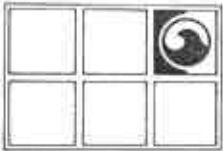


R0480



# GROUNDWATER TECHNOLOGY, INC.

4057 Port Chicago Highway, Concord, CA 94520 (415) 671-2387

FAX: (415) 685-9148

May 18, 1993

Project No. 020503392

Ms. Bernadine Palka  
Sears, Roebuck and Company  
3333 Beverly Road, Building A2-281A  
Department 824C  
Hoffman Estates, IL 60179

SUBJECT: Quarterly Monitoring and Sampling Report  
Former Sears Automotive Center  
2633 Telegraph Avenue  
Oakland, California

Dear Ms. Palka:

Groundwater Technology, Inc. is pleased to submit this Quarterly Monitoring and Sampling Report for February through April 1993. The report presents the results of monitoring well gauging and sampling analysis for the former Sears Automotive Center located at 2633 Telegraph Avenue, Oakland, California (Attachment 1, Figure 1). The monitoring and sampling activities were performed and this report prepared according to the Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites, dated August 10, 1990, and the State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual.

## SUMMARY OF WORK COMPLETED

Groundwater gauging was performed on February 26, March 24, and April 27, 1993. The first quarterly sampling of the five groundwater monitoring wells was performed on March 24, 1993.

### Monitoring Well Gauging

On February 26, March 24, and April 27, 1993, the depth to groundwater was measured in five monitoring wells using an INTERFACE PROBE™ Well Monitoring System, which can detect both water and separate-phase product levels. Groundwater monitoring data are presented in Attachment 2, Table 1.

Groundwater monitoring data were used to construct potentiometric surface maps across the site (Figures 2 through 4). Measurable thicknesses of separate-phase hydrocarbons were not detected in the wells. The local groundwater gradient was approximately 0.02 foot per foot (ft/ft) to the

3392R013.205

southwest on February 26, 1993, 0.03 ft/ft to the south on March 24, 1993, and 0.02 ft/ft to the south on April 27, 1993.

### Monitoring Well Sampling and Results

Before sampling, the wells were purged of approximately 4 well-casing volumes. The temperature, conductivity, and pH of the purge water were measured during purging. Well purge data are included in Attachment 3. The wells were allowed to recharge to a least 80 percent of their initial water level before sampling.

Groundwater samples were collected using a Teflon® bailer and placed in appropriate containers. One trip blank and one duplicate (MW-3) were collected and analyzed as part of the Quality Assurance/Quality Control program. The sample containers were labeled and placed in an ice-chilled, insulated cooler for transport under chain-of-custody protocol to a California-certified laboratory for the analyses described below. A summary of historical groundwater analytical results is presented in Table 2.

- Groundwater samples from well MW-1 were analyzed for total petroleum hydrocarbons-as-diesel fuel (TPH-D) using modified EPA Methods 3510/8015; for total petroleum hydrocarbons (TPH) using modified EPA Method 418.1 (Standard Method [SM] 5520 FC); and for benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Methods 5030/8020.
- Groundwater samples from wells MW-2, MW-3, and MW-4 were analyzed for TPH-D using modified EPA Methods 3510/8015; for TPH using EPA Method 418.1 (SM 5520 FC); for total petroleum hydrocarbons-as-gasoline (TPH-G) and BTEX using EPA Methods 5030/8020/modified EPA Method 8015; for halogenated volatile organic compounds (VOCs) using EPA Method 601; for semi-volatile organic compounds (SVOCs) using EPA Method 8270; and for total lead using EPA Methods 239.2/7421/3020.
- Groundwater samples from well MW-5 were analyzed for TPH-D using modified EPA Methods 3550/8015; for TPH using modified EPA Method 3550/EPA Method 418.1 (SM 5520 FC); for TPH-G and BTEX using EPA Methods 5030/8020/modified EPA Method 8015; for halogenated VOCs using EPA Method 601; for SVOCs using EPA Method 8270; and for total lead, cadmium, chromium, nickel, and zinc using EPA Method 6010.
- A trip blank and a duplicate (MW-3 DUP) were analyzed for purgeable halocarbons using EPA Method 601.

The laboratory reports and chain-of-custody records are included in Attachment 4. Figures 5 and 6 illustrate the distribution of TPH-G and TPH concentrations in the groundwater.

Aromatic Volatile Organic Compounds. Concentrations of aromatic VOCs were detected in samples from wells MW-1 through MW-3 and MW-5 as follows: benzene from nondetectable to 28 micrograms per liter ( $\mu\text{g/l}$ ); toluene from nondetectable to 1  $\mu\text{g/l}$ ; ethylbenzene from nondetectable to 1  $\mu\text{g/l}$ ; and xylenes from nondetectable to 10  $\mu\text{g/l}$ . No detectable concentrations of BTEX were present in the groundwater sample from well MW-4. The results of BTEX analyses are summarized in Table 2.

Total Petroleum Hydrocarbons. Concentrations of TPH-G ranging from 19 to ~~38~~  $\text{mg/l}$  were detected in wells MW-2 through MW-5. No detectable concentrations of TPH-D were present in the groundwater samples tested. However, the laboratory reported that hydrocarbons not indicative of diesel are present. The analytical results of groundwater samples from wells MW-1, MW-3, MW-4, and MW-5 reported total petroleum hydrocarbons-by-infrared spectrometry (TPH-IR) concentrations of 1 milligram per liter ( $\text{mg/l}$ ); 28  $\text{mg/l}$ ; 2  $\text{mg/l}$ ; and 2  $\text{mg/l}$ ; respectively. The results of TPH, TPH-G, and TPH-D analyses are summarized in Table 2.

Halogenated Volatile Organic Compounds. Groundwater samples from wells MW-2 through MW-5 were analyzed for VOCs and no detectable concentrations were present. The results of VOC analyses are summarized in Table 2.

Semi-Volatile Organic Compounds. The analytical results of the groundwater sample from well MW-3 reported 26  $\mu\text{g/l}$  of 2-methylnaphthalene. No detectable concentrations of SVOCs were present in the groundwater samples from wells MW-2, MW-4, and MW-5. The groundwater sample from well MW-1 was not required to be analyzed for SVOCs. The results of SVOC analyses are summarized in Table 2.

Metals. Lead was not detected in the groundwater sample from well MW-2. Analytical results of the samples from wells MW-3 and MW-4 reported 15  $\mu\text{g/l}$  and 7  $\mu\text{g/l}$ , respectively. The sample from well MW-1 was not analyzed for lead. Analytical results of the groundwater sample from upgradient well MW-5 reported 15  $\mu\text{g/l}$  lead, 15  $\mu\text{g/l}$  cadmium, 97  $\mu\text{g/l}$  chromium, 110  $\mu\text{g/l}$  nickel, and 104  $\mu\text{g/l}$  zinc. These analytical results are of unfiltered groundwater samples. The total lead analyses results are summarized in Table 2.

#### WORK TO BE COMPLETED FROM MAY THROUGH JULY 1993

A schedule of work tasks at the site planned for May through July 1993 is presented on the following page.

Date	Task
05/93	Monthly well gauging
06/93	Monthly well gauging and quarterly sampling
07/93	Monthly well gauging

Additional assessment will be conducted to further evaluate the horizontal distribution of hydrocarbons in the groundwater as recommended in the Phase II Assessment Report, dated March 24, 1993. The additional assessment will include the following activities:

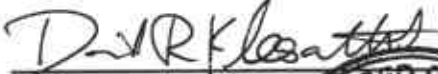
- Collect additional soil and grab-groundwater samples. At least three sampling points will be located downgradient of the former tank pits along the southern edge of the subject property. The purpose of the additional sampling will be to evaluate the horizontal extent of petroleum hydrocarbons in the soil and groundwater and to select locations for one to two additional monitoring wells.
- Install one to two additional monitoring wells downgradient of well MW-3.
- Prepare and submit a report to Alameda County Health Care Services Agency describing the findings of the further assessment.

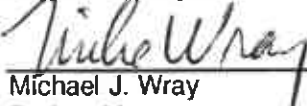
If you have any questions or comments concerning this report, please call our Concord office at (510) 671-2387.

