# ALAMEDA COUNTY HEALTH CARE SERVICES





DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

#### REMEDIAL ACTION COMPLETION CERTIFICATION

RO-215 - 344 105<sup>th</sup> Avenue, Oakland, CA (1-3000 gallon tank removed on February 29, 1989)

March 26, 2002

Mr. Carlo Christensen 18367 Reamer Road Castro Valley, CA 94546 Mr. Leon Mayer 2252 Marina Blvd San Leandro, CA 94577

Dear Messrs. Mayer and Christensen:

This letter confirms the completion of site investigation and corrective action for the underground storage tank formerly located at the above-described location. Thank you for your cooperation throughout this investigation. Your willingness and promptness in responding to our inquiries concerning the former underground storage tanks are greatly appreciated.

Based on information in the above-referenced file and with the provision that the information provided to this agency was accurate and representative of site conditions, this agency finds that the site investigation and corrective action carried out at your underground storage tank site is in compliance with the requirements of subdivisions (a) and (b) of Section 25299.37 of the Health and Safety Code and with corrective action regulations adopted pursuant to Section 25299.77 of the Health and Safety Code and that no further action related to the petroleum release(s) at the site is required.

This notice is issued pursuant to subdivision (h) of Section 25299.37 of the Health and Safety Code. Please contact our office if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung, Director

cc: Chuck Headlee, RWQCB Dave Deaner, SWRCB Leroy Griffin, OFD /files-ec (mayer-10) AGENCY DAVID J. KEARS, Agency Director



**ENVIRONMENTAL HEALTH SERVICES** 

ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

R00000215

March 26, 2002

Mr. Carlo Christensen 18367 Reamer Road Castro Valley, CA 94546 Mr. Leon Mayer 2252 Marina Blvd San Leandro, CA 94577

Re: Fuel Leak Site Case Closure for 344 105th Avenue, Oakland, CA

Dear Messrs. Christensen and Mayer:

This letter transmits the enclosed underground storage tank (UST) case closure letter in accordance with Chapter 6.75 (Article 4, Section 25299.37[h]). The State Water Resources Control Board adopted this letter on February 20, 1997. As of March 1, 1997, the Alameda County Environmental Protection Division is required to use this case closure letter for all UST leak sites. We are also transmitting to you the enclosed case closure summary. These documents confirm the completion of the investigation and cleanup of the reported release at the subject site. The subject fuel leak case is closed.

#### SITE INVESTIGATION AND CLEANUP SUMMARY

Please be advised that the following conditions exist at the site:

- up to 660 ppm TPH as diesel exists in soil beneath the site at 20 feet bgs;
- two groundwater monitoring wells may still exist at the site that were not property decommissioned

If you have any questions, please contact me at (510) 567-6762.

eva chu

Hazardous Materials Specialist

enlosures:

1. Case Closure Letter

2. Case Closure Summary

c: Mark Gomez, City of Oakland, Public Works, 250 Frank H Ogawa Plaza, Suite 5301 Oakland, CA 94612 (w/o)

files (mayer11)

# CASE CLOSURE SUMMARY COLOR CASE CLOSURE CASE CLOSURE SUMMARY COLOR CASE CLOSURE C

**AGENCY INFORMATION** 

Date: November 4, 1998

QUALITY CONTROL BOARD

CALIFORNIA REGIONAL WATER

Agency name: Alameda County-HazMat City/State/Zip: Alameda, CA 94502

Address: 1131 Harbor Bay Pkwy

Phone: (510) 567-6700

Responsible staff person: Eva Chu

Title: Hazardous Materials Spec

II. CASE INFORMATION

Site facility name: Mayer Development

Site facility address: 344 105th Ave, Oakland, CA 94603

RB LUSTIS Case No: N/A URF filing date: 2/22/89

Local Case No./LOP Case No.: 4242

SWEEPS No: N/A

Responsible Parties:

Addresses:

**Phone Numbers:** 

Leon Mayer and Carlo Christensen 753 Peralta Avenue

San Leandro, CA 94577

Tank Size in

Contents:

Closed in-place

Date:

No: gal.:

or removed?:

1

3.000

**Heating Oil** 

Removed

2/29/89

#### III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: Leaking UST (holes in tank)

Site characterization complete? YES

Date approved by oversight agency: 2/4/98 Monitoring Wells installed? Yes Number: 3 Proper screened interval? Yes, 11' to 25'bgs

Highest/Lowest GW depth below ground surface: Not well documented, but depth to groundwater

appears to range from "9" to 18' bgs.

Flow direction: Westerly

Most sensitive current use: Residential

Are drinking water wells affected? No Aguifer name: Unknown is surface water affected? No Nearest affected SW name: NA Off-site beneficial use impacts (addresses/locations): None

Report(s) on file? YES Where is report(s) filed? Alameda County

and

Oakland Fire Dept

1131 Harbor Bay Pkwy Alameda, CA 94502

Oakland, CA 94612

505 14" St, 5" Fl.

