

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

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

StID 1521

July 19, 1999

Mr. Robert Falaschi
3080 Frye Street
Oakland, CA 94602

Re: No Further Action at 431 San Pablo Avenue, Albany, CA

Dear Ms. Falaschi:

I have completed review of Treadwell & Rollo's July 1998 *Site Investigation Report* prepared for the above referenced site. A total of five exploratory borings (TR-1 through TR-5) were drilled at the site in June 1998. Soil samples were collected from each boring. Grab groundwater samples were collected from TR-2 through TR-5 as well as from onsite groundwater monitoring wells MW-1 and MW-3. Laboratory analytical results of the soil samples identified low level of total petroleum hydrocarbons as diesel and as oil and grease. The water samples did not contain petroleum hydrocarbon constituents, except for TR-2 which contained 0.72mg/L of toluene (the trip blank contained 1.27mg/L of toluene).

Concentrations of petroleum hydrocarbon identified in soil and groundwater should not pose a risk to human health or the environment. Based upon the available information (which included investigations conducted to assess soil and groundwater contamination due to the underground storage tank or the storage of former waste oil) and with the provision that the information provided to this agency was accurate and representative of site conditions, no further action related to the subsurface contamination by petroleum hydrocarbons is required.

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

Sincerely,

eva chu
Hazardous Materials Specialist

ALAMEDA COUNTY
HEALTH CARE SERVICES



AGENCY

DAVID J. KEARS, Agency Director

Alameda County CC4580
Environmental Health Services
1131 Harbor Bay Pkwy., #250
Alameda CA 94502-6577
(510)567-6700 FAX(510)337-9335

August 23, 1996

STID 1521

REMEDIAL ACTION COMPLETION CERTIFICATION

Mr. Walter Inglehoffer
Good Year Tire & Rubber Co.
7301 Ambassador Row
Dallas, Texas 75247-4848

Re: Good Year Tire Center, located at 431 San Pablo Avenue, Albany,
California 94706

Dear Mr. Inglehoffer,

This letter confirms the completion of site investigation and remedial action for the one 550-gallon waste oil underground storage tank formerly located at the above described location. Enclosed is the Case Closure Summary for the referenced site for your records.

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

This notice is issued pursuant to a regulation contained in Title 23, California Code of Regulations, Division 3, Chapter 16, Section 2721(e). If a change in land use, structural configuration, or site activities are proposed such that more conservative exposure scenarios should be evaluated, the owner must promptly notify this agency.

Please telephone Juliet Shin at (510) 567-6700 if you have any questions regarding this matter.

Sincerely,

Mee Ling Tung
Director of Environmental Health Services

enclosure

c: Acting Chief, Hazardous Materials Division - files
Juliet Shin, ACDEH
Kevin Graves, RWQCB
Lori Casias, SWRCB

01-1842

CASE CLOSURE SUMMARY
Leaking Underground Fuel Storage Tank Program

I. AGENCY INFORMATION

Date: 5/23/96

Agency name: Alameda County-HazMat Address: 1131 Harbor Bay Pkwy.
City/State/Zip: Alameda, CA 94502 Phone: (510) 567-6700
Responsible staff person: Juliet Shin Title: Senior HMS

II. CASE INFORMATION

Site facility name: Commercial Site (Good Year Tire Center)
Site facility address: 431 San Pablo Avenue, Albany, CA 94706
RB LUSTIS Case No: N/A Local Case No./LOP Case No.: 1521
URF filing date: 6/25/96 SWEEPS No: N/A

<u>Responsible Parties:</u>	<u>Addresses:</u>	<u>Phone Numbers:</u>
1) Robert Falaschi	3080 Frye St. Oakland, CA 94602	(510) 836-2000
2) Good Year Tire & Rubber Company	7301 Ambassador Row Dallas, Tx 75247-4848	(214) 637-9100

Contact: Walter Inglehoffer

<u>Tank No:</u>	<u>Size in gal.:</u>	<u>Contents:</u>	<u>Closed in-place or removed?:</u>	<u>Date:</u>
1	550	Waste Oil	Removed	7/20/93

III. RELEASE AND SITE CHARACTERIZATION INFORMATION

Cause and type of release: One 1/2" hole and a number of smaller holes were identified in the center and around both rims of the tank.

Site characterization complete? YES

Date approved by oversight agency: 5/23/96

Monitoring Wells installed? YES Number: three

Proper screened interval? YES (semi-confined aquifer)

Highest GW depth below ground surface: 3.34 ft Lowest depth: 8.75 ft

Flow direction: northwesterly

ENVIRONMENTAL PROTECTION
96 006 29
FBI 2:30

Leaking Underground Fuel Storage Tank Program

Most sensitive current use: Site is currently used as an automotive maintenance and tire retail facility.

Are drinking water wells affected? NO Aquifer name: Fluvial Deposits

Is surface water affected? NO Nearest affected SW name: None

Off-site beneficial use impacts (addresses/locations): None

Report(s) on file? YES Where is report(s) filed? Alameda County
1131 Harbor Bay Pkwy.
Alameda, CA 94502

Treatment and Disposal of Affected Material:

<u>Material</u>	<u>Amount</u> (include units)	<u>Action (Treatment</u> <u>or Disposal w/destination)</u>	<u>Date</u>
Tank	One 550-gallon	Erickson, Inc. 255 Parr Blvd. Richmond, CA 94801	7/20/93
Waste Liquid	25 gallons	Refineries Service 13331 N WWY 33 Patterson, CA 95363	7/20/93
Excavated Soil	~200 cubic yards	Forward Inc. Landfill 9999 South Austin Road Manteca, CA 95336	10/19-10/21/93

