



FLUOR DANIEL GTI

R0480

ENVIRONMENTAL  
PROTECTION  
98 OCT 15 AM 10:05

October 15, 1998

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

Subject: Third Quarter 1998, Groundwater Monitoring and Sampling Report  
Former Sears 1058; 2633 Telegraph Avenue, Oakland, California  
Fluor Daniel GTI Project 103232

Dear Mr. Klettke:

On behalf of Sears, Roebuck and Co., Fluor Daniel GTI, Inc., presents the quarterly groundwater monitoring data collected on May 20, 1998, from the above referenced site. The ten groundwater monitoring wells were gauged to determine depth to groundwater and to check for the presence of separate-phase petroleum hydrocarbons. Separate-phase hydrocarbons were present in monitoring well MW-3. A potentiometric surface map is provided in Attachment 1, Figure 1. A historical summary of groundwater monitoring data is provided in Attachment 2, Table 1.

After measuring depth to water, six of the seven scheduled monitoring wells were purged and sampled. Because separate-phase hydrocarbons were detected in well MW-3, this well was not sampled. Groundwater monitoring and sample collection protocol and field data sheets are provided in Attachment 3. The groundwater samples were analyzed for benzene, toluene, ethyl-benzene, xylenes (BTEX), methyl tert-butyl ether (MTBE) and total petroleum hydrocarbons as gasoline (TPH-g) using EPA Methods 8020/modified 8015, and TPH as motor oil (TPH-MO) using modified EPA Method 8015 (GC/FID).

Static groundwater elevations for the third quarter 1998, ranged from 13.11 to 16.31 feet above mean sea level. Groundwater elevations have decreased by 0.5 foot since second quarter 1998 (May 20, 1998). The apparent groundwater flow is to the south at an average hydraulic gradient of 0.02 ft/ft, and is consistent with previous quarterly data.

Results of quarterly sampling indicated detectable concentrations of BTEX compounds in monitoring wells MW-9 and EW-1. None of the monitoring wells contained detectable concentrations of MTBE except for monitoring well EW-1. Monitoring wells MW-1, MW-8, MW-9 and EW-1 contained detectable concentrations of TPH-g. Monitoring wells MW-2 and EW-1 contained detectable concentrations of TPH-MO. A 0.18-foot-thick layer of separate-phase hydrocarbons was measured in

1058QH98 WPD



monitoring well MW-3, which is an increase from past measurements. A summary of the groundwater analytical results is provided in Attachment 2, Table 2. A distribution map of dissolved benzene, TPH-g, TPH-MO, & MTBE concentrations is provided in Attachment 1, Figure 2. Hydrograph and detectable concentration versus time data are illustrated in graphs 1 through 10 (Attachment 4). Hydrocarbon concentrations below detection limits are not shown on the graphs. Laboratory reports and chain-of-custody documents are provided in Attachment 5.

Fluor Daniel GTI will review this site for applicable remediation methods to address the dissolved-phase plume. Upon completion of a file review, a feasibility study report will be prepared and submitted to Alameda County Health Care Services Agency for approval.

If you have any comments or questions, please contact me at (925) 370-3990 extension 266.

Sincerely,  
Fluor Daniel GTI, Inc.



Melissa Gossell  
West Zone Project Manager

Attachments:

- 1) Figures
- 2) Tables
- 3) Groundwater Monitoring and Sample Collection Protocol and Field Data Sheets
- 4) Graphs
- 5) Laboratory Reports and Chain-of-Custody Documents