#### Treatment and Disposal of Affected Material:

<u>Material</u>	Amount (include units)	Action (Treatment or Disposal w/destination)	Date
Tank	1 UST	Disposed by H & H, San Francisco	2/28/89
Piping	100'	Unknown	Jan '90
Rinsate	2,000 gallon	Disposed by H & H, San Francisco	2/29/89
Soil	~5,000 cy	Remediated and re-used onsite	
	60 cy	BFI Landfill, Livermore	9/1992

Maximum Docum Contaminant	ented Contam Soil (p		ns Before and After Cleanup Water (ppb)		
	Before <sup>1</sup>	After <sup>2</sup>	<u>Before⁴</u>	After <sup>5</sup>	
TPH (Gas)	1,100	NA	63	ND	
TPH (Diesel)	4,600	660	ND	ND	
Benzene	ND	$ND^3$	ND	ND	
Toluene	.071	.003 <sup>3</sup>	ND	ND	
Ethylbenzene	.017	$ND^3$	ND	ND	
Xylenes	.038	$ND^3$	ND	ND	
Oil & Grease	10,000	130 <sup>3</sup>	1.1	ND	
Other SVOC	se	ee note 6			

- NOTE: 1 soil sample from the tank pit, Jan 1990
  - 2 soil sample collected after ~5,000 cy of soil was excavated. TOG was not analyzed but most of this contamination was probably removed during overexcavation activities, 10/90
  - 3 soil sample from trenches dug in 105th Ave, Mar 1993
  - 4 groundwater concentrations from well GW-3, downgradient from former excavation.
  - 5 most recent sampling event, 10/91
  - 6 up to 1.4ppm pyrene, 3.9 ppm naphthalene, 1 ppm acenaphthene, 2 ppm fluorene, 0.9ppm N-nitrosodiphenylamine, 4.8ppm phenanthrene, 0.8ppm anthracene, and ~15ppm 2-methylnaphthalene were found in soil from the former tank pit.

No

#### IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the
Regional Board Basin Plan?
Does completed corrective action protect potential beneficial uses per the
Regional Board Basin Plan?
Does corrective action protect public health for current land use? YES
Site management requirements: None

Should corrective action be reviewed if land use changes?

onedia composive design personewed in and dee endinger

Monitoring wells Decommissioned: Yes

Number Decommissioned: 1 Number Retained: 2

List enforcement actions taken: NA List enforcement actions rescinded: NA

#### V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Eva Chu Title: Haz Mat Specialist

Signature: Date: 116/98

Reviewed by

Name: Barney Chan Title: Haz Mat Specialist

Signature: Barney Cho Date: 11/4(98

Name: Thomas Peacock Title: Supervisor

Signature: Muna Securch Date: 11-6-98

VI. RWQCB NOTIFICATION

Date Submitted to RB: 11/9/98 RB Response:

RWQCB Staff Name: Chuck Headlee A A Title: EG

Signature: Chul Gladel Date: 11/20/98

VII. ADDITIONAL COMMENTS, DATA, ETC.

The site was formerly a nursery for the cultivation of cut flowers. A private residence was also on the site. Recently the site was redeveloped and 36 low cost single-family dwellings were constructed. (See Figs 1 and 2)

On the northwest side of the property, ~5' from the sidewalk (105th Ave), was an UST which stored oil used to heat the greenhouses (see Fig 4). In December 1989 a trench was reportedly dug parallel to the UST. A soil sample was collected from 7' bgs along the west side of the UST and analyzed for TPHg, TPHd, TOG, SVOC, HVOC, Title 22 metals, chlorinated pesticides and PCBs. The soil from the trench was stained and emitted a strong hydrocarbon odor. Soil analytical results identified heavy petroleum in the diesel (2,560 ppm) and higher carbon range (4,370 ppm TRPH). Low levels of SVOC were also detected (0.6ppm naphthalene).

A second soil sample was taken in the area of the former greenhouses at a depth of 18". This soil sample was analyzed for chlorinated pesticides and PCBs. These constituents were not detected above the laboratory detection limits. A site plan is not available showing the location where this soil sample or the above sample was collected

On February 29, 1989 the UST was removed. Holes were noted on the bottom of the tank. Hydrocarbon liquid was oozing out of the tank. It was not until January 1990 that the product pipeline from the UST to the boiler, ~100' away, was removed. A total of 10 soil samples were collected from the piping trench, the tank pit, and from the stockpiled soil (see Figs 3 and 4, and Table 1 for description and approximate sampling locations). A maximum of 10,000 ppm TOG, 4,600 ppm TPHd, and 1,100 ppm TPHg were identified. Trace to non-detect levels of BTEX were identified. Low levels of SVOCs were also found (1.4 ppm pyrene, 3.9 ppm naphthalene, 1.0 ppm acenaphthene, 2.0 ppm fluorene, 0.9 ppm N-nitosodiphenylamine, 4.8 ppm phenanthrene, 0.8 ppm anthracene, and ~15 ppm 2-methylnaphthalene). Chlorinated pesticides were not found above the detection limits in surface soil.

In February 1990 three groundwater monitoring wells, GW-1 through GW-3, were installed. Soil samples (collected at 5' intervals from each borehole) and water samples did not contain TPHd or TRPH. Low levels of several SVOC compounds were identified in soil and groundwater. Groundwater flowed to the west. (See Fig 4 and Table 2)

In May 1990 three trenches were excavated to delineate the extent of soil contamination. Soil samples (T-1 through T-4) were collected (two from the tank excavation and two from a trench extending from the tank excavation). Low levels of TPHd (32ppm) were found in sample T-4. Low levels of TOG (up to 810 ppm) were found in sample T-4. (See Fig 5, Table 3)

The tank pit was overexcavated, destroying well GW-2. Groundwater was encountered at ~18' bgs. In September 1990 eight soil samples were collected from the sidewalls, just above groundwater. Five bottom pit samples were also collected at 20' to 25'bgs. Soil samples were analyzed for TPHd. Only samples 13 and 14 had hits of TPHd at 58 ppm and 660 ppm, respectively (see Fig 6 and 7). Stockpiled soil was also analyzed for TPHd and TPHmo. Up to 180 ppm TPHmo and ND levels of TPHd were identified.

A total of ~5,000 cy of soil was excavated and segregated into visibly clean and dirty stockpiles. The "dirty" stockpiled soil was remediated onsite using enhanced microbial degradation. Approximately 60 cy of the dirty soil was taken to BFI Landfill for disposal and the remaining "remediated" soil was used to backfill the pit. "Clean" soil from other areas of the site was also used to backfill the pit.

