



FLUOR DANIEL GTI

R0480  
ENVIRONMENTAL  
PROTECTION

97 JUL 16 AM 9:40

July 15, 1996

Mr. Dale Klettke, CHMM  
Hazardous Materials Specialist  
Alameda County, Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

# 1082

SUBJECT: Quarterly Groundwater Monitoring and Sampling Report  
Former Sears Store 1058  
2633 Telegraph Avenue, Oakland, California  
Fluor Daniel GTI Project 020200281

Dear Mr. Klettke:

On behalf of Sears, Roebuck and Co., Fluor Daniel GTI, Inc. presents the quarterly groundwater monitoring data collected on June 9, 1997, from the site referenced above (attachment 1, figure 1). The ten groundwater monitoring wells were gauged to determine depth to groundwater and to check for the presence of separate-phase petroleum hydrocarbons in accordance with correspondence from the Alameda Health Care Services Agency dated May 1, 1996. A very thin layer of separate-phase hydrocarbons was detected in monitoring well MW-3 which is consistent with past measurements. Because only 0.04 foot of separate-phase hydrocarbons was detected in well MW-3, bailing of the product was not feasible during this site visit. A summary of groundwater monitoring data is presented in attachment 2, table 1.

After measuring depth to water, monitoring wells MW-1, MW-2, MW-3, MW-4, MW-8, MW-9 and EW-1 were purged and sampled. Wells MW-5, MW-6, and MW-7 are sampled only in the first and third quarters. Groundwater monitoring and sample collections protocol, and field data sheets are presented in attachment 3. The groundwater samples were analyzed for total petroleum hydrocarbons (TPH)-as-motor oil by modified EPA method 8015 (GC/FID), for benzene, toluene, ethyl-benzene, xylenes (BTEX), methyl tert-butyl ether (MTBE) and for TPH-as-gasoline by EPA methods 8020/modified 8015. A summary of the groundwater analytical results is presented in table 2. A distribution map of dissolved benzene, TPH-as-gasoline and TPH-as-motor-oil concentrations is presented as figure 2. Laboratory reports and chain-of-custody records are included in attachment 4.

If you have any comments or questions, please contact me at (510) 370-3990.

Sincerely,  
**Fluor Daniel GTI, Inc.**



**Eileen Brennan**  
**West Zone Project Manager**

**Attachments**

cc: **Scott M. DeMuth - Sears, Roebuck and Co.**  
**Central Files, Lenexa, Kansas**

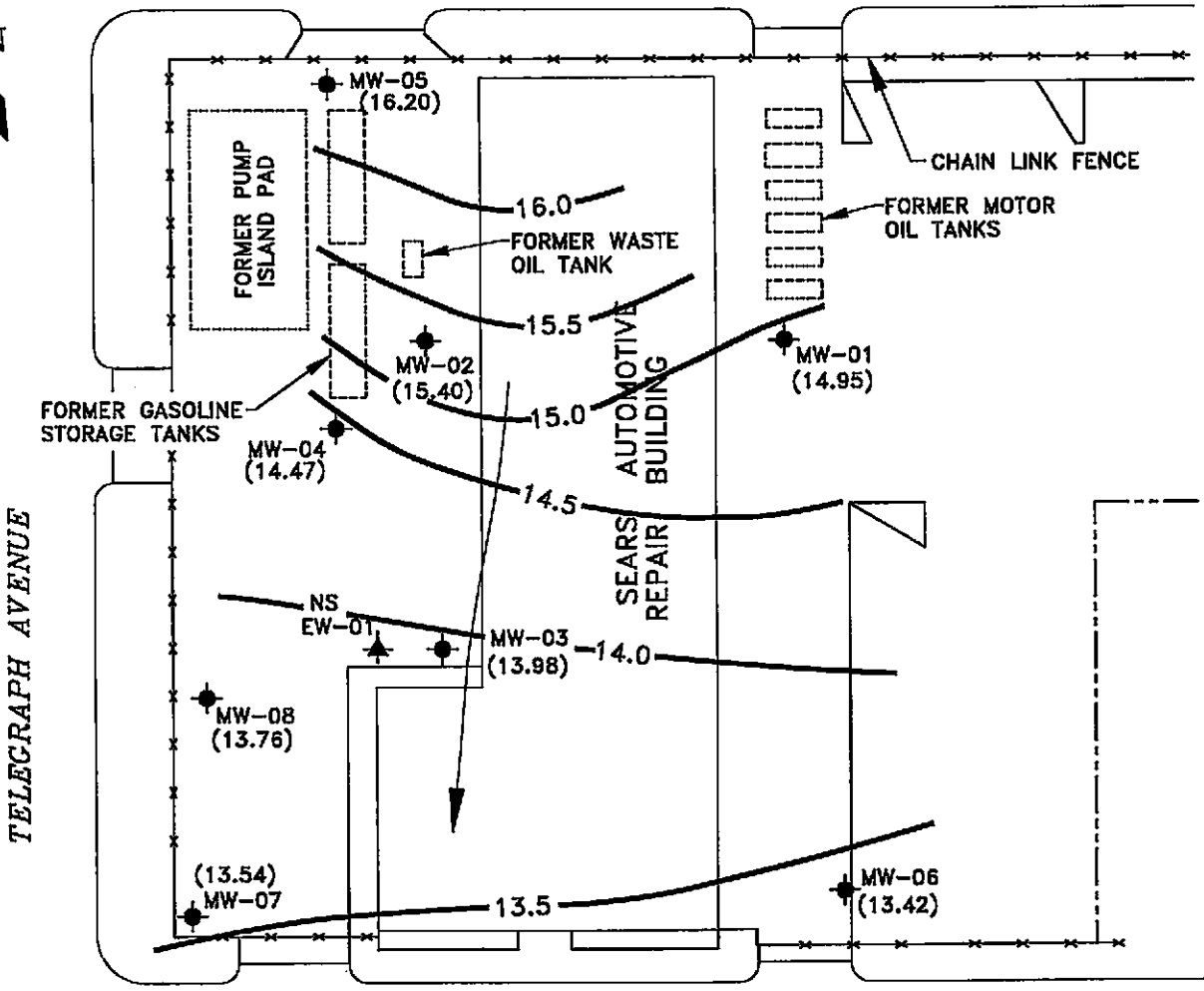
## **ATTACHMENT 1**

### **Figures**

1. **Potentiometric Surface Map (06/09/97)**
2. **Concentrations of Benzene, TPH-as-Gasoline and TPH-as-Motor Oil in Groundwater (06/09/97)**



27th STREET



26th STREET

**LEGEND**

- ◆ MONITORING WELL
- ▲ EXTRACTION WELL
- ( ) POTENTIOMETRIC SURFACE ELEVATION (FT)
- NS NOT SURVEYED
- SPH SEPARATE-PHASE HYDROCARBONS
- POTENTIOMETRIC SURFACE CONTOUR
- ← GROUNDWATER FLOW DIRECTION



