ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

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

July 7,1997
StID # 5488

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Greg Sheppard
SP RR Co.
1 Marketplace
San Francisco, CA 94105

Mr. Harry Patterson
UP RR Co.
1416 Dodge St., Rm 930
Omaha, NE 68179-0930

RE: Southern Pacific/Union Pacific RR Site, E. 12th St. and 22nd Avenue, Oakland CA 94606

Dear Mssrs. Sheppard and Patterson:

This letter confirms the completion of site investigation and remedial action for the three compartment 4500 gallon underground heating oil tank 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 tank is greatly appreciated.

Based upon the available information and with provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the underground tank release is required.

This notice is issued pursuant to a regulation contained in Title 23, Division 3, Chapter 16, Section 2721 (e) of the California Code of Regulations.

Please contact Barney Chan at (510) 567-6765 if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director, Environmental Health

c: B. Chan, Hazardous Materials Division-files
Kevin Graves, RWQCB
Dave Deaner, SWRCB Cleanup Fund
Mr. L. Griffin, City of Oakland, OES, 505 14th St., Suite 702
Oakland CA 94612

RACC12/22

01-2149

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

29

I. AGENCY INFORMATION **Date:** 5/~~10~~/96

Agency name: **Alameda County-HazMat** Address: **1131 Harbor Bay Parkway Rm 250, Alameda CA 94502**

City/State/Zip: **Alameda** Phone: **(510) 567-6700**

Responsible staff person: Barney Chan Title: **Hazardous Materials Spec.**

II. CASE INFORMATION

Site facility name: Southern Pacific/ Union Pacific RR Site

Site facility address: E.12th St. and 22nd Ave, Oakland CA 94606

RB LUSTIS Case No: **N/A** Local Case No./LOP Case No.: 5488

ULR filing date: 2/14/95 SWEEPS No: **N/A**

Responsible Parties:	**Addresses:**	**Phone Numbers:**
UP RR Co. Mr. Harry Patterson	1416 Dodge St., Rm 930 Omaha, NE 68179-0930	
SP RR Co. Mr. Greg Shephard	1 Marketplace San Francisco, CA 94105	

Tank No:	Size in gal.:	Contents:	Closed in-place or removed?:	Date:
1	3 compartments approx 4500 gal total	Bunker C	Removed	1/05/95

III RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: possibly holes in tank

Site characterization complete? Yes, as complete as possible given the limited access to drilling locations

Date approved by oversight agency: wp approval, 8/2/95

Monitoring Wells installed? YES Number: 1

Proper screened interval? Yes, 7-17'

Leaking Underground Fuel Storage Program

Highest GW depth: 8.5'BGS Lowest depth:

Flow direction: assumed w-nw, based upon Texaco station, approximately 500' east of site.

Most sensitive current use: industrial, RR tracks

Are drinking water wells affected? No Aquifer name:

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)? Alameda County
1131 Harbor Bay Parkway,
Room 250, Alameda CA 94502-6577

Treatment and Disposal of Affected Material:

Material	Amount (include units)	Action (Treatment of Disposal w/destination)	Date
Tanks	4,000 pounds	Disposed @ Erickson, Richmond, CA	1/07/95
Free Product	1500 gallons	Disposed @ Evergreen, Newark	1/4/95
& Water	3050 gallons	Disposed @ Evergreen, Newark	1/5/95
	2500 gallons	Disposed @ Evergreen, Newark	1/9/95
Soil	180 tons	Disposed @ ECDC Env. L.C. 1111 W.Highway 123, East Carbon, Utah, 84520	2/3/95

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		* Water (ppb)	
	Before	After	Before	After
TPH (Gas)	[1] 6.2	6.2		<50
TPH (Diesel)	1100	[2] 3070		<500
TPH (Motor Oil)	710	710		
TPH (Kerosene)	<20			
Benzene	<0.005	<0.005		<2
Toluene	0.0058	0.0058		<2
Ethylbenzene	0.090	0.090		<2
Xylenes	0.047	0.047		<2

Comments (Depth of Remediation, etc.):
* Water sample from monitoring well, OMW-1.
[1] From initial soil samples from tank pull
[2] From soil boring subsurface investigation

Leaking Underground Fuel Storage Tank Program

IV. CLOSURE

Does completed corrective action protect existing beneficial uses per the Regional Board Basin Plan? Unknown