III. RELEASE AND SITE CHARACTERIZATION INFORMATION (Continued)

Maximum Documented Contaminant Concentrations - - Before and After Cleanup

Contaminant	Soil (ppm)		Water (ppb)	
	<u>Before</u>	<u>After</u>	<u>Before</u>	<u>After</u>
TPH (Gas)	49 ⁴	1,000 ^{2,3}	ND	ND
TPH (Diesel)	1,600 ⁴	2,000 ²	80	ND
Oil & Grease	240 ⁵	2200 ²	1,500 ³	ND
Benzene	0.12 ⁴	0.12	ND	ND
Toluene	0.016 ⁴	0.016	ND	ND
Xylene	0.12 ⁴	0.12	1.5	ND
Ethylbenzene	0.037 ⁶	0.037	1.1	ND
Halogenated VOCs*	ND	ND	NA	
Semi-volatiles**	ND	ND	NA	
Metals:				
Lead	8 ⁴	18 ⁹	ND	ND
Cadmium	ND	ND	ND	ND
Chromium	53 ⁴	90 ¹	150	130
Nickel	95 ⁴	150 ⁸	340	ND
Zinc	58 ⁷	65 ¹	130	30

Leaking Underground Fuel Storage Tank Program

* VOCs=Volatile Organic Hydrocarbons using Method 8010.

** EPA Method 8270

¹ from boring SB-1

² from MW-3

³ hydrocarbons present did not match the laboratory standard

⁴ from West sidewall sample collected from 6-foot bgs on July 22, 1993

⁵ from south sidewall sample collected from 6-foot bgs on July 22, 1993

⁶ from north sidewall sample collected from 6-foot bgs on July 22, 1993

⁷ from bottom pit sample collected on July 20, 1993

⁸ from MW-1

⁹ from MW-2

IV. CLOSURE

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

Does completed corrective action protect potential beneficial uses per the Regional Board Basin Plan? **Undetermined**

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

Site management requirements: **NA**

Should corrective action be reviewed if land use changes? **NO**

Monitoring wells Decommissioned: **NO** Will be decommissioned upon receipt of case closure.

Number Decommissioned:

Number Retained:

List enforcement actions taken: **None**

List enforcement actions rescinded:

V. LOCAL AGENCY REPRESENTATIVE DATA

Name: Juliet Shin


Signature: 

Title: Senior HMS

Date: 6/6/96

Reviewed by

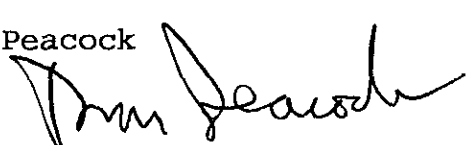
Name: Eva Chu

Signature: 

Title: Hazardous Materials Specialist

Date: 7/11/96

Name: Tom Peacock

Signature: 

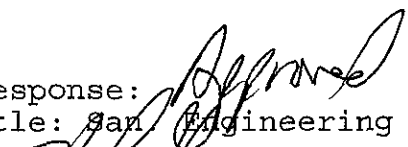

Title: Supervising HMS

Date: 7-16-96

Leaking Underground Fuel Storage Tank Program

VI. RWQCB NOTIFICATION

Date Submitted to RB:
RWQCB Staff Name: Kevin Graves

RB Response: 
Title: San. Engineering Asso. Date: 

VII. ADDITIONAL COMMENTS, DATA, ETC.

8/19/96

The site is currently used as an automotive maintenance and tire retail facility. The site is located approximately one mile east from the San Francisco Bay.

On July 20, 1993, one 550-gallon waste oil tank was removed from the site. The tank pit was excavated to an area of 9' x 16' x 10.5' depth. The tank pit was overexcavated to new dimensions of 12' x 19' x 10.5' on July 21, 1993, and further excavated to dimensions of 17' x 29' x 10.5' on July 22, 1993. A total of approximately 191 cubic yards of soil was excavated from the tank pit.

One soil sample was originally collected from immediately beneath the tank within native soil. This sample was analyzed for Oil & Grease (O&G), Total Petroleum Hydrocarbons as gasoline (TPHg), Total Petroleum Hydrocarbons as diesel (TPHd), benzene, toluene, ethylbenzene, and xylenes (BTEX), halogenated volatile organics, and metals (Cd, Cr, Pb, Ni, and Zn). The only contaminants identified were TPHd at 38 parts per million (ppm), and low levels of metals below threshold values (Refer to Attachment 1 for site map and sample locations).

On July 22, 1993, after final excavation, five additional soil samples were collected from the tank pit: one west sidewall sample at 6-feet below ground surface (bgs), one north sidewall sample at 6-feet bgs, one south sidewall sample at 4.5-feet bgs, one east sidewall sample at 6-feet bgs, and one bottom pit sample at 11-feet bgs. These samples were analyzed for the same constituents as above with the addition of the EPA 8270 analysis for semi-volatile organics. Analysis of the west sidewall sample identified 49ppm TPHg, 1,600ppm TPHd, 170ppm O&G, 0.12ppm benzene, 0.016ppm toluene, 0.12ppm ethylbenzene, 0.12ppm xylene and low levels of metals. Analysis of the northwall sample identified 17ppm TPHg, 1,100ppm TPHd, 0.012ppm toluene, 0.037ppm ethylbenzene, and 0.1ppm xylene, and low levels of metals. No benzene or O&G was identified in this sample. The south sidewall sample only identified 240ppm O&G and low levels of metals. Accept for low metal concentrations in the east and bottom sample, no other contaminants were identified in these samples. No semi-volatile organics were identified in any of the samples, and outside of BTEX, no other halogenated volatile organics were identified in any of the five samples (please refer to Attachment 1 and 2 for sample locations and results).

In October 1993, a number of hydraulic hoists were removed and replaced from the garage area of the facility. Up to 1,800ppm TPHd, 150ppm O&G, 0.038ppm toluene, 0.067ppm ethylbenzene, and 0.26ppm total xylenes were identified from beneath these hoists (refer to Attachment 3).

