills generated at tank #1. The relatively low levels of contamination found in BH-4 may be attributed to its' distance from the two UFTs, and from several above ground fuel storage tanks (which may have had releases) located to the south of the concrete pad. BH-4 may represent a lateral fringe of the contamination plume.

Due to the limited nature of this investigation, coupled with the magnitude of contamination present at the subject site, the full lateral and vertical extent of contamination cannot be determined. Crosby and Overton recommends conducting sufficient additional investigative work at the subject site, including the drilling and sampling of additional exploratory boreholes and groundwater monitor wells to fully characterize the contamination plume.

# NAMETRIX INC

rorimental & Analytical Chemistry 1 Concourse Drive, Suite E, San Jose, CA 95131 38) 432-8192 • Fox (408) 432-8198

OAKLAND, CA 94621



MR. DAVE SADOFF CROSBY & OVERTON ENVIRONMENTAL 8430 AMELIA STREET Workorder # : 9009208
Date Received : 09/21/90
Project ID : 7050-S

Purchase Order: 10004

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

Table 1

ANAMETRIX ID	CLIENT SAMPLE ID
9009208- 1 9009208- 2 9009208- 3	S1 S2 S3 S4
9009208- 4 9009208- 5 9009208- 6 9009208- 7	S5 S6 S7
9009208- 8 9009208- 9 9009208-10	S8 S9 S10
9009208-10 9009208-11 9009208-12 9009208-13	S11 S12 S13

This report is paginated for your convenience and ease of review. It contains 7 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.

Much other for

Burt Sutherland Laboratory Director 09-23-90

Date

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

MR. DAVE SADOFF CROSBY & OVERTON ENVIRONMENTAL 8430 AMELIA STREET OAKLAND, CA 94621 Workorder # : 9009208
Date Received : 09/21/90
Project ID : 7050-S
Purchase Order: 10004
Department : GC
Sub-Department: TPH

# SAMPLE INFORMATION:

		T		
ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009208- 1	S1	SOIL	09/19/90	BTEX
9009208- 2	S2	SOIL	09/19/90	BTEX
9009208- 3	S3 "	SOIL	09/19/90	BTEX
9009208- 4	S4	SOIL	09/19/90	BTEX
9009208- 5	S5	SOIL	09/19/90	BTEX
9009208- 6	S6 •••	SOIL	09/19/90	BTEX
9009208- 7	S7	SOIL	09/19/90	BTEX
9009208- 8	S8	SOIL	09/19/90	BTEX
9009208- 9	S9	SOIL	09/19/90	BTEX
9009208-10	S10	SOIL	09/19/90	BTEX
9009208-11	S11	SOIL	09/19/90	BTEX
9009208-12	S12	SOIL	09/19/90	BTEX
9009208-13	S13	SOIL	09/19/90	BTEX
9009208- 1	S1	SOIL	09/19/90	TPHd
9009208- 2	S2	SOIL	09/19/90	TPHd
9009208- 3	S3	SOIL	09/19/90	TPHd
9009208- 4	S4	SOIL	09/19/90	TPHd
9009208- 5	S5	SOIL	09/19/90	TPHd
9009208- 6	S6	SOIL	09/19/90	TPHd
9009208- 7	S7	SOIL	09/19/90	TPHd
9009208- 8	S8	SOIL	09/19/90	TPHd
9009208- 9	S9	SOIL	09/19/90	TPHd
9009208-10	S10	SOIL	09/19/90	TPHd

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

MR. DAVE SADOFF

CROSBY & OVERTON ENVIRONMENTAL

. . 7

8430 AMELIA STREET OAKLAND, CA 94621 Workorder # : 9009208
Date Received : 09/21/90

Project ID: 7050-S
Purchase Order: 10004
Department: GC

Department : GC Sub-Department: TPH

# SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9009208-11	S11	SOIL	09/19/90	TPHd
9009208-12	S12	SOIL	09/19/90	трна
9009208-13	S13	SOIL	09/19/90	TPHd

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

MR. DAVE SADOFF CROSBY & OVERTON ENVIRONMENTAL 8430 AMELIA STREET OAKLAND, CA 94621

Workorder # : 9009208 Date Received: 09/21/90 Project ID : 7050-S Purchase Order: 10004 Department : GC Sub-Department: TPH

# QA/QC SUMMARY :

- No QA/QC problems encountered for samples.

Department Supervisor

Chemist

Date

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

Anametrix W.O.#: 9009208
Matrix : SOIL
Date Sampled : 09/19/90

Project Number: 7050-S Date Released: 09/28/90

	Reporting Limit	Sample I.D.# S1	Sample I.D.# S2	Sample I.D.# S3	Sample I.D.# S4	Sample I.D.# S5
COMPOUNDS	(mg/Kg)	-01	-02	-03	-04	-05
Benzene Toluene Ethylbenzene Total Xylenes  % Surrogate Rec. Instrument # Date Analyzed RIMF	0.005 0.005 0.005 0.005	ND 0.65 0.92 6.1 105% HP4 09/25/90	1.1 4.0 16 74 109% HP4 09/25/90	ND 1.0 2.1 16 122% HP4 09/25/90	0.24 1.1 2.3 6.3 143% HP4 09/25/90 25	ND 0.35 0.58 2.3 90% HP4 09/25/90 25

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

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.

Analyst 9.28.90
Date

Chery Balmer 9/20/9
Supervisor Date

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

Anametrix W.O.#: 9009208 Matrix : SOIL
Date Sampled : 09/19/90

Project Number: 7050-S Date Released: 09/28/90

	Reporting Limit	Sample I.D.# S6	Sample I.D.# S7	Sample I.D.# S8	Sample I.D.# S9	Sample I.D.# S10
COMPOUNDS	(mg/Kg)	-06	-07	-08	-09	-10
Benzene Toluene Ethylbenzene Total Xylenes % Surrogate Rec.	0.005 0.005 0.005 0.005	0.23 1.6 112%	0.36 1.0 2.2 11	0.11 0.72 0.96 4.1	2.5 1.2 0.86 3.2	0.015 0.053 0.059 0.35
Instrument # Date Analyzed RLMF	<b></b> **	HP4 09/25/90 10	HP4 09/25/90 10	HP4 09/25/90 10	HP4 09/25/90 100	HP4 09/26/90 2

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

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.