Sincerely,  
**Groundwater Technology, Inc.**  
Written/Submitted by

**Groundwater Technology, Inc.**  
Reviewed/Approved by

  
Deborah H. Horner  
Project Geologist

  
David R. Kleesattel  
Registered Geologist  
No. 5136

  
Michael J. Wray  
Project Manager



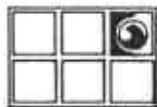
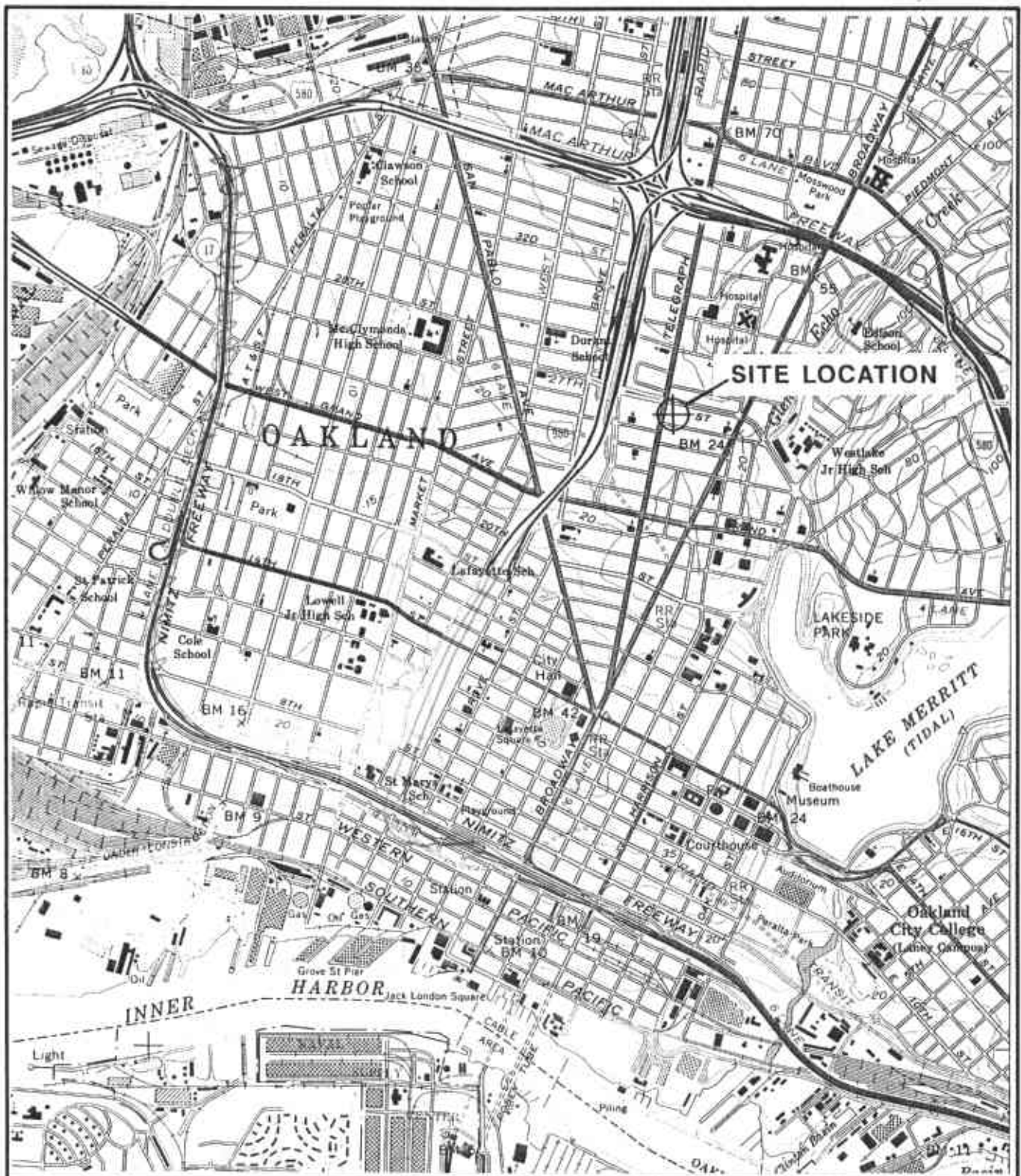
- Attachment 1 Figures
- Attachment 2 Tables
- Attachment 3 Well Purge Data
- Attachment 4 Laboratory Reports and Chain-of-Custody Records

cc: **Thomas Peacock, Alameda County Health Services Agency**  
**Richard Hiatt, Regional Water Quality Control Board**

**ATTACHMENT 1**

**FIGURES**

- FIGURE 1      SITE PLAN
- FIGURE 2      POTENTIOMETRIC SURFACE MAP (02/26/93)
- FIGURE 3      POTENTIOMETRIC SURFACE MAP (03/24/93)
- FIGURE 4      POTENTIOMETRIC SURFACE MAP (04/27/93)
- FIGURE 5      TPH-AS-GASOLINE CONCENTRATIONS IN GROUNDWATER (MARCH 1993)
- FIGURE 6      TPH CONCENTRATIONS IN GROUNDWATER (MARCH 1993)



**GROUNDWATER  
TECHNOLOGY**

4057 PORT CHICAGO HWY  
CONCORD, CA 94520  
(510) 671-2387



SCALE:

0 FEET 2000

**SITE LOCATION MAP**

CLIENT:

**SEARS, ROEBUCK AND CO.  
SITE No. 1058**

DATE:

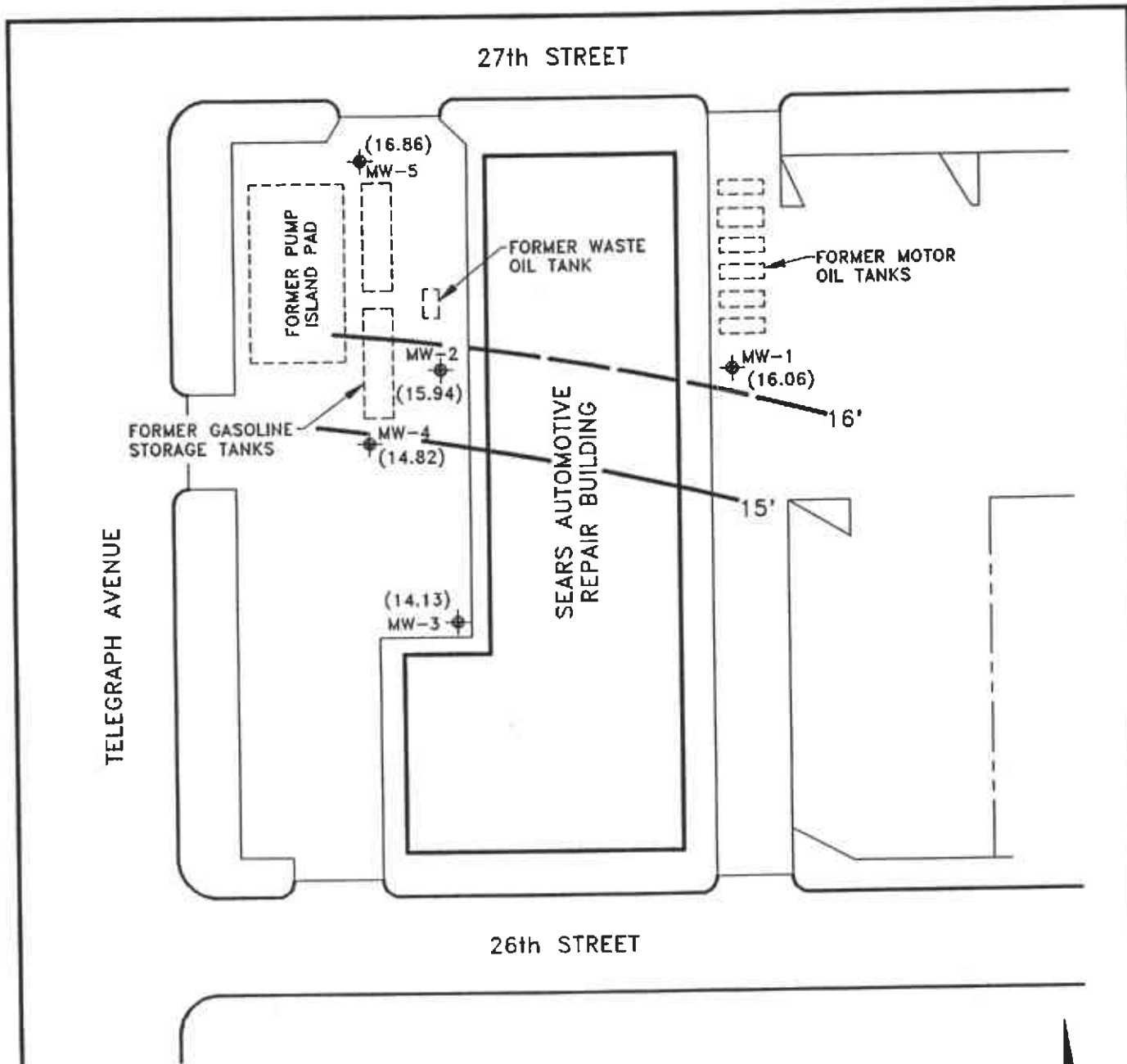
**8/18/92**

LOCATION:

**2633 TELEGRAPH AVE.  
OAKLAND, CALIFORNIA**

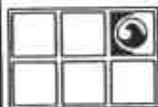
FIGURE:

**1**



**LEGEND**

- ◆ MONITORING WELL
- ( ) POTENTIOMETRIC SURFACE ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR

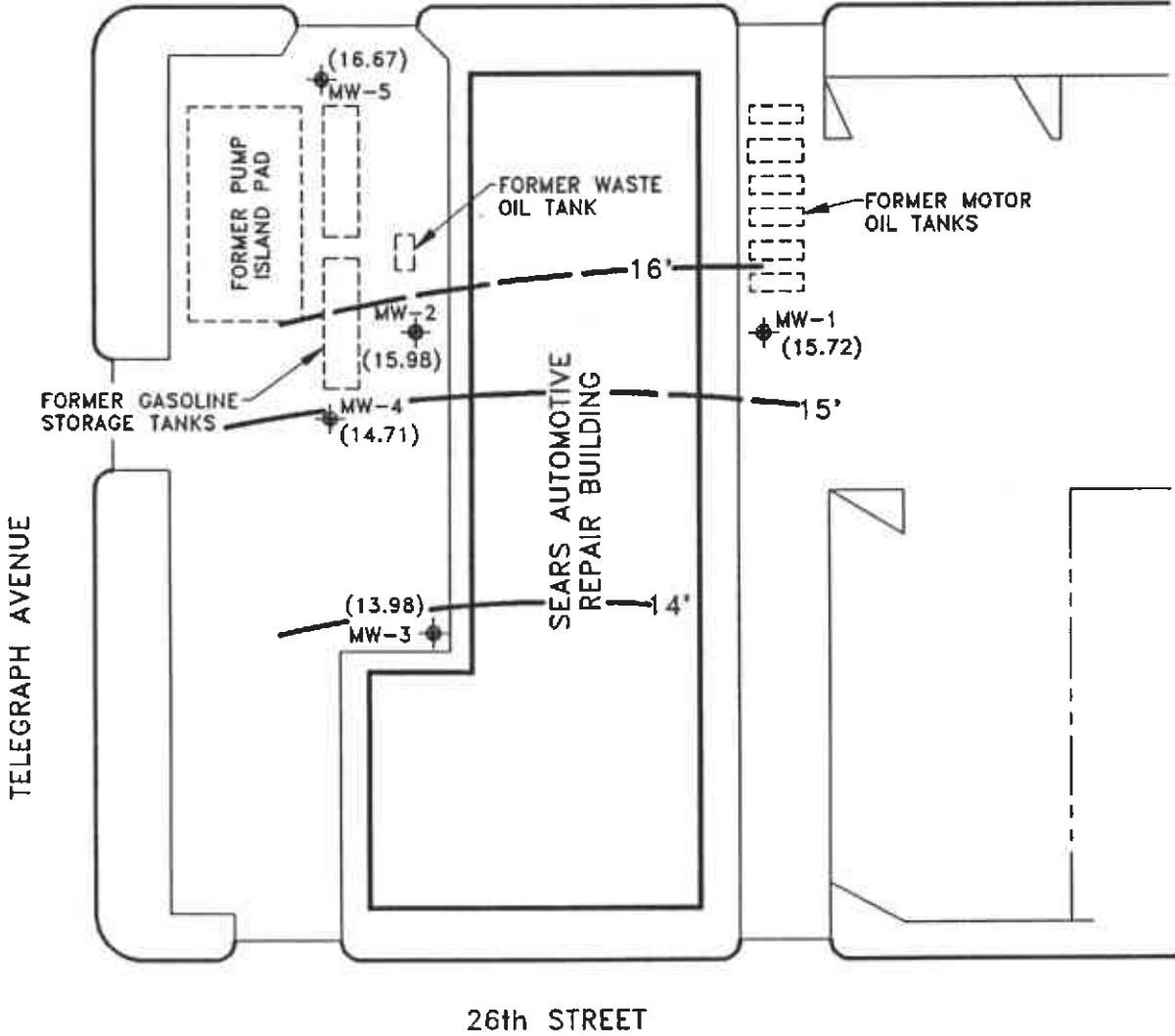


**GROUNDWATER TECHNOLOGY** 4057 PORT CHICAGO HWY.  
CONCORD, CA 94520  
(510) 671-2387

**POTENTIOMETRIC SURFACE MAP  
(2/26/93)**

CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058			LOCATION: 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA		REV. NO.: 0	DATE: 5/10/93
PM <i>WJH</i>	PE/RG	DESIGNED DH	DETAILED ML	ACAD FILE: PSM22693/SP193	PROJECT NO.: 020503392	FIGURE: 2

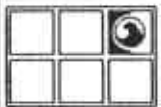
27th STREET



26th STREET

LEGEND

- ◆ MONITORING WELL
- ( ) POTENTIOMETRIC SURFACE ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR



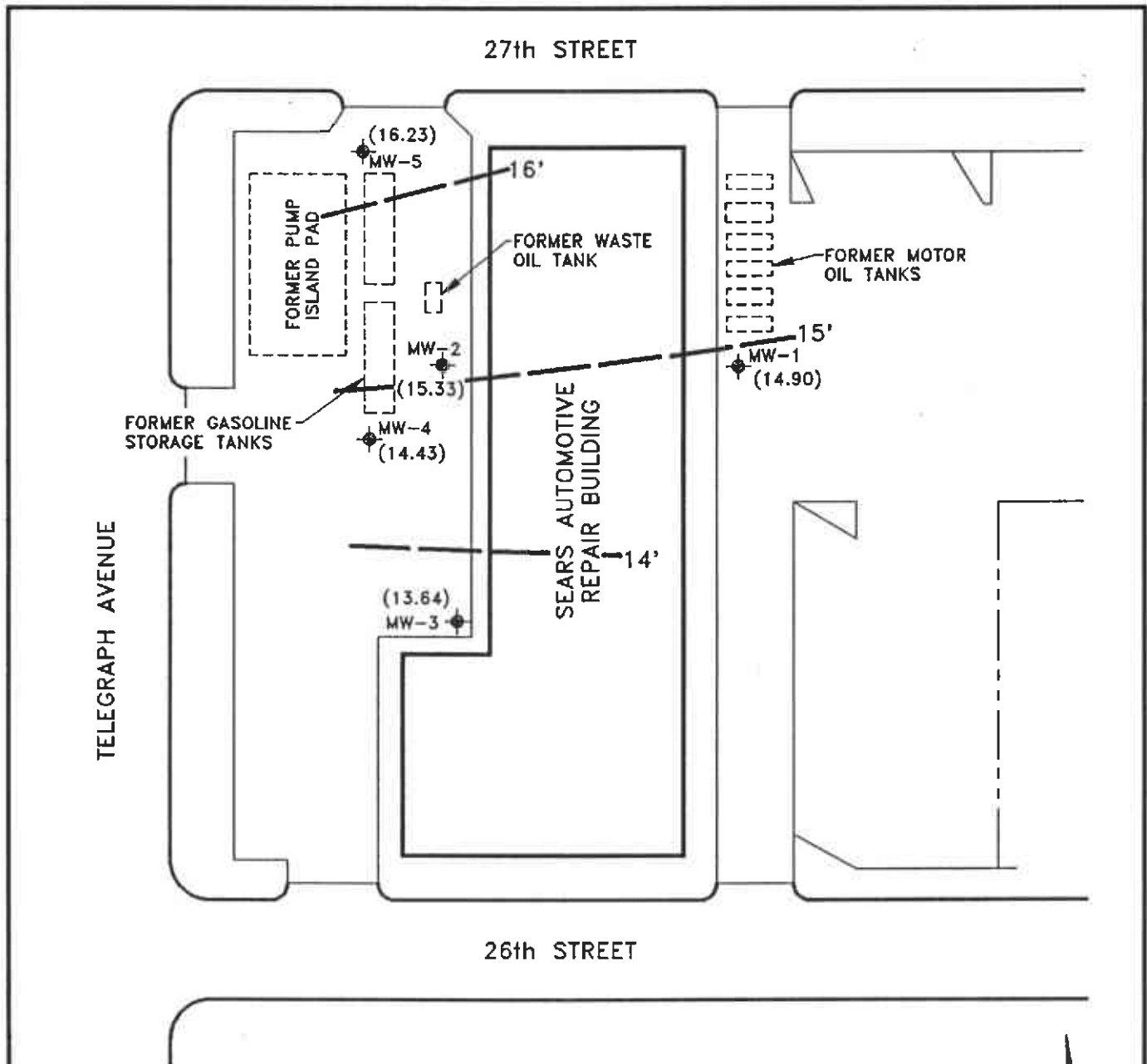
**GROUNDWATER  
TECHNOLOGY**

4057 PORT CHICAGO HWY.  
CONCORD, CA 94520  
(510) 671-2387

**POTENTIOMETRIC SURFACE MAP  
(3/24/93)**

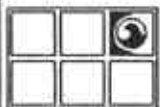
CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058		LOCATION: 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA		REV. NO.: 0	DATE: 5/10/93
PM <i>Mjpa</i>	PE/RG	DESIGNED DH	DETAILED ML	ACAD FILE: PSM32493/SP193	PROJECT NO.: 020503392
					FIGURE: <b>3</b>





LEGEND

- ◆ MONITORING WELL
- ( ) POTENTIOMETRIC SURFACE ELEVATION
- POTENTIOMETRIC SURFACE CONTOUR

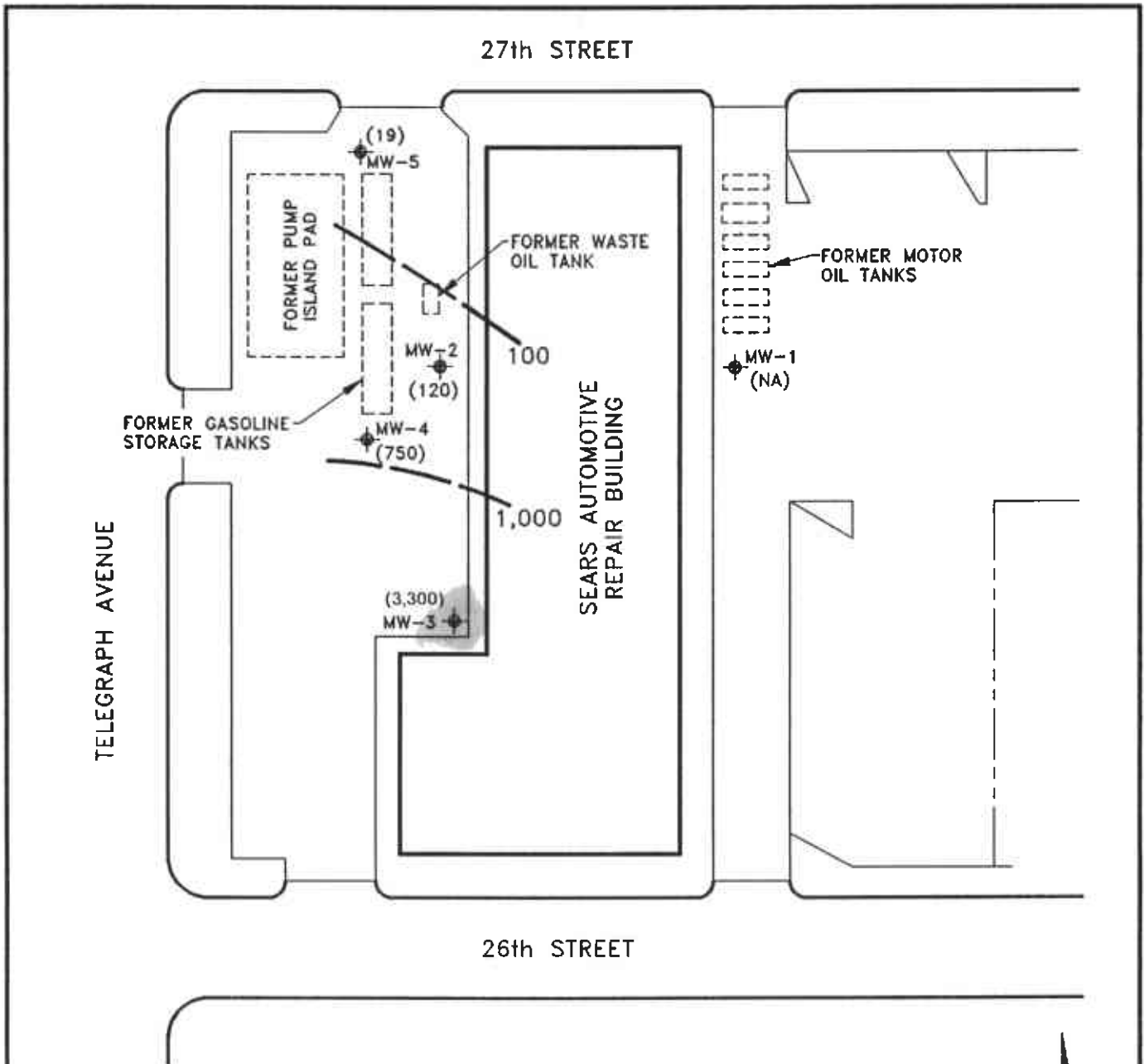


**GROUNDWATER TECHNOLOGY**

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CONCORD, CA 94520  
(510) 671-2387