Leaking Underground Fuel Storage Tank Program

Additionally on August 31, 1994, three monitoring wells, MW-1 through MW-3) were installed at the site. Wells MW-1 and MW-2 were completed to 13-foot bgs and MW-3 was completed to 20-foot bgs. Soil samples were collected from MW-1 at 5 and 7-foot bgs, from MW-2 at 5- and 8-foot bgs, and from MW-3 at 5-, 7-, and 13-foot bgs. These samples were analyzed for TPHg, TPHd, BTEX, O&G, and metals (refer to Attachments 4 and 5 for sample locations and results). Soil types encountered in these locations were mostly clay with a clayey sand lense observed from approximately 6 to 10-foot bgs in boring SB-1 and Wells MW-1 and MW-2 and from 11- to 19-foot bgs in Well MW-3. The approximately groundwater gradient direction is northwesterly (refer to Attachment 6 for boring logs).

Groundwater samples have been collected from the three on-site monitoring wells for four consecutive quarters. These samples have been analyzed for TPHg, TPHd, O&G, BTEX, and heavy metals. During these sampling events, only 80ppb TPHd was identified in Well MW-1 in the first quarter, up to 1,500ppb O&G was identified in Well MW-3 (which is below the 5,000ppb detection limit for O&G), and chromium concentrations exceeding Maximum Contaminant Levels for drinking water (refer to Attachment 7 for summary of groundwater analysis results).

Chromium levels, exceeding the drinking water standard of 100 parts per billion (ppb), have been identified in groundwater samples collected from Wells MW-1 and MW-2. However, because the groundwater is not used for drinking purposes; the levels identified (up to 150ppb in Well MW-1 and 130ppb in Well MW-2) do not greatly exceed the 100 ppb threshold value; and there appears to be no exposure route to surface waters, these chromium concentrations do not appear to be posing a risk. Additionally, the chromium concentrations being identified at the site appears to be geogenic due to the following reasons:

- o Chromium concentrations identified in the former waste oil tank pit were generally lower than the concentrations identified throughout the rest of the site;
- o Chromium levels were fairly consistent both laterally and vertically in soil samples collected from the on-site wells;
- o The site consists of native soils, so the chromium levels are not the result of fill material; and
- o There appears to have been no historical activities that utilized or could have generated chromium waste.

Residual concentrations of the other contaminants do not appear to pose a threat to human health or the environment. Of all the soil samples collected from the site, only one soil sample collected from the west sidewall of the former tank pit identified benzene (0.12ppm). This level is below all the 10^{-4} Risk threshold values for commercial/industrial scenarios given in Tier 1 of American Society for Testing and Materials' Risk-Based Corrective Action guidelines. Therefore, this site is recommended for closure.

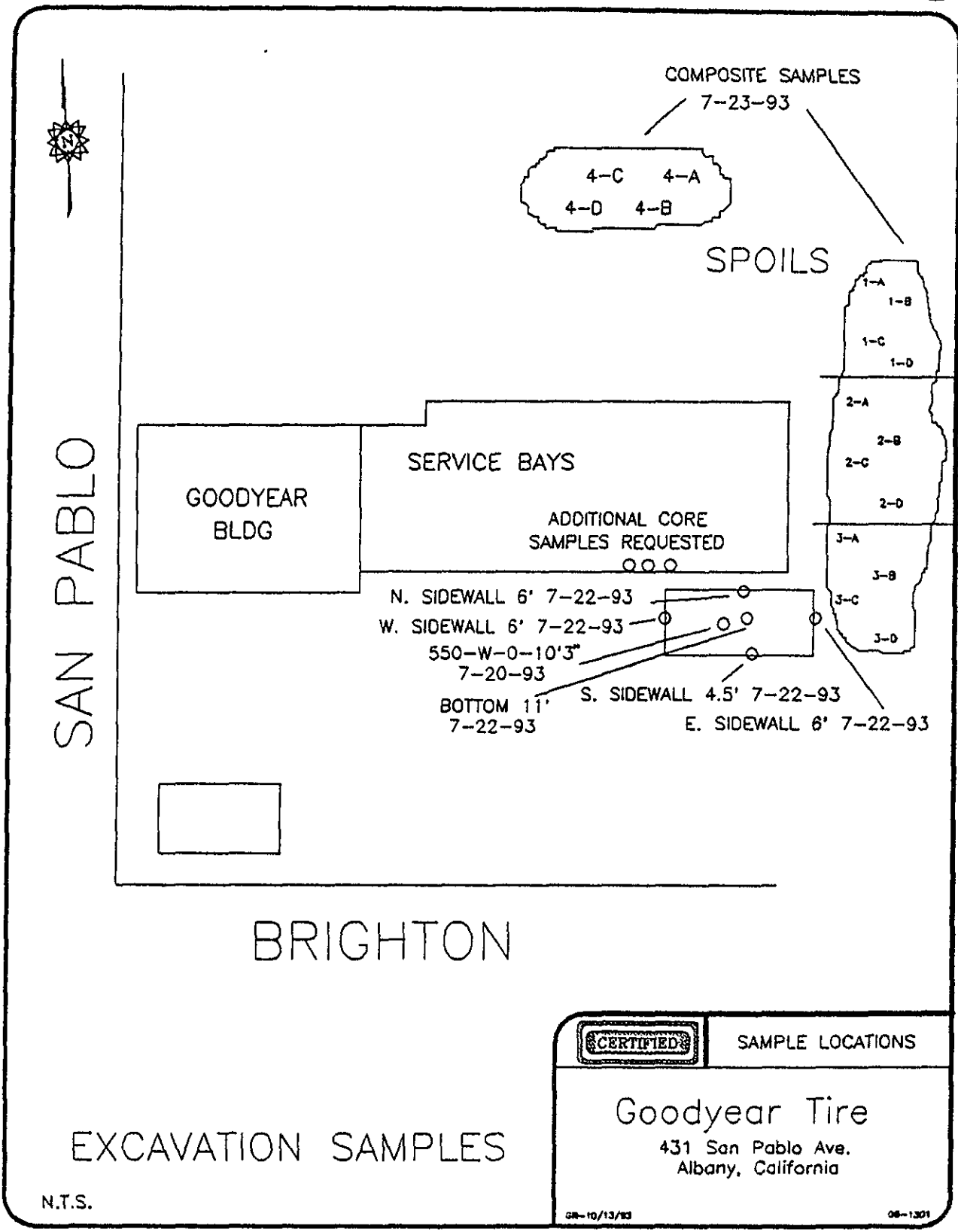


Figure 2. Site Map

Table 1. Summary of Results for Soil Sample Taken July 20, 1993 (Bottom of Excavation)