Does corrective action protect public health for current land use? YES

Site management requirements: NA

Should corrective action be reviewed if land use changes? Yes

Monitoring wells Decommisioned: No, pending closure

Number Decommisioned: 0 Number Retained: 1

List enforcement actions taken: NOV , 6/28/95

List enforcement actions rescinded: Above NOV, workplan for SSI received on 7/28/95

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Barney M. Chan Title: Hazardous Materials Specialist

Signature: Barney M Chan Date: 5/28/96

Reviewed by

Name: Thomas Peacock Title: Manager

Signature: Thomas Peacock Date: 5-23-96

Name: Eva Chu Title: Haz. Mat. Specialist

Signature: Eva Chu Date: 5/9/96

VI. RWQCB NOTIFICATION

Date Submitted to RB: RB Response: Approved

RWQCB Staff Name: K. Graves Title: AWRCE Date: 6/14/96

VII. ADDITIONAL COMMENTS, DATA, ETC.

In December 1994, the UST was discovered on the Southern Pacific Line right-of-way while excavating to lay utility lines. The tank is suspected to have contained bunker "C" or Number 6 fuel oil. On 1/5/95 the tank

removal was initiated by SPL. The tank was found to be compartmentalized into three separate containers with a total volume of approximately 4500 gallons. The tank compartments were approx. 5.5'x 8' x 5' and constructed of steel. Corrosion holes were observed on the top of one compartment and a release of fuel was observed on the pit floor. Approximately 130 cy of soil was excavated from above,around and beneath the tank prior to sampling. Two soil samples were taken from the north and south ends of the tank at 9' bgs. Up to 6.2 ppm gasoline, 1100 ppm diesel, 710 ppm TPH motor oil and <0.005, 0.0058, 0.047 and 0.090 ppm BTEX, respectively were detected in these samples. Since the tank was located between SP & UP RR lines, both parties were named as RPs. After a NOV was written, UP RR provided a work plan for further site assessment. Soil borings and 1 monitoring well were proposed in the assumed up and downgradient directions relative to the UST. Actual field conditions (additional RR tracks and the proximity of rail traffic) limited the location of borings and well location to "upgradient" locations within 10' of the former tank. Six borings were advanced near the tank. Soil samples were taken at and below the groundwater level. See Table 1 for analytical results. Boring OB-3 was converted into monitoring well OMW-1. Water samples were taken from this well and from boring OB-1. No TPHg,d,mo or BTEX were found in either water sample.

Basis for recommendation for closure:

1. Highest concentrations of fuel in soil was overexcavated and disposed during the tank removal as was any product and water within the tank pit.

