R0480

GROUNDWATER TECHNOLOGY, INC.

93 OCT -8 PM 12:52

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

FAX: (415) 685-9148

October 6, 1993

Project No. 020204554

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 May through July 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, the *State Water Resources Control Board Leaking Underground Fuel Tank (LUFT) Field Manual*, and the sampling requirements approved by Alameda County Health Care Services Agency, October 7, 1992, and amended in correspondence to Sears, dated June 1, 1993.

SUMMARY OF WORK COMPLETED

Monitoring Well Gauging

On May 28, June 21, and July 22, 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 0.03 foot per foot (ft/ft) to the

southwest on May 28, 1993, 0.03 ft/ft to the south on June 21, 1993, and 0.03 ft/ft to the south on July 22, 1993.

Monitoring Well Sampling and Results

On June 21, 1993, the five on-site wells were sampled for hydrocarbon constituents and dissolved metals. 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. 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 benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Methods 5030/8020 and total petroleum hydrocarbons-as-motor oil (TPH-M) using modified EPA Method 8015.

- Groundwater samples from wells MW-2 and MW-5 were analyzed for total petroleum hydrocarbons-as-gasoline (TPH-G) and BTEX using modified EPA Method 8015 and EPA Methods 5030/8020; TPH-M using modified EPA Method 8015; total dissolved lead using EPA Method 7421; and cadmium, chromium, nickel, and zinc using EPA Method 6010.

- Groundwater samples from well MW-3 were analyzed for total petroleum hydrocarbons (TPH) using EPA Method 418.1 (SM5520FC); TPH-G and BTEX using modified EPA Method 8015 and EPA Methods 5030/8020; TPH-M using modified EPA Method 8015; total dissolved lead using EPA Method 7421; and cadmium, chromium, nickel, and zinc using EPA Method 6010.

- Groundwater samples from well MW-4 were analyzed for TPH-G and BTEX using modified EPA Method 8015 and EPA Methods 5030/8020; TPH-M using modified EPA Method 8015; and total dissolved lead using EPA Method 7421.

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-4 as follows: benzene from nondetectable to 21 micrograms per liter (μg/l); toluene from nondetectable to 5 μg/l; ethylbenzene from nondetectable to 2 μg/l; and xylenes from nondetectable to 19 μg/l. No detectable concentrations of BTEX were present in the groundwater sample from well MW-5. The results of BTEX analyses are summarized in Table 2.

Total Petroleum Hydrocarbons. Concentrations of TPH-G ranging from nondetectable to [redacted] µg/l were detected in wells MW-2 through MW-5. No detectable concentrations of TPH-M were present in wells MW-1, MW-2, and MW-5. The analytical results of groundwater samples from wells MW-3 and MW-4 reported TPH-M concentrations of [redacted] µg/l and 19,000 µg/l, respectively. The results of TPH, TPH-G, and TPH-M analyses are summarized in Table 2.

Metals. Lead was not detected in the groundwater samples from wells MW-2 through MW-5. Cadmium, chromium, nickel, and zinc were not detected in the groundwater samples from wells MW-2 and MW-5. Cadmium was detected at the method detection limit of 5 µg/l in well MW-3. The metals analyses results are summarized in Table 2.

WORK TO BE COMPLETED FROM AUGUST THROUGH OCTOBER 1993

A schedule of work tasks at the site planned for August through October 1993 is presented.

Date	Task
08/93	Monthly well gauging
09/93	Monthly well gauging and quarterly sampling
10/93	Monthly well gauging and preparation of Quarterly Monitoring and Sampling Report for the period of August through October 1993.

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

Eileen S. Wray
Project Geologist

Michael J. Wray
Project Manager

Groundwater Technology, Inc.
Reviewed/Approved by

David R. Kleesattel
Registered Geologist
No. 5136

REGISTERED GEOLOGIST
DAVID R. KLEESATTEL
NO. 5136
STATE OF CALIFORNIA

For:
Frank J. Gorry
Vice President, General Manager
National Industry Division

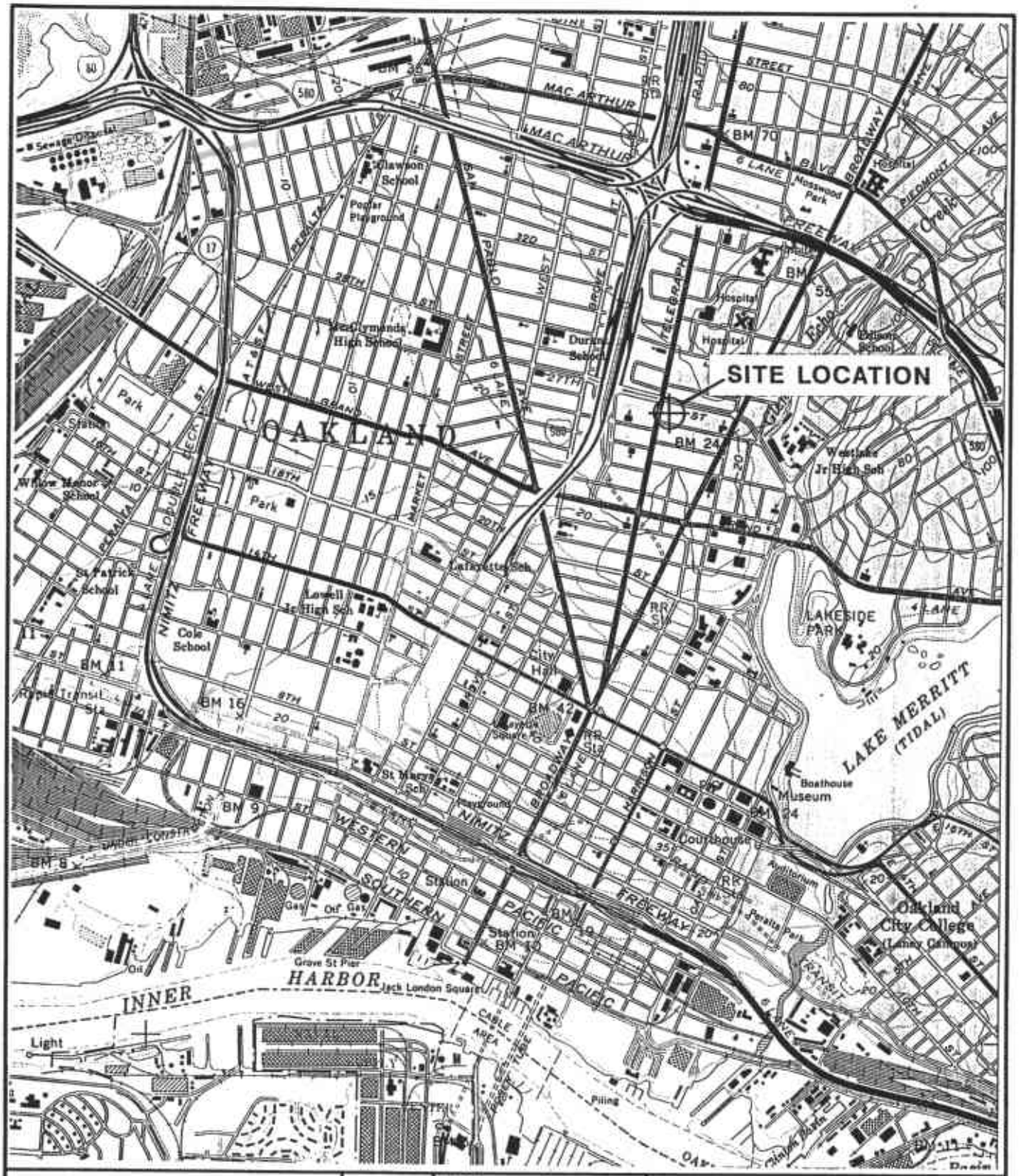
Attachment 1 Figures
Attachment 2 Tables
Attachment 3 Well Purge Data
Attachment 4 Laboratory Reports and Chain-of-Custody Records