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

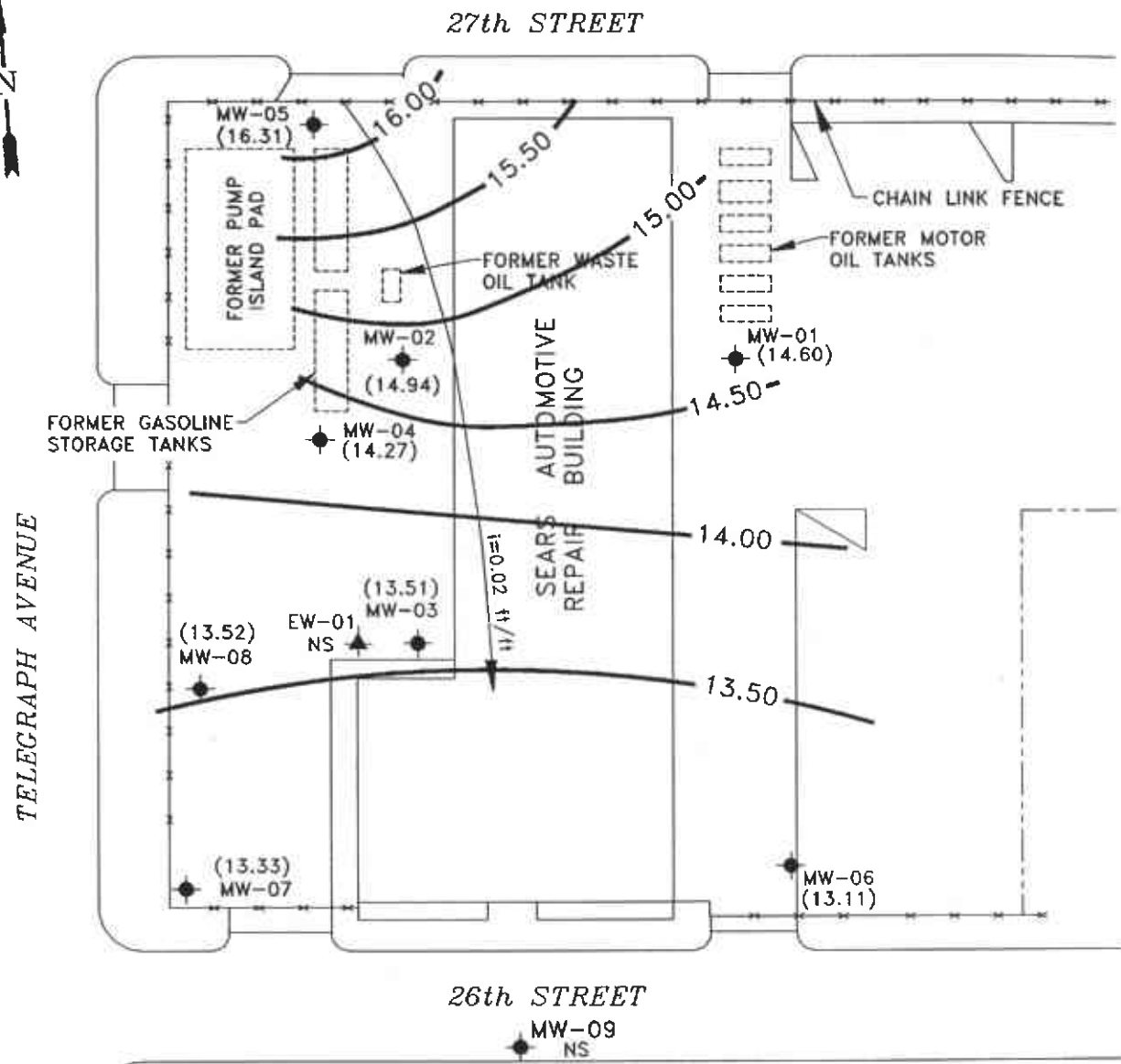
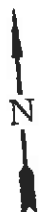


**Attachment 1**

**Figures**

1. Potentiometric Surface Map Gauged 8/11/98
2. Concentrations of Benzene, TPH-as-Gasoline, TPH-as-Motor Oil, & MTBE in Groundwater (Sampled 8/11/98)





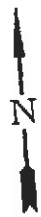
**LEGEND**

- MONITORING WELL
  - EXTRACTION WELL
  - POTENTIOMETRIC SURFACE ELEVATION (FEET ABOVE MEAN SEA LEVEL)
  - NOT SURVEYED
  - POTENTIOMETRIC SURFACE CONTOUR; INTERVAL = 0.5 ft
  - GROUNDWATER FLOW DIRECTION AND AVERAGE GRADIENT (ft/ft)
- $i=0.02$