Analyst

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

Anametrix W.O.#: 9009208
Matrix : SOIL
Date Sampled : 09/19/90

Project Number: 7050-S Date Released: 09/28/90

	Reporting Limit	Sample I.D.# S11	Sample I.D.# S12	Sample I.D.# S13	Sample 1.D.# 04B0925A	
COMPOUNDS	(mg/Kg)	-11	-12	-13	BLANK	
Benzene Toluene Ethylbenzene Total Xylenes	0.005 0.005 0.005 0.005	ND ND ND 0.058	0.30 0.40 0.88 3.2	ND 0.11 0.11 0.62	ND ND ND	
<pre>% Surrogate Rec. Instrument # Date Analyzed RIMF</pre>	<b>.</b> 25 th	111% HP4 09/26/90 2	141% HP4 09/26/90 25	113% HP4 09/26/90 10	100% HP4 09/25/90 1	

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

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.

Analyst 9,28.90
Date

Cheul Balmer 9/25/2 Supervisor Date

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

Anametrix W.O.#: 9009208 Matrix : SOIL

Client Project# : 7050-S Date released : 09/28/90 Instrument I.D. : HP19

Date Sampled : 09/19/90

Date Extracted: 09/24/90

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (mg/Kg)	Amount Found (mg/Kg)
9009208-01 9009208-02 9009208-03 9009208-04 9009208-05 9009208-06 9009208-07 9009208-09 9009208-10 9009208-11 9009208-12 9009208-13 DSBL092490	S1 S2 -S3 S4 S5 -S6 S7 -S8 S9 S10 -S11 S12 -S13 METHOD BLANK	09/25/90 09/25/90 09/25/90 09/25/90 09/25/90 09/25/90 09/26/90 09/25/90 09/25/90 09/26/90 09/26/90 09/25/90	10 10 10 10 10 10 10 10 10 10 10	990 6800 3690 11000 3500 650 17000 25000 310 450 740 1100 5600 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.

April Justica 19-28-98
Analyst Date

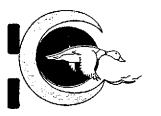


BOREHOLE - 1

# **Environmental Management**

8430 Amelia Street Oakland, California 94621 FAX (415) 633-0759 (415) 633-0336 • (800) 821-0424

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	דעם	E DI	DH.	IFD9	-18	<b>-9</b> 0	)	TOTAL DEPTH OF HOLE 13.5 FEET
	SHR	FAC	F F	TEVATI	ON		<u>35–40                                    </u>	FEET DEPTH TO WATER NOT ENCOUNTERED
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**Environmental Management** 

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F [ 	PROLOCATION OF THE PROCESS OF THE PR	JECTATION AT IONIA DE LA COMPANIA DE	T CN RILI E E E D IG C	HOLLAN 1630 LED 9- LEVATI IA. N IA. N OMPAN MARK	D 0 1 E 18- ON /A /A	1L 90 DAT	34 -	PROJECT NUMBER 7050-S  STREET OWNER ANN MARIE HOLLAND  TOTAL DEPTH OF HOLE 10 PERT  - 40 FEET DEPTH TO WATER NOT ENCOUNTERED  SLOT SIZE N/A  TYPE N/A  DRILL METHOD HSA  LOG BY D. SADOFF
DEP (FEI	PIPE	1111	) Old	NUMBER	TYPE	BLOW	GRAF LOG	(COLOR, TEXTURE, STRUCTURES)
S				S7		346		DISCOLORED (STAINED) SURFACE. GRAY SILTY/SANDY CLAY. (NO CONCRETE PAD.)  HYDROCARBON SATURATED ZONE (BLACK COLOR).  TURQUOISE/OLIVE-GREEN, PEBBLY, MADY CLAY. PEBBLES ARE ABUNDANT, SOIL HAS COLOR CHANGE TO OLIVE-GREEN.  BROWN AND OLIVE-GREEN SILTY/SANDY CLAY.  HOBERATE (IN CAPILLARY FRINGE.)



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E	3OR	ING	/W	ELL NUN	1BE	R_	BORI	SHOLIS - 4
F	RO.	JEC	Τ_	HOLLAN	<u>D 0</u>	<u>IL</u>		PROJECT NUMBER 7050 - S
L	OC.	<b>ATI</b>	ON	<u>16301</u>	E.	14 <u>1</u>	H ST	REET OWNER ANN MARIE HOLLAND
[	TAC	E D	RIL	LED <u>9</u>	18-	90_		TOTAL DEPTH OF HOLE 12 FEET
Ç	SUR	FAC	E E	LEVAT	ION		<u> 35 - </u>	40 FEET DEPTH TO WATER NOT ENCOUNTERED
5	SCR	EEN	: D	IA		N/	Α	SLOT SIZE N/A
(	AS	ING	: D	IA		N/	'A	TYPEN/A
[	RIL	LLIN	1G (	COMPAN	IY _		MITA	DRILL METHOD HSA
[	RII	LEF	₹		MA	RK		LOG BY D. SADOFF
	WE	LL	Ω	SAMPLE	:S		Ü	
DEPTH (FEET)	COL	NST.	, pp	SAMPLE NUMBER		~	표	DESCRIPTION/SOIL CLASSIFICATION
DE!	PE	FILL	D (	NUMBER	ΥP	0	RAI 06	(COLOR, TEXTURE, STRUCTURES)
	△	<u>u.</u>	۵			8	0 1	
s				j			L _	4 INCH CONCRETE PAD.
1							i	TURQUOISE/OLIVE-GREEN, PEBBLY, SANDY CLAY.
•				1			r -	ABUNDANT PEBBLES, MESKA OBORA
2							├ -	
3_								COLOR CHANGE TO BROWN.
4							L _	COLON CHARGE TO DICER.
5				S9		4		
6_	1				ĺ	6		70% SAMPLE RECOVERY. HETEROGENEOUS BROWN/TURQUOISE/
	1					8	<b>-</b>	OLIVE, SANDY/SILTY PEBBLY CLAY. ATTRONO DIEST.
7_	ł							
8_	-							CLAY BECOMES MORE HOMOGENEOUS (LESS COARSE SAND).
9_							L _	
10_		. :		S10		3		
1 –	1			010		4		SAME AS ABOVE.
11	†			1		1	├ -	i
12_	$\blacksquare$			S11		6		CAPILLARY FRINGE ENCOUNTERED.
13_						8   14	L -	CONTACT BETWEEN HETEREOGENEOUS SANDY SILTY CLAY
14_						*	L	(STRUCTURALLY ABOVE), AND TURQUOISE, SILTY CLAY.
15_				1			Γ	
-/_	1						<b>t</b> -	1
-	+			1			H -	1
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-	7						<b>-</b>	1