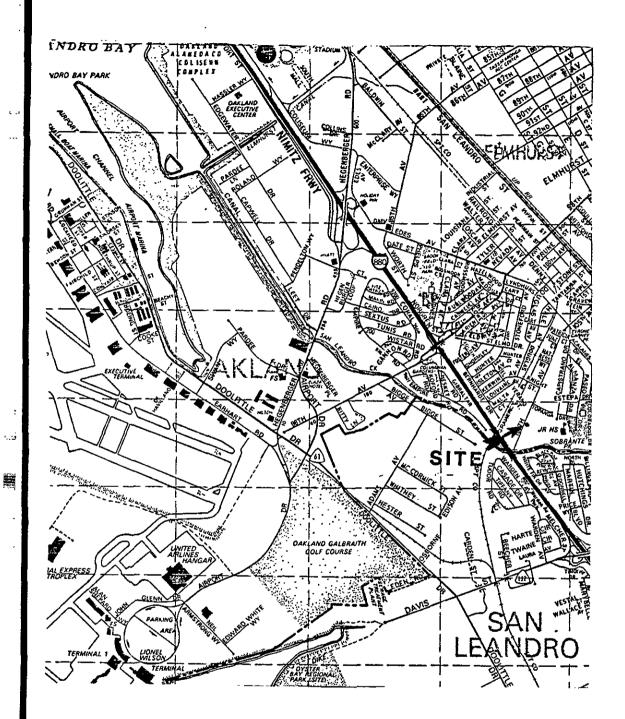
Between November 1992 and March 1993 three trenches running perpendicular to 105th Avenue were excavated for the installation of utility lines. The east trench was ~5' from and downgradient the former tank pit excavation. Soil samples were collected from each trench to delineate the extent of hydrocarbon contamination from the former UST. A total of six soil samples were analyzed for TPHd, TPHmo, BTEX, and TOG. Low or non-detectable concentrations of these constituents were identified. (See Fig 8, Table 4)

Soil encountered beneath the site was primarily clay. Groundwater was encountered at ~18'bgs in the monitoring wells. Clay sediment does not readily transport water, as demonstrated when little groundwater entered the pit excavation, even when the excavation reached a depth of 25' bgs.

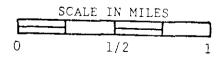
Groundwater was sampled at five different events (2/90, 4/90, 4/91, 8/91, and 10/91). Little or no TPHd. TPHg, TOG BTEX, or SVOC were detected (see Table 5). It appears most of the hydrocarbor impacted soil was excavated, remediated, and reused. Groundwater contamination appears insignificant and would not pose a risk to human health. Continued monitoring is not warranted.

### In summary, case closure is recommended because:

- o the leak and ongoing sources have been removed;
- o the site has been adequately characterized;
- o the dissolved plume is not migrating;
- o no water wells, surface water, or other sensitive receptors are likely to be impacted; and,
- o the site presents no significant risk to human health or the environment.



MAP SOURCE: THOMAS BROTHERS, 1989 edition





## SCS ENGINEERS

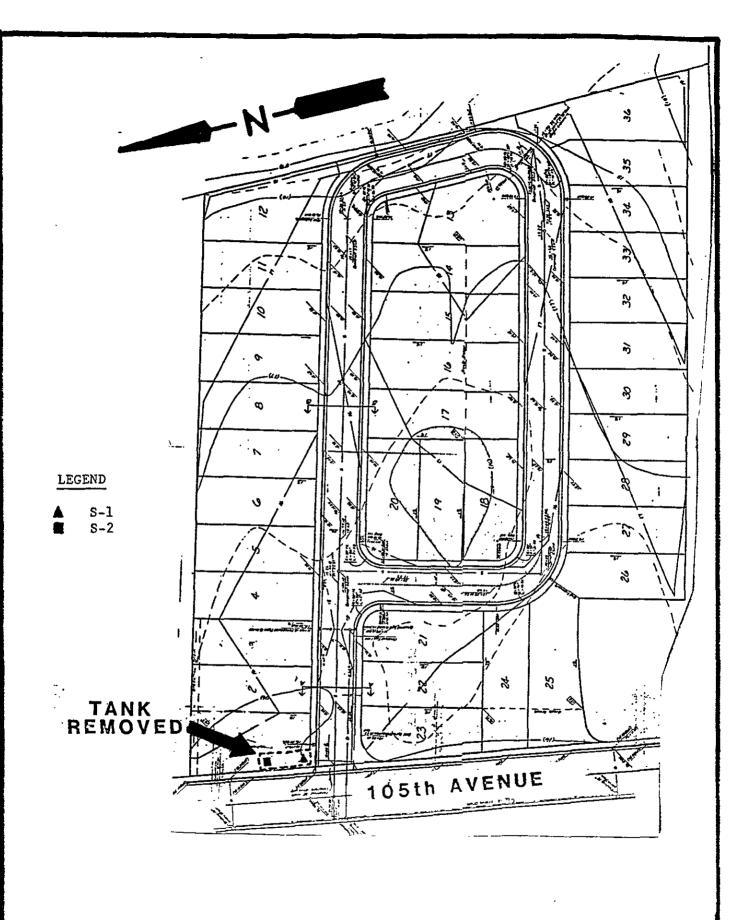
STEARNS CONRAD AND SCHMIDT CONSULTING ENGINEERS INC

6761 D SIERRA COURT DUBLIN, CA 94568 VICINITY MAP
VERL'S CONSTRUCTION, INC.
OAKLAND, CALIFORNIA

Project No 0389060.00

Fig Plate

13 0/





SCS ENGINEERS

STEARNS CONRAD AND SCHMIDT CONSULTING ENGINEERS INC

ETEL D SIERRA COURT

SAMPLE LOCATIONS
VERL'S CONSTUCTION, INC.
OAKLAND, CALIFORNIA

Fig. Prote-

105 th A В C TOG-10,000ppm TOG-7300ppm TOG-4100ppm D-230ppm TPH-1100ppm D-ND D-ND B-ND T-NDB-ND E NĎ T-17ppb E-1.7ppbX-38ppb E-27ppb X.217ppb E ז ת B '\_ TOG-Total Oil And Grease TOG, TPH, D, B, E, X-ND TOG-970ppm TPH-Total Petroleum Hydrocarbon TOG-ND т-39ррь G'C' - depth of sample of PTAS?