2. The fuel is a high boiling hydrocarbon with little to no volatiles or water soluble components.

3. Contamination appears to be limited to the finer clays and silty clays beneath the site.

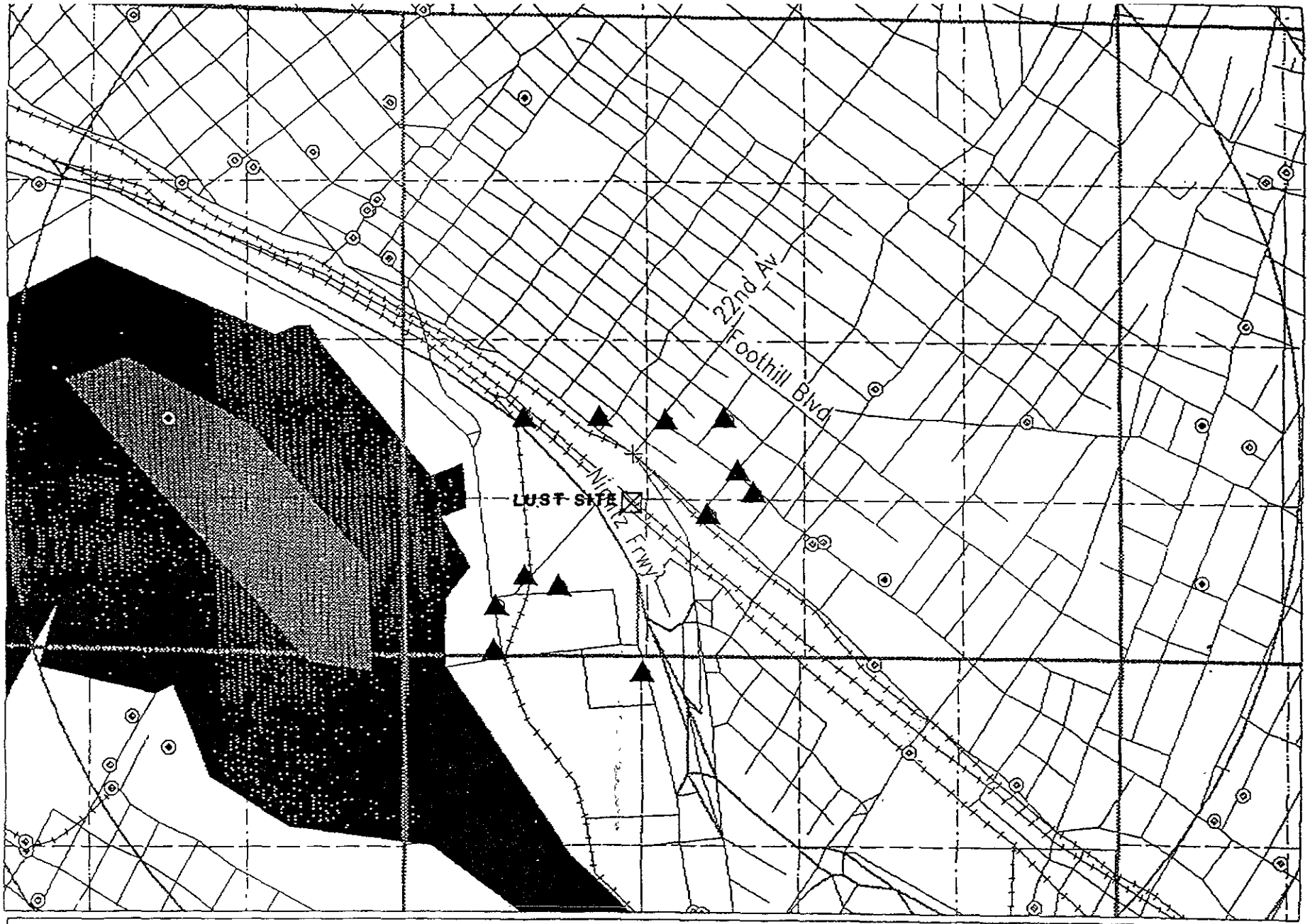
4. The release is likely from the 1940's or 1950's, allowing for attenuation through natural bioremediation.