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

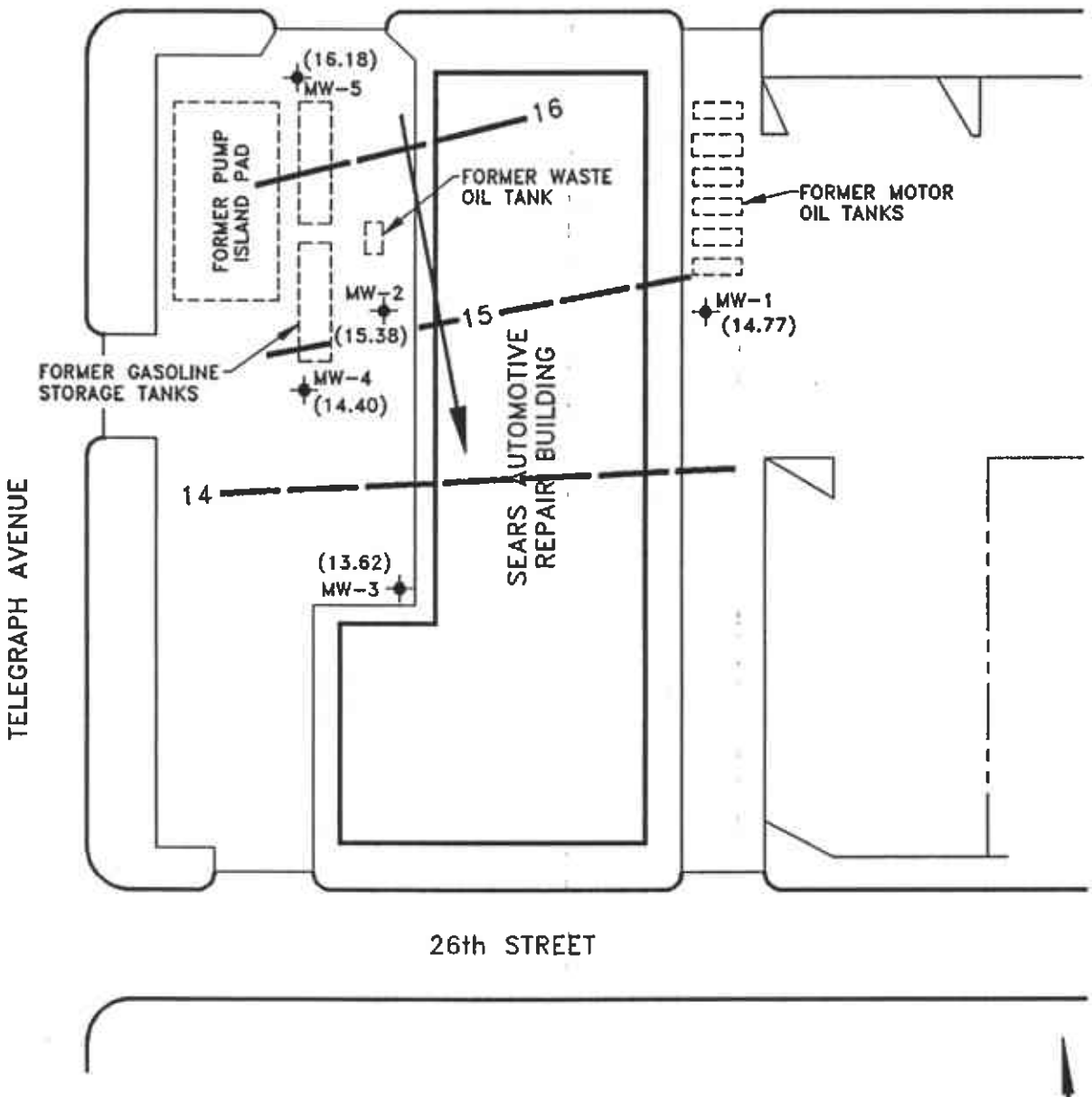
GROUNDWATER TECHNOLOGY, INC.