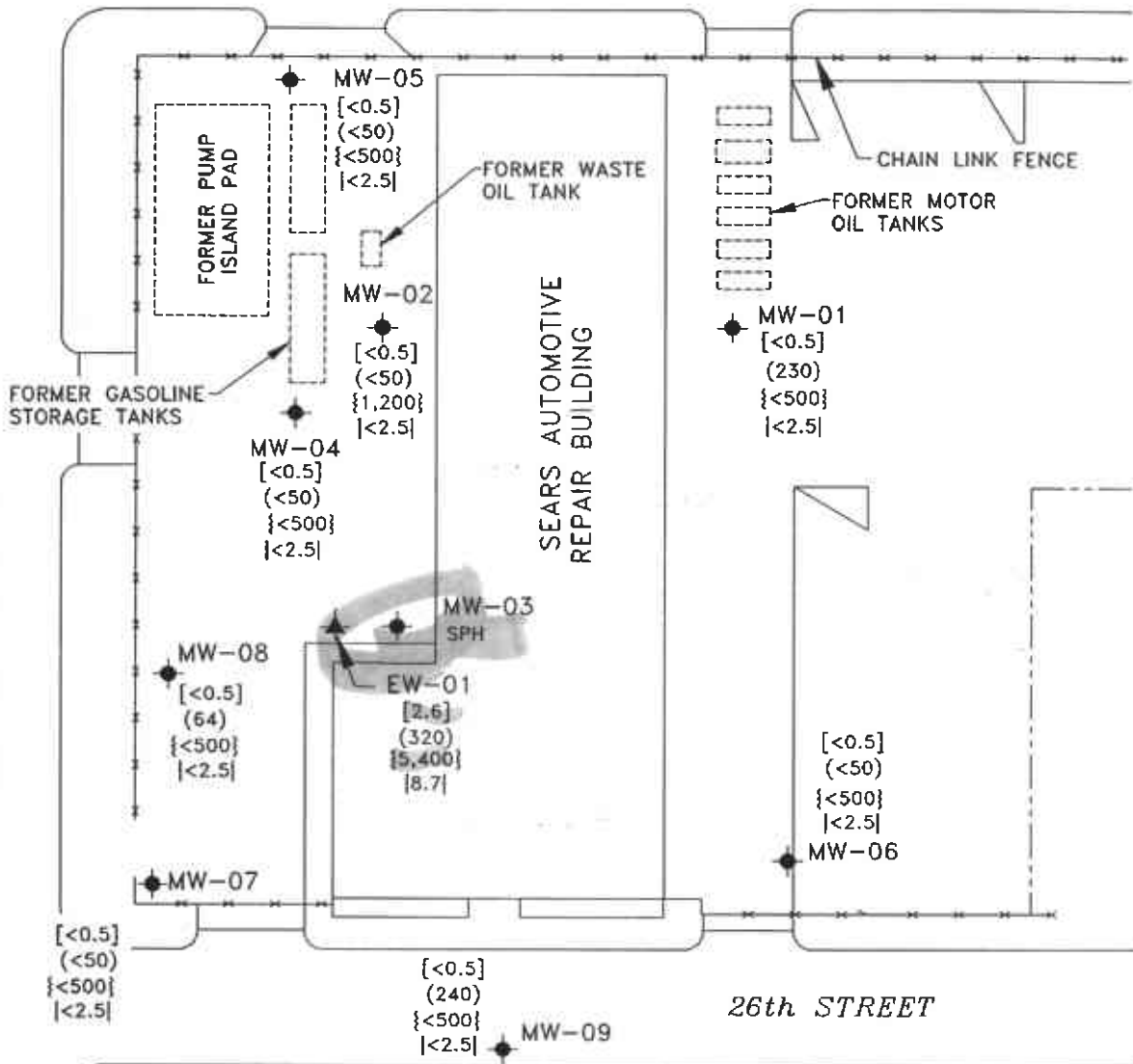
**POTENTIOMETRIC SURFACE MAP  
GAUGED 8/11/98**

CLIENT: SEARS, ROEBUCK AND CO. SITE NO. 1058	FILE: PSM81198 (1:40)	PROJECT NO.: 103232	PM	PE/RG
	REV.		FIGURE: <b>1</b>	
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	DES. BP	DET. VR	DATE: 8/20/98	



27th STREET

TELEGRAPH AVENUE



26th STREET

**LEGEND**

- ◆ MONITORING WELL
- ▲ EXTRACTION WELL
- [ ] BENZENE CONCENTRATIONS [ug/l]
- ( ) TPH-AS-GASOLINE (ug/l)
- { } TPH-AS-MOTOR OIL {ug/l}
- | | METHYL TERT-BUTYL ETHER (MTBE) [ug/l]
- SPH SEPARATE-PHASE HYDROCARBONS

**FLUOR DANIEL GTI**



**CONCENTRATIONS OF BENZENE, TPH-AS GASOLINE, TPH-AS-MOTOR OIL & MTBE IN GROUNDWATER SAMPLED (8/11/98)**

CLIENT: SEARS, ROEBUCK AND CO. SITE NO. 1058	FILE: BEN81198	PROJECT NO.: 103232	PM	PE/RG
	REV.		FIGURE:	
LOCATION: 2633 TELEGRAPH AVENUE OAKLAND, CALIFORNIA	DES. BP	DET. ML	DATE: 9/9/98	<b>2</b>