**NOTE:**

1. CONTOURS REPRESENT APPROXIMATE ELEVATIONS ABOVE MEAN SEA LEVEL.

**FLUOR DANIEL GTI**

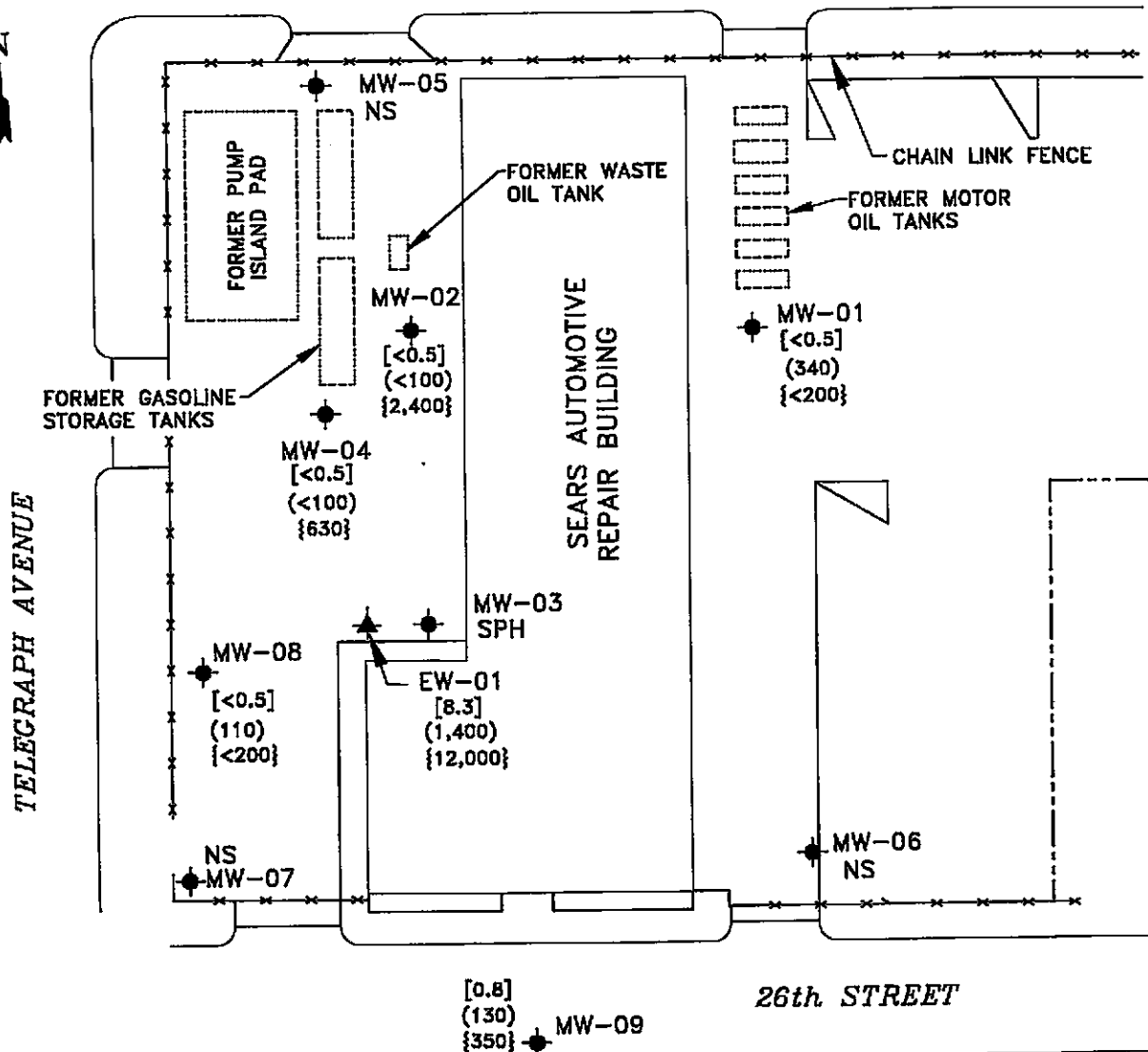


**POTENTIOMETRIC SURFACE MAP (6/9/97)**

CLIENT: SEARS, ROEBUCK AND CO. SITE NO. 1058	FILE: PSM6997 (1:40)	PROJECT NO.: 020200281	PM	PE/RG 
	REV.	FIGURE: <b>1</b>		
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	DES. BPM	DET. ML	DATE: 7/1/97	

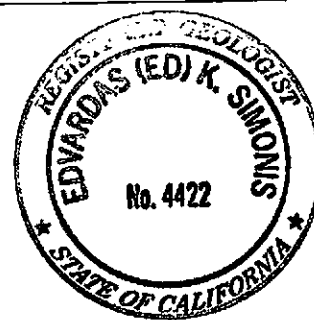


27th STREET



### LEGEND

- MONITORING WELL
- EXTRACTION WELL
- SPH SEPARATE-PHASE HYDROCARBONS
- NS NOT SAMPLED
- [ ] BENZENE CONCENTRATIONS [ $\mu\text{g/l}$ ]
- ( ) TPH-AS-GASOLINE ( $\mu\text{g/l}$ )
- { } TPH-AS-MOTOR OIL { $\mu\text{g/l}$ }



**FLUOR DANIEL GTI**



### CONCENTRATIONS OF BENZENE, TPH-AS GASOLINE & TPH-AS-MOTOR OIL IN GROUNDWATER (6/9/97)

CLIENT: SEARS, ROEBUCK AND CO. SITE NO. 1058	FILE: BEN6997	PROJECT NO.: 020200281	PM	PE/RG <i>EDK</i>
	REV.			FIGURE: 2
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	DES. BPM	DET. ML	DATE: 7/1/97	

## **ATTACHMENT 2**

### **Tables**

- 1. Summary of Historical Groundwater Monitoring Data**
- 2. Summary of Historical Groundwater Sample Analyses**

**TABLE 1**  
**Summary of Historical Groundwater Monitoring Data**  
 (All measurements are in feet; all elevations are in feet above mean sea level)

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	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
		08/13/93	11.94	--	--	14.26
		09/16/93	12.05	--	--	14.15
		10/22/93	12.00	--	--	14.20
		11/03/93	12.10	--	--	14.10
		11/24/93	11.97	--	--	14.23
		12/01/93	11.46	--	--	14.74
		12/27/93	11.58	--	--	14.62
		01/05/94	11.69	--	--	14.51
		02/08/94	11.87	--	--	14.33
		03/09/94	11.08	--	--	15.12
		04/01/94	11.47	--	--	14.73
		05/10/94	10.77	--	--	15.43
		06/30/94	11.82	--	--	14.38
		07/28/94	11.90	--	--	14.30
		08/31/94	11.94	--	--	14.26
		09/27/94	12.04	--	--	14.16
		10/28/94	12.06	--	--	14.14
		11/15/94	10.02	--	--	16.18
		12/01/94	10.61	--	--	15.59
		01/04/95	9.93	--	--	16.27
		02/01/95	9.56	--	--	16.64
		03/08/95	10.51	--	--	15.69
		04/03/95	NM	NM	NA	NA
		05/18/95	10.80	--	--	15.40
		06/09/95	11.18	--	--	15.02
		07/13/95	11.27	--	--	14.93
		08/03/95	11.48	--	--	14.72
		08/29/95	11.56	--	--	14.64
		09/15/95	11.71	--	--	14.49
		10/20/95	11.80	--	--	14.40
		11/15/95	11.61	--	--	14.59
		01/15/96	11.21	--	--	14.99
		03/05/96	9.35	--	--	16.85
04/19/96	10.60	--	--	15.60		
05/10/96	11.18	--	--	15.02		
06/03/96	10.90	--	--	15.30		
09/04/96	11.31	--	--	14.89		
12/02/96	10.61	--	--	15.59		
02/26/97	10.31	--	--	15.89		
06/09/97	11.25	--	--	14.95		

**TABLE 1**  
**Summary of Historical Groundwater Monitoring Data**  
 (All measurements are in feet; all elevations are in feet above mean sea level)

**Sears Store 1058**  
**2633 Telegraph Avenue, Oakland, California**

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
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
		08/13/93	11.54	--	--	14.96
		09/16/93	11.62	--	--	14.88
		10/22/93	11.57	--	--	14.93
		11/03/93	11.65	--	--	14.85
		11/24/93	11.52	--	--	14.98
		12/01/93	11.08	--	--	15.42
		12/27/93	11.27	--	--	15.23
		01/05/94	11.39	--	--	15.11
		02/08/94	11.49	--	--	15.01
		03/09/94	11.06	--	--	15.44
		04/01/94	11.25	--	--	15.25
		05/10/94	10.83	--	--	15.67
		06/30/94	11.44	--	--	15.06
		07/28/94	11.48	--	--	15.02
		08/31/94	11.56	--	--	14.94
		09/27/94	11.61	--	--	14.89
		10/28/94	11.65	--	--	14.85
		11/15/94	9.65	--	--	16.85
		12/01/94	10.71	--	--	15.79
		01/04/95	10.11	--	--	16.39
		02/01/95	10.38	--	--	16.12
		03/08/95	10.80	--	--	15.70
		04/03/95	10.61	--	--	15.89
		05/18/95	10.95	--	--	15.55
		06/09/95	11.13	--	--	15.37
		07/13/95	11.15	--	--	15.35
		08/03/95	11.26	--	--	15.24
		08/29/95	11.32	--	--	15.18
		09/15/95	11.42	--	--	15.08
		10/20/95	11.42	--	--	15.08
		11/15/95	11.37	--	--	15.13
		01/15/96	11.10	--	--	15.40
		03/05/96	10.24	--	--	16.26
04/19/96	10.84	--	--	15.56		
05/10/96	11.13	--	--	15.37		
06/03/96	10.94	--	--	15.56		
09/04/96	11.24	--	--	15.26		
12/02/96	10.80	--	--	15.70		
02/26/97	10.70	--	--	15.80		
06/09/97	11.10	--	--	15.40		



**TABLE 1**  
**Summary of Historical Groundwater Monitoring Data**  
 (All measurements are in feet; all elevations are in feet above mean sea level)

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
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
		08/13/93	12.96	—	—	13.38
		09/16/93	13.01	12.97	0.04	13.36
		10/22/93	NM	12.96	NA	NA
		11/03/93	13.13	13.02	0.11	13.30
		11/24/93	12.94	12.92	0.02	13.42
		12/01/93	12.71	12.69	0.02	13.65
		12/27/93	12.77	12.73	0.04	13.60
		01/05/94	12.85	12.83	0.02	13.51
		02/08/94	12.37	—	—	13.97
		03/09/94	12.53	—	—	13.81
		04/01/94	12.64	—	—	13.70
		05/10/94	12.32	—	—	14.02
		06/30/94	12.84	12.82	0.02	13.51
		07/28/94	12.93	12.89	0.04	13.44
		08/31/94	13.04	13.01	0.03	13.32
		09/27/94	13.13	13.02	0.11	13.30
		10/28/94	13.30	13.08	0.22	13.22
		11/15/94	11.05	11.02	0.03	15.31
		12/01/94	11.90	11.88	0.02	14.46
		01/04/95	11.80	11.76	0.01	14.55
		02/01/95	12.00	11.98	0.02	14.36
		03/08/95	12.35	12.30	0.05	14.03
		04/03/95	12.09	12.05	0.04	14.28
		05/18/95	12.43	12.40	0.03	13.93
		06/09/95	12.60	12.58	0.02	13.76
		07/13/95	12.55	12.46	0.09	13.87
		08/03/95	12.64	12.61	0.03	13.73
		08/29/95	12.65	12.62	0.03	13.71
		09/15/95	13.00	12.86	0.14	13.45*
		10/20/95	12.86	12.03	0.03	13.50*
		11/15/95	12.81	12.74	0.07	13.59*
		01/15/96	12.60	12.47	0.13	13.84*
		03/05/96	11.68	11.64	0.04	14.69
04/19/96	12.36	12.34	0.02	14.00		
05/10/96	11.93	11.91	0.02	14.43		
06/03/96	12.93	12.50	0.43	13.75		
09/04/96	12.60	12.55	0.05	13.79		
12/02/96	12.11	12.00	0.03	14.25		
02/26/97	12.03	12.02	0.01	14.32		
06/09/97	12.39	12.35	0.04	13.98		

\* Corrected elevations. Review of calculations indicated that these elevations were incorrect in past reports.