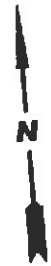
**POTENTIOMETRIC SURFACE MAP  
(4/27/93)**

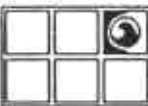
CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058		LOCATION: 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA		REV. NO.: 0	DATE: 5/10/93
PM <i>WJW</i>	PE/RG	DESIGNED DH	DETAILED ML	ACAD FILE: PSM42793/SP193	PROJECT NO.: 020503392
					FIGURE: <b>4</b>

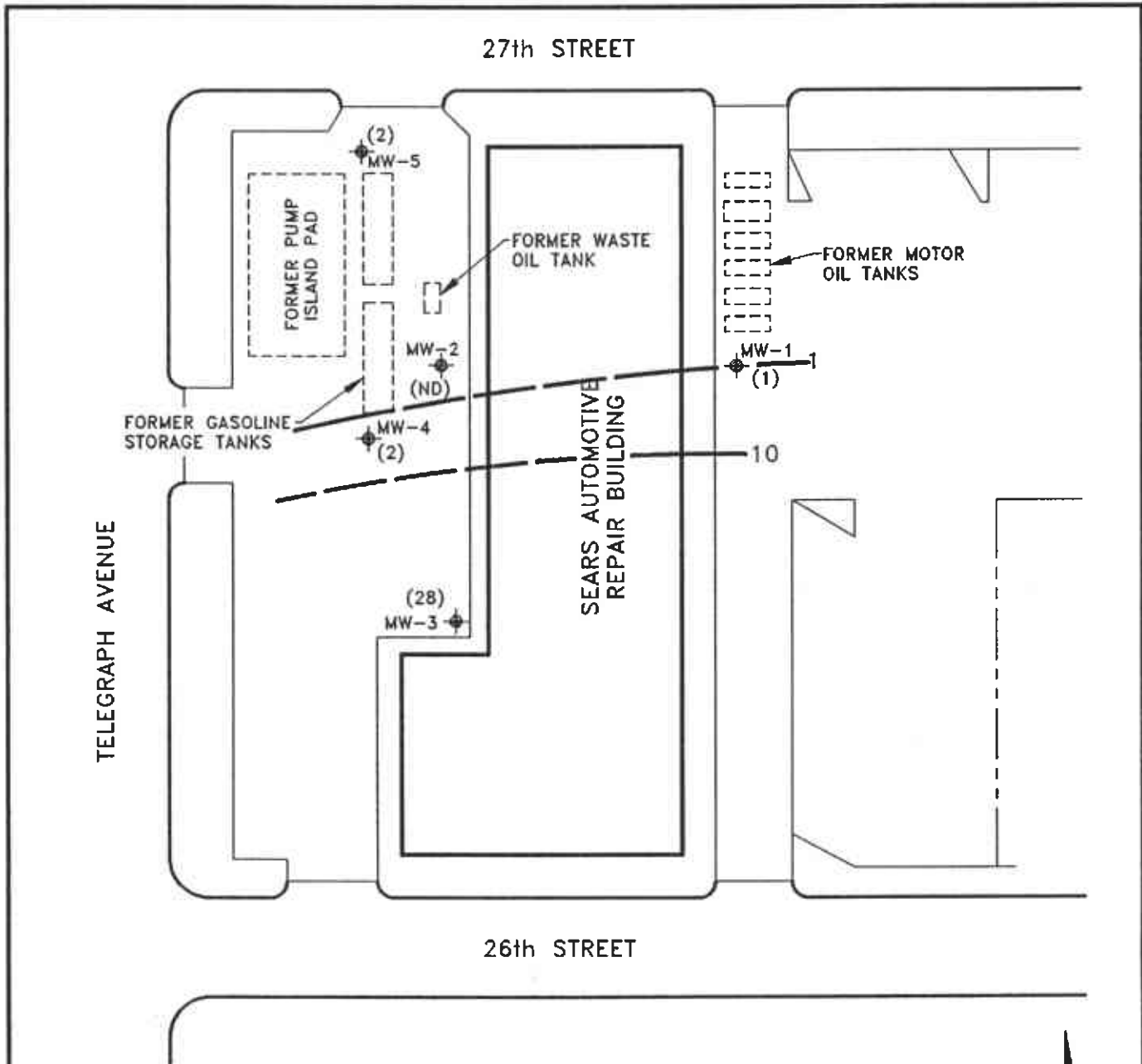


**LEGEND**

- ◆ MONITORING WELL
- ( ) TPH-AS-GASOLINE CONCENTRATION (EPA 5030/8015)(ug/l)
- CONCENTRATION CONTOUR
- (NA) NOT ANALYZED

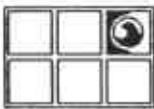


 <b>GROUNDWATER TECHNOLOGY</b>		4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387		<b>TPH-AS-GASOLINE CONCENTRATIONS          IN GROUNDWATER (3/24/93)</b>			
<b>CLIENT:</b> SEARS, ROEBUCK AND CO. SITE No. 1058			<b>LOCATION:</b> 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA		<b>REV. NO.:</b> 0	<b>DATE:</b> 5/10/93	
<b>PM</b> <i>[Signature]</i>	<b>PE/RG</b>	<b>DESIGNED</b> DH	<b>DETAILED</b> ML	<b>ACAD FILE:</b> TPH32493/SP193	<b>PROJECT NO.:</b> 020503392	<b>FIGURE:</b> <b>5</b>	



**LEGEND**

- ◆ MONITORING WELL
- ( ) TPH CONCENTRATION (ug/l)
- CONCENTRATION CONTOUR
- (ND) NOT DETECTED



**GROUNDWATER TECHNOLOGY**  
 4057 PORT CHICAGO HWY.  
 CONCORD, CA 94520  
 (510) 671-2387

**CONCENTRATIONS OF TOTAL PETROLEUM HYDROCARBONS IN GROUNDWATER (3/24/93)**

CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058		LOCATION: 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA		REV. NO.: 0	DATE: 5/10/93
PM <i>Hjgn</i>	PE/RG	DESIGNED DH	DETAILED ML	ACAD FILE: TPHYD393/SP193	PROJECT NO.: 020503392
					FIGURE: <b>6</b>

**ATTACHMENT 2**

**TABLES**

**TABLE 1      MONITORING DATA**

**TABLE 2      SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL RESULTS**

**TABLE 1  
MONITORING DATA**

Well No.	Casing Elev	Date	DTW	DTP	PT	Groundwater Elev
MW-1	26.20	12/30/92	10.60	---	---	15.60
		02/26/93	10.14	---	---	16.06
		03/24/93	10.48	---	---	15.72
		04/27/93	11.30	---	---	14.90
MW-2	26.50	12/30/92	10.65	---	*	15.85
		02/26/93	10.56	---	---	15.94
		03/24/93	10.52	---	---	15.98
		04/27/93	11.17	---	---	15.33
MW-3	26.34	12/30/92	12.43	---	*	13.91
		02/26/93	12.21	---	---	14.13
		03/24/93	12.36	---	---	13.98
		04/27/93	12.70	---	---	13.64
MW-4	26.17	12/30/92	11.53	---	---	14.64
		02/26/93	11.35	---	---	14.82
		03/24/93	11.46	---	---	14.71
		04/27/93	11.74	---	---	14.43
MW-5	26.98	12/30/92	10.50	---	---	16.48
		02/26/93	10.12	---	---	16.86
		03/24/93	10.31	---	---	16.67
		04/27/93	10.75	---	---	16.23

Elev = Elevation  
 DTW = Depth to water (in feet)  
 DTP = Depth to product (in feet)  
 PT = Product thickness (in feet)  
 \* = Sheen observed (<0.01 foot)  
 -- = Product not detected  
 Elevation in feet above mean sea level.