**Environmental Management** 

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E	30R	ING	/ W[	ELL NUN	1BE	R_		BORRHOLE = 5
F	PRO.	JEC	Τ _	HOLLAN	<del>D 0</del>	H-	<del></del>	PROJECT NUMBER <u>7050 - S</u> WEET OWNER <u>ANN MARIE HOLLAND</u>
L	OC.	ATI	ON	16301	<u>E.</u>	147	H STI	WEET OWNER ANN MARTE HOLLAND
	TAC	E Di	RIL	LED —		9-	18-90	TOTAL DEPTH OF HOLE 10 FEET NOT ENCOUNTERED
	SUR	FAC	EE	LEVAT	ION	_	35-40	DEPTH TO WATER NOT ENCOUNTERED
•	SCR	FFN	ŀ D	1A			N/A	SLOT SIZE
(	CAS	ING	: D	I A			N/A	TYPE N/A
								DRILL METHOD HSA LOG BY D SADOFR
				<u>.</u>				
표습	WE	LL	PM.)	SAMPLE	S		2	DESCRIPTION/SOIL CLASSIFICATION
DEPTH (FEET)	PIPE	TZV	PID (P	NUMBER	ГҮРЕ	NOU	GRAPHIC LOG	(COLOR, TEXTURE, STRUCTURES)
s_	<u>-</u>	u.	ш.			ш.	0 1	4 INCH CONCRETE PAD.
	1						<b></b>	
1	1				-		<b>-</b>	DARK BLACK, SHINY, SATURATED SOIL TO 1 FOOT,
2 —	1						├ -	TURQUOISE/OLIVE-GREEN, SANDY/SILTY CLAY, CHRONG ODOR.
3 —	-			}			<del> </del>	DARK BLACK SILTY CLAY, TOTAL COME
4	'						├ -	- · · · · ·
5_	1			S12		6		
6_						11	L _	CONTACT BETWEEN DARK BLACK SILTY CLAY (STRUCTURALLY
7						13		ABOVE), AND OLIVE-GREEN, SILTY SANDY CLAY. STRONG
8 _	7			1			Γ	HIDION I DADITOTI VARIO
_	1						T -	
9 —	1			243			一 -	
10	1	-		<b>S1</b> 3		3	<del> </del>	CADILLADY EDINGS DADY OF THE CDEPN CTIMY/CANDY
11 -	┨				1	5	<b>-</b> -	CAPILLARY FRINGE. DARK OLIVE-GREEN, SILTY/SANDY CLAY. STRONG DIESEL COUNTY
12 _	4					7	┡ -	
13 _							L _	
14 _							L _	·
15				1				
127 -	1						<b> </b>	
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APPENDIX C
CHAIN OF CUSTODY DOCUMENTATION

	PROJ. 1 7050 SAMPLER	4	HOLF		101L		P.O. NO  looo4  ttention to;	NO OF CON- TAINERS		-D/Fs			1/			RI	FIARKS	
	STA NO	DATE 9/19/01	TIME 10'35	800	STAT	ION	LOCATION		1/4	7/2/2	87 	/	//	/ <i>/</i>		/_	·····	
0	52	11	10:46		BH-	/	10'		<u> </u>					_				
(4)	54	11	11:37	l	BH	2	5'	/	X	X								8430 <i>F</i> Oaklon F (415) 6
(5) (E)	56	11	11:47	L	BHZ	2	13.5	/	XXX	X								8430 Amelia Street Oakland, California 94621 FAX (415) 633-0759 (415) 633-0336 • (800) 821-0424
(S)	58 59	11	13:63 13:11 13:56	2	BH-		5 10' 5'		X	X								et nia 94621 33-0759 (800) 821-(
(4)	S10 S11	11	14:05	V	BH-	4 4	10/	/	XXXX	\(\frac{1}{2}\)					<del> </del> -		•	)424
1 ( ) ( ) ( ) ( )	SIZ	<i>"</i>	15:05	N.	BH-	5	12'			\ \ \								٠ .
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# **Environmental Management** CROSBY & OVERTON, INC.

# CROSBY & OVERTON, INC. JOB SAFETY PLAN

Project Location: 16301 E. 14th Street, San Leandro C & O Job Number: 7050-S

The possible hazards on this job are expected to be: physical hazards associated with working a truck-mounted drill rig. Chemical hazards from elevated levels of diesel in the soil and groundwater.

Required personal protective equipment for this project: Level D Protection (steel toe neoprene boots, coveralls, work gloves, hard hat, safety glasses, high visibility vest, ear plugs), Level C Protection on standby (OV cartridges).