**TABLE 1**  
**Summary of Historical Groundwater Monitoring Data**  
 (All measurements are in feet; all elevations are in feet above mean sea level)

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-4	26.17	12/30/92	11.53	--	Sheen	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
		08/13/93	12.01	--	--	14.16
		09/16/93	12.08	--	--	14.09
		10/22/93	12.03	--	--	14.14
		11/03/93	12.10	--	--	14.07
		11/24/93	12.02	--	--	14.15
		12/01/93	11.78	--	--	14.99
		12/27/93	11.80	--	--	14.97
		01/05/94	11.91	--	--	14.26
		02/08/94	11.85	--	--	14.32
		03/09/94	11.61	--	--	14.56
		04/01/94	11.73	--	--	14.44
		05/10/94	11.49	--	--	14.68
		06/30/94	11.90	--	--	14.20
		07/28/94	11.97	--	--	14.27
		08/31/94	12.06	--	--	14.11
		09/27/94	12.11	--	--	14.06
		10/28/94	12.18	--	--	13.99
		11/15/94	10.72	--	--	15.45
		12/01/94	11.37	--	--	14.80
		01/04/95	11.20	--	--	14.97
		02/01/95	11.16	--	--	15.01
		03/08/95	11.49	--	--	14.68
		04/03/95	11.35	--	--	14.82
		05/18/95	11.56	--	--	14.61
		06/09/95	11.72	--	--	14.45
		07/13/95	11.72	--	--	14.45
		08/03/95	11.81	--	--	14.36
		08/29/95	11.88	--	--	14.29
		09/15/95	11.99	--	--	14.18
		10/20/95	12.00	--	--	14.17
		11/15/95	11.96	--	--	14.21
		01/15/96	11.71	--	--	14.46
		03/05/96	11.02	--	--	15.15
04/19/96	11.51	--	--	14.46		
05/10/96	11.74	--	--	14.43		
06/03/96	11.60	--	--	14.57		
09/04/96	11.85	--	--	14.32		
12/02/96	11.45	--	--	14.72		
02/26/97	11.42	--	--	14.75		
06/09/97	11.70	--	--	14.47		

**TABLE 1**  
**Summary of Historical Groundwater Monitoring Data**  
 (All measurements are in feet; all elevations are in feet above mean sea level)

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
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
		08/13/93	11.07	--	--	15.91
		09/16/93	11.18	--	--	15.60
		10/22/93	11.19	--	--	15.79
		11/03/93	11.23	--	--	15.75
		11/24/93	12.00	--	--	14.98
		12/01/93	10.84	--	--	16.14
		12/27/93	10.81	--	--	16.17
		01/05/94	10.96	--	--	16.02
		02/08/94	10.94	--	--	16.04
		03/09/94	10.54	--	--	16.44
		04/01/94	10.77	--	--	16.21
		05/10/94	10.44	--	--	16.54
		06/30/94	10.88	--	--	16.10
		07/28/94	10.98	--	--	16.00
		08/31/94	11.07	--	--	15.91
		09/27/94	11.12	--	--	15.86
		10/28/94	11.21	--	--	15.77
		11/15/94	10.05	--	--	16.93
		12/01/94	10.39	--	--	16.59
		01/04/95	10.18	--	--	16.80
		02/01/95	9.93	--	--	17.05
		03/08/95	10.35	--	--	16.63
		04/03/95	10.15	--	--	16.83
		05/18/95	10.43	--	--	16.55
		06/09/95	10.62	--	--	16.36
		07/13/95	10.76	--	--	16.22
		08/03/95	10.82	--	--	16.16
		08/29/95	10.91	--	--	16.07
		09/15/95	11.00	--	--	15.98
		10/20/95	11.02	--	--	15.96
		11/15/95	11.95	--	--	15.03
		01/15/96	10.57	--	--	16.41
		03/05/96	9.81	--	--	17.17
04/19/96	10.32	--	--	16.66		
05/10/96	10.56	--	--	16.40		
06/03/96	10.46	--	--	16.52		
09/04/96	10.86	--	--	16.12		
12/02/96	10.45	--	--	16.53		
02/26/97	10.38	--	--	16.60		
06/09/97	10.78	--	--	16.20		

**TABLE 1**  
**Summary of Historical Groundwater Monitoring Data**  
 (All measurements are in feet; all elevations are in feet above mean sea level)

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-6	24.32	12/27/93	11.24	--	--	13.08
		01/05/94	11.39	--	--	12.93
		02/08/94	11.15	--	--	13.17
		03/09/94	10.97	--	--	13.35
		04/01/94	11.25	--	--	13.07
		05/10/94	10.78	--	--	13.54
		06/30/94	11.49	--	--	12.83
		07/28/94	11.59	--	--	12.73
		08/31/94	11.56	--	--	12.76
		09/27/94	11.65	--	--	12.67
		10/28/94	11.59	--	--	12.73
		11/15/94	10.24	--	--	14.08
		12/01/94	10.30	--	--	14.02
		01/04/95	9.81	--	--	14.51
		02/01/95	10.01	--	--	14.31
		03/08/95	10.64	--	--	13.68
		04/03/95	10.26	--	--	14.06
		05/18/95	10.81	--	--	13.51
		06/09/95	11.07	--	--	13.25
		07/13/95	10.91	--	--	13.41
		08/03/95	11.15	--	--	13.17
		08/29/95	11.09	--	--	13.23
		09/15/95	11.35	--	--	12.97
		10/20/95	11.32	--	--	13.00
		11/15/95	11.20	--	--	13.12
		01/15/96	10.83	--	--	13.49
		03/05/96	9.60	--	--	14.72
		04/19/96	10.71	--	--	13.61
		05/10/96	11.05	--	--	13.27
		06/03/96	10.91	--	--	13.41
09/04/96	10.84	--	--	13.48		
12/02/96	10.46	--	--	13.86		
02/26/97	10.46	--	--	13.86		
06/09/97	10.90	--	--	13.42		

**TABLE 1**  
**Summary of Historical Groundwater Monitoring Data**  
 (All measurements are in feet; all elevations are in feet above mean sea level)

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-7	24.88	12/27/93	11.80	--	--	13.08
		01/05/94	11.53	--	--	13.35
		02/08/94	11.90	--	--	12.98
		03/09/94	11.23	--	--	13.65
		04/01/94	11.34	--	--	13.54
		05/10/94	11.02	--	--	13.86
		06/30/94	11.49	--	--	13.39
		07/28/94	11.58	--	--	13.30
		08/31/94	11.69	--	--	13.19
		09/27/94	11.73	--	--	13.15
		10/28/94	11.77	--	--	13.11
		11/15/94	10.29	--	--	14.59
		12/01/94	10.89	--	--	13.99
		01/04/95	10.77	--	--	14.11
		02/01/95	10.70	--	--	14.18
		03/08/95	11.05	--	--	13.83
		04/03/95	10.88	--	--	14.00
		05/18/95	11.12	--	--	13.76
		06/09/95	11.25	--	--	13.63
		07/13/95	11.15	--	--	13.73
		08/03/95	11.32	--	--	26.79
		08/29/95	11.53	--	--	13.35
		09/15/95	11.65	--	--	13.23
		10/20/95	11.64	--	--	13.24
		11/15/95	11.60	--	--	13.28
		01/15/96	11.07	--	--	13.81
		03/05/96	10.50	--	--	14.38
		04/19/96	12.02	--	--	12.86
		05/10/96	11.14	--	--	13.74
		06/03/96	11.10	--	--	13.78
09/04/96	11.45	--	--	13.43		
12/02/96	10.96	--	--	13.92		
02/26/97	11.02	--	--	13.86		
06/09/97	11.34	--	--	13.54		



**TABLE 1**  
**Summary of Historical Groundwater Monitoring Data**  
 (All measurements are in feet; all elevations are in feet above mean sea level)