**TABLE 2**  
**SUMMARY OF HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS**  
 (Compounds micrograms per liter except where noted otherwise)

Well ID	Date	B	T	E	X	TPH-G	TPH-D	VOCs	SVOCs	TPH (mg/l)	Total Lead
MW-1	12/30/92	1	1	2	2	-	ND	-	-	1	-
	03/24/93	0.4	1	ND	10	-	ND*	-	-	1	-
MW-2	12/30/92	0.7	ND	ND	3	190	ND	ND	ND	1	ND
	03/24/93	0.6	ND	ND	2	120	ND*	ND	ND	ND	ND
MW-3	12/30/92	11	0.9	ND	2	910	ND	<sup>c</sup> ND	<sup>a</sup> 14	20	ND
	03/24/93	28	0.7	1	8	3,300	ND*	ND	<sup>a</sup> 26	28	15**
MW-4	12/30/92	2	ND	1	ND	1,200	ND	ND	ND	ND	ND
	03/24/93	ND	ND	ND	ND	750	ND*	ND	ND	2	7**
MW-5	12/30/92	ND	ND	ND	ND	37	ND	ND	ND	ND	<sup>b</sup> 5
	03/24/93	ND	ND	ND	0.5	19	ND	ND	ND	2	<sup>d</sup> 15**

- BTEX = Benzene, toluene, ethylbenzene, and total xylenes (EPA Methods 5030, 8020)  
 TPH-G = Total petroleum hydrocarbons-as-gasoline (EPA Methods 5030 and modified EPA Method 8015)  
 TPH-D = Total petroleum hydrocarbons-as-diesel fuel (EPA Methods 3510, 8015)  
 VOCs = Volatile organic compounds (EPA Method 601)  
 SVOCs = Semi-volatile organic compounds (EPA Method 8270/625)  
 TPH = Total petroleum hydrocarbons (EPA Method 418.1 [SM 5520 FC])  
 µg/l = Micrograms per liter  
 mg/l = Milligrams per liter  
 - = Not analyzed  
 ND = Nondetectable (Detection limits for each compound are listed in laboratory reports, which are included in Appendix D.)  
 \* = Hydrocarbons present that are not indicative of diesel fuel  
 \*\* = Water samples were not filtered, analytical results represent total metals present, not dissolved concentrations.  
 a = 2-Methylnaphthalene detected  
 b = Cadmium, chromium, nickel, and zinc were also analyzed but were nondetectable.  
 c = Duplicate sample was also analyzed and reported nondetectable concentrations.  
 d = Additional metals analyzed were: Cadmium, detected at 15 µg/l; total chromium, detected at 97 µg/l; nickel, detected at 110 µg/l; and zinc, detected at 104 µg/l \*\*. Note: These samples were not filtered before preservation and analysis.

**ATTACHMENT 3**  
**WELL PURGE DATA**

Project Name: SEARS/TELEGRAPH AVE.

Date: 3/24/93

Job Number: 020503392 . 6104

Page 1 of 5

Site Address: 2533 Telegraph Ave., Oakland, Calif.

Project Manager: Mike Wray

Well ID MW-5

DTW Measurements

Initial =      ft  
Recharge =      ft

Calc Well Volume =      gal  
Well Volume = x4 70 gal

Well Dia 2"

Purge Method	Pump Depth	ft
<input type="checkbox"/> Peristaltic	<u>    </u>	Hand Bailed
<input type="checkbox"/> Gear Drive	<u>    </u>	Air Lift
<input checked="" type="checkbox"/> Submersible	<u>    </u>	Other

Instruments Used	
<input checked="" type="checkbox"/> YSI 3650 pH/ C/mmbo	OMEGA Cond.
<input type="checkbox"/> HYDAC pH/ F/umbo	DRT-15C TURBID
<input type="checkbox"/> OMEGA pH/ C	Other

*x 20*

TIME	TEMP <input checked="" type="checkbox"/> C <input type="checkbox"/> F	EC <del>PH</del>	Conductivity PH	PURGE VOLUME	COMMENTS
1:16	14.1	.70	8.48	2	
1:17	14.9	.54	8.71	4	
1:18	16.6	.50	8.76	6	
1:19	16.8	.50	8.75	8	
1:20	16.7	.50	8.74	10	



Project Name: SEARS/TELEGRAPH AVE.

Date: 3/24/93

Job Number: 020503392 . 6104

Page 2 of 5

Site Address: 2533 Telegraph Ave., Oakland, Calif.

Project Manager: Mike Wray

Well ID MW-1  
Well Dia 2"

DTW Measurements  
Initial =      ft  
Recharge =      ft

Calc Well Volume =      gal  
Well Volume = 7 gal

Purge Method	Pump Depth	ft
<input type="checkbox"/> Peristaltic	<u>    </u>	Hand Bailed
<input type="checkbox"/> Gear Drive	<u>    </u>	Air Lift
<input checked="" type="checkbox"/> Submersible	<u>    </u>	Other

Instruments Used	
<input checked="" type="checkbox"/> YSI 3650 pH/ C/mmbo	<u>    </u> OMEGA Cond.
<u>    </u> HYDAC pH/ F/umbo	<u>    </u> DRT-15C TURBID
<u>    </u> OMEGA pH/ C	<u>    </u> Other

X 20

TIME	TEMP	E.C.	Conductivity pH	PURGE VOLUME	COMMENTS
	<input checked="" type="checkbox"/> C F				
1:27	18.7	.47	7.31	2	
1:28	18.8	.47	7.41	4	
1:29	18.8	.47	7.44	6	
1:30	18.8	.47	7.45	7	

Project Name: SEARS/TELEGRAPH AVE.

Date: 3/24/93

Job Number: 020503392 . 6104

Page 3 of 5

Site Address: 2533 Telegraph Ave., Oakland, Calif.

Project Manager: Mike Wray

Well ID MW-2

DTW Measurements

Initial =        ft

Calc Well Volume =        gal

Recharge        ft

Well Volume = X4 7 gal

Well Dia 2"

Purge Method	Pump Depth	ft
<input type="checkbox"/> Peristaltic	<input type="checkbox"/> Hand Bailed	
<input type="checkbox"/> Gear Drive	<input type="checkbox"/> Air Lift	
<input checked="" type="checkbox"/> Submersible	<input type="checkbox"/> Other	

Instruments Used	
<input checked="" type="checkbox"/> YSI 3650 pH/ C/mmbo	<input type="checkbox"/> OMEGA Cond.
<input type="checkbox"/> HYDAC pH/ F/umbo	<input type="checkbox"/> DRT-15C TURBID
<input type="checkbox"/> OMEGA pH/ C	<input type="checkbox"/> Other

X70

TIME	TEMP	E.C.	Conductivity	PURGE VOLUME	COMMENTS
	<input checked="" type="checkbox"/> C <input type="checkbox"/> F		pH		
1:35	18.4	.60	7.25	2	
1:36	18.4	.61	7.39	4	
1:37	18.4	.62	7.44	6	
1:38	18.4	.61	7.45	7	

Project Name: SEARS/TELEGRAPH AVE.

Date: 3/24/93

Job Number: 020503392 . 6104

Page 4 of 5

Site Address: 2533 Telegraph Ave., Oakland, Calif.

Project Manager: Mike.Wray

Well ID MW-3

DTW Measurements

Initial = ft  
Recharge = ft

Calc Well Volume = gal  
Well Volume = 8 gal

Well Dia .2"

Purge Method	Pump Depth	ft
<input type="checkbox"/> Peristaltic		Hand Bailed
<input type="checkbox"/> Gear Drive		Air Lift
<input checked="" type="checkbox"/> Submersible		Other

Instruments Used	
<input checked="" type="checkbox"/> YSI 3650 pH/ C/mmbo	OMEGA Cond.
<input type="checkbox"/> HYDAC pH/ F/umbo	DRT - 15C TURBID
<input type="checkbox"/> OMEGA pH/ C	Other

X20

TIME	TEMP	EC	Conductivity pH	PURGE VOLUME	COMMENTS
	<input checked="" type="checkbox"/> C <input type="checkbox"/> F				
1:42	17.9	.56	7.27	2	
1:43	17.7	.55	7.27	4	
1:44	17.6	.54	7.27	6	
1:45	17.4	.54	7.27	8	

Project Name: SEARS/TELEGRAPH AVE.

Date: 3/24/93

Job Number: 020503392 . 6104

Page 5 of 5

Site Address: 2533 Telegraph Ave., Oakland, Calif.

Project Manager: Mike Wray

Well ID MW-4

DTW Measurements

Initial =      ft

Calc Well Volume =      gal

Recharge      ft

Well Volume = X 8 gal

Well Dia 2"

Purge Method	Pump Depth	ft
<input type="checkbox"/> Peristaltic	<input type="checkbox"/> Hand Bailed	
<input type="checkbox"/> Gear Drive	<input type="checkbox"/> Air Lift	
<input checked="" type="checkbox"/> Submersible	<input type="checkbox"/> Other	

Instruments Used	
<input checked="" type="checkbox"/> YSI 3650 pH/ C/mmbo	<input type="checkbox"/> OMEGA Cond.
<input type="checkbox"/> HYDAC pH/ F/umbo	<input type="checkbox"/> DRT-15C TURBID
<input type="checkbox"/> OMEGA pH/ C	<input type="checkbox"/> Other

X 20

TIME	TEMP	EC <del>PH</del>	<del>Conductivity</del>	PURGE VOLUME	COMMENTS
	<input checked="" type="checkbox"/> C F		pH		
1:48	17.4	.54	7.37	2	
1:49	17.3	.55	7.40	4	
1:50	17.3	.58	7.46	6	
1:51	17.3	.59	7.47	8	

**ATTACHMENT 4**  
**LABORATORY REPORTS**  
**AND**  
**CHAIN-OF-CUSTODY RECORDS**



**Northwest Region**

4080-C Pike Lane  
Concord, CA 94520  
(510) 685-7852  
(800) 544-3422 from inside California  
(800) 423-7143 from outside California  
(510) 825-0720 (FAX)

Client Number: 020503392  
Project ID: Oakland, CA  
Work Order Number: C3-03-0417

April 10, 1993

Mike Wray  
Groundwater Technology, Inc.  
4057 Port Chicago Hwy.  
Concord, CA 94520

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 03/25/93, under chain of custody records 26896, 26897, 26898, 26899 and 26900.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria, unless otherwise stated in the footnotes.

GTEL is certified by the California State Department of Health Services, Laboratory certificate numbers 194 and 1075, to perform analyses for drinking water, wastewater, and hazardous waste materials according to EPA protocols.

If you have any questions concerning this analysis or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,  
GTEL Environmental Laboratories, Inc.

Eileen F. Bullen  
Laboratory Director

**Table 1**  
**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons as Diesel in Water**  
**Modified EPA Methods 3510/8015<sup>a</sup>**

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.