Sample of PTAS?

Acation

Bow 1865?

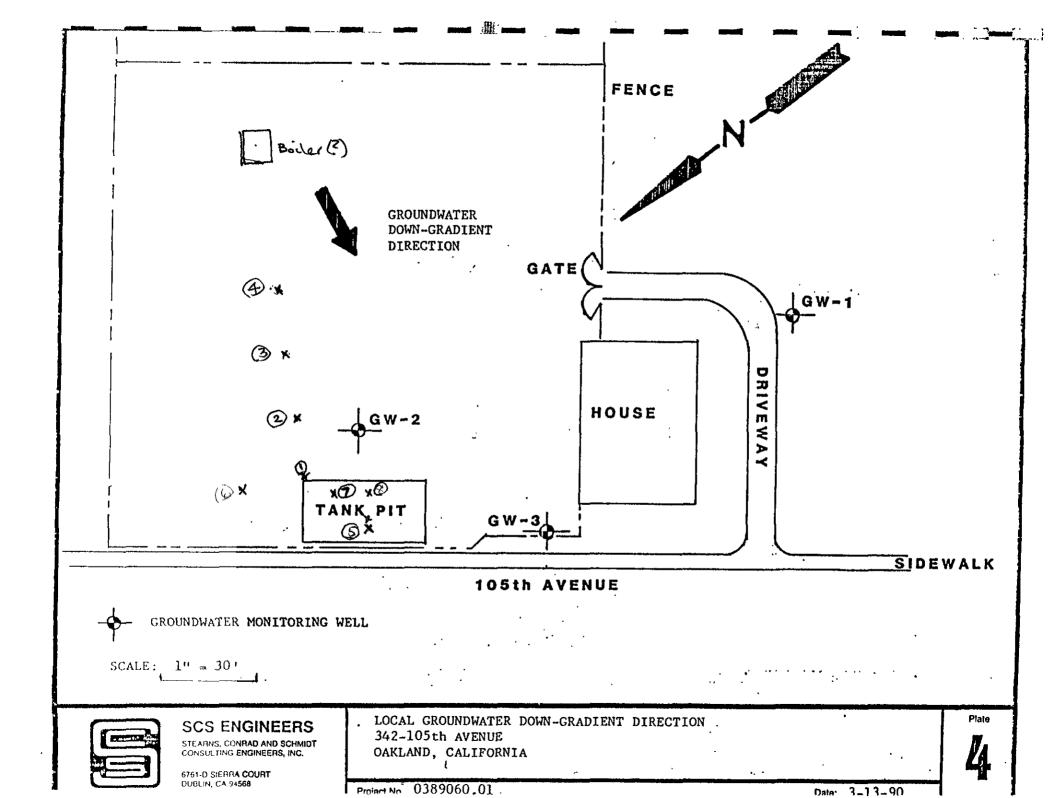
Assertion TPH-ND TPH-ND D-Diesel D-ND B-Benzene T-Toluene B-ND TOG, TPH, D, B, E, X~ND T-26ppb E-Ethyl Benzene T-37ppb X-Xylene E-ND X-ND ND-Not Detected TPH, B, E, X-ND, T-71phb TOG-250ppm, D-11.2ppm TPH, B.E. X-ND 21 TOG-160ppm, T-28ppb Sampling Location ( > p-4623ppm TPH-D SAMPLING LOCATIONS AND CROSS-SECTIONS SCS ENGINEERS 342-105th Avenue STEARNS, CONRAD AND SCHMIDT Oakland, California CONSULTING ENGINEERS, INC. 6761 SIERRA COURT, SUITE D

317089

Project No.

3-30-90

DUBLIN CALIFORNIA 94568-2611



#### TABLE 1

#### SAMPLING LOCATIONS 342 - 105TH AVENUE, OAKLAND

#### JANUARY 18, 1990

Samples 1-4 are from under the product pipeline leading from the Samples were collected at an approximate tank to the boiler. depth of 24" below grade.

- 1. At beginning of pipeline; 61' from northeast fence
- 20' along pipeline; 58' from northeast fence 40' along pipeline; 55' from northeast fence 2.
- 3.
- 60' end of pipeline; 51' from northeast fence 4.
- 5. Tank pit bottom; depth of 9'9"; 6' from sidewalk; northeast fence corner

Samples 6-8 are from the excavation on the east side of the tank pit.

- 6. Sidewall: depth of 7'6"; 20' from sidewalk'; from northeast fence corner
- 7. Excavation bottom; depth of 8'; 20' from sidewalk; 70' from northeast fence corner
- 8. Sidewall: depth of 7'6": 20' from sidewalk; 80' from northeast fence corner

Samples 9 & 10 were taken from the pile of topsoil located on the north side of the house. Samples were collected by placing soil in a brass tube with a trowel, every five feet along starting at the northwest end. Excavation personnel indicated the top of the pile represented soil that was approximate depth of 5' below grade.

- 9. Composite top soil, 0'-30' along the pile
- Composite top soil, 35'-70' along the pile 10.