ATTACHMENT 1

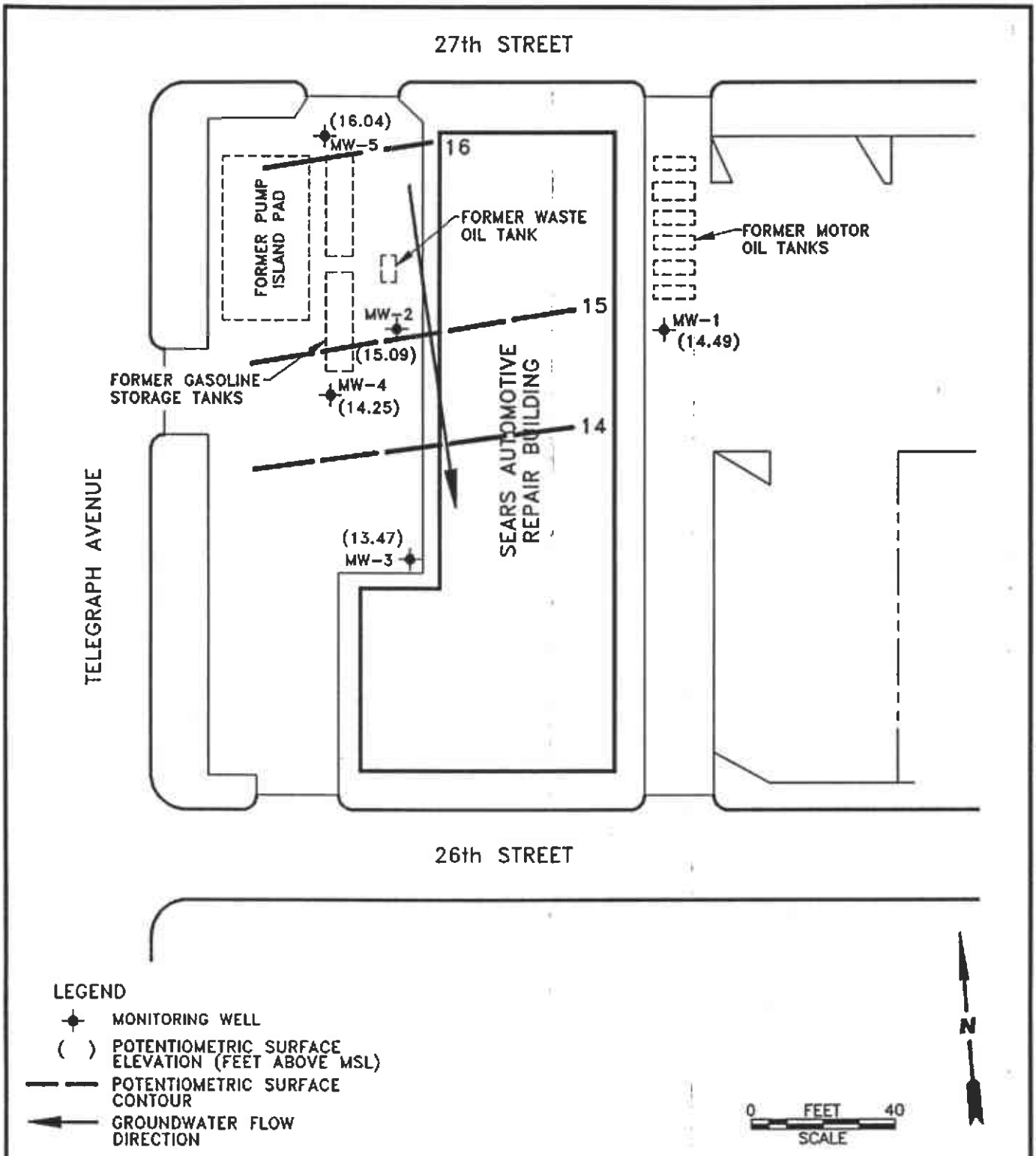
Figures



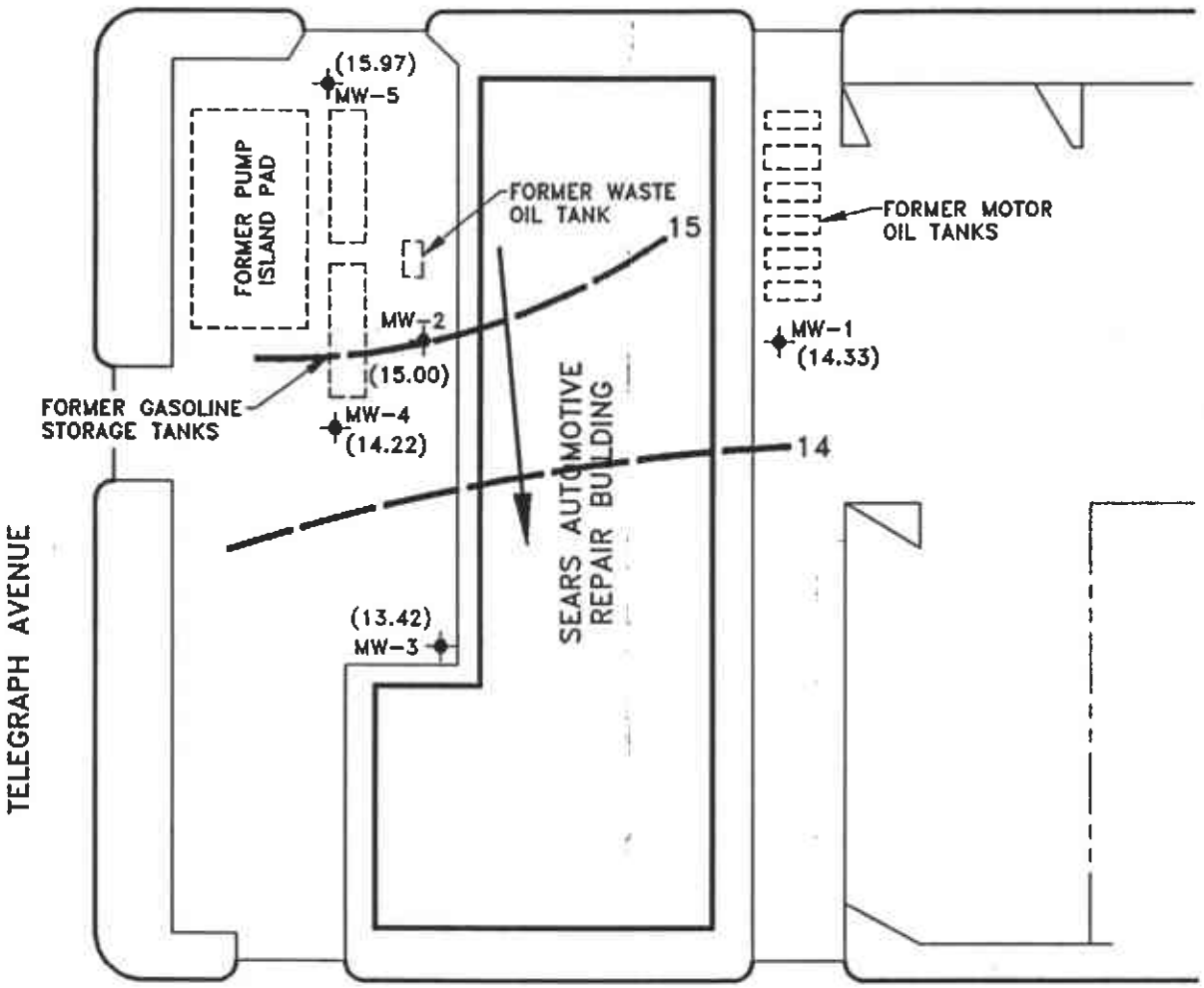
GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY CONCORD, CA 94520 (510) 671-2387	N	SCALE: 0 FEET 2000	SITE LOCATION MAP
		CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058	DATE: 8/18/92
		LOCATION: 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA	FIGURE: 1



GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387				**POTENTIOMETRIC SURFACE MAP (5/28/93)**		
CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058				LOCATION: 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA	REV. NO.: 0	DATE: 7/30/93
PM	PE/RG	DESIGNED	DETAILED	ACAD FILE:	PROJECT NO.:	FIGURE:
		DH	ML	SP793	020203392	2



GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387				**POTENTIOMETRIC SURFACE MAP (6/21/93)**		
CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058				LOCATION: 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA	REV. NO.: 0	DATE: 7/30/93
PM	PE/RG	DESIGNED DH	DETAILED CY	ACAD FILE: SP793	PROJECT NO.: 020203392	FIGURE: 3



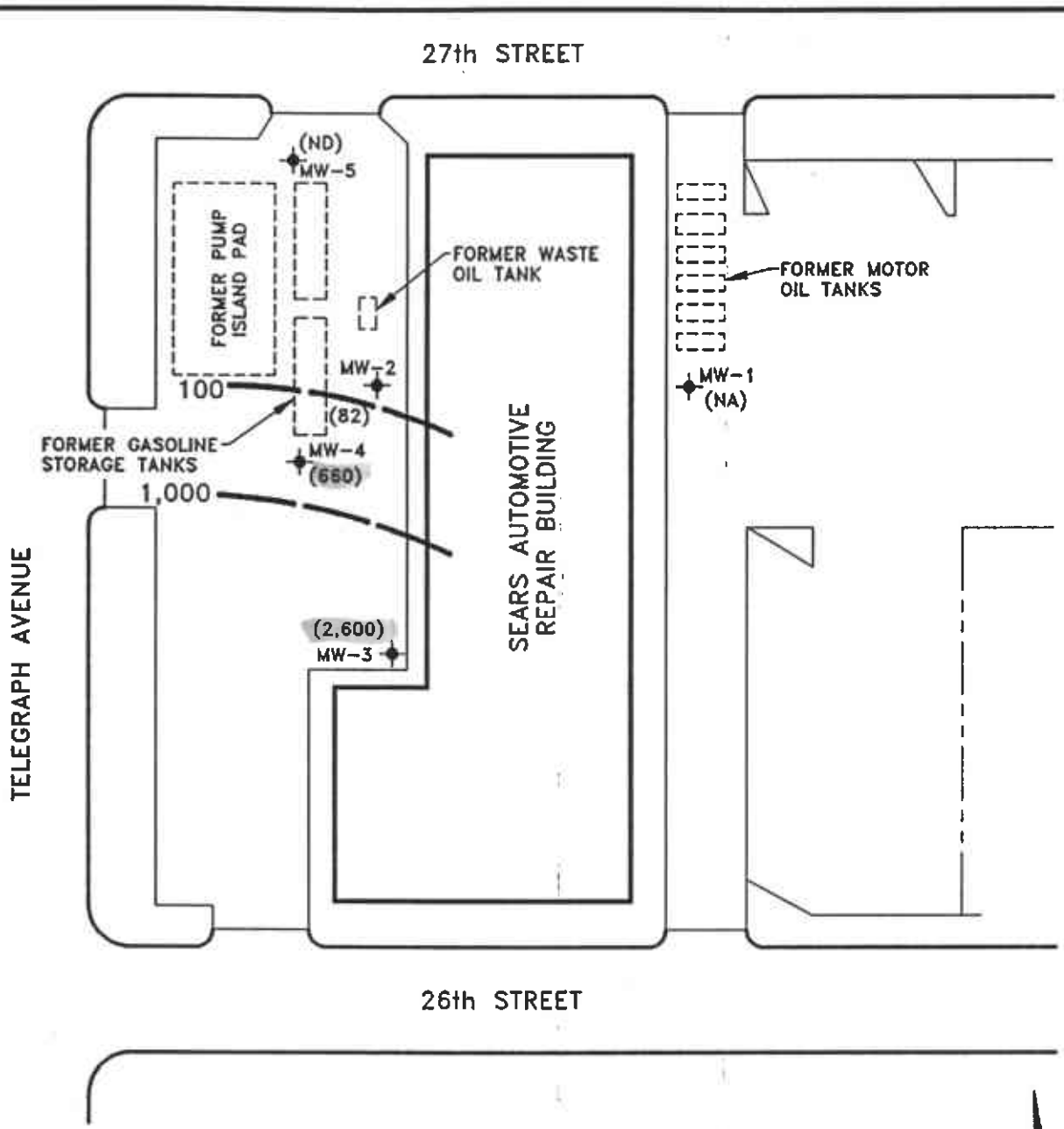
LEGEND

- MONITORING WELL
- ( ) POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MSL)
- POTENTIOMETRIC SURFACE CONTOUR
- GROUNDWATER FLOW DIRECTION

