

A Report Prepared for


Carnation Company  
800 North Brand Boulevard  
Glendale, California 91203

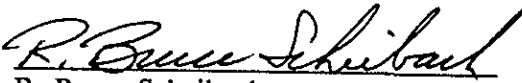
**SITE CHARACTERIZATION REPORT  
CARNATION FACILITY  
OAKLAND, CALIFORNIA**

HLA Job No. 20294,011.02

9-17-91

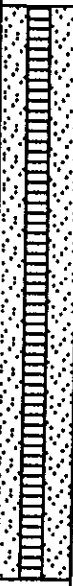



by

  
\_\_\_\_\_  
Daniel J. Craig  
Senior Hydrogeologist

  
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R. Bruce Scheibach  
Principal Hydrogeologist

Harding Lawson Associates  
7655 Redwood Boulevard  
P.O. Box 578  
Novato, California 94948  
415/892-0821

September 17, 1991

REMARKS	SAMP. NO.	TLU READ	BLOWS / 6"	SAMP TYPE	WELL CONST	DEPTH (FT.)	USCS CLASS.	SOIL DESCRIPTION
No Hydrocarbon Odor								
								<p data-bbox="933 777 1347 808">Boring Terminated at 27 feet on 8-29-89</p>

DATE STARTED: 8/29/89

DATE COMPLETED: 8/29/89

TIME STARTED:

TIME COMPLETED:

DRILLING EQUIPMENT: Hollow Stem Auger

SURFACE CONDITIONS: Asphaltic Concrete

SURFACE ELEVATION: 13.90

COORDINATES: N 2,704.7 E 3,220.1

GROUNDWATER CONDITIONS: Free Groundwater Encountered at 14 feet during drilling

DRILLING CONTRACTOR: Accubore

SLOT SIZE: 0.02 inch

BORING DIAMETER: 10 inches

BORING DEPTH: 27.0 feet

CASING DIAMETER: 4 inch

CASING DEPTH: 27 feet

LOGGED BY: Robyn McKinney

FILTER PACK: #2/16 Sand

REMARKS	SAMP. NO.	TLV READ	BLOWS / 6"	WELL CONST (FT.)	DEPTH (FT.)	USCS CLASS.	SOIL DESCRIPTION
						SM	Asphaltic Concrete
					2		Aggregate Baserock
Hydrocarbon Odor	1176				4		SILTY SAND(SM) Dark Gray to Black, dry-to-moist, medium dense grades moist
	1177						
	1178				6	SC	CLAYEY SAND(SC) Blue Gray, moist-to-wet, medium dense
			7			SM	
Hydrocarbon Odor	1179	100	8		8		SILTY SAND(SM) Brown, dry-to-moist, medium dense
			12				color change to Mottled Gray Brown
Hydrocarbon Odor	1180		5		10		
			5				
			9		12		
No Hydrocarbon Odor		70			14		Free Groundwater Encountered at 14 feet during drilling
		70			16		
No Hydrocarbon Odor		80					

AGE \_\_\_\_\_


ANANIA GEOLOGIC ENGINEERING

PROJECT NO. 004-88-059

Carnation Dairy Facility  
1310 14th St., Oakland, Ca.

LOG OF MW-OS28

Sheet 1 of 2

REMARKS	SAMP. NO.	TLU READ	BLOWS / 6"	SAMP TYPE	WELL CONST	DEPTH (FT.)	USCS CLASS.	SOIL DESCRIPTION
No Hydrocarbon Odor						20 22 24 26 28 30 32 34 36 38 40 42		color change to brown  Boring Terminated at 24 1/2 feet on 8-28-89

**AGE**  
**ANANIA GEOLOGIC ENGINEERING**  
 PROJECT NO. 004-88-059

Carnation Dairy Facility  
 1310 14th St., Oakland, Ca.  
**LOG OF MW-OS27**

Sheet 2 of 2

DATE STARTED: 8/28/89  
 DATE COMPLETED: 8/28/89  
 TIME STARTED:  
 TIME COMPLETED:  
 DRILLING EQUIPMENT: Hollow Stem Auger