5. No dissolved analytes were found in the groundwater.

6. No water wells, drinking water aquifers or sensitive receptors are nearby.

7. The location of the release, between active RR tracks, makes additional soil excavation impractical.

8 No apparent threat to human health or the environment exists.

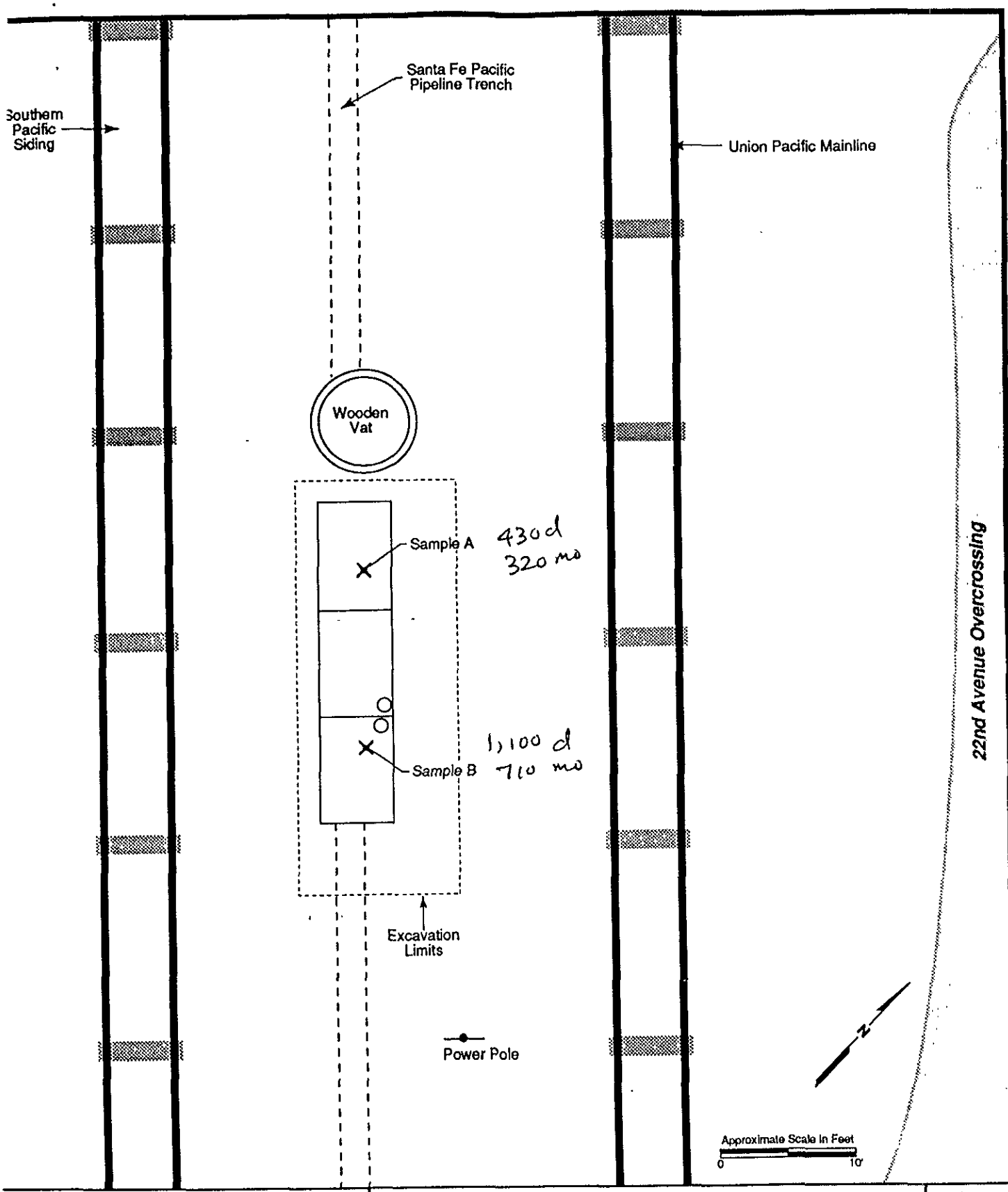


▲ WELLS - ALL WELLS ARE MONITOR, TEST, OR ABANDONED

1 mile radius
12/06/1995

FIGURE 3

REGISTERED WELLS
E 12th ST. AND 22nd AVE. LUST SITE



Industrial Compliance

A Subsidiary of SP Environmental Systems, Inc.

EXCAVATION AND SAMPLE LOCATION MAP
SOUTHERN PACIFIC TRANSPORTATION COMPANY
RAILROAD RIGHT-OF-WAY
EAST 12TH STREET AT 22ND AVENUE
OAKLAND, CALIFORNIA

Project No.: 05100649	Date: 03/24/95	Figure: 3	
Drawn By: Patti Decker	Checked By: John Cavanaugh	Page No.: 8	
		Scale: as shown	

Oak-649/Rpt.0395/F.03 #200

TABLE 1
ANALYTICAL RESULTS
CONFIRMATION SAMPLES (SOIL)

Sample Designation	Depth (feet bgs)	Date Sampled	Total Petroleum Hydrocarbons (mg/kg)				Volatile Organic Compounds (µg/kg)			
			Gasoline	Kerosene	Diesel	Motor Oil	Benzene	Toluene	Ethylbenzene	Xylenes
A (west end)	9	01/05/95	5.3	<20	430*	320*	<5.0	<5.0	<5.0	33
B (east end)	9	01/05/95	6.2	<20	1,100*	710*	<5.0	5.8	47	90
Analytical Method - EPA Method:			8015M	8015	8015	8015	8020	8020	8020	8020