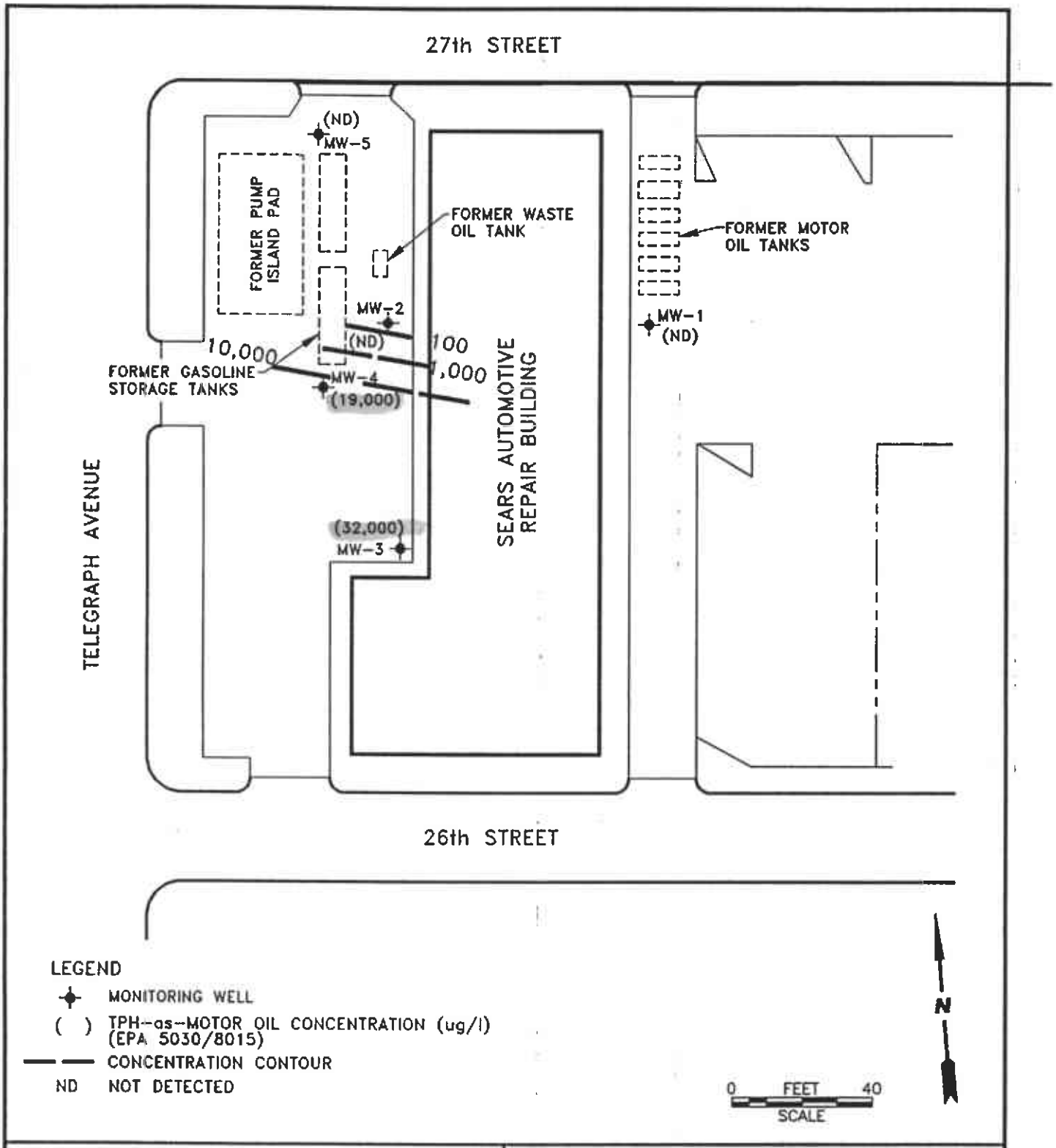
N

0 FEET 40
SCALE

GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387				POTENTIOMETRIC SURFACE MAP (7/22/93)		
CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058				LOCATION: 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA	REV. NO.: 0	DATE: 7/30/93
PM	RE/RG	DESIGNED DH	DETAILED CY	ACAD FILE: SP793	PROJECT NO.: 020203392	FIGURE: 4



GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387				TPH-as-GASOLINE CONCENTRATIONS IN GROUNDWATER (6/21/93)		
CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058				LOCATION: 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA	REV. NO.: 0	DATE: 7/30/93
PM	PE/RG	DESIGNED	DETAILED	ACAD FILE: SP793	PROJECT NO.: 020203392	FIGURE: 5
		DH	CY			



GROUNDWATER TECHNOLOGY 4057 PORT CHICAGO HWY. CONCORD, CA 94520 (510) 671-2387				TPH-as-MOTOR OIL CONCENTRATIONS IN GROUNDWATER (6/21/93)		
CLIENT: SEARS, ROEBUCK AND CO. SITE No. 1058				LOCATION: 2633 TELEGRAPH AVE. OAKLAND, CALIFORNIA	REV. NO.: 0	DATE: 7/30/93
PM	PE/RG	DESIGNED DH	DETAILED CY	ACAD FILE: SP793	PROJECT NO.: 020203392	FIGURE: 6

ATTACHMENT 2

Tables

TABLE 1
SUMMARY OF HISTORICAL 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
		05/28/93	11.43	--	--	14.77
		06/21/93	11.71	--	--	14.49
		07/22/93	11.87	--	--	14.33
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
		05/28/93	11.12	--	--	15.38
		06/21/93	11.41	--	--	15.09
		07/22/93	11.50	--	--	15.00
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
		05/28/93	12.72	--	--	13.62
		06/21/93	12.87	--	--	13.47
		07/22/93	12.92	--	--	13.42
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
		05/28/93	11.77	--	--	14.40
		06/21/93	11.92	--	--	14.25
		07/22/93	11.95	--	--	14.22
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
		05/28/93	10.80	--	--	16.18
		06/21/93	10.94	--	--	16.04
		07/22/93	11.01	--	--	15.97

Elev = Elevation in feet above mean sea level
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

4554T013.020

TABLE 2
SUMMARY OF HISTORICAL GROUNDWATER SAMPLE ANALYTICAL RESULTS
(Compounds micrograms per liter [µg/l] except where noted otherwise)

Well ID	Date	B	T	E	X	TPH-G	TPH-M	TPH (mg/l)	Dissolved Metals
MW-1	12/30/92	1	1	2	2	--	--	1	--
	03/24/93	0.4	1	0.3	10	--	--	1	--
	06/21/93	<0.3	1	2	6	--	<100	--	--
MW-2	12/30/92	0.7	<0.3	<0.3	3	190	--	1	[a]ND
	03/24/93	0.6	<0.3	<0.3	2	120	--	<1	[a]ND
	06/21/93	0.3	<0.3	<0.3	0.7	82	<100	--	[c]ND
MW-3	12/30/92	11	0.9	<0.3	2	910	--	20	[a]ND
	03/24/93	28	0.7	1	8	3,200	--	28	[a]15*
	06/21/93	21	5	2	19	2,600**	32,000	26	[cd]5
MW-4	12/30/92	2	<0.3	1	<0.5	1,200	--	<1	[a]ND
	03/24/93	<0.3	<0.3	<0.3	<0.5	750	--	2	[a]7*
	06/21/93	<0.3	2	<0.3	0.5	660	19,000	--	[a]ND
MW-5	12/30/92	<0.3	<0.3	<0.3	<0.5	37	--	<1	[bc]5
	03/24/93	<0.3	<0.3	<0.3	0.5	19	--	2	[c]341*
	06/21/93	<0.3	<0.3	<0.3	<0.5	<10	<100	--	[c]ND