SURFACE CONDITIONS: Asphaltic Concrete  
 SURFACE ELEVATION: 14.33  
 COORDINATES: N 2,666.4 E 3,271.2  
 GROUNDWATER CONDITIONS: Free Groundwater Encountered at 14 feet during drilling

DRILLING CONTRACTOR: Accubore  
 BORING DIAMETER: 10 inches  
 CASING DIAMETER: 4 inch  
 LOGGED BY: Robyn McKinney

SLOT SIZE: .020 inch  
 BORING DEPTH: 24.5 feet  
 CASING DEPTH: 24 feet  
 FILTER PACK: #2/16 sand

REMARKS	SAMP. NO.	TLU READ	BLOWS / 6"	SAMP. TYPE	WELL CONST.	DEPTH (FT.)	USCS CLASS.	SOIL DESCRIPTION
								Asphaltic Concrete
	1172	400	7 10 15			2 4 6	SM	SILTY SAND(SM) Gray, dry-to-moist, medium dense with some clay
	1173	200	7 9 20			8 10 12 14 16		grades with increasing sand, color change to Gray-Brown  color change to Red-Brown, grades wet, grades with increasing clay content
TLV reading 70ppm at well head								

REMARKS	SAMP. NO.	TLU READ	BLOWS / 6"	SAMP. TYPE	WELL CONST	DEPTH (FT.)	USCS CLASS.	SOIL DESCRIPTION
						20 22 24		
						26 28 30 32 34 36 38 40 42		Boring Terminated at 25 feet on 8-24-89
<b>AGE</b> _____ <b>ANANIA GEOLOGIC ENGINEERING</b> <b>PROJECT NO. 004-88-059</b>					<b>Carnation Dairy Facility</b> <b>1310 14th St., Oakland, Ca.</b> <b>LOG OF MW-OS26</b>			<b>Sheet 2 of 2</b>

DATE STARTED: 8/24/89

DATE COMPLETED: 8/24/89

TIME STARTED:

TIME COMPLETED:

DRILLING EQUIPMENT: Hollow Stem Auger

DRILLING CONTRACTOR: Accubore

BORING DIAMETER: 10 inches

CASING DIAMETER: 4 inches

LOGGED BY: Robyn McKinney

SURFACE CONDITIONS: Asphaltic Concrete

SURFACE ELEVATION: 13.55

COORDINATES: N 2,676.8 E 3,206.4

GROUNDWATER CONDITIONS: Free Groundwater Encountered at 17 feet during drilling

SLOT SIZE: 0.02 inch

BORING DEPTH: 25.0 feet

CASING DEPTH: 25 feet

FILTER PACK: #2/16 sand

REMARKS	SAMP. NO.	TLV READ	BLOWS / 6"	SAMP TYPE	WELL CONST (FT.)	DEPTH (FT.)	USCS CLASS.	SOIL DESCRIPTION
		75						Asphaltic Concrete
	2097	100						SM Portland Cement Concrete
		110				2		
	2098	110						Aggregate Baserock, does not appear to be stained
		110						
	2099	130						
Hydrocarbon Odor		230				4		
	2100	150						Silty SAND (SM) Dark Gray to Black, dry to moist, medium dense, color change to Black grades moist
Slight Hydrocarbon Odor		200						color change to Green Gray, grades with some clay
	2101	180				6		color change to Green Gray, slightly moist
Hydrocarbon Odor			5					
			7					
	2103	5500	12			8		
Hydrocarbon Odor								
	2109		3					
Hydrocarbon Odor			12					
Pulled auger to ream with plug	2104	500	10			10		color change to Red, grades moist
						12		
		600				14		grades with increasing clay content
						16		
		600						Free Water Encountered at 17 feet during drilling