# CROSBY AND OVERTON, INC. JOB SAFETY PLAN

1. Site: 16301 E. 14th Street, San Leandro

2. Location: San Leandro Street between 163rd and 164th.

3. Plan Prepared: Crosby and Overton, And.

Date: 9/18/90

Plan Approved: Dave Sadoff, PM

Date: 9/18/90 Date: 9/18/90

Ted Haavisto, HSO/2/74

Facility Description: Holland Oil tank farm.

6. Status (active, inactive, unknown): active

7. Surroundings: Site is located in San Leandro and is bounded by; 163rd Street (north), 164th Street (south), and Edendale Park (southwest).

8. Site Map: Attached

5.

9. Climate: Moderate dry summers, cool wet winters

- 10. Site history (origin of contamination and history of injuries exposure, chemical spills, complaints, etc.) Surface contamination reported May 24, 1989 by Alameda County Health Care Services Agency.
- 11. Description of work: Five exploratory boreholes will be installed and sampled. Drill cuttings, decon water, and well dewatering water will be drummed into DOT approved drums and remain on-site pending analytical results.
- 12. Chemical contaminants:

Chemical Media Minimum Maximum diesel soil N/A N/A

### 13. Procedures to mitigate hazards:

### A) Mechanical Hazards

- verify that all equipment is in good condition
- barricade area or otherwise restrict access
- exercise caution when working in close proximity to the drill rig

### B) Electrical Hazards

- locate and mark buried utilities before drilling utilities located by: Spectrum Geophysical
- maintain at least 10 feet of clearance from overhead power lines
- properly ground all electrical equipment
- avoid standing in water when operating electrical equipment
- be familiar with specific operating instructions for each piece of equipment
- barricade area or otherwise restrict access
- deactivate any source of ignition within 25 feet of work area

### C) Chemical Hazards

- use personal protective equipment listed above
- conduct direct reading air monitoring to evaluate respiratory and explosion hazards
- wash hands before eating or drinking
- avoid hand to mouth contact before washing hands
- keep dust to a minimum, avoid breathing dust

### D) Temperature Hazards

- Heat: when temperature exceeds 70 F, take frequent breaks in shaded area. Unzip or remove coveralls during breaks. Have cool water or electrolyte replenishment solution available. Drink small amounts frequently to avoid dehydration. Count the pulse rate for 30 seconds, as early as possible in the rest period. If the pulse rate exceeds 110 beats per minute at the beginning of the rest period, shorten the work cycle by one-third.
- Cold: wear multilayer cold weather outfits the outer layer should be of wind-resistant fabric.

### E) Acoustical Hazards

- use earplugs when noise level prevents conversation in normal voice at a distance of three feet.

### F) Organic Vapors

- monitor organic vapors. If total hydrocarbons exceed
   5 ppm above background, don Level C personal
   protective equipment
- if total hydrocarbons exceed 500 ppm, supply mechanical ventilation
  - monitor lower explosive limit. If LEL exceeds 20%, leave area and call fire department
  - no smoking within 25 feet of working area
  - post no smoking signs
- 14. Decontamination procedures: Steam clean equipment before leaving work area. Wash boots and gloves. Launder coveralls. Wash hands and face as soon as possible after stopping work.
- 15. Materials generated on-site: Drum drill cuttings, decon water, and well water in DOT approved drums with proper labels and markings. Leave on-site pending analytical results.
- 16. Site resources: Currently unknown.
- 17. Emergency equipment: Fire extinguisher and first aid kit to be on-site at all times
- 18. Emergency telephone numbers:

Ambulance 911
Police 911
Fire Department 911
Hospital: Fairmont Hospital 667-7800
Poison Control Center 800-233-3360 or 415-821-8324
Project Manager: Office 633-0336 Home 834-2691
HSO: Office 633-0336 Home 537-7318

19. Emergency routes: Map attached. Fairmont Hospital, 15400 Foothill Blvd, San Leandro.

Project personnel list and safety plan distribution 20. record: All project staff must sign, indicating they have read and understand the Safety Plan.

Employee Name	Date/Time/ 08:43 9/18/90
TERRY D'MALLEY	11
MARIC AMAZA	il
Matt Walvayen	11
Mike Sloan	11
34 21 4 4-1 - 0 0 10"	

MICHAEL COLE

Health and safety meeting: All personnel part 21. in the project must receive initial health and safety orientation. Thereafter, a brief "tailgate" safety meeting is required as deemed necessary by the Health and Safety Officer.

Employee Initial Date Topics Name

Visitors: It is Crosby & Overton policy that visitors 22. must furnish his/her own personal protective equipment. All visitors are required to sign the visitor log and comply with the safety plan requirements.