# court. Table 1

### TPH AS DIESEL ANAYSIS RESULTS REPORT

Lab Name: TMA/Norcal

Date Received: 12 1-18-90

Client: GARY TOMPKINS & ASSOCIATES Date Analyzed: 1- 2-8-90

Matrix: soil

Analysis/Method: MOD-8015 FULX

TMA/Norcal ID	Client ID	Diesel (mg/kg)	Detection Limits (mg/kg)
6937-1-1	#1	<10 mg/kg	10 mg/kg
6937-1-2	#2	<10 mg/kg	10 mg/kg
6937-1-3	#3	11.2 mg/kg	10 mg/kg
6937-1-4	#4 60'end	4623 mg/kg	10 mg/kg
6937-1-5	#5	<io kg<="" mg="" td=""><td>10 mg/kg</td></io>	10 mg/kg
6937-1-6	#6	62.8 mg/kg	10 mg/kg
6937-1-7	<b>#7</b>	<10 mg/kg	10 mg/kg
6937-1-8	#8	<10 mg/kg	10 mg/kg
6937-1-9	#9	<10 mg/kg	10 mg/kg
6937-1-10	#10	<10 mg/kg	10 mg/kg

Rone Dohard

Data Release Authorized By

Page 1 of 1

# Analysis Results Report Total Petroleum Hydrocarbons Soil Matrix

Client: GARY TOMPKINS & ASSOC.
Sample Delivery Group: 1
Analysis/Method: MOD 8015 P & T

Date Received: 1/18/90
Date Analyzed: 1/23/90
Date Report: 1/30/90

# cont. Table 1

TMA Sample ID	Client ID	Gasoline (mg/Kg)	Detection Limits (mg/Kg)
METHOD FLANK 6937-1-1 6937-1-2 6937-1-3 6937-1-4 6937-1-5 6937-1-6 6937-1-7 6907 1-8	N. A. #ITANK O'EXCAV #2 20'PIPELINE #3 40'PIPELINE #4 60'ENDPIPE #5TANKPITBOTTM #6SIDEWALL7.5' #7EXCAVBOTTM8' #8SIDEWALL8.5' #3TOTOPSOIL0-30	<10 <10 <10 <10 <10 1100 <10 <10 <10 <10	10 10 10 10 10 10 10 10

Aristyat

Data Release Authorized Ry

Fage 1 of 1

TMA/Norcal ID: 6937-1 Page 4

February 14, 1990

TABLE IN

UNITS = mg/Kg			
TMA/Norcal ID		Petroleum * Hydrocarbons	
	=======================================		
6937-1-1	0' at excav.	<70	70
6937-1-2	20' under pipe	<70	70
6937-1-3	40' under pipe	250	70
6937-1-4	60' end	160	70
6937-1-5	tank pit bottom	7300	70
6937-1-6	sidewall 41'	<70	70
6937-1-7	excav. bottom	970	70
6937-1-8	sidewall 80'	<70	70
6937-1-9	topsoil 0'- 30'	84	70
6937-1-10	topsoil 35'- 70	170	70

<sup>\*</sup> EPA Method 9071, Oil & Grease including Petroleum Hydrocarbons.

## TABLE 2

# ANALYTICAL RESULTS OF THE SOIL AND GROUNDWATER SAMPLES

## Soil

Sample No.	8015	5-D		8270				
		Di-N-butyl	phthalate	Bis (2-et	hylhexy	1)phthalate	Di-N-octylpht	halate
GW1-5	ND	710	ppb	1500	ppb		NE	)
GW1-10	ND	11000			ppb		34	ppb
GW1-15	ИД	12000		680	ppb		34	dqq
GW1-20	ND	5100	ppb	540	ppb			ppb
GW1-25	ND		ppb	3500	ppb		NE	
GW2-5	ND	470	ppb		ppb		NE	
GW2-10	ND	290	ppb		ppb		NE	
GW2-15	ND		ppb	3100	ppb		NE	
GW2-20	ND	5900	ppb	ND			NE	
GW2-25	ИD		ppb		ppb		ND	
GW3-5	ND		ppb		ppb			ppb
GW3-10	ИD		ppb	2600				ppb
GW3-15	ND		ppb		ppb		NE	
GW3-20	ND		ppb		ppb		NE	
GW3-25	ND	190	ppb	320	ppb		NC	)
	5 <b>03E</b>							
GW1-5	ИD							
GW1-10	ND							
GW1-15	ND							
GW1-20	ND							
GW1-25	ND							
GW2-5	ND							
ND = Not Det	cect <b>ed</b>							
Detection Li		8015-Diesel	~ ~	ob .				
		503 - 10 ppr		00 1				
		Di-N-butypht			20			
		Bis (2-ethyl			- 20			
		Di-N-octylph	ithalate -	aqq ut				