GTEL Sample Number		02	05	07	09
Client Identification		MW-5	MW-1	MW-2	MW-3
Date Sampled		03/24/93	03/24/93	03/24/93	03/24/93
Date Extracted		04/01/93	04/01/93	04/01/93	04/01/93
Date Analyzed		04/07/93	04/07/93	04/07/93	04/07/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
TPH as Diesel	10	<10*	<10*	<10*	<10*
Detection Limit Multiplier		1	1	1	1

GTEL Sample Number		12			
Client Identification		MW-4			
Date Sampled		03/24/93			
Date Extracted		04/01/93			
Date Analyzed		04/07/93			
Analyte	Detection Limit, ug/L	Concentration, ug/L			
TPH as Diesel	10	<10*			
Detection Limit Multiplier		1			

\* Hydrocarbons present which are not indicative of diesel.

**Table 1**

**ANALYTICAL RESULTS**

**Aromatic Volatile Organics and  
 Total Petroleum Hydrocarbons as Gasoline in Water**

**EPA Methods 5030, 8020, and Modified 8015<sup>a</sup>**

GTEL Sample Number		02	07	09	12
Client Identification		MW-5	MW-2	MW-3	MW-4
Date Sampled		03/24/93	03/24/93	03/24/93	03/24/93
Date Analyzed		03/31/93	03/31/93	03/31/93	03/31/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	0.6	28	<0.3
Toluene	0.3	<0.3	<0.3	0.7	<0.3
Ethylbenzene	0.3	<0.3	<0.3	1	<0.3
Xylene, total	0.5	0.5	2	8	<0.5
BTEX, total	—	0.5	3	38	—
TPH as Gasoline	10	19	120	3300	750
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		91.3	87.5	98.1	92.3

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Modification for TPH as gasoline as per California State Water Resources Control Board LUFT Manual protocols, May 1988 revision.



Client Number: 020503392  
 Project ID: Oakland, CA  
 Work Order Number: C3-03-0417

**Table 1**  
**ANALYTICAL RESULTS**  
**Aromatic Volatile Organics in Water**  
**EPA Methods 5030 and 8020<sup>a</sup>**

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986.

GTEL Sample Number		05			
Client Identification		MW-1			
Date Sampled		03/24/93			
Date Analyzed		03/31/93			
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	0.4			
Toluene	0.3	1			
Ethylbenzene	0.3	<0.3			
Xylene, total	0.5	10			
BTEX, total	--	11			
Detection Limit Multiplier		1			
BFB surrogate, % recovery		96.1			

**Table 1**

**ANALYTICAL RESULTS**

**Total Petroleum Hydrocarbons in Water  
 by Infrared Spectrometry**

**EPA Method 418.11 (SM 5520 FC<sup>2</sup>)**

1. Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-202, Revised March 1983, U.S. Environmental Protection Agency.
2. Standard Methods for the Examination of Water and Wastewater, 17th ed., 1989, American Public Health Association.

GTEL Sample Number		02	05	07	09
Client Identification		MW-5	MW-1	MW-2	MW-3
Date Sampled		03/24/93	03/24/93	03/24/93	03/24/93
Date Prepared		04/06/93	04/06/93	04/06/93	04/06/93
Date Analyzed		04/07/93	04/07/93	04/07/93	04/07/93
Analyte	Detection Limit, mg/L	Concentration, mg/L			
Total Petroleum Hydrocarbons	1	2	1	<1	28
Detection Limit Multiplier		1	1	1	1

GTEL Sample Number		12			
Client Identification		MW-4			
Date Sampled		03/24/93			
Date Prepared		04/06/93			
Date Analyzed		04/07/93			
Analyte	Detection Limit, mg/L	Concentration, mg/L			
Total Petroleum Hydrocarbons	1	2			
Detection Limit Multiplier		1			

Client Number: 020503392  
 Project ID: Oakland, CA  
 Work Order Number: C3-03-0417

**Table 1**  
**ANALYTICAL RESULTS**  
**Lead in Water by Graphite Furnace AA**  
**EPA Method 7421<sup>1</sup>**

GTEL Sample Number		07	09	12	
Client Identification		MW-2	MW-3	MW-4	
Date Sampled		03/24/93	03/24/93	03/24/93	
Date Prepared		04/01/93	04/01/93	04/01/93	
Date Analyzed		04/01/93	04/01/93	04/01/93	
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Lead, total	5	<5	15	7	
Detection Limit Multiplier		1	1	1	

1. Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, March 1983. Sample preparation by EPA Method 3005.

**Table 1**  
**ANALYTICAL RESULTS**  
**Metals in Water**

GTEL Sample Number		02			
Client Identification		MW-5			
Date Sampled		03/24/93			
Date Prepared		04/01/93			
Date Analyzed (Method 6010)		04/01/93			
Date Analyzed (Method 7421)		04/01/93			
Analyte	Method <sup>a</sup>	Detection Limit, ug/L	Concentration, ug/L		
Cadmium	EPA 6010	5	15		
Chromium, total	EPA 6010	20	97		
Lead	EPA 7421	3	15		
Nickel	EPA 6010	10	110		
Zinc	EPA 6010	20	104		
Detection Limit Multiplier			1		

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Digestion by EPA Method 3005.

Table 1

ANALYTICAL RESULTS

Semi-Volatile Organics in Water  
 EPA Method 8270<sup>a</sup>/625<sup>b</sup>

GTEL Sample Number		02	07	09	12
Client Identification		MW-5	MW-2	MW-3	MW-4
Date Sampled		03/24/93	03/24/93	03/24/93	03/24/93
Date Extracted		03/29/93	03/29/93	03/29/93	03/29/93
Date Analyzed		04/01/93	04/01/93	04/01/93	04/01/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Phenol	10	<10	<10	<10	<10
bis(2-Chloroethyl)ether	10	<10	<10	<10	<10
2-Chlorophenol	10	<10	<10	<10	<10
1,3-Dichlorobenzene	10	<10	<10	<10	<10
1,4-Dichlorobenzene	10	<10	<10	<10	<10
Benzyl alcohol	10	<10	<10	<10	<10
1,2-Dichlorobenzene	10	<10	<10	<10	<10
2-Methylphenol	10	<10	<10	<10	<10
bis-(2-Chloroisopropyl)ether	10	<10	<10	<10	<10
4-Methylphenol	10	<10	<10	<10	<10
N-Nitroso-di-propylamine	10	<10	<10	<10	<10
Hexachloroethane	10	<10	<10	<10	<10
Nitrobenzene	10	<10	<10	<10	<10
Isophorone	10	<10	<10	<10	<10
2-Nitrophenol	10	<10	<10	<10	<10
2,4-Dimethylphenol	10	<10	<10	<10	<10
Benzoic acid	50	<50	<50	<50	<50
bis(2-Chloroethoxy)methane	10	<10	<10	<10	<10
2,4-Dichlorophenol	10	<10	<10	<10	<10
1,2,4-Trichlorobenzene	10	<10	<10	<10	<10

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample extraction by EPA Method 3510.  
 b. Federal Register, Vol. 49, October 26, 1984. Sample extraction by EPA Method 3510.

**Table 1**

**ANALYTICAL RESULTS**

**Semi-Volatile Organics in Water  
 EPA Method 8270<sup>a</sup>/625<sup>b</sup>**

GTEL Sample Number		02	07	09	12
Client Identification		MW-5	MW-2	MW-3	MW-4
Date Sampled		03/24/93	03/24/93	03/24/93	03/24/93
Date Extracted		03/29/93	03/29/93	03/29/93	03/29/93
Date Analyzed		04/01/93	04/01/93	04/01/93	04/01/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Naphthalene	10	<10	<10	<10	<10
4-Chloroaniline	10	<10	<10	<10	<10
Hexachlorobutadiene	10	<10	<10	<10	<10
4-Chloro-3-methylphenol	10	<10	<10	<10	<10
2-Methylnaphthalene	10	<10	<10	26	<10
Hexachlorocyclopentadiene	10	<10	<10	<10	<10
2,4,6-Trichlorophenol	10	<10	<10	<10	<10
2,4,5-Trichlorophenol	50	<50	<50	<50	<50
2-Chloronaphthalene	10	<10	<10	<10	<10
2-Nitroaniline	50	<50	<50	<50	<50
Dimethylphthalate	10	<10	<10	<10	<10
Acenaphthylene	10	<10	<10	<10	<10
3-Nitroaniline	50	<50	<50	<50	<50
Acenaphthene	10	<10	<10	<10	<10
2,4-Dinitrophenol	50	<50	<50	<50	<50
4-Nitrophenol	50	<50	<50	<50	<50
Dibenzofuran	10	<10	<10	<10	<10
2,4-Dinitrotoluene	10	<10	<10	<10	<10
2,6-Dinitrotoluene	10	<10	<10	<10	<10

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample extraction by EPA Method 3510.
- b. Federal Register, Vol. 49, October 26, 1984. Sample extraction by EPA Method 3510.

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

**Semi-Volatile Organics in Water  
 EPA Method 8270<sup>a</sup>/625<sup>b</sup>**

GTEL Sample Number		02	07	09	12
Client Identification		MW-5	MW-2	MW-3	MW-4
Date Sampled		03/24/93	03/24/93	03/24/93	03/24/93
Date Extracted		03/29/93	03/29/93	03/29/93	03/29/93
Date Analyzed		04/01/93	04/01/93	04/01/93	04/01/93
Butylbenzylphthalate	10	<10	<10	<10	<10
3,3'-Dichlorobenzidine	20	<20	<20	<20	<20
Benzo(a)anthracene	10	<10	<10	<10	<10
bis(2-Ethylhexyl)phthalate	10	<10	<10	<10	<10
Chrysene	10	<10	<10	<10	<10
Di-n-octylphthalate	10	<10	<10	<10	<10
Benzo(b)fluoranthene	10	<10	<10	<10	<10
Benzo(k)fluoranthene	10	<10	<10	<10	<10
Benzidine	20	<20	<20	<20	<20
Benzo(a)pyrene	10	<10	<10	<10	<10
Indeno(1,2,3-cd)pyrene	10	<10	<10	<10	<10
Dibenz(a,h)anthracene	10	<10	<10	<10	<10
Benzo(g,h,i)perylene	10	<10	<10	<10	<10
Detection Limit Multiplier	1	1	1	1	1

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample extraction by EPA Method 3510.  
 b. Federal Register, Vol. 49, October 26, 1984. Sample extraction by EPA Method 3510.