Analytical Test	Level	STLC (mg/l)	TTLc (mg/kg)
TPH-Gasoline (mg/kg)	ND		
TPH-Diesel (mg/kg)	38		
Benzene (mg/kg)	ND		
Toluene (mg/kg)	ND		
Xylene (mg/kg)	ND		
Ethyl Benzene (mg/kg)	ND		
Oil & Grease (mg/kg)	ND		
EPA 8010 Halogenated Volatile Organics	ALL ND		
Zinc	58	250	5000
Nickel	38	20	2000
Chromium	39	5	500
Cadmium	ND	1	100
Lead	7	5	1000

Table 2. Summary of Results for Soil Samples Taken July 22, 1993 (Sides and Bottom of Excavation)

	West - 6'	North - 6'	South - 6'	East - 6'	Bottom 11'
Gasoline (mg/kg)	49	17	ND	ND	ND
Diesel (mg/kg)	1600	1100	ND	ND	ND
Benzene (mg/kg)	0.12	ND	ND	ND	ND
Toluene (mg/kg)	0.016	0.012	ND	ND	ND
Ethyl Benzene (mg/kg)	0.12	0.037	ND	ND	ND
Xylene (mg/kg)	0.12	0.1	ND	ND	ND
Oil & Grease (mg/kg)	170	ND	240	ND	ND
EPA 8270 Semi Volatile Organics	ALL ND	ALL ND	ALL ND	ALL ND	ALL ND
EPA 8010 Halogenated Volatile Organics	ALL ND	ALL ND	ALL ND	ALL ND	ALL ND
Cadmium (mg/kg)	ND	ND	ND	ND	ND
Chromium (mg/kg)	53	42	40	46	22
Lead (mg/kg)	8	ND	6	ND	5
Nickel (mg/kg)	95	65	61	60	24
Zinc (mg/kg)	50	40	31	31	23

Table 3. Summary of Results for Soil Samples Taken July 23, 1993 (Composite Samples from Spoils)

	Comp 1 ABCD	Comp 2 ABCD	Comp 3 ABCD	Comp 4 ABCD
Oil & Grease (mg/kg)	83	93	220	ND
EPA 8240 Vol. Organics	ALL ND	ALL ND	ALL ND	ALL ND
EPA 8270 Semi-Vol. Org.	ALL ND	ALL ND	ALL ND	ALL ND
pH	9.8	7.0	7.6	7.6
Barium (mg/kg)	148	170	174	163
Cobalt (mg/kg)	13	16	19	19
Nickel (mg/kg)	74	90	96	79
Vanadium (mg/kg)	0.6	0.8	0.8	0.5
CN (mg/kg)	ND	ND	ND	ND
Sulfide (mg/kg)	ND	ND	ND	ND
Zinc (mg/kg)	69	50	4	5
Arsenic (mg/kg)	5	4	4	5
Chromium (mg/kg)	51	60	62	57
Copper (mg/kg)	35	25	58	31
Lead (mg/kg)	17	8	54	7
Hg (mg/kg)	0.2	0.23	0.15	0.2
Thallium (mg/kg)	ND	ND	ND	ND

On November 19, 1993, OHM Remediation Services Corp. (OHM) collected soil samples from the over-excavated hoist # 7 location. Five soil samples were collected, one from each of the excavation side walls and one from the bottom of the excavation at an approximate depth of 5 feet bgs. The samples were analyzed for Total Oil and Grease (EPA Method 5520), Total Petroleum Hydrocarbons calculated as Diesel (EPA Method 8015), Benzene, Toluene, Ethyl Benzene and Total Xylenes (EPA method 8020) and selected heavy metals: Lead, Barium, Cadmium and Chromium (EPA methods W. E. T./3010/6010). The locations of these samples are shown on Figure 2. The analytical results are summarized in Table 2. The laboratory reports are included in Appendix C. The tank excavation has recently been resurfaced and a new lift has been installed at the location of the former alignment pit.

Table 1 Summary of Soil Sample Results Hydraulic Hoists Collected by Walker Hydraulics 10-22-93 (mg/kg)			
Target Constituent	Sample #2-1	Sample #6-1	Sample #7-1
Approx. Depth (FT)	9.5	9.5	8
TPH/O&G	ND (<50)	840	ND (<50)
TPH/G	ND (<1)	2	18
TPH/D	--	3,900	1,500

Table 2 Summary of Soil Sample Results Hoist #7 Collected by OHM 11/19/93 (mg/kg)					
Target Constituent	Sample LS-001	RS-002	BS-003	FS-004	B-005
Approx. Depth (ft)	5	5	5	5	5
Oil & Grease	89	150	N.D.	82	N.D.
TPH/D	1,800	130	93	250	43
Benzene	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.038	N.D.	0.0075	0.01	N.D.
Ethyl Benzene	0.067	0.018	0.012	0.01	N.D.
Total Xylenes	0.26	0.038	0.025	0.022	N.D.

3

SAN PABLO AVENUE

KAINS AVENUE

BRIGHTON AVENUE

PROPERTY BOUNDARY

GOODYEAR TIRE CENTER

HOISTS

H H H H H H
#1 #2 #3 #4 #5 #6 #7 (#8)

FORMER UNDERGROUND STORAGE TANK

RESTAURANT

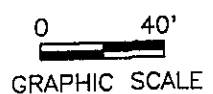
LEGEND

- ⊗ PROPOSED GROUNDWATER MONITORING WELL
- PROPOSED SOIL BORING
- △ SOIL SAMPLE LOCATIONS FROM PREVIOUS INVESTIGATIONS
- LIMITS OF EXCAVATION

NOTES:

1. LOCATIONS OF SOIL SAMPLES, LIMITS OF EXCAVATIONS, AND SIZE OF RESTAURANT ARE APPROXIMATE.

Remediation Services Corp.
WALNUT CREEK, CA.