# TABLE 2 (cont'd)

-	* -
	,,,,

Sample No.	503E
GW-10	ND
GW2-15	ND
GW2-20	ND
GW2-25	ND
GW3-5	ND
GW3-10	ND
GW3-15	ND
GW3-20	ND
GW3-25	ND

Detction Level: 503E - 10 ppm

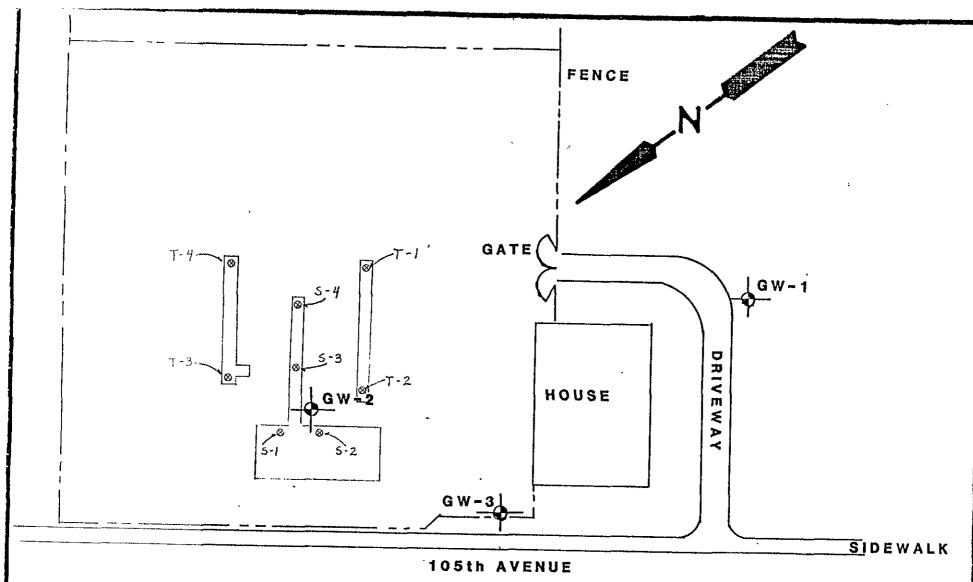
## Water

	8 <b>015-</b> D	625 Bis(2—ethylhexyl)phthal	503E Late
GW1-1W	ND	ND	
GW2-1W	ND	ND	
GW3-1W	ND	75 ppb	ND

Detection Levels: 8015 - Diesel - 0.5 ppb

Bis(2-ethylhexyl)phthalate - 50 ppb

503E - 0.5 ppb





GROUNDWATER MONITORING WELL

SCALE: 1" = 30'



# SCS ENGINEERS

STEARNS, CONRA**D AND SCHMIDT** CONSULTING ENGI**NEERS, INC.** 

6761-D SIERRA COURT DUBLIN, CA 94568 SAMPLE LOCATIONS 342-105th Avenue Oakland, California

Project No. 0389060.01



Date: May 31, 1990

West Comment

# Talde 3



2860 WALNUT AVENUE LONG BEACH, CAUFORNIA 90806 (213) 595-9324 FAX (213) 595-6709

**MEMO** 

To: John Cummings

Curtis B. Jenkins From:

May 25, 1990

Job No.: 0389060.01

Page 1 of 1

# LABORATORY REPORT

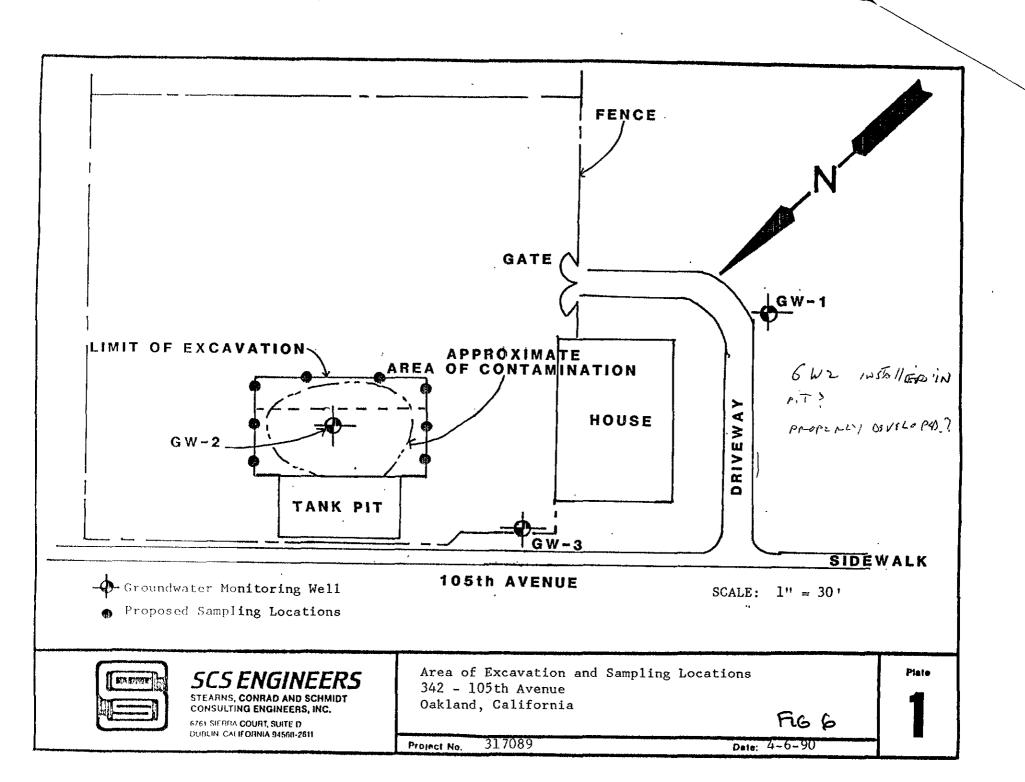
Four (4) soil samples from Verls' Construction, 105th Samples: Avenue, Oakland, CA received 5/4/90, analyzed 5/17/90.

Sample ID	EPA 8015-D	SM 503E
T ダ-1 T ダ-2 T ダ-3 T ダ-4	ND ND ND ND 32 (D)	264 134 312 810
Detection Limit ND - Not Detected D - Diesel	10 1	10

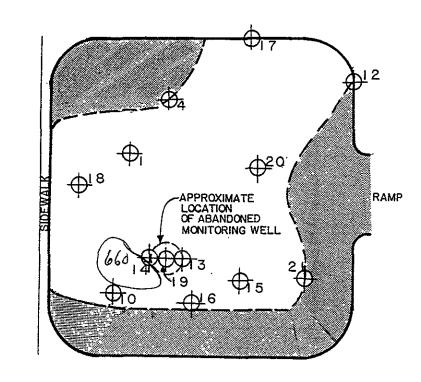
David Sincerbeaux

Chemist

Curtis B. Jenkins Vice President Analytical Services







#### NOTES

- MAP BASED ON APPROXIMATE FIELD MEASUREMENTS (08/30/90).
- 2. SOIL SAMPLE NO.'S 4,10,12,13,14,16,17 AND 21 TAKEN FROM THE EXCAVATION WALLS.