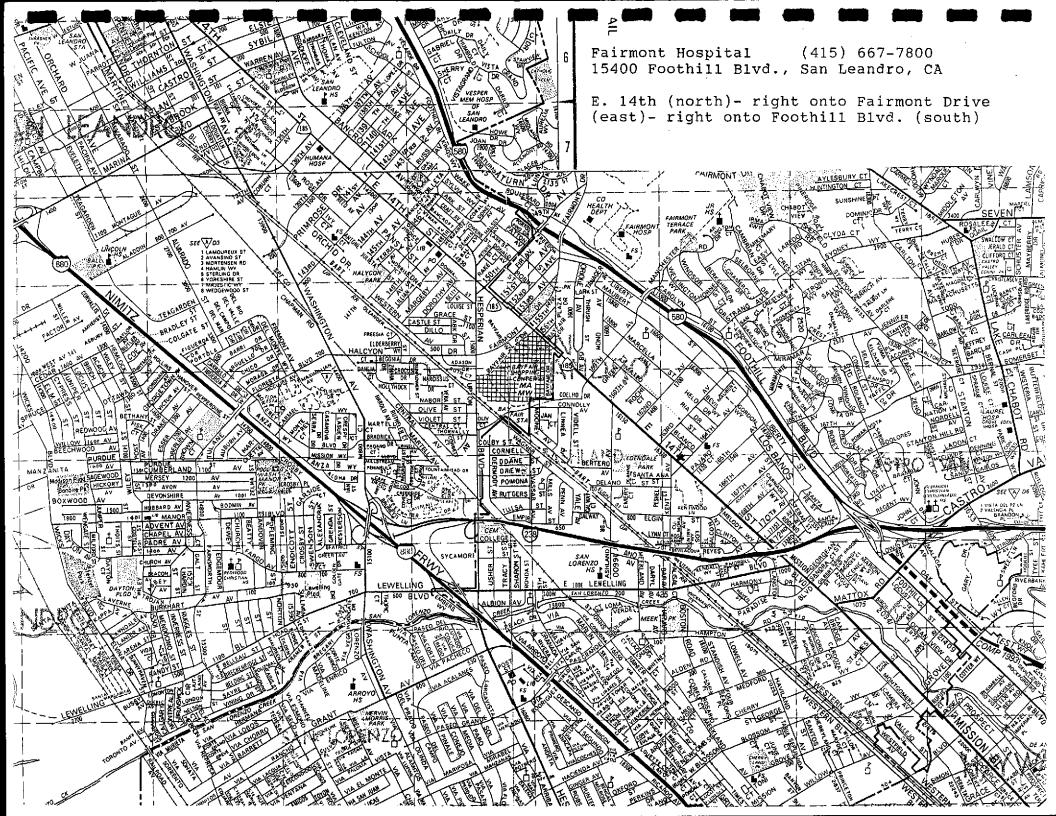
Name of Visitor

Firm Name

Date/Time

STEVE WANCOCK

Croshy , Outroson 9:18 10:20 day



## HAZARDOUS PROPERTY IXFORMATION (continued)

CHECK IF	ALIASTAN	WATER SOLUBILITY(#)	SPECIFIC GRAVITY	YAPOR DEMSITY	FLASH POINT of	YAPOR PRESSURE(e)	LEL UEL	LD 50 mg/kg	TLY-TIM(g)	level Ioux	COOR THRESHOLD OR WARNING CONCENTRATION	NAZARO(j) PROPERTI		ACCUTE(1) EXPOSURE SYMPTOMS
*******	hero	8,4%	1.0576	3,2	175	0.36ma	1.8X 6.6X	414	5рри	100ppm	0.47-5 (48)	¢		ABCDGT ONCOR
	Xy( ene	0.00003X	0.8642	3.7	84	9mm	1.1X 7X	5000 .	100ррж	10,000рр=	0.5-200 (200)	1CO		ABEHIKLMİPQ
	Acetone	soluble	0.8	2.0	. 4	400mm	2.6% 12.8%	9750	750ppm	10,000ppm	100	800	bl	×
	Chromic Acid	_ soluble	1.67-2.82	r/s	none	N/a	non (Lea		none established	none specified		ACEG		CEX
	plesel fuel "	inectuble	0.61-0.90	••	130	••	0.6-1.3 6-755		none established	none apecified	80,0	BC	ABC	IN .
	Gasoline	Insoluble	0,72-0.76	3-4	-45	variable	1.4X 7.6X		300cps	none specified	0.005-10 x 0.25	B	A.B	IK
	Kerosena	Insoluble	0.83-1.0	••	100-165	\$	0.7%		none ,	none	1,0	800	A.B.	l x

### HAZARDOUS PROPERTY INFORMATION

CWECK IF	MITERIAL	UATER SOLUBILITY(#)	SPECIFIC	VAPOR TENSITY	FLASH POLNT of	VAPOR PRESSURE(+)	LEL	(D 50 Mg/kg	TLV-T\2A(g)	TÖLK LEVEL	COOR THRESHOLD OR MARKING CONCENTRATION	PROPERTY		ACOUTE(() EXPOSURE SYMPTOMS
VOLATILE	DEGANIC PRIORITY POCLUTANTS Acrolein	27%	0.8410	1.9	· 15	214cm	2.8X 31X	46	- 0,1pp≡	5ppm	0,1-16,6 (0,21-0,5)	BCEO	1.1	ABOFCHIKLIMO POR
	Acrylyonitrile	7,1%	0.8060	1.8	30	83	3% 17%	82	2рря	4,000pps	19-100	BCECO	DIG	FG[ELHHOR
	Benzene	820рря	0.8765	2.6	. 12	75am	0.339X 7/1X	3800	11pps	2,000ppm	4.68	BÇCD	CIG	RCDEHTKF/MCCI
	Encoune thane	0.10	1.732	3.3	none	1,85at≉	13.5%c 14.5%		• • • • • • • • • • • • • • • • • • • •	2,000ppm •	na ador.	ත		BCDE1JXU≫CO £
	Rrowodichloromethane	insoluble	1,980	••	none	<b>№</b>	non flam	916	none established	none specified		cco		Stree
	Bromoform	910.0	2,867	••	none	5 <del>-m</del>	non flain	1147	0,\$ <del>ром</del>	~■	\$30	ŒĐ		BCD10₩
	Carbon Tetrachioride	0,06%	1.5967	5.3	none	91 <del>ma</del>	non fles	2800	5pp#h	300ppm	21.4-200	<b>CD</b> .	KOL	ABCFGHCMQ
	Chit or obenzene	0.01g	1,1058	3.9	84	8.8-	1.3X 9.6X	2910	75фри	2,400ppm	0.21.60	8.00	CIF	SCF LKLHHOPOR
	Chi or oe thane	0.69	0.8978	2.2	-58	1,36atm	3.6% 15.4%		1000ррм	20,000pps		ECD		B F X I LOWP
	2-Chloroethylvinyl Ether	fneoluble	1.0475	3.7	80	30mm	••	250	none established	none specified		800		KIM
	Chloroform	0.89	1.4832	4.12	none	160 <del>m</del>	non flam	800	10pp#h	1,000pps	50-307 fatique (>40%	, "		BCEGIEL799
	Chloromethans	0.74%	0.9159	1.8	25	50stm	7.6X 19X		50 <del>ppsh</del>	18,000ррж	10-100 no odor (500-1000)	#CD	0×f	DK ABCDEFGLIKED
	Dibromochionomethane	(neatuble	2.451	••			••	54.8	none established	none specified		B CD		8 FH (PMPQ
	1,1-Dichtoroethane (DCA)	0.1g	1.1757	8,4	55	1.62×00	61 161	725	100ppm	4,000рря	Spp#	ECD		OWNIHBA