**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		
08/25/97	11.15	--	--	15.05		
11/28/97	10.07	--	--	16.13		
02/12/98	8.70	--	--	17.50		
05/20/98	10.89	--	--	15.31		
08/11/98	11.60	--	--	14.60		



**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		
08/25/97	11.05	--	--	15.45		
11/28/97	10.59	--	--	15.91		
02/12/98	10.04	--	--	16.46		
05/20/98	10.84	--	--	15.66		
08/11/98	11.56	--	--	14.94		





**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	12.84	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	0.04	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		
08/25/97	12.28	12.25	0.03	14.04		
11/28/97	12.13	12.10	0.03	14.24		
02/12/98	11.85	11.82	0.03	14.51		
05/20/98	12.51	12.48	0.03	13.85		
08/11/98	12.97	12.79	0.18	13.51		

\* 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		
08/25/97	11.63	—	—	14.54		
11/28/97	11.27	—	—	14.90		
02/12/98	11.00	—	—	15.17		
05/20/98	11.62	—	—	14.55		
08/11/98	11.90	—	—	14.27		

**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	--	--	14.93
		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		
08/25/97	10.69	--	--	16.29		
11/28/97	10.15	--	--	16.83		
02/12/98	9.55	--	--	17.43		
05/20/98	10.29	--	--	16.69		
08/11/98	10.67	--	--	16.31		



**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
08/25/97	10.84	--	--	13.48		
11/28/97	10.07	--	--	14.25		
02/12/98	9.39	--	--	14.93		
05/20/98	10.85	--	--	13.47		
08/11/98	11.21	--	--	13.11		



**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	--	--	14.53
		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	--	--	13.56
		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		
08/25/97	11.25	--	--	13.63		
11/28/97	10.69	--	--	14.19		
02/12/98	10.11	--	--	14.77		
05/20/98	11.20	--	--	13.68		
08/11/98	11.55	--	--	13.33		



**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	12.26	--	--	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		
08/25/97	12.25	--	--	13.87		
11/28/97	11.70	--	--	14.42		
02/12/98	11.34	--	--	14.78		
05/20/98	12.21	--	--	13.91		
08/11/98	12.60	--	--	13.52		
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
		08/25/97	11.80	--	--	N/A
		11/28/97	11.15	--	--	N/A
		02/12/98	10.63	--	--	N/A
		05/20/98	11.73	--	--	N/A
		08/11/98	12.15	--	--	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
		08/25/97	12.35	--	--	N/A
		11/28/97	12.12	--	--	N/A
		02/12/98	11.83	--	--	N/A
		05/20/98	12.51	--	--	N/A
		08/11/98	12.85	--	--	N/A

Notes: "--" indicates no datum for the cell, including "product not detected"  
 NM = Not monitored  
 N/A = Not Available