S S

I

0

- 3. SOIL SAMPLE NO.'S 1,15,18,19, AND 20 TAKEN FROM THE EXCAVATION BASE.
- 4. SOIL SAMPLE NO'S.8 AND 23 TAKEN FROM SOIL PILE NO.1 (SEE FIGURE NO.2).
- 5. SOIL SAMPLE NO.22 TAKEN FROM SOIL PILE NO.2 (SEE FIGURE NO.2).

#### **EXPLANATION**

APPROXIMATE EXCAVATION DEPTH 10- FT



APPROXIMATE EXCAVATION DEPTH 15 TO 25- FT



APPROXIMATE SOIL SAMPLE LOCATION

O 30 60 FT
APPROXIMATE SCALE

DATE 10/04/90

JOSE NO.E 158-01

SOIL SAMPLE LOCATION MAP

FORMER TURINI NURSERY

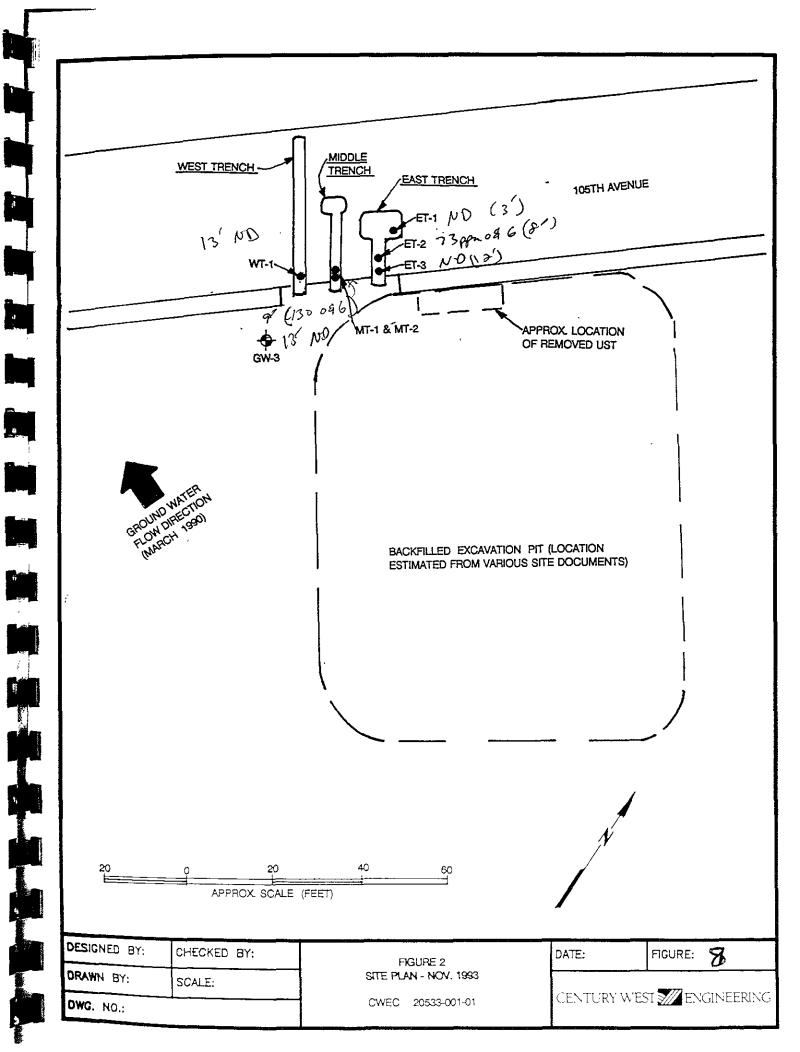
CHK'D R SCHNEIDER

344 105TH AVENUE, OAKLAND, CALIFORNIA

APPID J HICKS

VERL'S CONSTRUCTION, INC

REV.



Alameda County UST Local Oversight Program October 26, 1993 Page 4

Table <b>4-</b> SUMMARY OF SOIL ANALYTICAL RESULTS 105th Street UST Site  Sample Sample Constituent (ppm)								
ID.	Depth	TPH-D	ТРН-МО	8	T	X	$oldsymbol{L}$	TOG
<u>Eas</u>	st Trench	·-·						
ET-1	3.0 ft	ND(1) <sup>1</sup>	ND(10)	ND(.0025)	0.003	ND(.0025)	ND(.0025)	$ND(50)^2$
ET-2	8.5 ft	ND(1)	ND(10)	ND(.0025)	ND(.0025)	ND(.0025)	ND(.0025)	73
ET-3	12.0 ft	ND(1)	ND(10)	ND(.0025)	ND(.0025)	ND(.0025)	ND(.0025)	ND(50)
<u>Mi</u>	ddle Trencl					·		
MT-1	9.0 ft	40 <sup>3</sup>	ND(10)	ND(.0025)	ND(.0025)	ND(.0025)	ND(.0025)	130
MT-2	13.0 ft	ND(1)	ND(10)	ND(.0025)	ND(.0025)	ND(.0025)	ND(.0025)	ND(50)
We:	st Trench							
WT-1	13.0 ft	ND(1)	ND(10)	ND(.0025)	ND(.0025)	ND(.0025)	ND(.0025)	ND(50)

- 1 Not detected above the value expressed in the parentheses.
- 2 The NET Pacific data report for this sample reports TOG both as polar (animal greases) and nonpolar (hydrocarbons). However, because this investigation is only concerned with hydrocarbon-derived oil and grease, we are only reporting nonpolar oil and grease. Laboratory data reports for all other samples report only nonpolar oil and grease.
- 3 The NET Pacific data report states that "The positive result for Petroleum Hydrocarbons as Diesel appears to be due to a combination of heavier hydrocarbons and Diesel."