AGE

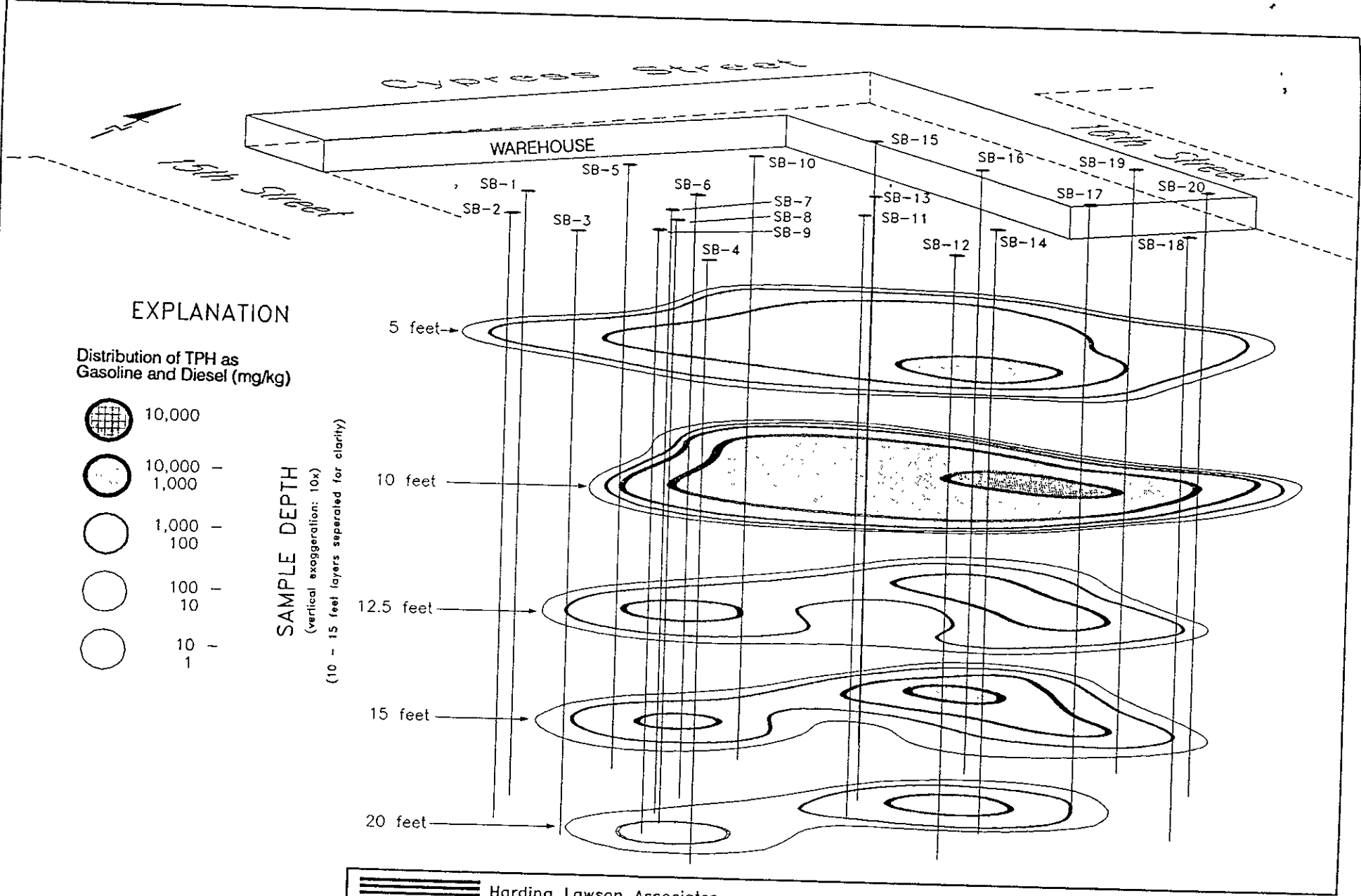
ANANIA GEOLOGIC ENGINEERING

PROJECT NO. 004-88-059

Carnation Dairy Facility  
1310 14th St., Oakland, Ca.