PROPOSED MONITORING WELL LOCATIONS
GOODYEAR TIRE CENTER
431 SAN PABLO AVE
ALBANY, CALIFORNIA

DRAWN BY	<i>j.b.v.</i>	DATE	5/24/94
CHKD BY		APPR BY	
SCALE	1" = 40'	TITLE	
PROJECT	OHM PROJECT No.	DRAWING No.	SHEET OF
	15422	2	1 1
			REVISED
			—

**TABLE 4
SOIL ANALYTICAL RESULTS**

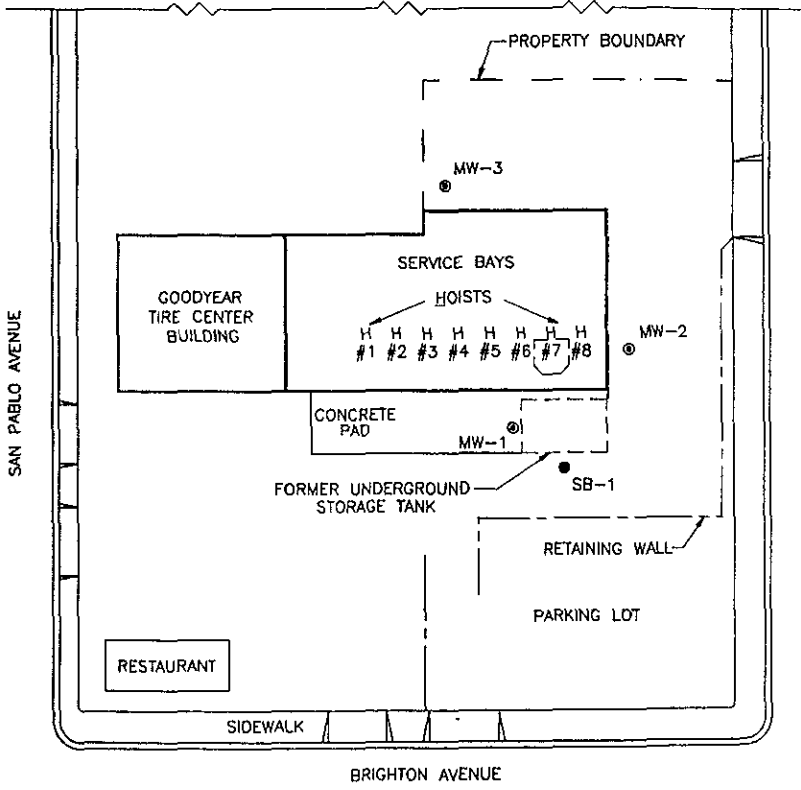
Sample Point	Depth (feet)	TPHG (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-Benzene (mg/kg)	Xylenes (mg/kg)	TPHD (mg/kg)	Oil & Grease (mg/kg)	TOTAL METALS (mg/kg)				
									Ca	Cr	Pb	Ni	Zn
MW-1	5	11*	ND	ND	ND	ND	72	80	ND	71	ND	110	41
	7	ND	ND	ND	ND	ND	15	ND	ND	66	11	150	56
MW-2	5	ND	ND	ND	ND	ND	ND	ND	ND	87	18	83	34
	8	ND	ND	ND	ND	ND	ND	ND	ND	69	ND	81	46
MW-3	5	ND	ND	ND	ND	ND	ND	ND	NA	NA	NA	NA	NA
	7	1000*	ND	ND	ND	ND	2000	2200	ND	59	ND	69	42
	13	ND	ND	ND	ND	ND	ND	ND	ND	54	ND	84	40
SB-1	5	ND	ND	ND	ND	ND	ND	100	ND	49	ND	99	39
	8	ND	ND	ND	ND	ND	ND	ND	ND	90	ND	130	65

1. mg/kg = milligrams/kilogram (parts per million)
2. TPHG = Total petroleum hydrocarbons as gasoline
3. TPHD = Total petroleum hydrocarbons as diesel
4. Total Metals - Ca = Cadmium; Cr = Chromium; Pb = Lead; Ni = Nickel; Zn = Zinc.
5. ND = Not detected above method detection limit
6. NA = Sample not analyzed for this parameter
7. Hydrocarbons present do not match profile of laboratory standard.

What does asterisk mean above.

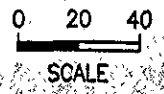


5



LEGEND

- ⊙ GROUNDWAER MONITORING WELL
- SOIL BORING
- - - LIMITS OF EXCAVATION



Remediation Services Corp.
PLEASANTON, CA.