TABLE 5

	8015(D)	<u>8015(G)</u>		<u>03E</u> FG	BTX&E
SCS Eng. (3-19-90)					
GW-1 GW-2 GW-3	ND ND ND	<u>-</u> -	ND ND 75(1)	- - ND	
SCS Enq. (4-4-90)					
GM-3	ND	-	-	ND	
SJV Cons. (4-21-91)					
GW∸1 GW-3	ND ND	ND ND	ND DN	ND ND	ND ND
SJV Cons. (8-12-91)					
GW-1 GW-3	ND ND	ND 63		ND ND	
SJV Cons. (10-22-91)					
GW-1 GW-3	ND ND	ND ND		1 . 1 ND	ND ND

<sup>(1)</sup> Bis(2-ethylhexyl)phthalate

	Project Verl's - 105th Avenue  Location 342 - 105th Ave, Oakland  Job # 0389060.01  Geologist/Engineer Ed MacDaniel  Drill Agency Datum Exploration					Hole/Well # GW-1  Diameter of Drill Hole 8"  Total Depth of Hole 25!  Date Started 2/22/90  Date Completed 2/22/90
IN FEET	WELL CONS	TRUCTION DETAIL	N-VALUE	SAWPLE	GRAPHIC SYMBOL	DESCRIPTION
2 - 4 - 6 - 8 - 10 - 12	Portland Type I/II Cement  Bentonite  #3 Sand	A PVC Casing Perforated PVC Casing				Clay, silty, very dark gray (2.5Y, 2.5/0), moist, stiff, no petroleum odor, some dark brown patches  Clay, w/ very fine grained sand, gray brown (10 YR, 5/2), moist, no petroleum odor
_ 16 _				2		Clay, dark grayish brown (10 YR, 4/2), moist, no petroleum odor
_ 18 _ 20 _ 20 _ 22						Sand, very fine grained, clay rich, brown (7.5 kg, 5/4), very moist, no petroleum odor

	Project Verl's - 105th Avenue				Hole/Well # GW-I
	Location 342 - 105th Ave, Oakland			<del></del>	Diameter of Drill Hole 8"
	Job # 0389060.01				Total Depth of Hole 251
İ	Geologist/Engineer Ed MacDanied				Date Started 2/22/90
	Drill Agency Datum Exploration				Date Completed 2/22/90
		1 12	1		
DEPTH IN FEET	WELL CONSTRUCTION DETAIL	N-VALUE	SAWPLE	GRAPHIC SYMBOL	
_ 20					
-					
- 22					
-					
<b>-</b> 24		]			
_			<u> </u>		
<b>-</b> 26	End Cap				Clay, sand-rich, gray brown
					Clay, sand-rich, gray brown (10 YR, 5/2), moist, no petroleum odor
					no petroream odor
<b> </b>					
-					
_					
-					
-					
-					
-	,				
-					
-					
-					
-					•
_					
					•
					-

	<del></del>					
1	Project Ver	1's - 105th Avenue	<u> </u>			Hole/Well # GW-2
	Location 342 - 105th Ave, Oakland				Diameter of Drill Hole 10½"	
	Job #0389060.01				Total Depth of Hole 25'	
1	Geologist/Engi	Ineer Ed MacDaniel				Date Started 2-22-90
	Drill Agency	Datum Exploration	<u> </u>		<del></del>	Date Completed 2-22-90
DEPTH			E E		<del></del>	
IN FEET	WELL CO	NSTRUCTION DETAIL	N-VALUE	SAWPLE	GRAPHIC SYMBOL	DESCRIPTION
	- 77					
						-
<b>†</b>						- 4
<b>⊢</b> <sup>2</sup>	Portland	4" Solid				_
	Type I/II	PVC Casing				
4	Cement					
		<b>1 2 3 3 3 3 3 3 3 3 3 3</b>				Clay, very dark brown (2.5 YR, 2.5/0)
-						dry, white patches, no petroleum odor
<b>-</b> 6	Bentonite					0001
		KI N				
						1
8						4
-						
_ 10						Clay, brown (7.5 YR., 5/2),
				abla		gray patches, moist, no petroleum
-						odor
<b>-</b> 12		4">		l		
		Perforated				
	<b>#</b> 3	PVC Casing			1	1
<b>-</b> 14	sand		1			Clay, silty, brown (7.5 YR, 4/2),
-			-	$\neg$		moist, no petroleum odor
- 16		1	ŀ			
- "						
						-
<b>-</b> 18						_
_					,	Sand, clay rich, brown (7.5 YR, 5/4), moist, no petroleum odor
						notse, no perioreum odot
<b>-</b> 20				7		+
-						4
_ 22				-		
1_		port for the	- 1	1	i	1

	Project Verl's - 105th AVenue			Hole/Well # GW-2	
	Location 342 - 105th Ave, Oakland				Diameter of Drill Hole 102"
	Job # 0389060.01				Total Depth of Hole 251
	Geologist/Engineer Ed MacDaniel			<del></del> -	Date Started 2-22-90
•	Drill Agency Datum Exploration			<del></del>	Date Completed 2-22-90
DEPTH IN FEET	Well construction detail	สภาช∧-ผ	SAWRE	GRAPHIC SYMEDL	DESCRIFTION
,20					
			$\angle$		-
-					
- 22				•	
_					
24	3 3				
	2 = 8				Clay, silty, gray (7.5 YR, 4/0), moist, no petroleum odor
-					
_ 26	End Cap				
					~
-					<del>-</del>
					_
_				,	
				,	-
-					_
-					_
-			.		
_					
-					-
-					_
_					
					7
-					=
-					-
-					_
_					
			}		
	·· <del>······</del>			-	SCS ENGINEERS