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 = Total petroleum hydrocarbons (EPA Method 418.1 [SM 5520 FC])
TPH-M = Total petroleum hydrocarbons-as-motor oil (modified EPA Method 8015)
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.)
* = Water samples were not filtered, analytical results represent total metals present, not dissolved concentrations.
** = Uncategorized compound not included in the hydrocarbon gasoline concentration.
a = Dissolved lead
b = Dissolved lead only analyte detected
c = Dissolved lead, cadmium, total chromium, nickel, and zinc.
d = Cadmium only analyte detected.

ATTACHMENT 3

Well Purge Data

Project Name: Sears/Telegraph Ave. Date:

Project Number: 020203392.061002 Page 1 of 5

Site Address: 2633 Telegraph Ave. Project Manager: Mike Wray

Well ID MW-5

Well Dia 2"

DTW Measurements
Initial ____ ft Calc Well Volume = ____ gal
Recha ____ ft Well Volume = X 4 = 9 gal

Purged Method	Pump Depth 24 ft
____ Peristaltic	____ Hand Bailed
____ Gear Drive	____ Air Lift
X Submersible	____ Other

Instruments Used	
X YSI 3650 pH/ C/mmbo	OMEGA Cond.
____ HYDAC pH/ F/umbo	DRT-15C TURBID
____ OMEGA pH/ C	____ Other

TIME	TEMP X C / F	Conductivity X 20	pH	PURGE VOLUME gallons	TURBIDITY	COMMENTS
11:56	21.7	0.57	7.11	2		
11:57	21.3	0.58	7.02	4		
11:58	21.1	0.58	7.02	6		
11:59	21.1	0.57	7.01	8		
12:00	21.1	0.58	7.02	10		

Project Name: Sears/Telegraph Ave. Date: 6/21/93

Project Number: 020203392.061002 Page 2 of 5

Site Address: 2633 Telegraph Ave. Project Manager: Mike Wray

Well ID MW-1

Well Dia 2"

DTW Measurements
Initial ____ ft Calc Well Volume = ____ gal
Recha ____ ft Well Volume = X4 = 7 gal

Purged Method	Pump Depth 20 ft
___ Peristaltic	___ Hand Bailed
___ Gear Drive	___ Air Lift
X Submersible	___ Other

Instruments Used	
X YSI 3650 pH/ C/mmbo	OMEGA Cond.
___ HYDAC pH/ F/umbo	DRT-15C TURBID
___ OMEGA pH/ C	Other

TIME	TEMP X C / F	Conductivity X 20	pH	PURGE VOLUME gallons	TURBIDITY	COMMENTS
11:39	19.4	0.35	8.48	2		
11:40	19.9	0.62	8.35	4		
11:41	19.9	0.62	8.22	6		
11:42	19.9	0.62	8.22	8		
11:43	19.9	0.62	8.21	10		

Project Name: Sears/Telegraph Ave

Project Number: 020203392.061002

Site Address: 2633 Telegraph Ave

Date: 6/21/93

Page 3 of 5

Project Manager: Mike Wray

Well ID MW-2

Well Dia 2"

DTW Measurements
Initial ____ ft Calc Well Volume = ____ gal
Recha ____ ft Well Volume = X4 = 7 gal

Purged Method	Pump Depth 20 ft
____ Peristaltic	____ Hand Bailed
____ Gear Drive	____ Air Lift
X Submersible	____ Other

Instruments Used	
X YSI 3650 pH/ C/mmbo	OMEGA Cond.
____ HYDAC pH/ F/umbo	DRT-15C TURBID
____ OMEGA pH/ C	____ Other

TIME	TEMP X C / F	Conductivity X20	pH	PURGE VOLUME gallons	TURBIDITY	COMMENTS
12:04	21.4	0.58	7.10	2		
12:05	20.9	0.60	7.07	4		
12:06	20.9	0.60	7.05	6		
12:07	20.9	0.60	7.04	8		

Project Name: Sears/Telegraph

Project Number: 020203392.061002

Site Address: 2633 Telegraph Ave.

Date: 6/21/93

Page 4 of 5

Project Manager: Mike Wray

Well ID MW3

Well Dia 2"

DTW Measurements
Initial ____ ft Calc Well Volume = ____ gal
Recha ____ ft Well Volume = X4= 8 gal

Purged Method
____ Peristaltic
____ Gear Drive
X Submersible

Pump Depth 23 ft
____ Hand Bailed
____ Air Lift
____ Other

Instruments Used
X YSI 3650 pH/ C/mmbo OMEGA Cond.
____ HYDAC pH/ F/umbo DRT-15C TURBID
____ OMEGA pH/ C ____ Other

TIME	TEMP X C / F	Conductivity X 20	pH	PURGE VOLUME gallons	TURBIDITY	COMMENTS
12:11	21.6	0.73	6.90	2		
12:12	20.6	0.74	6.86	4		
12:13	20.4	0.73	6.85	6		
12:14	20.3	0.73	6.85	8		

Project Name: Sears/Telegraph Ave. Date: 6/21/93

Project Number: 020203392.061002 Page 5 of 5

Site Address: 2633 Telegraph Ave. Project Manager: Mike Wray

Well ID MW-4

Well Dia 2"

DTW Measurements
Initial ____ ft Calc Well Volume = ____ gal
Recha ____ ft Well Volume = X4= 7 gal

Purged Method	Pump Depth 22 ft
____ Peristaltic	____ Hand Bailed
____ Gear Drive	____ Air Lift
X Submersible	____ Other

Instruments Used	
X YSI 3650 pH/ C/mmbo	OMEGA Cond.
____ HYDAC pH/ F/umbo	DRT-15C TURBID
____ OMEGA pH/ C	Other

TIME	TEMP X C / F	Conductivity X20	pH	PURGE VOLUME gallons	TURBIDITY	COMMENTS
12:18	21.6	0.65	6.94	2		
12:19	21.4	0.65	6.92	4		
12:20	21.3	0.65	6.93	6		
12:21	21.2	0.65	6.93	8		

ATTACHMENT 4

Laboratory Reports
and
Chain-of-Custody Records

GTEL
ENVIRONMENTAL
LABORATORIES, INC.
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: 020203392
Project ID: Oakland
Work Order Number: C3-06-0397

July 7, 1993

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

Enclosed please find the analytical results for samples received by GTEL Environmental Laboratories, Inc. on 06/21/93, under chain of custody records 30246, 30247, and 30248.