# HAZARDOUS PROPERTY INFORMATION (continued)

					KATAR	DOUS PROPERTY	INFORMATION (	continued	)				١.	
		LAZTREHERVOES:	specific	VAPOR	FLASK POINT	гайнанданданда VAPOR		LÖ 50 mg/kg	rantrettenten f[V-TWA(g)	IDLK LEVEL	CONTRACTOR OF THE STREET	PROPERTY	[LDX LL] L1	SADIONA SADION
CHECK	MITERIAL	POVINCE STYLES	CRAVITY	DEXSITY	oF	PRESSURE(e)	UEL	MAY ARE EL	**********	*******	***********	********	19619522	
P#ESENT	MATERIAL 2222224222222222222222222222222222222	0.8%	1.2554	3.4	55	87 ма	6.2X 16X	670	10ppmh	1,000pp#	бром	BC⊅G		BCECOL HHQ
	1,1-Dichloroetkylene (bCE)	2250+q/l	••	3.4	3	59 l me	7.3X 16.0X	200	\$pp#h	none specified		100		8 T/PH
	trade-1,2-21chloroethylene	alightly	1.2565	• •	36	400 <del>-es</del>	9.7% 12.8%		<sup>' none</sup> established	none specified	_0043mg/l	800		ABFILOQ
	1,2 pichlocopropune	#1dulo# %%%.0	1.1583	3.9	60	4.Oven	3.4% 14.5%	1900	75pp#.	2,000ppm	50	100		ABGN I KMM9
	Cis-1,3-0(chloropropere	[restable	1,2	3,8	63	28	5% 14,5%		1 <del>pp=h</del>	none specified		\$00		ABGIKLMKP
	Trans-1,3-61chleropropene	fnsotuble	1.2	3.8	6.3	Zâm	5% 14.5%		1 <del>ppsh</del>	none specified		\$CD		ABGIKLMAP
	Ethylbenzene	0,015g	0.867	3.7	59	7,114	1.0% 6.7%	3500	100ppm	2,000ppm		#CD	CIF	ABFX   KLMHPOR
	Methylane Chloride	ilightly	1,335	, 2.9	none	350ms	12%c unevallable	167	100pp=h	5,000ppm	25+320 (200)	CED	CIF	SC1KU/HIPK
	1,1,2,2-fetrackloroethana	0.19%	1.5953	5.8	none	5ma	non flam		1 ppmh	150pps	3-5	æ		YPC1.H1.KT MHCd
	Tetrachlocoethylene	0.15g/=0	1,6227	5.6	none	15,8 <del>m</del> .	non flam	8850	50pp#h	500pp <del>s</del>	4,68X-50 (160-690)	CD		ACFRITLENP
	1,1,1-Trichloroethene (TCA	) 0.7g	1.3390	4.6	none	100mm	8.0%c 10,5%	10300	350ppm	1,000pps	20-400 (500-1000)	\$CED		4OKTX LK134PY
	1,1,2-TrichLoroethene	0.45	1.439	7 , 4,6	noné	1 <del>944</del>	6Xc 15.5X	1140	10pp#	500ppm	-0-	c		8EFGHI™O™OP Q
	Trichtoroethylene (TDE)	0.1x	1.464	2 4.5	90d	58 <del>un</del>	12.5X 90X	1920	\$Oppwh	1,000ppm	21.4-400	10		BEXLWOP4
	Trichlorofluoromethene	0.11g	1.494		noné	0.914tm	non fl=t		1000ppm	10,000 <del>pp</del>	135-209	æ		8 FHKLQ
	foluene	0.05g	0.866	3.2	40	2.2mm	1.3X 7.1X	5000	100ppm	2,000pp=	0.17-40 fatigue (300-400)	BC	311 €	PSOME JULIANS
										,				

... A2996 L

# HAZARDOUS PROPERTY INFORMATION

### EXPLANATIONS AND FOOTNOTES

Water solubility is expressed in different terms in different references. Many references use the term "insoluble" for materials that will not readily mix with water, such as gasoline. However, most of these materials are water soluble at the part per million or part per billion level. Gasoline, for example, is insoluble in the gross sense, and will be found as a discreet layer on top of the ground water. But certain gasoline constituents, such as benzene, toluene, and xylene will also be found in solution in the ground water at the part per million of part per billion level.

- a. Water solubility expressed as 0.2g means 0.2 grams per 100 grams water at 20°C.
- b. Solubility of metals depends on the compound in which they are present.
- c. Several chlorinated hydrocarbons exhibit no flash point in conventional sense, but will burn in presence of high energy ignition source or will form explosive mixtures at temperatures above 200°F.
- d. Practically non-flammable under standard conditions.
- e. Expressed as mm Hg under standard conditions.
- f. Explosive concentrations of airborne dust can occur in confined areas.
- g. Values for Threshold Limit Value-Time Weighted Average (TLV-TWA) are OSHA Permissable Exposure Limits except where noted in h and i.
- h: TLV-TWA adopted by the American Conference of Governmental Industrial Hygienists, which is lower than the OSHA PEL.
- i. TLV-TWA recommended by the national Institute for Occupational Safety and Health (NIOSH). A TLV or PEL has not been adopted by ACGIH or OSHA.
- j. A corrosive

- B flammable
- C toxic
- D volatile
- E reactive
- F radioactive
- G carcinogen
- H infectious v

Dermal Toxicity data is summarized in the following three categories:

# Skin Penetration

Ų.