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Casing Elev.	Date	Depth to Water	Depth to Product	Product Thickness	Groundwater Elev.
MW-8	26.12	12/27/93	12.45	--	--	13.67
		01/05/94	12.57	--	--	13.55
		02/08/94	12.02	--	--	14.10
		03/09/94	12.22	--	--	13.90
		04/01/94	12.33	--	--	13.79
		05/10/94	12.00	--	--	14.12
		06/30/94	12.52	--	--	13.60
		07/28/94	12.61	--	--	13.51
		08/31/94	12.72	--	--	13.40
		09/27/94	12.80	--	--	13.32
		10/28/94	12.84	--	--	13.28
		11/15/94	11.72	--	--	14.40
		12/01/94	11.87	--	--	14.25
		01/04/95	11.75	--	--	14.37
		02/01/95	11.64	--	--	14.48
		03/08/95	12.04	--	--	14.08
		04/03/95	11.86	--	--	14.26
		05/18/95	12.11	--	--	14.01
		06/09/95	12.34	--	--	13.78
		07/13/95	12.37	--	--	13.75
		08/03/95	12.50	--	--	13.62
		08/29/95	12.55	--	--	13.57
		09/15/95	12.70	--	--	13.42
		10/20/95	12.69	--	--	13.43
		11/15/95	12.67	--	--	13.45
		12/11/95	11.80	--	--	14.32
		01/15/96	12.38	--	--	13.74
		03/05/96	11.44	--	--	14.68
		04/19/96	10.80	--	--	15.32
		05/10/96	12.40	--	--	13.72
06/03/96	12.28	--	--	13.86		
09/04/96	12.51	--	--	13.61		
12/02/96	11.99	--	--	14.13		
02/26/97	11.98	--	--	14.14		
06/09/97	12.36	--	--	13.76		
MW-9	N/A	12/02/96	11.52	--	--	N/A
		02/26/97	11.55	--	--	N/A
		06/09/97	11.91	--	--	N/A
EW-1	N/A	12/02/96	12.17	--	--	N/A
		02/26/97	12.13	--	--	N/A
		06/09/97	12.46	--	--	N/A

Notes: "--" indicates no datum for the cell, including "product not detected"

NM = Not monitored

NA = Not Available



**TABLE 2**  
**Summary of Historical Groundwater Sample Analyses**  
 (All results expressed in parts per billion)

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TPH as Motor Oil	TPH (mg/l)	Dissolved Metals	MTBE
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	--	--	--
	09/16/93	<0.3	0.7	<0.3	7	--	**<100	--	--	--
	12/01/93	0.4	1	2	7	--	--	--	--	--
	12/30/93	--	--	--	--	--	<100	--	--	--
	03/09/94	<0.3	<0.3	1	4.2	--	<100	--	--	--
	06/30/94	0.6	0.7	2.4	15	--	<100	--	--	--
	09/27/94	0.9	0.5	1.4	10	--	*<250	--	--	--
	12/01/94	0.4	0.4	<0.3	6.6	--	*<250	--	--	--
	03/08/95	<0.3	0.6	<0.3	2.7	--	*<250	--	--	--
	06/09/95	<0.3	1.4	4.7	5.6	--	*<250	--	--	--
	08/29/95	0.3	0.9	3.9	2.8	--	*<250	--	--	--
	11/15/95	<0.5	<0.5	<0.5	27	--	*<200	--	--	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	--	*<200	--	--	--
	06/03/96	<0.5	<1.0	<1.0	3.4	340	*<200	--	--	--
	09/04/96	<0.5	<1.0	3.7	<2.0	390	310	--	--	--
12/02/96	<0.5	<1.0	<1.0	2.7	400	*<200	--	--	--	
02/26/97	<0.5	<1.0	<1.0	4.5	390	*<200	--	--	--	
06/09/97	<0.5	<1.0	<1.0	2.3	340	<200	--	--	<10	
MW-2	12/30/92	0.7	<0.3	<0.3	3	190	--	1	*ND	--
	03/24/93	0.6	<0.3	<0.3	2	120	--	<1	*ND	--
	06/21/93	0.3	<0.3	<0.3	0.7	82	**<100	--	*ND	--
	09/16/93	<0.3	<0.3	<0.3	<0.5	28	**<100	--	*ND	--
	12/01/93	<0.3	<0.3	<0.3	1	68	--	--	*ND	--
	12/30/93	--	--	--	--	--	310	--	--	--
	03/09/94	<0.3	<0.3	<0.3	<0.5	47	<100	--	ND	--
	06/30/94	<0.3	<0.3	<0.3	<0.5	<10	100	--	ND	--
	09/27/94	<0.3	<0.3	<0.3	<0.5	<10	*<250	--	*15	--
	12/01/94	<0.3	<0.3	<0.3	<0.5	54	*1,300	--	*6	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	<10	3,000	--	ND	--
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	2,000	--	ND	--
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	4,300	--	*20	--
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	6,100	--	ND	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	3,200	--	ND	--
	06/04/96	<0.5	<1.0	<1.0	<2.0	<100	3,800	--	ND	--
	09/04/96	<0.5	<1.0	<1.0	<2.0	<100	3,100	--	--	--
12/02/96	<0.5	<1.0	<1.0	<2.0	<100	2,200	--	--	--	
02/26/97	<0.5	<1.0	<1.0	<2.0	<100	2,100	--	--	--	
06/09/97	<0.5	<1.0	<1.0	<2.0	<100	2,400	--	--	<10	

**TABLE 2**  
**Summary of Historical Groundwater Sample Analyses**  
**(All results expressed in parts per billion)**

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TPH as Motor Oil	TPH (mg/l)	Dissolved Metals	MTBE
MW-3	12/30/92	11	0.9	<0.3	2	910	SPH	20	*ND	-
	03/24/93	28	0.7	1	8	3,300	SPH	28	**15	-
	06/21/93	21	5	2	19	**2,600	32,000	26	nd5	-
	09/16/93	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	12/01/93	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	03/09/94	2	1.4	4.5	13	2,000	**5,700	**63	*ND	-
	06/30/94	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	09/27/94	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	12/01/94	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	03/08/95	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	06/09/95	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	08/29/95	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	11/15/95	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	03/05/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	06/03/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	09/04/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
	12/02/96	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-
02/26/97	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	-	
06/09/97	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
MW-4	12/30/92	2	<0.3	1	<0.5	1,200	-	<1	*ND	-
	03/24/93	<0.3	<0.3	<0.3	<0.5	750	-	2	*7	-
	06/21/93	<0.3	2	<0.3	0.5	660	19,000	-	*ND	-
	09/16/93	0.3	<0.3	2	3	410	2,500	-	*ND	-
	12/01/93	<0.3	<0.3	<0.3	<0.5	150	390	-	*ND	-
	03/09/94	0.7	0.8	2	3.6	1,500	780	-	*ND	-
	06/30/94	<0.3	1.7	0.5	1.0	450	130	-	ND	-
	09/27/94	0.5	<0.3	<0.3	<0.5	110	1,100	-	ND	-
	12/01/94	0.6	0.5	0.3	0.8	290	580	-	*5	-
	03/08/95	<0.3	<0.3	<0.3	<0.5	360	1,000	-	*5	-
	06/09/95	<0.3	0.4	<0.3	<0.5	64	1,100	-	*5	-
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	1,200	-	*5	-
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	2,100	-	*ND	-
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	590	-	*ND	-
	06/03/96	<0.5	<1.0	<1.0	<2.0	<100	860	-	ND	-
	09/04/96	<0.5	<1.0	<1.0	<2.0	<100	600	-	-	-
	12/02/96	<0.5	<1.0	<1.0	<2.0	<100	940	-	-	-
02/26/97	<0.5	<1.0	<1.0	<2.0	<100	390	-	-	-	
06/09/97	<0.5	<1.0	<1.0	<2.0	<100	630	-	-	<10	