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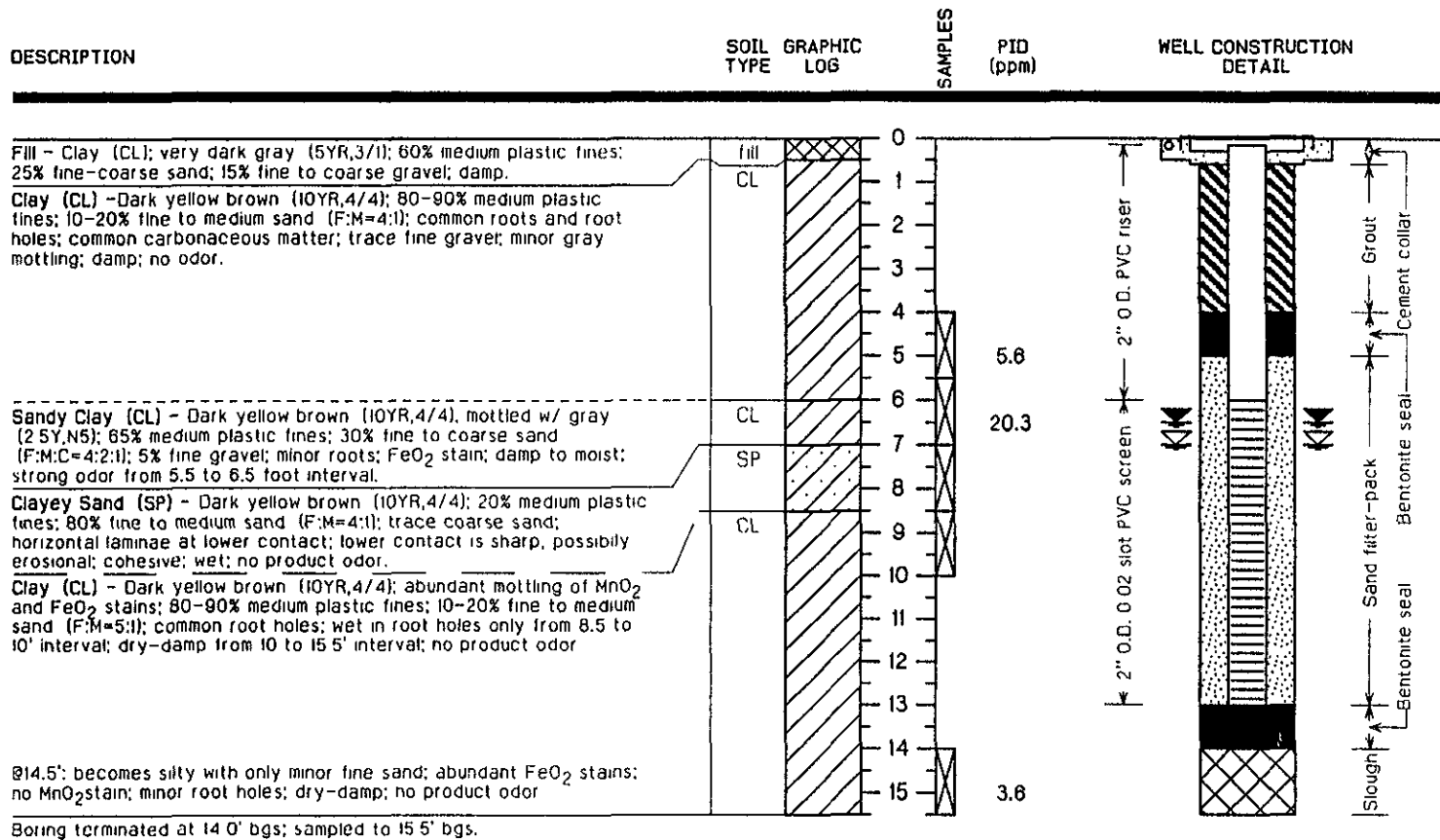
SITE PLAN
GOODYEAR TIRE CENTER
ALBANY, CALIFORNIA

DRAWN BY A. SUAREZ	DATE 9/29/94
CHECK BY	DATE
SCALE 1" = 40'	
PROJECT GOODYEAR	OHM PROJECT No. 15422
DRAWING NO. FIG 1	SHEET NO. 1
REVISED	NO.

Hole No. MW-1

PROJECT: Goodyear-Albany
 DRILL RIG: Mobile B57
 HOLE DIA.: 8.0 in.
 INITIAL H2o DEPTH: 7.0 ft.
 FINAL H2o DEPTH: 6.5 ft.

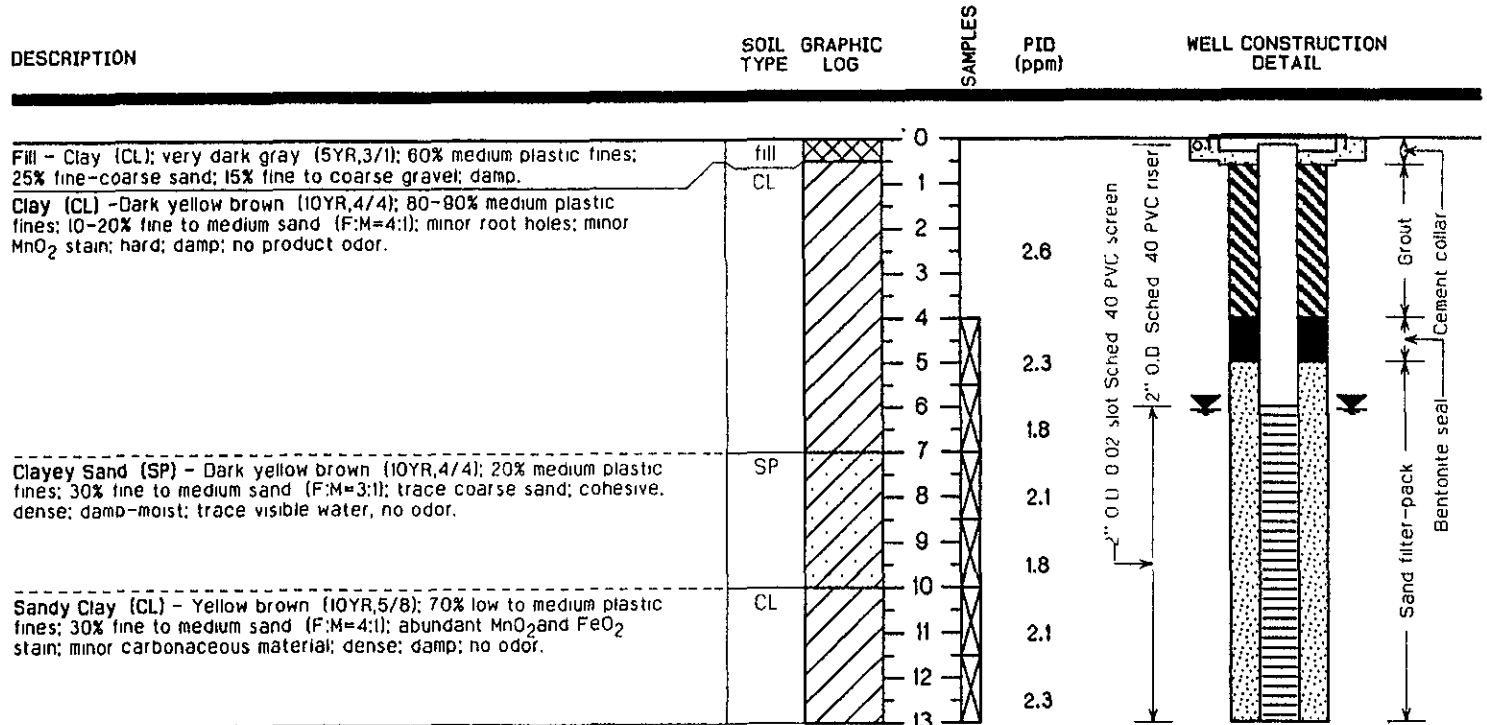
DATE DRILLED: 8/31/94
 LOGGED BY: Tracy Walker
 SAMPLER: Tracy Walker
 TOC ELEV.: 22.10 MSL ft.
 TOTAL DEPTH: 15.5 ft.