- negligible penetration (solid-polar) A
- slight penetration (solid-nonpolar) moderate penetration (liquid/solid-nonpolar) В
- high penetration (gas/liquid-nonpolar) C D

# Systemic Potency

- slight hazard LD50 500-15,000 mg/kg lethal dose for 70 kg man = 1 pint-1 quart E
- moderate hazard LD<sub>50</sub> = 50-500 mg/kg lethal dose for 70 kg man - 1 ounce-1 pint ٢
- extreme hazard LD<sub>50</sub> = 10-50 mg/kg lethal dose for 70 kg/man = drops to 20 ml G

# Local Potency

- slight reddening of skin Н
- moderate irritation/inflamation of skin
- extreme tissue destruction/necrosis

# Acute Exposure Symptoms

- abdominal pain Α
- central nervous system depression В
- comatose C
- convulsions D
- confusion E
- dizzyness F
- diarrhea G
- drowsiness Η
- eye irritation I
- fever J
- headache. K
- nausea L
- respiratory system irritation M
- skin irritation
- tremors 0
- unconsciousness P
- vomiting
- weakness

	UNDERGROUND STORAGE TANK UNAUTHORIZE	D RELEASE (LEAK) / CONTAMINATIO	N SITE REPORT
EMI	REPORT BEEN FILED? YES X NO	FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I AM A DESIGNATED GOVERNM	ENT EMPLOYEE AND THAT I HAVE
REP	ORT DATE CASE #	REPORTED THIS INFORMATION TO LOCAL OFFICIALS PL THE HEALTH AND SAFTY CODE	URSUANT TO SECTION 25180.7 OF
1		SIGNED	DATE
_	NAME OF INDIVIDUAL FILING REPORT PHONE  DAVE SADOFF (415		
TED BY	REPRESENTING X OWNER/OPERATOR REGIONAL BOARD	6) 633-0336 COMPANY OR AGENCY NAME	<u>.                                    </u>
REPORTED	LOCAL AGENCY OTHER	CROSBY & OVERTON, INC.	
	ADDRESS		- <del></del>
끸	8430 AMELTA STREET OAKLAN	D CITY CA S CONTACT PERSON	TATE 94621 ZIP PHONE
RESPONSIBLE PARTY	MS. ANN MARIE HOLLAND UNKNOWN	SAME	(415) 481-2288
RESP	address 16301 E. 14TH SAN LEANDRO	car. CA	94578 ZIP
	FACILITY NAME (IF APPLICABLE)	OPERATOR S	PHONE ZIP
NOL	JACK HOLLAND SR., OIL CORP.		(415) 481-2288
SITE LOCATION	ADDRESS  16301 E. 14TH STREET SAN LEANDRO	cro. CA	94578 m
ST.	CROSS STREET SAN LEANURU	CITY OH C	оинту 94910 <sub>ZIP</sub>
<u></u>	163 RD LOCAL AGENCY MAME		
IMPLEMENTING AGENCIES	LOCAL AGENCY AGENCY NAME ALAMEDA COUNTY HEALTH	CONTACT PERSON  LARRY SETO	PHONE #15 ) 271-4320
PLEME	REGIONAL BOARD	DARRI SEIO	PHONE PHONE
_			( )
l	(1) NAME	(	QUANTITY LOST (GALLONS)
N See	NTECET		TT HINKNOWN
JBSTANCES INVOLVED	DIESEL (2)		X UNKNOWN
T SUBSTANCES INVOLVED	DATE DISCOVERED LIGHT DISCOVERED		UNKNOWN
	DATE DISCOVERED HOW DISCOVERED INVE	NTORY CONTROL SUBSURFACE MONITORING KREMOVAL Y OTHER STYR TNSPR	UNKNOWN  NUISANCE CONDITIONS
	DATE DISCOVERED HOW DISCOVERED INVE  O M 16M 2 D 1 D 8 Y 9 Y TANK TEST TANK  DATE DISCHARGE BEGAN	K REMOVAL X OTHER STTE INSPE	UNKNOWN  NUISANCE CONDITIONS  CTION  PLY)
HY/ABATEMENT	DATE DISCOVERED HOW DISCOVERED INVE  O M 14M 2 o 1 o 18 y 9 y TANK TEST TANK  DATE DISCHARGE BEGAN  M M 0 0 y y X UNKNOWN	REMOVAL X OTHER STTE INSPE	UNKNOWN  NUISANCE CONDITIONS  CTION  PPLY)  CLOSE TANK
	DATE DISCOVERED HOW DISCOVERED INVE  O M 4M 2 D 1 D 8 Y Y TANK TEST TANK  DATE DISCHARGE BEGAN  M M D D Y Y X UNKNOWN  HAS DISCHARGE BEEN STOPPED?	K REMOVAL X OTHER STTE INSPE	UNKNOWN  NUISANCE CONDITIONS  CTION  PLY)
DISCOVERY/ABATEMENT	DATE DISCOVERED HOW DISCOVERED INVE  O M 4M 2 0 1 0 8 y 9 y TANK TEST TANK  DATE DISCHARGE BEGAN  M M 0 0 y y X UNKNOWN  HAS DISCHARGE BEEN STOPPED?  YES X NO IF YES, DATE M M D 0 y y  SOURCE DE DISCHARGE	K REMOVAL X OTHER STTE INSPE  METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF  REMOVE CONTENTS REPLACE TANK  REPAIR TANK REPAIR PIPING	UNKNOWN  NUISANCE CONDITIONS  CTION  PPLY)  CLOSE TANK
DISCOVERY/ABATEMENT	DATE DISCOVERED HOW DISCOVERED INVE  O M IM 2 D 1 D 8 Y Y TANK TEST TANK  DATE DISCHARGE BEGAN  M M D D Y Y X UNKNOWN  HAS DISCHARGE BEEN STOPPED?  YES X NO IF YES, DATE M M D D Y Y  SOURCE OF DISCHARGE  TANK LEAK X UNKNOWN OVER THE DISCHARGE CAUSE(S)	K REMOVAL X OTHER STTE INSPE  METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF  REMOVE CONTENTS REPLACE TANK REPAIR TANK REPAIR PIPING  OTHER  ERFILL RUPTURE/FAILURE	UNKNOWN  NUISANCE CONDITIONS  CTTON  CLOSE TANK  CHANGE PROCEDURE  SPILL