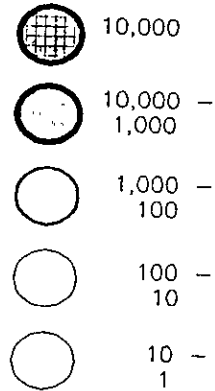
LOG OF MW-OS26

Sheet 1 of 2



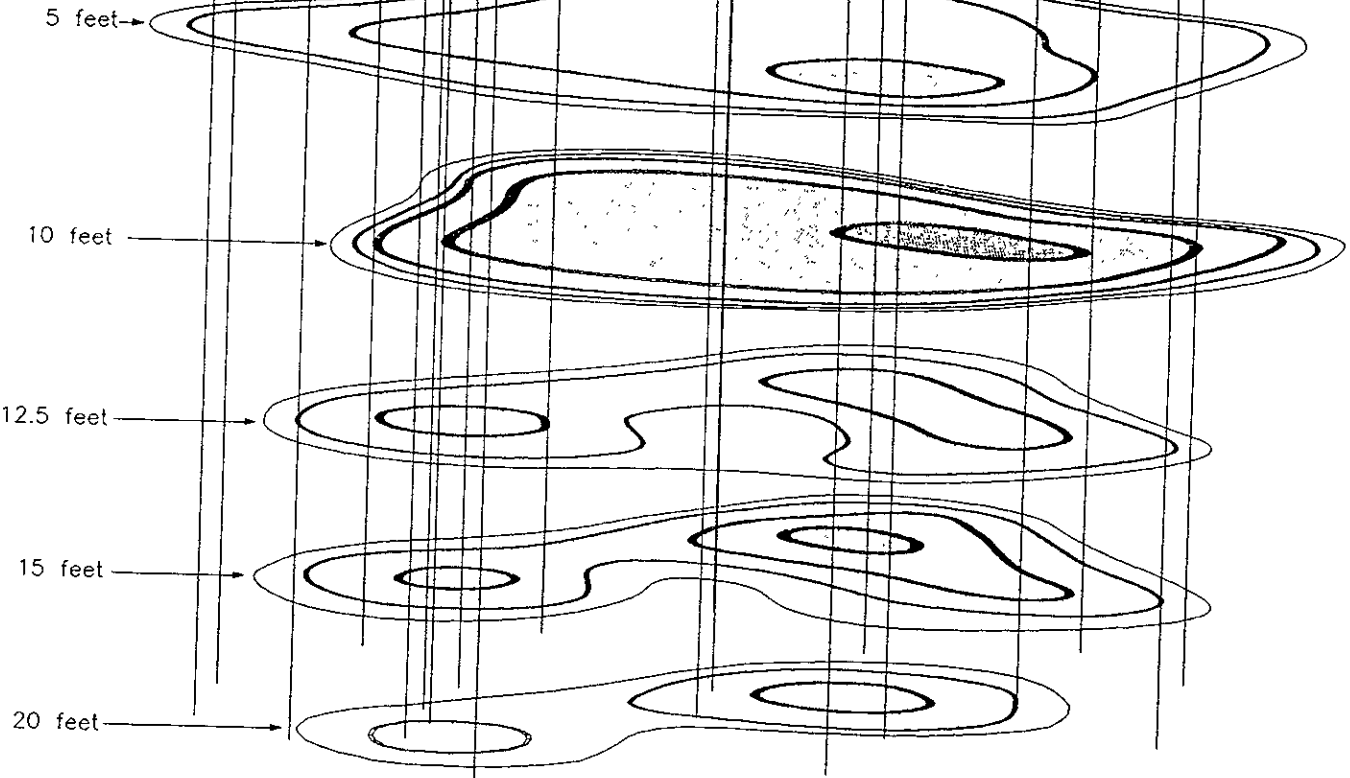
**EXPLANATION**

Distribution of TPH as Gasoline and Diesel (mg/kg)



**SAMPLE DEPTH**

(vertical exaggeration: 10x)  
(10 - 15 feet layers separated for clarity)



**Harding Lawson Associates**  
Engineering and Environmental Services

**TPH in Soil with Depth**  
Carnation Facility  
Oakland, California

PLATE

14

DRAWN: RWS  
JOB NUMBER: 202994,011.02

APPROVED: *D. J. Cronig*

DATE: 8/91

REVISED DATE