**TABLE 2**  
**Summary of Historical Groundwater Sample Analyses**  
**(All results expressed in parts per billion)**

Sears Store 1058  
2633 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TPH as Motor Oil	TPH (mg/l)	Dissolved Metals	MTBE
MW-5	12/30/92	<0.3	<0.3	<0.3	<0.5	37	--	<1	<sup>b</sup> 5	--
	03/24/93	<0.3	<0.3	<0.3	0.5	19	--	2	<sup>a</sup> 341	--
	06/21/93	<0.3	<0.3	<0.3	<0.5	<10	<100	--	*ND	--
	09/16/93	0.3	<0.3	<0.3	1	<10	<100	--	*ND	--
	12/01/93	<0.3	<0.3	<0.3	1	17	--	--	*ND	--
	12/30/93	--	--	--	--	--	<100	--	--	--
	03/09/94	<0.3	<0.3	<0.3	<0.5	22	<100	--	*ND	--
	06/30/94	<0.3	<0.3	<0.3	<0.5	<10	<100	--	ND	--
	09/27/94	0.5	0.4	<0.3	<0.5	<10	560	--	ND	--
	12/01/94	<0.3	<0.3	<0.3	<0.5	<10	<250	--	ND	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	<10	<250	--	ND	--
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	<sup>g</sup> 7	--
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	<sup>b</sup> 36	--
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	<200	--	ND	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	<200	--	ND	--
	06/03/96	NS	NS	NS	NS	NS	NS	NS	NS	--
	09/04/96	<0.5	<1.0	<1.0	<2.0	<100	310	--	--	--
	12/02/96	NS	NS	NS	NS	NS	NS	NS	NS	--
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	<200	--	--	--
06/09/97	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-6	12/27/93	<0.3	<0.3	<0.3	<0.5	<10	<100	<1	<sup>a</sup> 70	--
	03/09/94	<0.3	<0.3	<0.3	<0.5	15	<100	--	*ND	--
	06/30/94	<0.3	<0.3	<0.3	<0.5	<10	<100	--	ND	--
	09/27/94	<0.3	<0.3	<0.3	<0.5	<10	<250	--	<sup>g</sup> 8	--
	12/01/94	<0.3	<0.3	<0.3	<0.5	<10	<250	--	<sup>g</sup> 32	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	<10	<250	--	ND	--
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	ND	--
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	<sup>b</sup> 24	--
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	<200	--	<sup>g</sup> 31	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	<200	--	ND	--
	06/03/96	NS	NS	NS	NS	NS	NS	NS	NS	--
	09/04/96	<0.5	<1.0	<1.0	<2.0	<100	230	--	--	--
	12/02/96	NS	NS	NS	NS	NS	NS	NS	NS	--
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	<200	NS	NS	--
06/09/97	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-7	12/27/93	<0.3	<0.3	1	2	140	<100	<1	<sup>a</sup> 40	--
	03/09/94	<0.3	<1.0	1.5	4.1<	620	<100	--	*ND	--
	06/30/94	<0.3	<0.3	<0.3	0.5	33	<100	--	ND	--
	09/27/94	<0.3	<0.3	0.4	0.7	52	<sup>a</sup> <250	--	ND	--
	12/01/94	<0.3	<0.3	<0.3	1.1	<10	<sup>a</sup> <250	--	<sup>g</sup> 28	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	<10	<sup>a</sup> <250	--	ND	--
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	ND	--
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	<250	--	<sup>h</sup> 13	--
	11/15/95	<0.5	<0.5	<0.5	<0.5	<50	<200	--	ND	--
	03/05/96	<0.5	<1.0	<1.0	<2.0	<100	270	--	ND	--
	06/03/96	NS	NS	NS	NS	NS	NS	NS	NS	--
	09/04/96	<0.5	<1.0	<1.0	<2.0	<100	<200	--	--	--
	12/02/96	NS	NS	NS	NS	NS	NS	NS	NS	--
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	<200	NS	NS	--
06/09/97	NS	NS	NS	NS	NS	NS	NS	NS	NS	



**TABLE 2**  
**Summary of Historical Groundwater Sample Analyses**  
 (All results expressed in parts per billion)

Sears Store 1058  
 2633 Telegraph Avenue, Oakland, California

Well ID	Date Sampled	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as Gasoline	TPH as Motor Oil	TPH (mg/l)	Dissolved Metals	MTBE
MW-8	12/27/93	0.4	4	0.4	1	390	<100	<1	*18	--
	03/09/94	0.6	0.8	0.5	1.5	420	<100	--	*ND	--
	06/30/94	0.9	<0.3	<0.3	1.1	250	<100	--	ND	--
	09/27/94	<0.3	<0.3	<0.3	<0.5	210	*<250	--	*9	--
	12/01/94	5.4	<0.3	0.7	1.3	230	*<250	--	*ND	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	230	*<250	--	ND	--
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	*<250	--	ND	--
	08/29/95	0.9	0.4	<0.3	0.8	200	*<250	--	*15	--
	11/15/95	0.58	<0.5	<0.5	0.54	120	--	--	*21	--
	12/11/95	--	--	--	--	--	*<200	--	--	--
	03/05/96	0.6	<1.0	<1.0	<2.0	<100	*<200	--	ND	--
	06/03/96	<0.5	<1.0	<1.0	<2.0	100	--	--	--	--
	09/04/96	<0.5	<1.0	<1.0	<2.0	110	<200	--	--	--
	12/02/96	<0.5	<1.0	<1.0	<2.0	110	<200	--	--	--
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	<200	--	--	--
06/09/97	<0.5	<1.0	<1.0	<2.0	110	<200	--	--	<10	
MW-9	12/02/96	<0.5	<1.0	<1.0	<2.0	210	250	--	--	--
	02/26/97	<0.5	<1.0	<1.0	<2.0	170	340	--	--	--
	06/09/97	0.8	<1.0	<1.0	<2.0	130	350	--	--	<10
EW-1	09/04/96	<0.5	<1.0	<1.0	<2.0	1,100	1,700	--	--	--
	12/02/96	6.2	<1.0	<1.0	<2.0	1,000	14,00	--	--	--
	02/26/97	12	<1.0	<1.0	<2.1	1,200	2,100	--	--	--
	06/09/97	83	<1.0	<1.0	<2.0	1,400	12,000	--	--	13

Source: GTEL Environmental Laboratories

Notes: "--" indicates no datum for the cell, including "not analyzed for this constituent". Values beginning with "<" indicate the compound was not detected above the laboratory reporting limits.

- mg/l = Milligrams per liter
- TPH = Total petroleum hydrocarbons
- ND = Non-detectable (detection limits for each metal is listed in laboratory reports, included in attachment 4)
- SPH = Separate phase hydrocarbon
- NS = Not sampled
- \* = Water samples were not filtered, analytical results represent total metals present, not dissolved concentrations.
- \*\* = Uncategorized hydrocarbon compound not included in this hydrocarbon concentration.
- a = Dissolved lead
- b = Dissolved lead only analyte detected
- c = Dissolved lead, cadmium, total chromium, nickel, and zinc.
- d = Cadmium only analyte detected.
- e = Hydrocarbon pattern not characteristic of motor oil.
- f = Uncategorized compounds included in concentration
- g = Zinc only analyte detected
- h = Chromium only analyte detected
- MTBE = Methyl Tert-Butyl Ether

**ATTACHMENT 3**

**Groundwater Monitoring and Sample Collection Protocol  
and Field Data Sheets**

# GROUNDWATER TECHNOLOGY GROUNDWATER MONITORING AND SAMPLE COLLECTION PROTOCOL

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## Groundwater Monitoring

Groundwater monitoring is accomplished using a INTERFACE PROBE™ Well Monitoring System. The INTERFACE PROBE™ Well Monitoring System is a hand held, battery operated device for measuring the depth to separate-phase hydrocarbons and depth to water. The INTERFACE PROBE™ Well Monitoring System consists of a dual-sensing probe which utilizes an optical liquid sensor and electrical conductivity to distinguish between water and petroleum products.

Monitoring is accomplished by measuring from the surveyed top of well casing or grade to groundwater and separate-phase hydrocarbons if present. The static water elevation is then calculated for each well and a potentiometric surface map is constructed. If separate-phase hydrocarbons are detected the water elevation is adjusted by the following calculation:

$$(\text{Product thickness}) \times (0.8) + (\text{Water elevation}) = \text{Corrected water elevation}$$

Groundwater monitoring wells are monitored in order of wells with lowest concentrations of volatile organic compounds to wells with the highest concentrations, based upon historical concentrations. If separate-phase hydrocarbons are encountered in a well, the product is visually inspected to confirm and note color, amount, and viscosity. Monitoring equipment is washed with laboratory grade detergent and rinsed with distilled or deionized water before monitoring each well.

## Groundwater Sampling

Before groundwater samples are collected, sufficient water is purged from each well to ensure representative formation water is entering the well. Wells are purged and sampled in the same order as monitoring, from wells with the lowest concentrations of volatile organic compounds to wells with the highest concentrations. Wells are purged using either a polyvinyl chloride (PVC) bailer fitted with a check valve or with a stainless steel submersible Grundfos pump. The purge equipment is decontaminated before use in each well by washing with laboratory grade detergent and triple rinsing with deionized or distilled water. A minimum of 3 well-casing volumes of water are removed from each well while pH, electrical conductivity, and temperature are recorded to verify that "fresh" formation water is being sampled and the parameters have stabilized. If the well is low yielding, it may be purged dry and sampled before 3 casing volumes are purged. The wells are then allowed to recharge to approximately 80 percent of the initial water level before a sample is collected.

Groundwater samples are collected from each well using a new, prepackaged disposable bailer and string. The water sample is decanted from the bailer into laboratory-provided containers (appropriate for the analyses required) so that there is no headspace in the containers. Samples collected for benzene, toluene, ethylbenzene, xylene, and total petroleum hydrocarbons (TPH)-as-gasoline analyses are collected in 40-milliliter vials fitted with Teflon® septum lids. Samples are preserved with hydrochloric acid (HCL) to a pH of less than 2. Dissolved metals samples are filtered through a 0.45-micron paper filter in the field and preserved as required before submitting to the laboratory for analyses. All samples are labeled immediately upon collection and logged on the chain-of-custody record. Sample label and chain-of-custody recorded information includes the project name and number, sample identification, date and time of collection, analyses requested, and the sampler's name. Sample bottles are placed in plastic bags (to protect the bottles and labels) and on ice (frozen water) in an insulated cooler and are shipped under chain-of-custody protocol to the laboratory.