SOURCE/ DISCOVERY/ABATEMENT CAUSE	DATE DISCOVERED HOW DISCOVERED INVE  O M	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF REMOVE CONTENTS REPLACE TANK REPAIR TANK REPAIR PIPING OTHER	UNKNOWN  NUISANCE CONDITIONS  CTION  PPLY)  CLOSE TANK  CHANGE PROCEDURE
DISCOVERY/ABATEMENT	DATE DISCOVERED HOW DISCOVERED INVE  O M 1	K REMOVAL X OTHER STTE INSPE  METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF  REMOVE CONTENTS REPLACE TANK REPAIR TANK REPAIR PIPING  OTHER  ERFILL RUPTURE/FAILURE	UNKNOWN  NUISANCE CONDITIONS  CTION  CLOSE TANK  CHANGE PROCEDURE  SPILL  OTHER
CASE SOURCE/ DISCOVERY/ABATEMENT	DATE DISCOVERED HOW DISCOVERED INVE  O M	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF REMOVE CONTENTS REPLACE TANK REPAIR TANK REPAIR PIPING OTHER  ERFILL RUPTURE/FAILURE RROSION X UNKNOWN DRINKING WATER - (CHECK ONLY IF WATER WELLS H	UNKNOWN  NUISANCE CONDITIONS  CTION  CLOSE TANK  CHANGE PROCEDURE  SPILL  OTHER  IAVE ACTUALLY BEEN AFFECTED)
CASE SOURCE/ DISCOVERY/ABATEMENT	DATE DISCOVERED HOW DISCOVERED INVE  O M	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF REMOVE CONTENTS REPLACE TANK REPAIR TANK REPAIR PIPING OTHER  CAPILL RUPTURE/FAILURE RROSION X UNKNOWN  DRINKING WATER - (CHECK ONLY IF WATER WELLS H WORKPLAN SUBMITTED POLLUTION CHAR	UNKNOWN  NUISANCE CONDITIONS  CTION  CLOSE TANK  CHANGE PROCEDURE  SPILL  OTHER  IAVE ACTUALLY BEEN AFFECTED)
SOURCE/ DISCOVERY/ABATEMENT CAUSE	DATE DISCOVERED HOW DISCOVERED INVE  O M 1	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF REMOVE CONTENTS REPLACE TANK REPAIR TANK REPAIR PIPING OTHER  CASE  CASE CASE CASE CASE CASE CASE CA	UNKNOWN    NUISANCE CONDITIONS    CTTON
CURRENT CASE SOURCE/ DISCOVERY/ABATEMENT STATUS	DATE DISCOVERED HOW DISCOVERED INVE  O M 1	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF    REMOVE CONTENTS	UNKNOWN    NUISANCE CONDITIONS    CTTON
CASE SOURCE/ DISCOVERY/ABATEMENT	DATE DISCOVERED HOW DISCOVERED INVE  O M 1	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF REMOVE CONTENTS REPLACE TANK REPAIR TANK REPAIR PIPING OTHER  CHECK ONLY IF WATER WELLS H  WORKPLAN SUBMITTED POLLUTION CHAR- UNDERWAY POST CLEANUP MA  TIED OR UNNECESSARY) CLEANUP UNDERW  REMOVE FREE PRODUCT (FP)  FUMP & TREAT GROUNDWATER (GT)	UNKNOWN    NUISANCE CONDITIONS    CTION
CURRENT CASE SOURCE/ DISCOVERY/ABATEMENT STATUS	DATE DISCOVERED HOW DISCOVERED INVE  O M 1	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF REMOVE CONTENTS REPLACE TANK REPAIR TANK REPAIR PIPING OTHER  CHECK ONLY IF WATER WELLS H  WORKPLAN SUBMITTED POLLUTION CHAR- UNDERWAY POST CLEANUP MA  TIED OR UNNECESSARY) CLEANUP UNDERW  REMOVE FREE PRODUCT (FP)  FUMP & TREAT GROUNDWATER (GT)	UNKNOWN    NUISANCE CONDITIONS    CTTON
REMEDIAL CURRENT CASE SOURCE/ DISCOVERY/ABATEMENT ACTION STATUS TYPE CAUSE	DATE DISCOVERED HOW DISCOVERED INVE  O M 1	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF REMOVE CONTENTS REPLACE TANK REPAIR TANK REPAIR PIPING OTHER  CHECK ONLY IF WATER WELLS H  WORKPLAN SUBMITTED POLLUTION CHAR- UNDERWAY POST CLEANUP MA  TIED OR UNNECESSARY) CLEANUP UNDERW  REMOVE FREE PRODUCT (FP)  FUMP & TREAT GROUNDWATER (GT)	UNKNOWN    NUISANCE CONDITIONS   CTTON
CURRENT CASE SOURCE/ DISCOVERY/ABATEMENT STATUS	DATE DISCOVERED HOW DISCOVERED INVE  O M 1	METHOD USED TO STOP DISCHARGE (CHECK ALL THAT AF REMOVE CONTENTS REPLACE TANK REPAIR TANK REPAIR PIPING OTHER  CHECK ONLY IF WATER WELLS H  WORKPLAN SUBMITTED POLLUTION CHAR- UNDERWAY POST CLEANUP MA  TIED OR UNNECESSARY) CLEANUP UNDERW  REMOVE FREE PRODUCT (FP)  FUMP & TREAT GROUNDWATER (GT)	UNKNOWN    NUISANCE CONDITIONS   CTTON