s Below ground surface

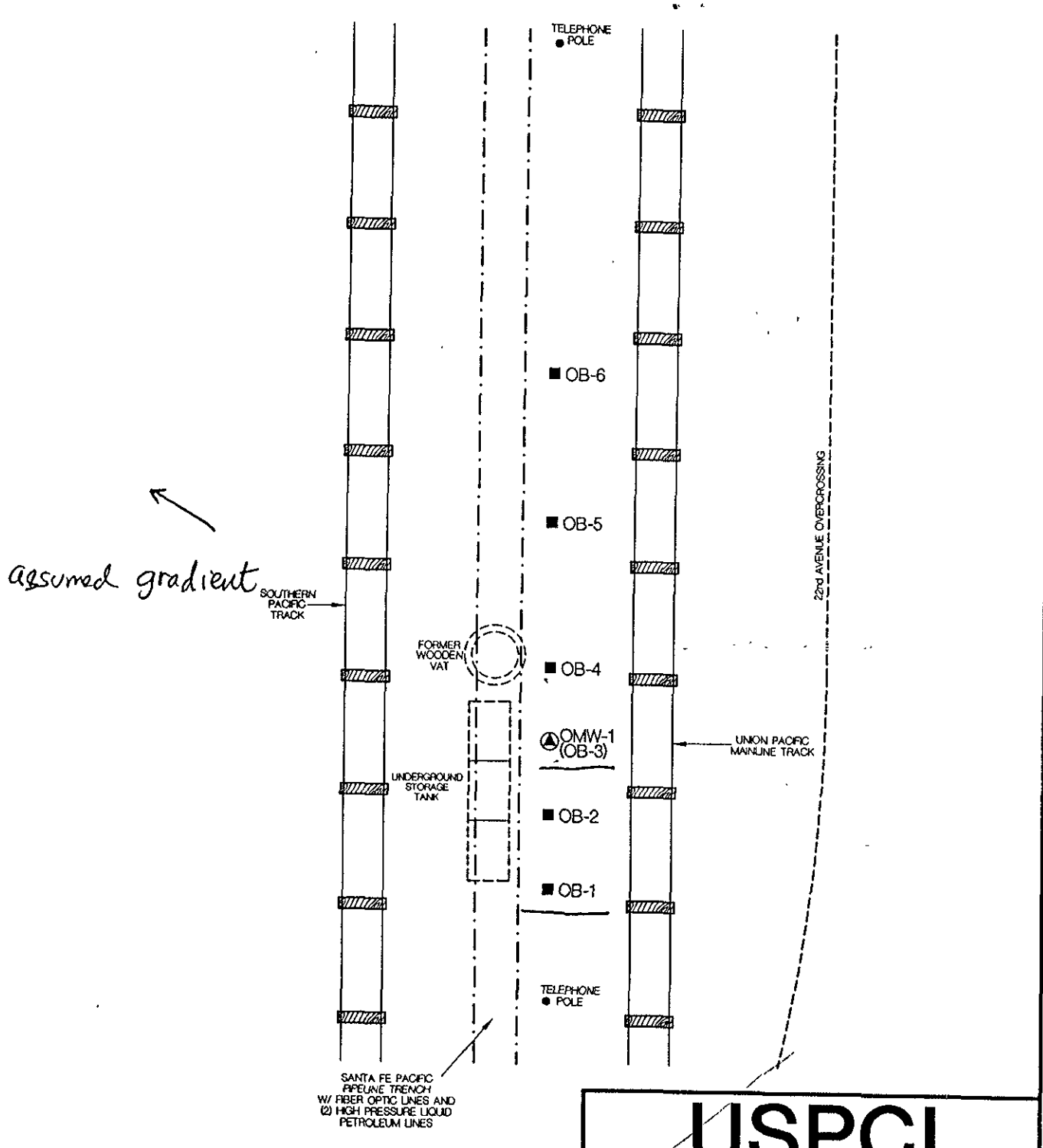
g/kg Milligrams per kilogram

:/kg Micrograms per kilogram

Constituent not detected at or above the reporting limit, as listed.

Non-typical chromatographic pattern.