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**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	0.32	10	-	-	1	-	-
	06/21/93	<0.3	1	<0.3	6	-	**<100	-	-	-
	09/16/93	<0.3	0.7	2	7	-	**<100	-	-	-
	12/01/93	0.4	1	-	7	-	-	-	-	-
	12/30/93	-	-	1	-	-	-	<100	-	-
	03/09/94	<0.3	<0.3	2.4	4.2	-	-	<100	-	-
	06/30/94	0.6	0.7	1.4	15	-	-	<100	-	-
	09/27/94	0.9	0.5	<0.3	10	-	-	<sup>g</sup> <250	-	-
	12/01/94	0.4	0.4	<0.3	6.6	-	-	<sup>g</sup> <250	-	-
	03/08/95	<0.3	0.6	4.7	2.7	-	-	<sup>g</sup> <250	-	-
	06/09/95	<0.3	1.4	3.9	5.6	-	-	<sup>g</sup> <250	-	-
	08/29/95	0.3	0.9	<0.5	2.8	-	-	<sup>g</sup> <250	-	-
	11/15/95	<0.5	<0.5	<1.0	27	-	-	<sup>g</sup> <200	-	-
	03/05/96	<0.5	<1.0	<1.0	<2.0	-	-	<sup>g</sup> <200	-	-
	06/03/96	<0.5	<1.0	3.7	3.4	340	-	<sup>g</sup> <200	-	-
	09/04/96	<0.5	<1.0	<1.0	<2.0	390	-	310	-	-
	12/02/96	<0.5	<1.0	<1.0	2.7	400	-	<sup>g</sup> <200	-	-
	02/26/97	<0.5	<1.0	<1.0	4.5	390	-	<sup>g</sup> <200	-	-
	06/09/97	<0.5	<1.0	<0.5	2.3	340	-	<200	-	<10
08/25/97	<0.5	<0.5	<0.5	3	220	-	<200	-	<5	
11/28/97	<0.5	<0.5	<0.5	3	340	-	<200	-	6	
02/12/98	<0.5	<0.5	<0.5	<2.0	280	-	<200	-	<5	
05/20/98	<0.5	<0.5	0.8	3	340	-	<200	-	<5	
08/11/98	<0.5	<0.5	<0.5	<0.5	<0.5	230	<500	-	<2.5	
MW-2	12/30/92	0.7	<0.3	<0.3	3	190	-	1	<sup>g</sup> ND	-
	03/24/93	0.6	<0.3	<0.3	2	120	-	<1	<sup>g</sup> ND	-
	06/21/93	0.3	<0.3	<0.3	0.7	82	**<100	-	<sup>g</sup> ND	-
	09/16/93	<0.3	<0.3	<0.3	<0.5	28	**<100	-	<sup>g</sup> ND	-
	12/01/93	<0.3	<0.3	<0.3	1	68	-	-	<sup>g</sup> 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	<sup>g</sup> <250	-	<sup>g</sup> 15	-
	12/01/94	<0.3	<0.3	<0.3	<0.5	54	<sup>f</sup> 1,300	-	<sup>g</sup> 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	-	<sup>h</sup> 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
08/25/97	<0.5	<0.5	<0.5	<2.0	<50	<200	-	-	<5	
11/28/97	0.6	<0.5	<0.5	<2.0	<50	1,900	-	-	<5	
02/12/98	<0.5	<0.5	<0.5	<2.0	<50	1,600	-	-	<5	
05/20/98	<0.5	<0.5	<0.5	<2.0	<50	3,100	-	-	<5	
08/11/98	<0.5	<0.5	<0.5	<0.5	<0.5	<50	1,200	-	<2.5	

**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	aND	--
	03/24/93	28	0.7	1	8	3,300	SPH	28	*A15	--
	06/21/93	21	5	2	19	**2,600	32,000	26	cd5	--
	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
	08/25/97	5	6	5	16	5,600	110,000	--	--	<30
11/28/97	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
02/12/98	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
05/20/98	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	SPH	
08/11/98	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	*A7	--
	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	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	--	*A5	--
	03/08/95	<0.3	<0.3	<0.3	<0.5	360	1,000	--	*A5	--
	06/09/95	<0.3	0.4	<0.3	<0.5	64	1,100	--	*A5	--
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	1,200	--	*A5	--
	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	--
	06/04/96	<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
	08/25/97	<0.5	<0.5	<0.5	<2.0	<50	<200	--	--	A5
11/28/97	3.6	3.9	3.7	12	120	<200	--	--	A5	
02/12/98	<0.5	<0.5	<0.5	<2.0	<50	<200	--	--	A5	
05/20/98	<0.5	<0.5	<0.5	<2.0	<50	300	--	--	A5	
08/11/98	<0.5	<0.5	<0.5	<0.5	<50	<500	--	--	<2.5	





**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> c5	—
	03/24/93	<0.3	<0.3	<0.3	0.5	19	—	2	<sup>c</sup> 341	—
	06/21/93	<0.3	<0.3	<0.3	<0.5	<10	<100	—	<sup>c</sup> ND	—
	09/16/93	0.3	<0.3	<0.3	1	<10	<100	—	<sup>c</sup> ND	—
	12/01/93	<0.3	<0.3	<0.3	1	17	—	—	<sup>c</sup> ND	—
	12/30/93	—	—	—	—	—	<100	—	—	—
	03/09/94	<0.3	<0.3	<0.3	<0.5	22	<100	—	<sup>c</sup> 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>d</sup> 7	—
	08/29/95	<0.3	<0.3	<0.3	<0.5	<50	<250	—	<sup>h</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	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	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
	08/25/97	>0.5	<0.5	<0.5	<2.0	<50	<200	—	—	<5
	11/28/97	NS	NS	NS	NS	NS	NS	NS	NS	NS
	02/12/98	<0.5	<0.5	<0.5	<0.5	<50	<200	Y	—	<5
05/20/98	NS	NS	NS	NS	NS	NS	NS	NS	NS	
08/11/98	<0.5	<0.5	<0.5	<0.5	<50	<500	—	—	<2.5	
MW-6	12/27/93	<0.3	<0.3	<0.3	<0.5	<10	<100	<1	<sup>e</sup> 70	—
	03/09/94	<0.3	<0.3	<0.3	<0.5	15	<100	—	<sup>c</sup> ND	—
	06/30/94	<0.3	<0.3	<0.3	<0.5	<10	<100	—	<sup>h</sup> D	—
	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>h</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	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	NS
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	<200	NS	NS	NS
	06/09/97	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/25/97	<0.5	1.1	<0.5	<2.0	<50	<200	—	—	<5
	11/28/97	NS	NS	NS	NS	NS	NS	NS	NS	NS
02/12/98	<0.5	<0.5	<0.5	<2.0	<50	<200	—	—	<5	
05/20/98	NS	NS	NS	NS	NS	NS	NS	NS	NS	
08/11/98	<0.5	<0.5	<0.5	<0.5	<50	<500	—	—	<2.5	