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 certification number E1075, 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

Eileen F. Bullen
Laboratory Director

Client Number: 020203392
Project ID: Oakland
Work Order Number: C3-06-0397

Table 1

ANALYTICAL RESULTS

TPH as Motor Oil in Water

Method: Modified EPA 8015[a]

GTEL Sample Number		03	05*	07*	09
Client Identification		MW5	MW1	MW2	MW4
Date Sampled		06/21/93	06/21/93	06/21/93	06/21/93
Date Extracted		06/25/93	06/25/93	06/25/93	06/25/93
Date Analyzed		07/04/93	07/04/93	07/04/93	07/06/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
TPH as motor oil	100	<100	<100	<100	19000
Detection Limit Multiplier		1	1	1	1
OTP surrogate, % recovery		119	124	182**	87.4

GTEL Sample Number		11	K070393		
Client Identification		MW3	METHOD BLANK		
Date Sampled		06/21/93	--		
Date Extracted		07/07/93	06/25/93		
Date Analyzed		07/07/93	07/03/93		
Analyte	Detection Limit, ug/L	Concentration, ug/L			
TPH as motor oil	100	32000	<100		
Detection Limit Multiplier		20	1		
OTP surrogate, % recovery		123	88.5		

a. O-Terphenyl surrogate recovery acceptability limits are 50-150%. Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Rev. O, U.S. EPA, November, 1986.
* Hydrocarbon pattern not characteristic of motor oil.
** Surrogate recovery high due to matrix interference.

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL
ENVIRONMENTAL
LABORATORIES, INC.

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: 020203392
Project ID: Oakland
Work Order Number: C3-06-0397

July 6, 1993

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

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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

Client Number: 020203392
Project ID: Oakland
Work Order Number: C3-06-0397

Table 1

ANALYTICAL RESULTS

Volatile Organics in Water

EPA Methods 8020 and Modified 8015[a]

GTEL Sample Number		03	05	07	09
Client Identification		MW5	MW1	MW2	MW4
Date Sampled		06/21/93	06/21/93	06/21/93	06/21/93
Date Analyzed		07/01/93	07/01/93	07/01/93	07/02/93
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	<0.3	<0.3	0.3	<0.3
Toluene	0.3	<0.3	1	<0.3	2
Ethylbenzene	0.3	<0.3	2	<0.3	<0.3
Xylene, total	0.5	<0.5	6	0.7	0.5
BTEX, total	--	--	9	1	3
Gasoline	10	<10	NR	82	660
Detection Limit Multiplier		1	1	1	1
BFB surrogate, % recovery		101	109	103	107

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 Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.

NR = Not Requested.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: 020203392
Project ID: Oakland
Work Order Number: C3-06-0397

Table 1 (continued)

ANALYTICAL RESULTS

Volatile Organics in Water

EPA Methods 8020 and Modified 8015[a]

GTEL Sample Number		11	Q063093-1		
Client Identification		MW3	METHOD BLANK		
Date Sampled		06/21/93	–		
Date Analyzed		07/02/93	06/30/93		
Analyte	Detection Limit, ug/L	Concentration, ug/L			
Benzene	0.3	21	<0.3		
Toluene	0.3	5	<0.3		
Ethylbenzene	0.3	2	<0.3		
Xylene, total	0.5	19	<0.5		
BTEX, total	--	47	--		
Gasoline	10	*2600	<10		
Detection Limit Multiplier		1	1		
BFB surrogate, % recovery		113	105		

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 Board LUFT Manual procedures. Bromofluorobenzene surrogate recovery acceptability limits are 70-130%.

* Uncategorized compound not included in the hydrocarbon gasoline concentration.

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: 020203392
Project ID: Oakland
Work Order Number: C3-06-0397

Table 1

ANALYTICAL RESULTS

Dissolved Metals in Water*

GTEL Sample Number			03	07	09	11
Client Identification			MW5	MW2	MW4	MW3
Date Sampled			06/21/93	06/21/93	06/21/93	06/21/93
Date Prepared			06/21/93	06/21/93	06/21/93	06/21/93
Date Analyzed (Method 6010)			06/24/93	06/24/93	06/24/93	06/24/93
Date Analyzed (Method 7421)			06/22/93	06/22/93	06/22/93	06/22/93
Analyte	Method[a]	Detection Limit, ug/L	Concentration, ug/L			
Cadmium	EPA 6010	5	<5	<5	NA	5
Chromium, total	EPA 6010	10	<10	<10	NA	<10
Lead	EPA 7421	5	<5	<5	<5	<5
Nickel	EPA 6010	10	<10	<10	NA	<10
Zinc	EPA 6010	20	<20	<20	NA	<20
Detection Limit Multiplier			1	1	1	1

a. Test Methods for Evaluating Solid Waste, SW-846, Third Edition, Revision 0, US EPA November 1986. Digestion by EPA Method 3005, except for Method EPA 7470 for mercury.

* Unpreserved water sample was passed through a 0.45 micron membrane and analyzed as a dissolved metal. Sample was lab filtered on 06/21/93.

NA = Not Applicable

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: 020203392
Project ID: Oakland
Work Order Number: C3-06-0397

Table 1 (Continued)

ANALYTICAL RESULTS

Dissolved Metals in Water*

GTEL Sample Number			062193 DIS			
Client Identification			METHOD BLANK			
Date Sampled			--			
Date Prepared			06/21/93			
Date Analyzed (Method 6010)			06/24/93			
Date Analyzed (Method 7421)			06/24/93			
Analyte	Method[a]	Detection Limit, ug/L	Concentration, ug/L			
Cadmium	EPA 6010	5	<5			
Chromium, total	EPA 6010	10	<10			
Lead	EPA 7421	5	<5			
Nickel	EPA 6010	10	<10			
Zinc	EPA 6010	20	<20			
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, except for Method EPA 7470 for mercury.