The chain-of-custody record documents who has possession of the samples until the analyses is performed. Other pertinent information is also noted for the laboratory use on the chain-of-custody record.

Trip blanks (TBLBs) are used for each project as a quality assurance/quality control measure. The TBLBs are prepared by the laboratory and are placed in the insulated cooler and accompany the field samples throughout the sampling event.

**SITE VISIT FORM**  
**Fluor Daniel GTI - Martinez, California**

Project: ~~20200281-00~~  
Site: SEARS/1058/Oakland, CA  
Project Mgr: Eileen Brennan

Technician: Heidi Newno  
Scheduled: 6/23/97  
Site Mgr: M. Chamberlain

**PREPARATORY COMMENTS**

Visit Date: 6/9/97 Arrival Time: 10:00 Departure Time: 13:30  
Work Order read in office:  Y/N upon arrival:  Y/N upon departure:  Y/N  
Called PM? Y/N Time: \_\_\_\_\_ Who: \_\_\_\_\_ Topic: \_\_\_\_\_  
Are You In Possession of a Site Safety Plan?  Y/N  
COC: Complete with store #, site address & proj office address?  Y/N  
Job # and task #

**GROUNDWATER SAMPLING - Task Nr: 030543 [Quarterly]**

Notify Dale Klettke 72 hrs in advance (510) 567-6880 DONE: left message @ 8:47 6/6/97  
SITE ADDRESS: 2633 Telegraph Avenue, Oakland, CA  
cc: Eileen Brennan, Mike Chamberlain

During any sampling activities, a minimum work zone will be defined by a 10ft by 10ft square centered around the monitor well and marked with 36" -high orange traffic cones with flag poles and flags placed in the center of the cone and caution tape stretched between the cones. Employees will be constantly aware of the public access to the work zone and keep them within the outer perimeter of the cones and caution tape at all times.

BRING 9/16 BOLTS FOR ALL 8 WELLS. Need three (3) new drums for this site.

1. MARCH(1st)/SEPT(3rd): Monitor and sample all wells (MW-1 through MW-9 and EW-1) in the following order: MW-5, MW-1, MW-6, MW-7, MW-8, MW-2, MW-4, MW-3, MW-9 and the new extraction well (EW-1) located next to MW-3. USE DISPOSABLE BAILERS.

JUNE(2nd)/DEC(4th): Monitor all wells (MW-1 through MW-9, and EW-1). Sample seven (7) wells in the following order: MW-9, MW-1, MW-8, MW-2, MW-4, MW-3 and EW-1. USE DISPOSABLE BAILERS.

2. Record DTW, DTP, pH, Conductivity and temperature. NOTE: Recharge DTW.

3. Collect one trip blank and one duplicate from MW-4 and submit for BTEX-8020 only.

**SITE VISIT FORM**  
**Fluor Daniel GTI - Martinez, California**

Project: 20200281.00  
 Site: SEARS/#1058/Oakland, CA  
 Project Mgr: Eileen Brennan

Technician: H. COOPER NERINS  
 Scheduled: 6/23/97  
 Site Mgr: M. Chamberlain

**GROUNDWATER SAMPLING (Continued) - Task Nr: 030543 [Quarterly]**

EQUIPMENT NEEDED: 9/16" Ratchet to remove well lids. 1 or 2 55-gallon drums, I.P.

4. Complete detailed drum count. Check with owner if drums can be left in corner.

5. Submit samples to GTEL lab in Concord ph# (510) 685-7852.

Note: Add THP-MO to concentration map

6. COMPLETED ALL THREE PAGES OF WASTE INVENTORY FORM? YES. IF NO, EXPLAIN \_\_\_\_\_.

7. Analysis for Groundwater samples: Please note first and third Quarterly analysis of wells MW-5, MW-6, and MW-7.

Analysis	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6	MW-7	MW-8	EW	MW-9	
TPH-Motor Oil (8015) AMBER/NONE	X	X	X	X	X	X	X	X	X	X	X 2L
BTEX/MTBE/TPH-G	X	X	X	X	X	X	X	X	X	X	X 4 VOA/HCL
HOURS ESTIMATED FOR MARCH/SEPT	6.0						JUNE/DEC		4.0		

Hours Estimated	4.00	Hours Used
-----------------	------	------------

**FINAL CHECKS**

SITE SECURITY: well/covers/gates... secure? Y/N-If No, Explain \_\_\_\_\_

WASTE COMPLIANCE: # of Drums w/: Water 1, Soil \_\_\_\_\_, Empty \_\_\_\_\_, Other \_\_\_\_\_

DRUMS labeled? NA/Y/N Gen. Date: 6/9/97 Label Type: NON CLASS

SOIL pile? Y/N size: \_\_\_\_\_ cu.yds. SITE LEFT CLEAN? Y/N

**SITE VISIT FORM  
FLUOR DANIEL GTI**

Project: Sears/#1058/Oakland  
Store #: 1058/2633 Telegraph  
Project Manager: Eileen Brennan

Technician: HECTOR MORALES  
Schedule:  
Job No. 020200281.030543

**WELL WATER SAMPLING - TASK Nr: 030543 [QUARTERLY]  
Gauge wells for volume of water & bail 3 well Vol.s. DECON  
PREPARATORY COMMENTS**

Visit Date: 6/9/97 Arrival Time: 10:00 Departure Time: \_\_\_\_\_

Called Project Manager? YES  NO  Time: \_\_\_\_\_ Who: \_\_\_\_\_

If you did not call, why not? ALL WENT FINE NO PROBLEMS

Weather: Rain Snow  Sunny  Cloudy Temperature: 70°

Well ID

MW-1:	DTB_21.72	DTW <u>11.25</u>	SAT. THICK _____	#GAL. BAILED _____
MW-2:	DTB_21.79	DTW <u>11.10</u>	SAT. THICK _____	#GAL. BAILED _____
MW-3:	DTB_24.67	DTW <u>12.39</u>	DTP = <u>12.35.04</u> SAT. THICK _____	#GAL. BAILED _____
MW-4:	DTB_22.97	DTW <u>11.70</u>	SAT. THICK _____	#GAL. BAILED _____
MW-5:	DTB_25.27	DTW <u>10.78</u>	SAT. THICK _____	#GAL. BAILED _____
MW-6:	DTB_22.05	DTW <u>10.90</u>	SAT. THICK _____	#GAL. BAILED _____
MW-7:	DTB_21.70	DTW <u>11.34</u>	SAT. THICK _____	#GAL. BAILED _____
MW-8:	DTB_22.14	DTW <u>12.36</u>	SAT. THICK _____	#GAL. BAILED _____
MW-9:	DTB_20.30	DTW <u>11.91</u>	SAT. THICK _____	#GAL. BAILED _____
EW-1:	DTB_22.30	DTW <u>12.46</u>	SAT. THICK _____	#GAL. BAILED _____

NOTES:

ATTACHED

HOURS ESTIMATED:

HOURS USED:

**FINAL CHECKS**

Are Wells Locked?  YES  NO Why Not?

Are Manholes Bolted Down?  YES  NO Why Not?

SITE VISIT FORM  
FLUOR DANIEL GTI

Project: Sears/#1058/Oakland  
Store #: 1058/2633 Telegraph  
Project Manager: Mike Wray

Technician: Hector Nunez  
Schedule:  
Job No. 020200281.030543

TECHNICIAN'S COMMENTS

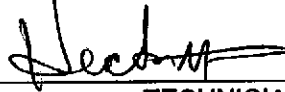
MONITORED ALL WELLS SAMPLED 6 WELLS  
MW3 HAS PRODUCT NO SAMPLES WERE TAKEN  
FROM WELLS. ONE DRUM WAS GENERATED  
SEE MAP FOR LOCATION.

TOTAL HOURS ESTIMATED:

HOURS USED:

TRAVEL TIME ESTIMATED:

TRAVEL TIME USED:



TECHNICIAN



Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 020200281.030543

Date: 6/9/97  
 Page 2 of 7  
 Project Manager: Eileen Brennan

Well ID: MW-1  
 Well Diameter: 2

DTW Measurements:  
 Initial: 11.25 Calc Well Volume: 1.7 gal  
 Recharge: 12.05 Well Volume: X3 5.1 gal  
 DTB: 21.72

Purge Method: Peristaltic \_\_\_\_\_ Gear Drive \_\_\_\_\_ Submersible X  
 Pump Depth \_\_\_\_\_ ft. Hand Bailed \_\_\_\_\_ Air Lift \_\_\_\_\_ Other \_\_\_\_\_  
 Instruments Used: YSI: X Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_ Omega: \_\_\_\_\_

Time	Temp <u>X</u> C F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
11:15	22.8	0.42	6.26	1	↓ cloudy	
11:16	22.2	0.42	6.14	2		
11:17	22.0	0.41	6.15	3		
11:18	21.9	0.42	6.16	4		
11:19	21.8	0.41	6.17	5		

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 020200281.030543

Date: 6/9/97  
 Page 1 of 7  
 Project Manager: Eileen Brennan

Well ID: MW-9  
 Well Diameter: 2

DTW Measurements:  
 Initial: 11.91 Calc Well Volume: 1.13 gal  
 Recharge: 12.00 Well Volume: X3 4.1 gal  
 DTB: 20.30