**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-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	-	<sup>c</sup> 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>b</sup> <250	-	ND	-
	12/01/94	<0.3	<0.3	<0.3	1.1	<10	<sup>b</sup> <250	-	<sup>b</sup> 28	-
	03/08/95	<0.3	<0.3	<0.3	<0.5	<10	<sup>b</sup> <250	-	ND	-
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	<250	-	ND	-
	09/29/95	<0.3	<0.3	<0.3	<0.5	<50	<250	-	<sup>b</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	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	NS
	02/26/97	<0.5	<1.0	<1.0	<2.0	<100	<200	NS	NS	NS
	06/09/97	NS	NS	NS	NS	NS	NS	NS	NS	NS
	08/25/97	<0.5	<0.5	<0.5	<2.0	<50	<200	-	-	<5
	11/28/97	NS	NS	NS	NS	NS	NS	NS	NS	NS
02/12/98	<0.5	<0.5	<0.5	<2.0	<50	<200	-	-	<5	
05/20/98	NS	NS	NS	NS	NS	NS	NS	NS	NS	
08/11/98	<0.5	<0.5	<0.5	<0.5	<50	<500	-	-	<2.5	
MW-8	12/27/93	0.4	4	0.4	1	390	<100	<1	<sup>a</sup> 18	-
	03/09/94	0.6	0.8	0.5	1.5	420	<100	-	<sup>a</sup> 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	<sup>b</sup> <250	-	<sup>b</sup> 9	-
	12/01/94	5.4	<0.3	0.7	1.3	230	<sup>b</sup> <250	-	<sup>c</sup> ND	-
	03/08/95	<0.3	<0.3	<0.3	<0.5	230	<sup>b</sup> <250	-	ND	-
	06/09/95	<0.3	<0.3	<0.3	<0.5	<50	<sup>b</sup> <250	-	ND	-
	08/29/95	0.9	0.4	<0.3	0.8	200	<sup>b</sup> <250	-	<sup>b</sup> 15	-
	11/15/95	0.58	<0.5	<0.5	0.54	120	-	-	<sup>b</sup> 21	-
	12/11/95	-	-	-	-	-	<sup>b</sup> <200	-	-	-
	03/05/96	0.6	<1.0	<1.0	<2.0	<100	<sup>b</sup> <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
	08/25/97	<0.5	<0.5	<0.5	<2.0	70	<200	-	-	<5
11/28/97	<0.5	<0.5	<0.5	<2.0	110	<200	-	-	<5	
02/12/98	<0.5	<0.5	0.6	<2.0	70	<200	-	-	<5	
05/20/98	<0.5	<0.5	<0.5	<2.0	<50	<200	-	-	<5	
08/11/98	<0.5	<0.5	<0.5	<0.5	64	<500	-	-	<2.5	
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
	08/25/97	<0.5	0.8	<0.5	<2.0	110	<200	-	-	<5
	11/28/97	<0.5	0.5	0.9	<2.0	150	<200	-	-	<5
	02/12/98	<0.5	<0.5	<0.5	<2.0	60	<200	-	-	<5
	05/20/98	<0.5	<0.5	0.9	<2.0	130	<200	-	-	<5
08/11/98	<0.5	<0.5	<0.5	0.76	240	<500	-	-	<2.5	



**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
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	1,400	-	-	-
	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
	08/25/97	7.5	0.9	0.9	2	1,400	15,000	-	-	12
	11/28/97	4.5	1.1	1.1	4	560	5,700	-	-	5
	02/12/98	9.8	0.6	1.2	2	1,000	6,300	-	-	30
	05/20/98	7.2	<0.5	<0.5	<2.0	820	6,200	-	-	26
	08/11/98	2.6	<0.5	<0.5	0.86	320	5,400	-	-	8.7