Modified



USPCI
A LAIDLAW COMPANY

OAKLAND, CALIFORNIA

FIGURE 2
EAST 12th STREET AT 22nd AVENUE
MONITOR WELL AND SOIL BORING LOCATIONS

SCALE: 1" = 20'

DATE: 12/15/95

96120-812

TABLE 1
SOIL SAMPLES
TOTAL PETROLEUM HYDROCARBONS
EAST 12TH & 22ND AVENUE
OAKLAND, CALIFORNIA
NOVEMBER 1995

SAMPLE NUMBER	DEPTH	C10 – C50 Hydrocarbons (mg/kg)	TOTAL PETROLEUM HYDROCARBONS DIESEL (mg/kg)
MDL		0.5	0.5
OB–1	9.5'	2.2	BDL
OB–1	13'	1.9	BDL
OB–1	18'	5.1	BDL
OB–2	12'	3.7	BDL
OB–2	17'	12.4	BDL
OB–3	9'	198	BDL
OB–3	13'	28.3	BDL
OB–3	15'	11.9	BDL
OB–3	18'	16.5	BDL
OB–4	9'	3070	BDL
OB–4	12.5'	2.5	BDL
OB–4	17'	1.9	BDL
OB–5	9'	85.2	BDL
OB–5	13'	309	BDL
OB–6	9'	838	BDL

EPA 8015, CA Draft used for all Hydrocarbon analysis
MDL = Method Detection Limit
BDL = Below Detection Limit

USPCI
a Laidlaw Company

LOG

Page 1 of 1

BORING NO. OB-3
WELL NO. MW-1

CLIENT: Union Pacific Railroad			JOB NO.: 96120-899
PROJECT: E. 12 & 22nd, Oakland		LOCATION: Oakland, California	
DRILLED BY: Exploration Geoservices	DRILLER: Dave/Howard	METHOD: 8" HSA	
START DATE: 11/7/95	COMP. DATE: 11/7/95	SURF. EL.: FT. est.	TD: 20.0 FT. BGS
LOGGED BY: Ken Rose			D. T. WATER: 8.5 FT. BGS

WELL DIAGRAM	DPT	DESCRIPTION	GRAPHIC LOG USCS CODE	OVA ppm	SAMPLE NUMBER	Blow Count
		0.0' to 6.0' Gravel, lt. gray, damp, no odor (fill)	GW	0 0		
	5	6.0' to 9.0' Silty clay, lt. gray (stained) w/ some fine sand, visible dark gray hydrocarbon stringers in clay/silt matrix, v. moist, slight HC odor	CL	1		
	10	9.0' to 15.0' Fine to medium sand, lt. gray (stained) w/ some clay and coarse sand, visible HC stringers, wet at 9.5', slight HC odor	SC		OB-3,9' (1 ring)	
		As above, some gravel			OB-3,13' (1 ring)	
	15	Color change from lt. gray to brown at 15'				
		15.0' to 20.0' Medium to coarse sand, brown, trace silt and gravel, wet, slight odor	SP		OB-3,15' (1 ring)	
	20	Boring completed to 20.0' Groundwater encountered at 8.5' Monitor well installed to 17', 10' of 0.010" screen 7' of SCH 40 2" PVC blank 4.5 sacks of #10-20 silica, 1 bucket of bentonite pellets Flush mount well cover			OB-3,18' (1 ring)	
	25					
	30					