Purge Method \_\_\_\_\_ Pump Depth \_\_\_\_\_ ft.  
 Peristaltic \_\_\_\_\_ Hand Bailed \_\_\_\_\_  
 Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
 Submersible \_\_\_\_\_ Other \_\_\_\_\_

Instruments Used  
 YSI: X \_\_\_\_\_ Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

Time	Temp <u>X</u> C ____ F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
11:32	22.7	0.46	6.28	1	cloudy	
11:33	22.1	0.45	6.35	2	↓	
11:34	21.0	0.46	6.39	3		
11:35	20.9	0.46	6.41	4		

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 020200281.030543

Date: 6/9/97  
 Page 3 of 7  
 Project Manager: Eileen Brennan

Well ID: MW-8  
 Well Diameter: 2

DTW Measurements:  
 Initial: 12.36 Calc Well Volume: 1.5 gal  
 Recharge: 12.42 Well Volume: X 3 4.7 gal  
 DTB: 22.14

Purge Method: Peristaltic \_\_\_\_\_ Gear Drive \_\_\_\_\_ Submersible \_\_\_\_\_  
 Pump Depth \_\_\_\_\_ ft. Hand Bailed  Air Lift \_\_\_\_\_ Other \_\_\_\_\_  
 Instruments Used: YSI:  Hydac: \_\_\_\_\_ Omega: \_\_\_\_\_ Other: \_\_\_\_\_

Time	Temp <u>X</u> C <u>F</u>	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
11:48	21.5	0.44	6.43	1	cloudy	
11:49	21.6	0.46	6.36	2	↓	
11:50	21.6	0.45	6.37	3		
11:51	21.7	0.46	6.39	4		
11:52	21.6	0.47	6.37	5		✓



Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 020200281.030543

Date: 6/9/97  
 Page 5 of 7  
 Project Manager: Eileen Brennan

Well ID: MW-4  
 Well Diameter: 2

DTW Measurements:  
 Initial: 11.70 Calc Well Volume: 1.8 gal  
 Recharge: 11.80 Well Volume: 3.55 gal  
 DTB: 22.97

Purge Method \_\_\_\_\_ Pump Depth \_\_\_\_\_ ft.  
 Peristaltic \_\_\_\_\_ Hand Bailed \_\_\_\_\_  
 Gear Drive \_\_\_\_\_ Air Lift \_\_\_\_\_  
 Submersible  Other \_\_\_\_\_

Instruments Used  
 YSI:  \_\_\_\_\_ Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

Time	Temp <u>X</u> C F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
12:20	22.0	0.40	6.37	1	cloudy	
12:21	22.1	0.44	6.38	2	↓	
12:22	22.0	0.44	6.39	3		
12:23	22.0	0.44	6.40	4		
12:24	22.0	0.44	6.42	5		



Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 020200281.030543

Date: 6/9/97  
 Page 7 of 7  
 Project Manager: Eileen Brennan

Well ID: EW-1  
 Well Diameter: 4

DTW Measurements:  
 Initial: 12.46 Calc Well Volume: 6.4 gal  
 Recharge: 12.48 Well Volume: x3 19.2 gal  
 DTB: 22.30

Purge Method  
 Peristaltic \_\_\_\_\_  
 Gear Drive \_\_\_\_\_  
 Submersible X  
 Pump Depth \_\_\_\_\_ ft.  
 Hand Bailed \_\_\_\_\_  
 Air Lift \_\_\_\_\_  
 Other \_\_\_\_\_

Instruments Used  
 YSI: X \_\_\_\_\_ Other: \_\_\_\_\_  
 Hydac: \_\_\_\_\_  
 Omega: \_\_\_\_\_

Time	Temp <u>X</u> C F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
12:36	20.5	0.49	6.48	5	cloudy	
12:38	20.6	0.50	6.55	10		
12:40	20.6	0.50	6.58	15		
12:43	20.6	0.50	6.59	20	↓	

## SEARS DRUM INVENTORY FORM

Page 1 of 3

Completion Date: 6/9/97Sears Store Number 1058 City/State OAKLAND CA.

Accumulation Start Date \_\_\_\_\_

FDGTI Representative HECTOR MERINODrum Storage Location NEXT TO WOOD FENCE, ACROSS FROM MW1

CONTENTS	# OF DRUMS	*DRUM ID (A,B,C...)	LID TYPE: (OPEN OR BUNG)	**LABEL TYPE: HAZARD NON-HAZ UNCLASS	DRUM DESCRIPTION: COLOR CONDITION MARKINGS
FLUIDS					
WASHWATER RINSATE (GAS)	1	A	OPEN	NONHAZ	WHITE LID / 2000 Black Drum Condition
WASHWATER RINSATE (OIL)					
MOTOR OIL/WATER MIXTURES					
MOTOR OIL					
USED OIL/WATER MIXTURES					
USED OIL					
HEATING OIL/DIESEL FUEL AND WATER MIXTURES					
HEATING OIL/DIESEL FUEL					
GASOLINE/WATER MIXTURES					
GASOLINE					
HYDRAULIC OIL/WATER MIXTURES					
HYDRAULIC OIL					
SLUDGES					
MOTOR OIL SLUDGE/TANK BOTTOMS					
USED OIL SLUDGE/TANK BOTTOMS					
HEATING OIL/DIESEL FUEL SLUDGE/TANK BOTTOMS					
GASOLINE SLUDGE/TANK BOTTOMS					
HYDRAULIC OIL SLUDGE/TANK BOTTOMS					
OTHER—if soil, complete Page 2 of 3					
DESCRIPTION (NO SORBENT PADS or PPE IN DRUMS):					

**\*EACH DRUM MUST HAVE A UNIQUE LETTER SPRAY-PAINTED ON THE BODY OF THE DRUM. Letter must be at least 10 inches tall. No two drums can have same letter at the same time.**

**\*\*All labels should be "Unclassified" unless specifically directed otherwise by Project Manager.**

**COMPLETE PAGE 3 OF 3 WHEN EVER DRUMS ARE PRESENT OR GENERATED.**



SEARS SOIL INVENTORY FORM

Completion Date: 6/9/97

Store Number 1058 City/State OAKLAND CA

Accumulation Start Date \_\_\_\_\_

FDGTI Representative HECTOR MERINO

Soil Storage Location \_\_\_\_\_

SOIL CONTAMINANTS	# OF DRUMS*	CUBIC YARDS	DIMENSIONS OF PILE
VIRGIN PETROLEUM OIL (motor, heating, diesel)	0		
HYDRAULIC OIL	↓		
USED OIL	↓		
GASOLINE	↓		

\* IF DRUMS ARE GENERATED, COMPLETE PAGE 3 OF 3

# SEARS DRUM INVENTORY FORM

Completion Date: 6/9/97

Store Number 1058 City/State OAKLAND CA

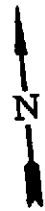
FDGTI Representative HECTOR MERINO

THERE SHOULD NEVER BE 2 DRUMS WITH THE SAME DRUM ID PRESENT AT A SEARS STORE AT THE SAME TIME

DRUM ID	ACCUMULATION START DATE	CONTENTS (as on label) VOLUME (if mixed waste)	SOURCE (be specific)	SLUDGE PRESENT Y/N	VOLUME (gallon)
A	6/9/97	PURGE H <sub>2</sub> O	WELL WATER	N	55 gallons
B					
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					
N					
O					
P					
Q					
R					
S					
T					
U					
V					
W					
X					
Y					
Z					