Notes:

- = No datum for the cell, including "not analyzed for this constituent"
- < = 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 are 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**

1058QH98.WPD



### 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.

8/11/98

SITE VISIT FORM  
Fluor Daniel GTI - Martinez, California

Project: 103232.00

Technician: L. MERINO

Site: SEARS/#1058/Oakland, CA

Scheduled: 8/10/98

Project Mgr: Melissa Gossell

Site Mgr: B. Pierskalla

PREPARATORY COMMENTS

Visit Date: 8/11/98 Arrival Time: 9:30 Departure Time: 14:00

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 Tom Peacock 72 hrs in advance (510) 567-6782

DONE: message with Harry SPO 567-6714 8/6 @ 1:50pm gell

SITE ADDRESS: 2633 Telegraph Avenue, Oakland, CA

cc: Melissa Gossell, Brian Pierskalla

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)/AUG(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-4, MW-2, MW-9, MW-3 and the 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: 103232.00  
Site: SEARS/#1058/Oakland, CA  
Project Mgr: Melissa Gossell

Technician:  
Scheduled: 8/10/98  
Site Mgr: B. Pierskalla

TECHNICIAN'S COMMENTS

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Total Hours Estimated	6.00	Total Hours Used	
Travel Time Estimated	1.50	Travel Time Used	

\_\_\_\_\_  
Technician



**SITE VISIT FORM  
FLUOR DANIEL GTI**

Project: Sears/#1058/Oakland  
Store #: 1058/2633 Telegraph  
Project Manager: Melissa Gossell

Technician: J. MERTINO  
Schedule:  
Job No. 103232.030543

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

Visit Date: 8/11/98 Arrival Time: \_\_\_\_\_ Departure Time: \_\_\_\_\_

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

If you did not call, why not? \_\_\_\_\_

Weather: Rain Snow Sunny Cloudy Temperature: \_\_\_\_\_

Well ID

MW-1:	DTB_21.72	DTW <u>11.60</u>	SAT. THICK _____	#GAL. BAILED _____
MW-2:	DTB_21.79	DTW <u>11.56</u>	SAT. THICK _____	#GAL. BAILED _____
MW-3:	DTB_24.67	DTW <u>12.97</u>	<sup>DTP</sup> SAT. THICK <u>12.79</u>	#GAL. BAILED <u>0</u>
MW-4:	DTB_22.97	DTW <u>11.90</u>	SAT. THICK _____	#GAL. BAILED _____
MW-5:	DTB_25.27	DTW <u>10.67</u>	SAT. THICK _____	#GAL. BAILED _____
MW-6:	DTB_22.05	DTW <u>11.21</u>	SAT. THICK _____	#GAL. BAILED _____
MW-7:	DTB_21.70	DTW <u>11.55</u>	SAT. THICK _____	#GAL. BAILED _____
MW-8:	DTB_22.14	DTW <u>12.60</u>	SAT. THICK _____	#GAL. BAILED _____
MW-9:	DTB_20.30	DTW <u>12.15</u>	SAT. THICK _____	#GAL. BAILED _____
EW-1:	DTB_22.30	DTW <u>12.85</u>	SAT. THICK _____	#GAL. BAILED _____

NOTES: Secor installing vapor system across street  
at old Sears building North/West corner of  
TELEGRAPH & 27<sup>TH</sup> ST.

HOURS ESTIMATED:

HOURS USED:

FINAL CHECKS

Are Wells Locked? YES NO Why Not?

Are Manholes Bolted Down? YES NO Why Not?