Hole No. MW-2

PROJECT: Goodyear-Albany
 DRILL RIG: Mobile B57
 HOLE DIA.: 8.0 in.
 INITIAL H2o DEPTH: ft.
 FINAL H2o DEPTH: 6.06 ft.

DATE DRILLED: 8/31/94
 LOGGED BY: Tracy Walker
 SAMPLER: Tracy Walker
 TOC ELEV.: 22.38 MSL ft.
 TOTAL DEPTH: 13.0 ft.

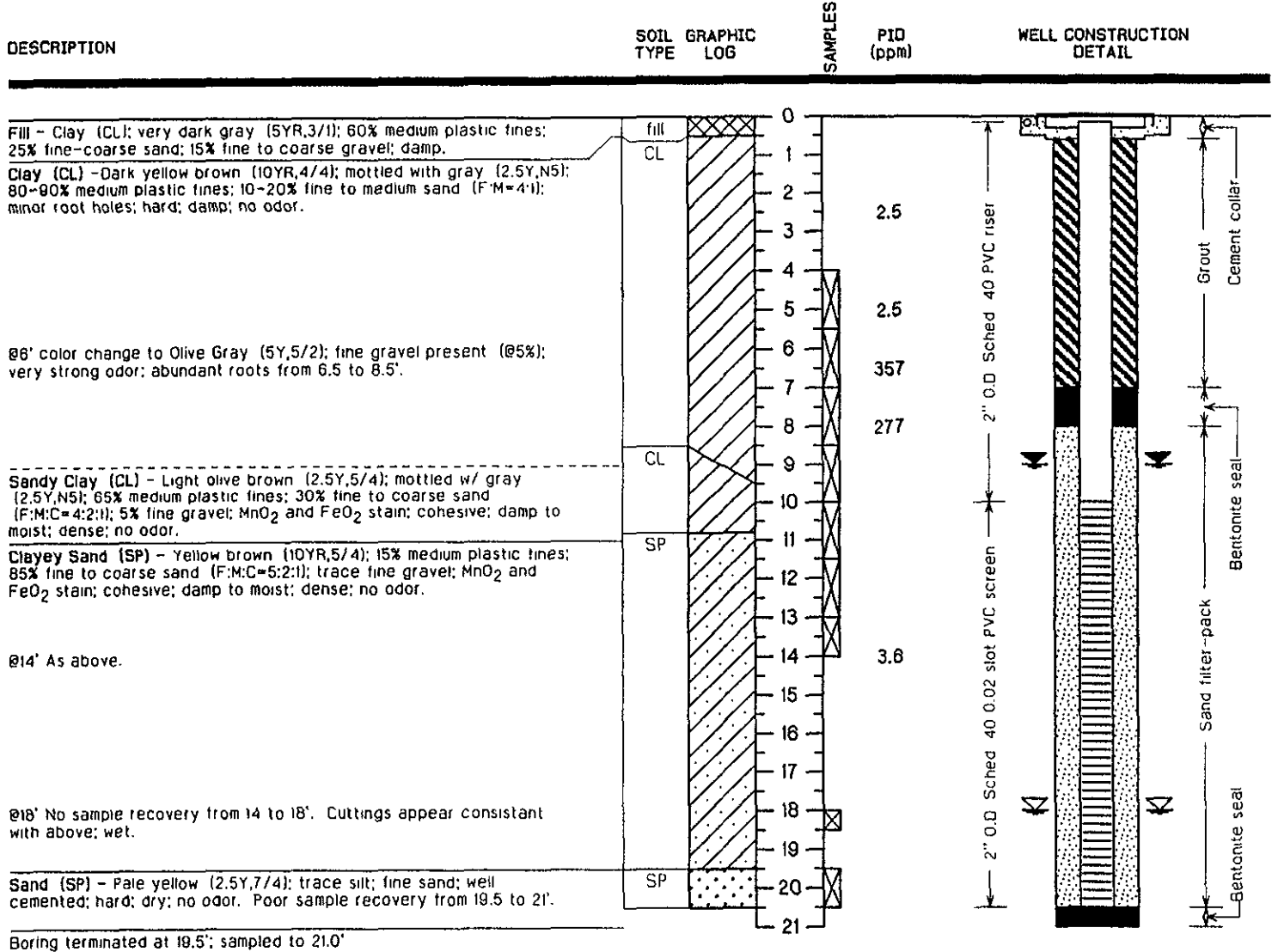


Boring terminated at 13.0' bgs. PID background levels ranged from 2.5 to 4.0 ppm

Hole No. MW-3

PROJECT: Goodyear-Albany
 DRILL RIG: Mobile B57
 HOLE DIA.: 8.0 in.
 INITIAL H2o DEPTH: 18.0 ft.
 FINAL H2o DEPTH: 9.0 ft.