* Unpreserved water sample was passed through a 0.45 micron membrane and analyzed as a dissolved metal. Sample was lab filtered on 06/21/93.

NA = Not Applicable

GTEL ENVIRONMENTAL LABORATORIES, INC.

Client Number: 020203392
Project ID: Oakland
Work Order Number: C3-06-0397

Table 1

ANALYTICAL RESULTS

Total Petroleum Hydrocarbons in Water by Infrared Spectrometry

EPA Method 418.1[1](SM 5520 FC[2])

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		11	062593 TPH		
Client Identification		MW3	METHOD BLANK		
Date Sampled		06/21/93	--		
Date Prepared		06/24/93	06/24/93		
Date Analyzed		06/25/93	06/25/93		
Analyte	Detection Limit, mg/L	Concentration, mg/L			
Total Petroleum Hydrocarbons	1	26	<1		
Detection Limit Multiplier		12.5	1		

GTEL ENVIRONMENTAL LABORATORIES, INC.

GTEL ENVIRONMENTAL LABORATORIES, INC.

CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

AND ANALYSIS REQUEST 30240

Company Name: G.T.I.
Phone #: 671-2387
FAX #:
Company Address: 4057 Port Chicago
Site location: Oakland
Project Manager: Mike Wray
Client Project ID: (#) 020203392.061002
(NAME) Sears/Telegraph
I attest that the proper field sampling procedures were used during the collection of these samples.
Sampler Name (Print): Randy Ray Phillips

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME
TBLB	01	1	X						X			X			6/21/93	1:30
RBMW5	02	1							X							1:30
MW5	03	4							X							1:30
MW5		2											X			1:30
MW5		2											X			1:30
RBMW1	04	1							X							1:40
MW1	05	2							X				X	RP		1:40
MW1		2											X			1:40
RBMW2	06	1							X							1:50
MW2	07	4							X							1:50

	BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐	OTHER: TPH-Motor Oil 8015	Total Dissolved Lead
TBLB																					X	X
RBMW5																						
MW5		X																				
MW5																						
MW5																					X	X
RBMW1																						
MW1		X																				
MW1																						
RBMW2																					X	
MW2		X																				

H. Glenny 7/1

1 of 3

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
FAX ☐

REMARKS
SEALS IN SACS, ON ICE AT 6°C
6/21/93 BSC
Lab Use Only Lot #
Storage Location:

Work Order # C3060397 1/3

CUSTODY RECORD

	Date	Time
Relinquished by Sampler:	6/21/93	5:00
Relinquished by:		
Relinquished by:	6/21/93	1700

Received by:
Received by:
Received by Laboratory:
Waybill #

GTEL ENVIRONMENTAL LABORATORIES, INC.

CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

CHAIN OF CUSTODY AND ANALYSIS REQUEST

Company Name: G.T.I.

Phone #: 671-2387

FAX #:

Company Address: 4057 Port Chicago

Site location: Oakland

Project Manager: Mike Wray

Client Project ID: (#) 020703392.061002

(NAME) Sears/Telegraph

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Randy Ray Phillips

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME
MW2	07	2	X										X		6/21/93	1:50
MW2		2											X			1:50
RBMW4	08	1							X							2:10
MW4		4							X							2:10
MW4	09	2											X			2:10
MW4		2											X			2:10
RBMW3	10	1							X							2:00
MW3		4							X							2:00
MW3	11	2											X			2:00
MW3		2									X		X			2:00

BTEX/602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☒ with MTBE ☐	Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐	TPH/IR 418.1 ☒ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐	Other: TPH-Motor Oil 8015	Tot Dissolved Lead
																				X	X
	X																				
					X															X	X
					X																
					X															X	
	X																				
					X															X	X
					X																
					X															X	

2 of 3

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

FAX ☐

REMARKS: SEALS INTACT, ON ICE AT 6°C 6/21/93 BSC 2/3

Lab Use Only Lot #

Storage Location:

Work Order #

CUSTODY RECORD

	Date	Time
Relinquished by Sampler: Randy Ray Phillips	6/21/93	5:00
Relinquished by:		
Relinquished by:	6/21/93	1700

Received by:

Received by:

Received by Laboratory:

Waybill #

GTEL ENVIRONMENTAL LABORATORIES, INC.

CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

AND ANALYSIS REQUEST

Company Name: GTI

Phone #: 671-2387

FAX #:

Company Address: 4057 Port Chicago

Site location: Oakland

Project Manager: Mike Wray

Client Project ID: (#) 02020 3392.061002

(NAME) Sears/Telegraph

I attest that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): Randy Ray Phillips

Field Sample ID	GTEL Lab # (Lab use only)	# Containers	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (SPECIFY)	Sampling: DATE	TIME
MW3	11	2	X										X		6/21/93	2:00

BTEX/602 ☐ 8020 ☐ with MTBE ☐
BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐
Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐
Hydrocarbon Profile (SIMDIS) ☐
Oil and Grease 413.1 ☐ 413.2 ☐ SM 503 ☐
TPH/IR 418.1 ☐ SM 503 ☐
EDB by 504 ☐ DBCP by 504 ☐
EPA 503.1 ☐ EPA 502.2 ☐
EPA 601 ☐ EPA 8010 ☐
EPA 602 ☐ EPA 8020 ☐
EPA 608 ☐ 8080 ☐ PCB only ☐
EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐
EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐
EPA 610 ☐ 8310 ☐
EP TOX Metals ☐ Pesticides ☐ Herbicides ☐
TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐
EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐
CAM Metals TTLC ☐ STLC ☐
Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐
Organic Lead ☐
Corrosivity ☐ Flash Point ☐ Reactivity ☐
X Lead, Cd, Cr, Ni, Zn (dissolved fab)

303

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

Special Handling
GTEL Contact _____
Quote/Contract # _____
Confirmation # _____
PO # _____

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

REMARKS SEALS INTACT, ON ICE AT 6°C
6/21/93 BC 3/3

Lab Use Only Lot # Storage Location:

QA / QC LEVEL
BLUE ☐ CLP ☐
OTHER _____

FAX ☐

Work Order #

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler: Randy Ray Phillips	6/21/93	5:00	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	6/21/93	17:00	Received by Laboratory:

Waybill #