**Table 1 (Continued)**

**ANALYTICAL RESULTS**

**Semi-Volatile Organics in Water  
 EPA Method 8270<sup>a</sup>/625<sup>b</sup>**

GTEL Sample Number		02	07	09	12
Client Identification		MW-5	MW-2	MW-3	MW-4
Date Sampled		03/24/93	03/24/93	03/24/93	03/24/93
Date Extracted		03/29/93	03/29/93	03/29/93	03/29/93
Date Analyzed		04/01/93	04/01/93	04/01/93	04/01/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Diethylphthalate	10	<10	<10	<10	<10
4-Chlorophenyl-phenylether	10	<10	<10	<10	<10
Fluorene	10	<10	<10	<10	<10
4-Nitroaniline	50	<50	<50	<50	<50
4,6-Dinitro-2-methylphenol	50	<50	<50	<50	<50
N-Nitrosodiphenylamine	10	<10	<10	<10	<10
4-Bromophenyl-phenylether	10	<10	<10	<10	<10
Hexachlorobenzene	10	<10	<10	<10	<10
Pentachlorophenol	50	<50	<50	<50	<50
Phenanthrene	10	<10	<10	<10	<10
Anthracene	10	<10	<10	<10	<10
Di-n-butylphthalate	10	<10	<10	<10	<10
Fluoranthene	10	<10	<10	<10	<10
Pyrene	10	<10	<10	<10	<10

- a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Sample extraction by EPA Method 3510.
- b. Federal Register, Vol. 49, October 26, 1984. Sample extraction by EPA Method 3510.











4080 PIKE LANE, SUITE C  
 CONCORD, CA 94520  
 (510) 685-7852  
 (800) 423-7143

**CHAIN-OF-CUSTODY RECORD  
 AND ANALYSIS REQUEST**

26897

Company Name: **GTI** Phone #: **671-2387**  
 Company Address: **Concord Calif.** Site location: **Oakland Calif.**  
 Project Manager: **Mike Wray** Client Project ID: (#) **020503392.6104**  
 I attest that the proper field sampling procedures were used during the collection of these samples. Sampler Name (Print): **Randy Ray Phillips**

BTEX/602	<input type="checkbox"/>	8020	<input type="checkbox"/>	with MTBE	<input type="checkbox"/>
BTEX/Gas Hydrocarbons PID/FID	<input checked="" type="checkbox"/>	with MTBE	<input type="checkbox"/>		
Hydrocarbons GC/FID Gas	<input type="checkbox"/>	Diesel	<input checked="" type="checkbox"/>	Screen	<input type="checkbox"/>
Hydrocarbon Profile (SIMDIS)	<input type="checkbox"/>				
Oil and Grease 413.1	<input type="checkbox"/>	413.2	<input type="checkbox"/>	SM 503	<input type="checkbox"/>
TPH/IR 418.1	<input type="checkbox"/>	SM 503	<input type="checkbox"/>		
EDB by 504	<input type="checkbox"/>	DBCP by 504	<input type="checkbox"/>		
EPA 503.1	<input type="checkbox"/>	EPA 502.2	<input type="checkbox"/>		
EPA 601	<input checked="" type="checkbox"/>	EPA 8010	<input type="checkbox"/>		
EPA 602	<input type="checkbox"/>	EPA 8020	<input type="checkbox"/>		
EPA 606	<input type="checkbox"/>	8080	<input type="checkbox"/>	PCB only	<input type="checkbox"/>
EPA 624/PPL	<input type="checkbox"/>	8240/TAL	<input type="checkbox"/>	NBS (+15)	<input type="checkbox"/>
EPA 625/PPL	<input type="checkbox"/>	8270/TAL	<input checked="" type="checkbox"/>	NBS (+25)	<input type="checkbox"/>
EPA 610	<input type="checkbox"/>	8310	<input type="checkbox"/>		
EP TOX Metals	<input type="checkbox"/>	Pesticides	<input type="checkbox"/>	Herbicides	<input type="checkbox"/>
TCLP Metals	<input type="checkbox"/>	VOA	<input type="checkbox"/>	Semi-VOA	<input type="checkbox"/>
EPA Metals - Priority Pollutant	<input type="checkbox"/>	TAL	<input type="checkbox"/>	RCRA	<input type="checkbox"/>
CAM Metals TTLC	<input type="checkbox"/>	STLC	<input type="checkbox"/>		
Lead 239.2	<input type="checkbox"/>	200.7	<input type="checkbox"/>	7420	<input type="checkbox"/>
7421	<input type="checkbox"/>	6010	<input checked="" type="checkbox"/>		
Organic Lead	<input type="checkbox"/>				
Corrosivity	<input type="checkbox"/>	Flash Point	<input type="checkbox"/>	Reactivity	<input type="checkbox"/>

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix						Method Preserved				Sampling			
			WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	ICE	UNPRESERVED	OTHER (SPECIFY)	DATE	TIME
RBMW-3		1v	X													3:45
MW-3		2L	X													3:45
MW-3		4v	X					X								3:45
MW-3		2v	X													3:45
MW-3		2L	X													3:45
MW-3		2	X													3:45
MW-3		3L	X													3:45
MW-3 DUP		2v	X													3:45

TAT: Priority (24 hr)  Expedited (48 hr)  7 Business Days  Other  Business Days

Special Handling: GTEL Contact \_\_\_\_\_ Quote/Contract # \_\_\_\_\_ Confirmation # \_\_\_\_\_ PO # \_\_\_\_\_

QA / QC LEVEL: BLUE  CLP  OTHER \_\_\_\_\_

SPECIAL DETECTION LIMITS: \_\_\_\_\_

SPECIAL REPORTING REQUIREMENTS: \_\_\_\_\_

REMARKS: **4 of 5**

Lab Use Only Lot # \_\_\_\_\_ Storage Location: \_\_\_\_\_

Work Order # \_\_\_\_\_

<b>CUSTODY RECORD</b>	Relinquished by Sampler: <b>Randy Ray Phillips</b>	Date: <b>3/25</b>	Time: <b>1</b>	Received by:
	Relinquished by: <b>[Signature]</b>	Date: <b>3/25/98</b>	Time: <b>11</b>	Received by:
	Relinquished by: <b>[Signature]</b>	Date: <b>3/25/98</b>	Time: <b>9:15</b>	Received by Laboratory: <b>James Oaks</b>

TPH (5520 D+E)  
 Hold





# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 686-9600 • FAX (510) 686-9689

GTEL	Client Project ID: #020503392/Sears Telegraph	Sampled: Mar 24, 1993
4080 Pike Lane, Ste. C	Sample Descript: Water, MW-5	Received: Mar 25, 1993
Concord, CA 94520	Analysis Method: EPA 601	Analyzed: Apr 1, 1993
Attention: Mike Wray	Lab Number: 303-1153	Reported: Apr 7, 1993

## PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	0.50	N.D.
Bromoform.....	0.50	N.D.
Bromomethane.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	N.D.
Dibromochloromethane.....	0.50	N.D.
1,3-Dichlorobenzene.....	0.50	N.D.
1,4-Dichlorobenzene.....	0.50	N.D.
1,2-Dichlorobenzene.....	0.50	N.D.
1,1-Dichloroethane.....	0.50	N.D.
1,2-Dichloroethane.....	0.50	N.D.
1,1-Dichloroethene.....	0.50	N.D.
cis-1,2-Dichloroethene.....	0.50	N.D.
trans-1,2-Dichloroethene.....	0.50	N.D.
1,2-Dichloropropane.....	0.50	N.D.
cis-1,3-Dichloropropene.....	0.50	N.D.
trans-1,3-Dichloropropene.....	0.50	N.D.
Methylene chloride.....	5.0	N.D.
1,1,2,2-Tetrachloroethane.....	0.50	N.D.
Tetrachloroethene.....	0.50	N.D.
1,1,1-Trichloroethane.....	0.50	N.D.
1,1,2-Trichloroethane.....	0.50	N.D.
Trichloroethene.....	0.50	N.D.
Trichlorofluoromethane.....	0.50	N.D.
Vinyl chloride.....	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

*Karen L. Enstrom*  
 FOR Karen L. Enstrom  
 Project Manager



# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 686-9600 • FAX (510) 686-9689

GTEL  
4080 Pike Lane, Ste. C  
Concord, CA 94520  
Attention: Mike Wray

Client Project ID: #020503392/Sears Telegraph  
Sample Descript: Water, Trip Blank  
Analysis Method: EPA 601  
Lab Number: 303-1154

Sampled: Mar 24, 1993  
Received: Mar 25, 1993  
Analyzed: Apr 6, 1993  
Reported: Apr 7, 1993

## PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	0.50	N.D.
Bromoform.....	0.50	N.D.
Bromomethane.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	N.D.
Dibromochloromethane.....	0.50	N.D.
1,3-Dichlorobenzene.....	0.50	N.D.
1,4-Dichlorobenzene.....	0.50	N.D.
1,2-Dichlorobenzene.....	0.50	N.D.
1,1-Dichloroethane.....	0.50	N.D.
1,2-Dichloroethane.....	0.50	N.D.
1,1-Dichloroethene.....	0.50	N.D.
cis-1,2-Dichloroethene.....	0.50	N.D.
trans-1,2-Dichloroethene.....	0.50	N.D.
1,2-Dichloropropane.....	0.50	N.D.
cis-1,3-Dichloropropene.....	0.50	N.D.
trans-1,3-Dichloropropene.....	0.50	N.D.
Methylene chloride.....	5.0	N.D.
1,1,2,2-Tetrachloroethane.....	0.50	N.D.
Tetrachloroethene.....	0.50	N.D.
1,1,1-Trichloroethane.....	0.50	N.D.
1,1,2-Trichloroethane.....	0.50	N.D.
Trichloroethene.....	0.50	N.D.
Trichlorofluoromethane.....	0.50	N.D.
Vinyl chloride.....	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

for Karen L. Enstrom  
Project Manager



# SEQUOIA ANALYTICAL

1900 Bates Avenue • Suite LM • Concord, California 94520  
(510) 686-9600 • FAX (510) 686-9689

GTEL  
4080 Pike Lane, Ste. C  
Concord, CA 94520  
Attention: Mike Wray

Client Project ID: #020503392/Sears Telegraph  
Sample Descript: Water, MW-2  
Analysis Method: EPA 601  
Lab Number: 303-1155