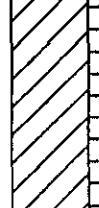
DATE DRILLED: 8/31/94
 LOGGED BY: Tracy Walker
 SAMPLER: Tracy Walker
 TOC ELEV.: 22.33 MSL ft.
 TOTAL DEPTH: 21.0 ft.



Hole No. SB-1

PROJECT: Goodyear-Albany
 DRILL RIG: Mobile B57
 HOLE DIA.: 8.0 in.
 INITIAL H₂O DEPTH: NA ft.
 FINAL H₂O DEPTH: NA ft.

DATE DRILLED: 8/31/94
 LOGGED BY: Tracy Walker
 SAMPLER: Tracy Walker
 TOC ELEV.: NA
 TOTAL DEPTH: 26.0 ft.

DESCRIPTION	SOIL TYPE	GRAPHIC LOG	SAMPLES	PID (ppm)	REMARKS
Fill - Clay (CL); very dark gray (5YR,3/1); 60% medium plastic fines; 25% fine-coarse sand; 15% fine to coarse gravel; damp.	fill		0		The borehole was sealed with bentonite pellets from 26' bgs to 15'; and with cement grout from 15' bgs to ground surface.
Clay (CL) - Dark yellow brown (10YR,4/4); 80-90% medium plastic fines; 10-20% fine to medium sand (F:M=4:1); common root holes and roots; trace fine gravel; hard; damp; no product odor.	CL		1		
			2	2.8	
			3		
			4		
			5	2.8	
Clayey Sand (SP) - Dark yellow brown (10YR,4/4); 20% medium plastic fines; 80% fine to medium sand (F:M=4:1); trace coarse sand and fine gravel; cohesive; hard; damp-moist; no odor.	SP		6	5.5	
			7		
			8	4.4	
			9	4.4	
@8.5' becomes coarser down to 10'; 10% medium plastic fines; 75% sand, as above; 15% fine gravel; abundant FeO ₂ stain; wet around gravel clasts, otherwise moist; no odor.			10		
Clay (CL) - Yellow brown (10YR,5/8); 90-95% medium plastic fines; 5-10% fine to medium sand (F:M=5:1); trace coarse sand; FeO ₂ stain; minor root holes; hard; damp; no odor.	CL		11	4.8	
			12		
@12' From 12 to 13.5' abundant MnO ₂ stain.			13	3.8	
			14		
@15' As above; Trace fine gravel; damp; no odor			15	5.9	
			16		
			17		
@18' becomes sandier to bottom; 75-80% medium plastic fines; 20-25% fine to medium sand as above; damp; no odor			18		
			19		
			20		
			21	2.1	
			22		
			23		
@24' to 25' common coarse gravel (10%); damp; no odor			24		
			25	3.5	
			26		

Boring terminated at 26' bgs.

**TABLE 2
SUMMARY OF GROUNDWATER ANALYSES
PETROLEUM HYDROCARBONS**

WELL ID	CONSTITUENT ug/L	Date Sampled					
		7-Sep-94	22-Nov-94	25-Jan-95	5/2/95		
MW-1	TPH-G	<50	<50	<50	<50		
	TPH-D	80.0	<50	<50	<50		
	Oil & Grease	<1000	<1000	<1000	<1000		
	Benzene	<0.5	<0.5	<0.5	<0.5		
	Toluene	<0.5	<0.5	<0.5	<0.5		
	Ethylbenzene	<0.5	<0.5	<0.5	<0.5		
	Total Xylenes	<0.5	<0.5	<0.5	<0.5		
MW-2	TPH-G	<50	<50	<50	<50		
	TPH-D	<50	<50	<50	<50		
	Oil & Grease	<1000	1200.0	<1000	<1000		
	Benzene	<0.5	<0.5	<0.5	<0.5		
	Toluene	<0.5	<0.5	<0.5	<0.5		
	Ethylbenzene	1.1	<0.5	<0.5	<0.5		
	Total Xylenes	1.5	<0.5	<0.5	<0.5		
MW-3	TPH-G	<50	<50	<50	<50		
	TPH-D	<50	<50	<50	<50		
	Oil & Grease	<1000	1500.0	1200.0	<1000.0		
	Benzene	<0.5	<0.5	<0.5	<0.5		
	Toluene	<0.5	<0.5	<0.5	<0.5		
	Ethylbenzene	<0.5	<0.5	<0.5	<0.5		
	Total Xylenes	<0.5	<0.5	<0.5	<0.5		

- Notes:**
- (1) Concentrations of TPH (Oil & Grease) detected by method 5520 are close to the detection limit and therefore considered negligible.
 - (2) < - not detected at concentrations exceeding minimum detection limit

Handwritten notes:
MW-3
analysis
1/2/95



TABLE 3
SUMMARY OF GROUNDWATER ANALYSES
TOTAL METALS

WELL ID	CONSTITUENT ug/L	Date Sampled					
		7-Sep-94	22-Nov-94	25-Jan-95			
MW-1	Cadmium	<1	<1	•	•		
	Chromium	150.0	<10	10.0	30.0		
	Lead	<10	<10	•	•		
	Nickel	340.0	<10	•	•		
	Zinc	130.0	<10	•	•		
MW-2	Cadmium	<1	1.0	•	•		
	Chromium	110.0	<10	100.0	130.0		
	Lead	<10	<10	•	•		
	Nickel	180.0	<10	•	•		
	Zinc	120.0	<10	•	•		
MW-3	Cadmium	<1	<1	•	•		
	Chromium	20.0	<10	50.0	<10		
	Lead	<10	<10	•	•		
	Nickel	<10	<10	•	•		
	Zinc	40.0	30.0	•	•		

Notes:

- (1) < - not detected at concentrations exceeding minimum detection limit
- (2) Metal analysis results are for Total Metals
- (3) "•" denotes parameter not analyzed for.