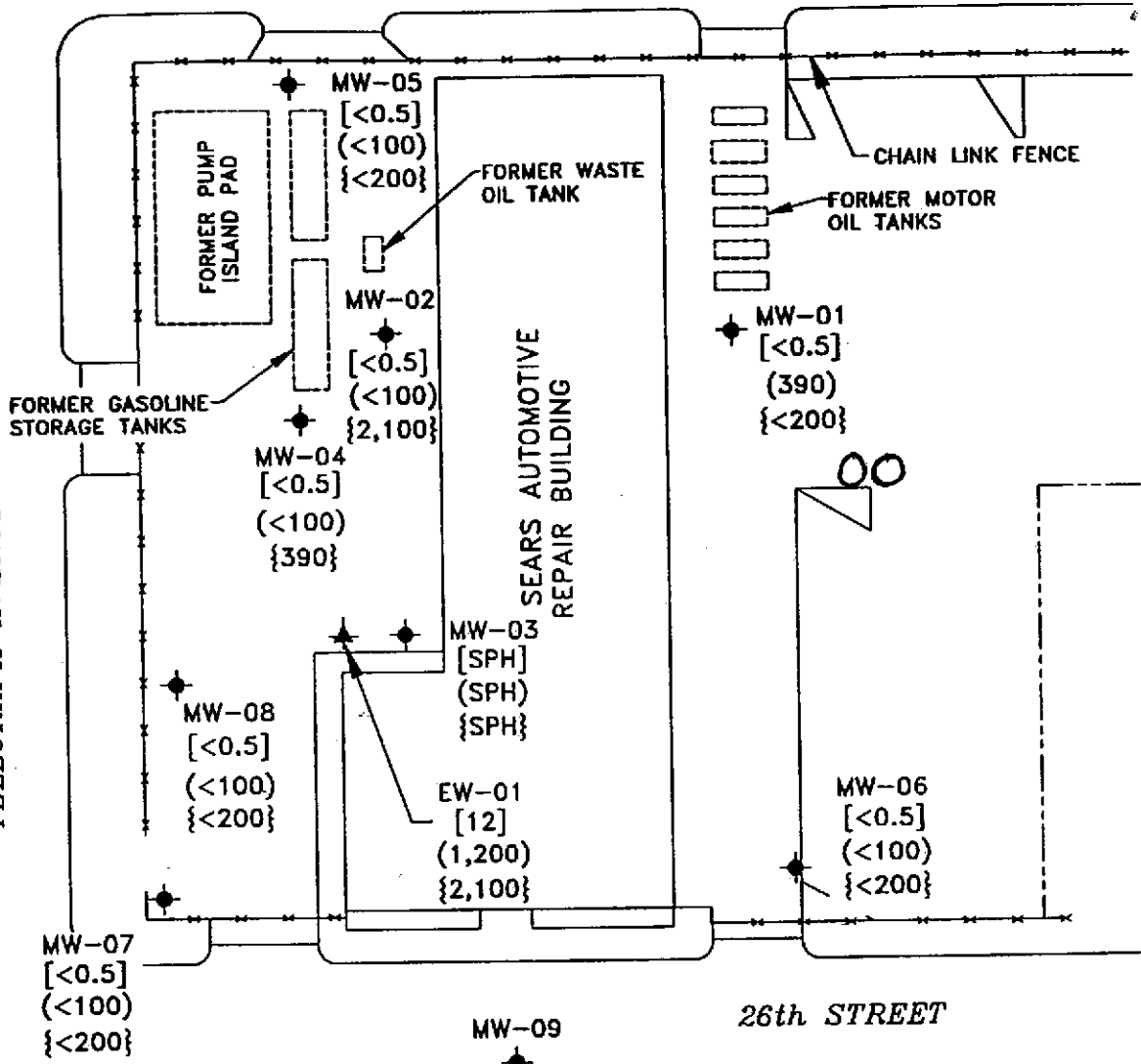
**EXAMPLE**

A	5/19/97	well purge water	MW-1 thru MW-5	no	50
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27th STREET

TELEGRAPH AVENUE



**LEGEND**

- ◆ MONITORING WELL
- ▲ EXTRACTION WELL
- SPH SEPARATE-PHASE HYDROCARBONS
- NS NOT SAMPLED
- [ ] BENZENE CONCENTRATIONS [ug/l]
- ( ) TPH-AS-GASOLINE (ug/l)
- { } TPH-AS-MOTOR OIL {ug/l}



**CONCENTRATIONS OF BENZENE, TPH-AS GASOLINE & TPH-AS-MOTOR OIL IN GROUNDWATER (2/26/97)**

CLIENT: SEARS, ROEBUCK AND CO. SITE NO. 1058	FILE: BEN996	PROJECT NO.: 020200282	PM	PE/RG
	REV.	FIGURE: 2		
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	DES. SS	DET. SS	DATE: 3/28/97	



**ATTACHMENT 4**

**Laboratory Reports and Chain-of-Custody Record**



**Midwest Region**

4211 May Avenue  
Wichita, KS 67209  
(316) 945-2624  
(800) 633-7936  
(316) 945-0506 (FAX)

June 18, 1997

Eileen Brennan  
FLUOR DANIEL GTI  
757 Arnold Dr  
Suite D  
Martinez, CA 94553

---

RE: NEI/GTEL Client ID:	020200281	<i>Sys 1058 Oakland CA</i>
Login Number:	W7060124	
Project ID (number):	020200281	
Project ID (name):	SEARS/2633 TELEGRAPH AVE/MARTINEZ/CA	

---

Dear Eileen Brennan:

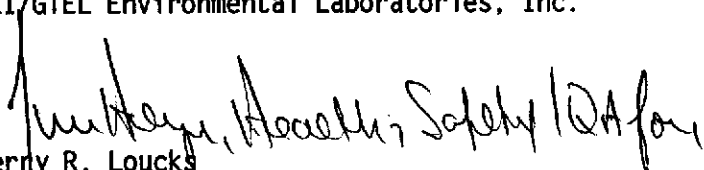
Enclosed please find the analytical results for the samples received by NEI/GTEL Environmental Laboratories, Inc. on 06/11/97 under Chain-of-Custody Number(s) 51669.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by NEI/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. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 2147.

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

Sincerely,  
NEI/GTEL Environmental Laboratories, Inc.

  
Terry R. Loucks  
Laboratory Director

ANALYTICAL RESULTS  
Volatile Organics

NEI/GTEL Client ID: 020200281  
 Login Number: W7060124  
 Project ID (number): 020200281  
 Project ID (name): SEARS/2633 TELEGRAPH AVE/MARTINEZ/CA

Method: EPA 8020A  
 Matrix: Aqueous

NEI/GTEL Sample Number	W7060124-01	W7060124-02	W7060124-03	W7060124-04
Client ID	MW-9	MW-1	MW-8	MW-2
Date Sampled	06/09/97	06/09/97	06/09/97	06/09/97
Date Analyzed	06/18/97	06/18/97	06/18/97	06/18/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
MTBE	10	ug/L	< 10	< 10	< 10	< 10
Benzene	0.5	ug/L	0.8	< 0.5	< 0.5	< 0.5
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	2.0	ug/L	< 2.0	2.3	< 2.0	< 2.0
TPH as Gas	100	ug/L	130	340	110	< 100

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**EPA 8020A:**

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS  
Volatile Organics

NEI/GTEL Client ID: 020200281  
 Login Number: W7060124  
 Project ID (number): 020200281  
 Project ID (name): SEARS/2633 TELEGRAPH AVE/MARTINEZ/CA

Method: EPA 8020A  
 Matrix: Aqueous

NEI/GTEL Sample Number	W7060124-05	W7060124-06	W7060124-07	W7060124-08
Client ID	MW-4	EW-1	TBLB	DUPMW4
Date Sampled	06/09/97	06/09/97		06/09/97
Date Analyzed	06/18/97	06/18/97	06/17/97	06/17/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
MTBE	10.	ug/L	< 10.	13.	--	--
Benzene	0.5	ug/L	< 0.5	8.3	< 0.5	< 0.5
Toluene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	< 1.0	< 1.0
Xylenes (total)	2.0	ug/L	< 2.0	< 2.0	< 2.0	< 2.0
TPH as Gas	100	ug/L	< 100	1400	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.



ANALYTICAL RESULTS  
Total Petroleum Hydrocarbons By GC

NEI/GTEL Client ID: 020200281  
 Login Number: W7060124  
 Project ID (number): 020200281  
 Project ID (name): SEARS/2633 TELEGRAPH AVE/MARTINEZ/CA

Method: GC  
 Matrix: Aqueous

NEI/GTEL Sample Number	W7060124-01	W7060124-02	W7060124-03	W7060124-04
Client ID	MW-9	MW-1	MW-8	MW-2
Date Sampled	06/09/97	06/09/97	06/09/97	06/09/97
Date Prepared	06/12/97	06/12/97	06/12/97	06/12/97
Date Analyzed	06/14/97	06/14/97	06/14/97	06/14/97
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting		Concentration:			
	Limit	Units				
TPH as Lubricating Oil	200	ug/L	350	< 200	< 200	2400

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**GC:**

Extraction by EPA Method 3510 (liquid/liquid). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Lubricating oil can not be qualitatively identified by type of oil because of chromatographic likeness of different oil types. Due to non-volatility of certain oils, much of the oil present may not be quantified by this method. Quantitation obtained for lubricating oil by this method should, therefore, be treated as an estimate. This method quantifies lubricating oil against 10-W-30 standards.

ANALYTICAL RESULTS  
Total Petroleum Hydrocarbons By GC

NEI/GTEL Client ID: 020200281  
 Login Number: W7060124  
 Project ID (number): 020200281  
 Project ID (name): SEARS/2633 TELEGRAPH AVE/MARTINEZ/CA

Method: GC  
 Matrix: Aqueous

NEI/GTEL Sample Number	W7060124-05	W7060124-06	--	--
Client ID	MW-4	EW-1	--	--
Date Sampled	06/09/97	06/09/97	--	--
Date Prepared	06/12/97	06/12/97		
Date Analyzed	06/14/97	06/14/97	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting		Concentration:		
	Limit	Units			
TPH as Lubricating Oil	200	ug/L	630	12000	--

Notes:

**Dilution Factor:**

Dilution factor indicates the adjustments made for sample dilution.

**GC:**

Extraction by EPA Method 3510 (liquid/liquid). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. Lubricating oil can not be qualitatively identified by type of oil because of chromatographic likeness of different oil types. Due to non-volatility of certain oils, much of the oil present may not be quantified by this method. Quantitation obtained for lubricating oil by this method should, therefore, be treated as an estimate. This method quantifies lubricating oil against 10-W-30 standards.