Sampled: Mar 24, 1993  
Received: Mar 25, 1993  
Analyzed: Apr 7, 1993  
Reported: Apr 7, 1993

## PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	0.50	N.D.
Bromoform.....	0.50	N.D.
Bromomethane.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	N.D.
Dibromochloromethane.....	0.50	N.D.
1,3-Dichlorobenzene.....	0.50	N.D.
1,4-Dichlorobenzene.....	0.50	N.D.
1,2-Dichlorobenzene.....	0.50	N.D.
1,1-Dichloroethane.....	0.50	N.D.
1,2-Dichloroethane.....	0.50	N.D.
1,1-Dichloroethene.....	0.50	N.D.
cis-1,2-Dichloroethene.....	0.50	N.D.
trans-1,2-Dichloroethene.....	0.50	N.D.
1,2-Dichloropropane.....	0.50	N.D.
cis-1,3-Dichloropropene.....	0.50	N.D.
trans-1,3-Dichloropropene.....	0.50	N.D.
Methylene chloride.....	5.0	N.D.
1,1,2,2-Tetrachloroethane.....	0.50	N.D.
Tetrachloroethene.....	0.50	N.D.
1,1,1-Trichloroethane.....	0.50	N.D.
1,1,2-Trichloroethane.....	0.50	N.D.
Trichloroethene.....	0.50	N.D.
Trichlorofluoromethane.....	0.50	N.D.
Vinyl chloride.....	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

  
Karen L. Enstrom  
Project Manager





# SEQUOIA ANALYTICAL

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GTEL  
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Concord, CA 94520  
Attention: Mike Wray

Client Project ID: #020503392/Sears Telegraph  
Sample Descript: Water, MW-3  
Analysis Method: EPA 601  
Lab Number: 303-1156

Sampled: Mar 24, 1993  
Received: Mar 25, 1993  
Analyzed: Apr 7, 1993  
Reported: Apr 7, 1993

## PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit $\mu\text{g/L}$	Sample Results $\mu\text{g/L}$
Bromodichloromethane.....	0.50	N.D.
Bromoform.....	0.50	N.D.
Bromomethane.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	N.D.
Dibromochloromethane.....	0.50	N.D.
1,3-Dichlorobenzene.....	0.50	N.D.
1,4-Dichlorobenzene.....	0.50	N.D.
1,2-Dichlorobenzene.....	0.50	N.D.
1,1-Dichloroethane.....	0.50	N.D.
1,2-Dichloroethane.....	0.50	N.D.
1,1-Dichloroethene.....	0.50	N.D.
cis-1,2-Dichloroethene.....	0.50	N.D.
trans-1,2-Dichloroethene.....	0.50	N.D.
1,2-Dichloropropane.....	0.50	N.D.
cis-1,3-Dichloropropene.....	0.50	N.D.
trans-1,3-Dichloropropene.....	0.50	N.D.
Methylene chloride.....	5.0	N.D.
1,1,2,2-Tetrachloroethane.....	0.50	N.D.
Tetrachloroethene.....	0.50	N.D.
1,1,1-Trichloroethane.....	0.50	N.D.
1,1,2-Trichloroethane.....	0.50	N.D.
Trichloroethene.....	0.50	N.D.
Trichlorofluoromethane.....	0.50	N.D.
Vinyl chloride.....	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

*Karen L. Enstrom*  
FOR Karen L. Enstrom  
Project Manager

3031153.GTL <4>



# SEQUOIA ANALYTICAL

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GTEL  
4080 Pike Lane, Ste. C  
Concord, CA 94520  
Attention: Mike Wray

Client Project ID: #020503392/Sears Telegraph  
Sample Descript: Water, MW-3 Dup  
Analysis Method: EPA 601  
Lab Number: 303-1157

Sampled: Mar 24, 1993  
Received: Mar 25, 1993  
Analyzed: Apr 1, 1993  
Reported: Apr 7, 1993

## PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	0.50	N.D.
Bromoform.....	0.50	N.D.
Bromomethane.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	N.D.
Dibromochloromethane.....	0.50	N.D.
1,3-Dichlorobenzene.....	0.50	N.D.
1,4-Dichlorobenzene.....	0.50	N.D.
1,2-Dichlorobenzene.....	0.50	N.D.
1,1-Dichloroethane.....	0.50	N.D.
1,2-Dichloroethane.....	0.50	N.D.
1,1-Dichloroethene.....	0.50	N.D.
cis-1,2-Dichloroethene.....	0.50	N.D.
trans-1,2-Dichloroethene.....	0.50	N.D.
1,2-Dichloropropane.....	0.50	N.D.
cis-1,3-Dichloropropene.....	0.50	N.D.
trans-1,3-Dichloropropene.....	0.50	N.D.
Methylene chloride.....	5.0	N.D.
1,1,2,2-Tetrachloroethane.....	0.50	N.D.
Tetrachloroethene.....	0.50	N.D.
1,1,1-Trichloroethane.....	0.50	N.D.
1,1,2-Trichloroethane.....	0.50	N.D.
Trichloroethene.....	0.50	N.D.
Trichlorofluoromethane.....	0.50	N.D.
Vinyl chloride.....	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

  
Karen L. Enstrom  
Project Manager



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Concord, CA 94520  
Attention: Mike Wray

Client Project ID: #020503392/Sears Telegraph  
Sample Descript: Water, MW-4  
Analysis Method: EPA 601  
Lab Number: 303-1158

Sampled: Mar 24, 1993  
Received: Mar 25, 1993  
Analyzed: Apr 1, 1993  
Reported: Apr 7, 1993

## PURGEABLE HALOCARBONS (EPA 601)

Analyte	Detection Limit µg/L	Sample Results µg/L
Bromodichloromethane.....	0.50	N.D.
Bromoform.....	0.50	N.D.
Bromomethane.....	1.0	N.D.
Carbon tetrachloride.....	0.50	N.D.
Chlorobenzene.....	0.50	N.D.
Chloroethane.....	1.0	N.D.
2-Chloroethylvinyl ether.....	1.0	N.D.
Chloroform.....	0.50	N.D.
Chloromethane.....	1.0	N.D.
Dibromochloromethane.....	0.50	N.D.
1,3-Dichlorobenzene.....	0.50	N.D.
1,4-Dichlorobenzene.....	0.50	N.D.
1,2-Dichlorobenzene.....	0.50	N.D.
1,1-Dichloroethane.....	0.50	N.D.
1,2-Dichloroethane.....	0.50	N.D.
1,1-Dichloroethene.....	0.50	N.D.
cis-1,2-Dichloroethene.....	0.50	N.D.
trans-1,2-Dichloroethene.....	0.50	N.D.
1,2-Dichloropropane.....	0.50	N.D.
cis-1,3-Dichloropropene.....	0.50	N.D.
trans-1,3-Dichloropropene.....	0.50	N.D.
Methylene chloride.....	5.0	N.D.
1,1,2,2-Tetrachloroethane.....	0.50	N.D.
Tetrachloroethene.....	0.50	N.D.
1,1,1-Trichloroethane.....	0.50	N.D.
1,1,2-Trichloroethane.....	0.50	N.D.
Trichloroethene.....	0.50	N.D.
Trichlorofluoromethane.....	0.50	N.D.
Vinyl chloride.....	1.0	N.D.

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

  
Karen L. Enstrom  
Project Manager



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GTEL  
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Concord, CA 94520  
Attention: Mike Wray

Client Project ID: #020503392/Sears Telegraph  
Matrix: Water

QC Sample Goup: 3031153-58

Reported: Apr 7, 1993

## QUALITY CONTROL DATA REPORT

ANALYTE	1,1-Dichloroethene	Trichloroethene	Chloro- benzene
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<b>Method:</b>	EPA 8010	EPA 8010	EPA 8020
<b>Analyst:</b>	K.Niil	K.Niil	K.Niil
<b>Conc. Spiked:</b>	10	10	10
<b>Units:</b>	µg/L	µg/L	µg/L
<b>LCS Batch#:</b>	LCS040293	LCS040293	LCS040293
<b>Date Prepared:</b>	4/2/93	4/2/93	4/2/93
<b>Date Analyzed:</b>	4/2/93	4/2/93	4/2/93
<b>Instrument I.D.#:</b>	HP5890/1	HP5890/1	HP5890/1
<b>LCS % Recovery:</b>	100	95	92
<b>Control Limits:</b>	70-130	70-130	70-130

<b>MS/MSD Batch #:</b>	3031173	3031173	3031173
<b>Date Prepared:</b>	4/2/93	4/2/93	4/2/93
<b>Date Analyzed:</b>	4/2/93	4/2/93	4/2/93
<b>Instrument I.D.#:</b>	HP5890/1	HP5890/1	HP5890/1
<b>Matrix Spike % Recovery:</b>	98	92	89
<b>Matrix Spike Duplicate % Recovery:</b>	100	95	91
<b>Relative % Difference:</b>	2.0	3.2	2.2

SEQUOIA ANALYTICAL

Karen L. Enstrom  
Project Manager

**Please Note:**

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery data is used for validation of sample batch results. Due to matrix effects, the QC limits for MS/MSD's are advisory only and are not used to accept or reject batch results.

3031153.GTL <7>