JOB NUMBER: 96120-899

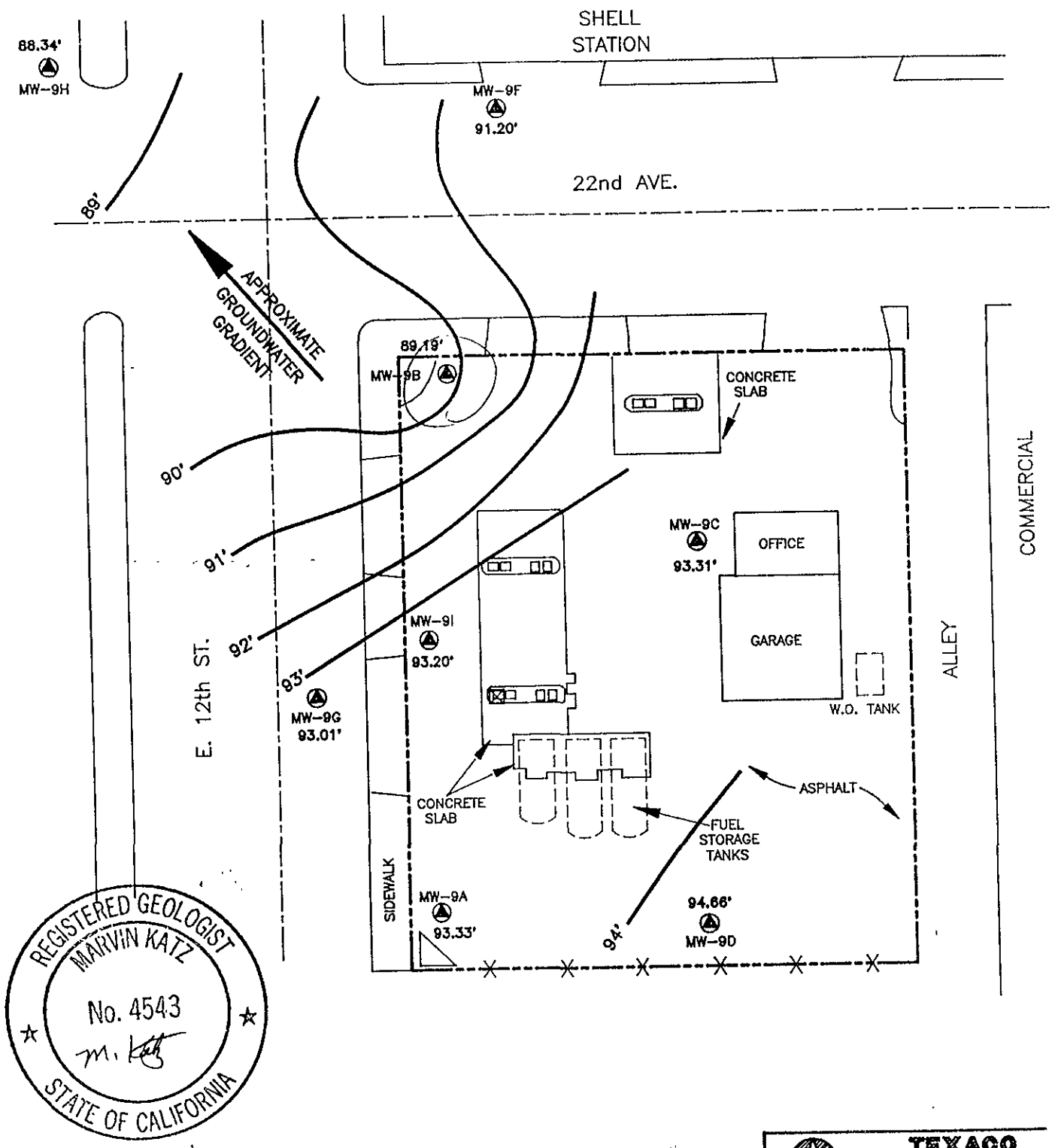
TABLE 2
WATER SAMPLES
TOTAL PETROLEUM HYDROCARBONS
EAST 12TH & 22ND AVENUE
OAKLAND, CALIFORNIA
NOVEMBER 1995

SAMPLE NUMBER	C5 – C12 Hydrocarbons (mg/L)	TPH Gasoline (mg/L)	C10 – C50 Hydrocarbons (mg/L)	TPH DIESEL (mg/L)	BENZENE (mg/L)	ETHYLBENZENE (mg/L)	TOLUENE (mg/L)	XYLENES (mg/L)
MDL	0.05	0.05	0.5	0.5	0.002	0.002	0.002	0.002
OB–1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
OMW–1	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

(OB-3)

EPA 8020, CA Draft used for all Hydrocarbon analysis
MDL = Method Detection Limit
BDL = Below Detection Limit

1) Also need to run PAHs? No TPHd in g.w.



REGISTERED GEOLOGIST
MARVIN KATZ
No. 4543
STATE OF CALIFORNIA

LEGEND :

MW-9A	MONITORING WELL LOCATION, AND WELL NUMBER
	GROUNDWATER CONTOUR LINE
93.01'	GROUNDWATER ELEVATION (ABOVE MSL)

0 40
FEET

TEXACO
REFINING AND MARKETING,INC
TEXACO ENVIRONMENTAL SERVI

PLATE 2 : GROUNDWATER GRADIENT MAP
(05/31/1994)

FORMER TEXACO SERVICE STATION
2200 E. 12th ST. / 22nd AVE.,
OAKLAND, CALIFORNIA

SCALE	1"=40'-0"	LOCATION #	62-488-
DRAWN BY	AMA	DATE	07/21/1
CHECKED BY	RBD	DATE	7/26/9L
DRAWING NO.	(OAKLAND) 12-22-OK.DWG		