DRUMMED MATERIAL INVENTORY FORM

Store Number 1058 Address/City/State/ZIP 2633 TELEGRAPH AVE OAKLAND

Sears Facility Contact and Phone # \_\_\_\_\_

Fluor Daniel GTI Representative HECTOR MEXICO

Accumulation Start Date 8/11/98 Completion Date: 8/11/98

Exact Drum Storage Location NEXT TO WOOD PENE BEHIND BUILDING

CONTENTS	# OF DRUMS	DRUM ID (A,B,C...) OR (1,2,3...)	LID TYPE (OPEN OR BUNG)	LABEL TYPE: HAZARDOUS, NON-HAZARDOUS, UNCLASSIFIED	DRUM DESCRIPTION: COLOR, CONDITION, MARKINGS
GASOLINE			O or B	H / N / U	
GASOLINE/WATER MIXTURE	<u>3</u>	<u>ABC</u>	<u>O or B</u>	<u>H / N / U</u>	<u>Black, with red top</u>
GASOLINE IMPACTED PURGE WATER			O or B	H / N / U	
GASOLINE TANK BOTTOMS/SLUDGE			O or B	H / N / U	
GASOLINE IMPACTED DEBRIS			O or B	H / N / U	
GASOLINE IMPACTED SOIL			O or B	H / N / U	
FUEL OIL (INC. DIESEL & HEATING OIL)			O or B	H / N / U	
FUEL OIL/WATER MIXTURE			O or B	H / N / U	
FUEL OIL IMPACTED PURGE WATER			O or B	H / N / U	
FUEL OIL TANKS BOTTOMS/SLUDGE			O or B	H / N / U	
FUEL OIL IMPACTED DEBRIS			O or B	H / N / U	
FUEL OIL IMPACTED SOIL			O or B	H / N / U	
HYDRAULIC FLUID			O or B	H / N / U	
HYDRAULIC FLUID/WATER MIXTURE			O or B	H / N / U	
HYDRAULIC FLUID IMPACTED PURGE WATER			O or B	H / N / U	
HYDRAULIC FLUID IMPACTED SLUDGE			O or B	H / N / U	
HYDRAULIC FLUID IMPACTED DEBRIS			O or B	H / N / U	
HYDRAULIC FLUID IMPACTED SOIL			O or B	H / N / U	
USED OIL			O or B	H / N / U	
USED OIL/WATER MIXTURE			O or B	H / N / U	
USED OIL IMPACTED PURGE WATER			O or B	H / N / U	
USED OIL TANK BOTTOMS/SLUDGE			O or B	H / N / U	
USED OIL IMPACTED DEBRIS			O or B	H / N / U	
USED OIL IMPACTED SOIL			O or B	H / N / U	
CHLORINATED SOLVENT:			O or B	H / N / U	
NON-CHLORINATED SOLVENT:			O or B	H / N / U	
OTHER:			O or B	H / N / U	
OTHER:			O or B	H / N / U	
OTHER:			O or B	H / N / U	

NOTE: There should NEVER be 2 drums with the same ID present at a site at the same time



**BULK MATERIAL INVENTORY FORM**

Store Number 1058 Address/City/State/ZIP OAKLAND CA

Sears Facility Contact and Phone # \_\_\_\_\_

Fluor Daniel GTI Representative HECTOR MENDOZA

Accumulation Start Date 8/11/91 Completion Date 8/11/92

Exact Bulk Storage Location \_\_\_\_\_

CONTAMINANTS	SOIL (Cu Yds)	DEBRIS (Cu Yds)	LIQUID (Gallons)
GASOLINE	0		
FUEL OIL			
HYDRAULIC FLUID			
USED OIL			
CHLORINATED SOLVENT:			
NON-CHLORINATED SOLVENT:			
OTHER:			
OTHER:			

**SOIL PILE CALCULATIONS**

Calculation for a tent shaped soil pile:

Length \_\_\_\_\_ X Width \_\_\_\_\_ X Height \_\_\_\_\_  $\div 2 \div 27 =$  \_\_\_\_\_ Yds<sup>3</sup>

Calculation for a rectangular or square shaped soil pile:

Length \_\_\_\_\_ X Width \_\_\_\_\_ X Height \_\_\_\_\_  $\div 27 =$  \_\_\_\_\_ Yds<sup>3</sup>

Calculation for a conical (cone) shaped soil pile:

.04 X Radius \_\_\_\_\_ X Radius \_\_\_\_\_ X Height \_\_\_\_\_ = \_\_\_\_\_ Yds<sup>3</sup>

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 103232.030543

Date: 8/11/98  
 Page 1 of 10  
 Project Manager: Melissa Gossell

Well ID: MW-5  
 Well Diameter: 2

DTW Measurements:  
 Initial: 10.67 Calc Well Volume: 2.3 gal  
 Recharge: \_\_\_\_\_ Well Volume: x3 7.1 gal  
 DTB: 25.27

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

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

Time	Temp <u>°C</u> _____ F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments	
10:30	22.9	0.34	6.36	2	cloudy		
10:31	22.7	0.41	6.38	3	↓		
10:32	22.8	0.42	6.37	4			
10:33	22.9	0.43	6.38	5			
10:34	22.9	0.43	6.39	6			
10:36	22.8	0.43	6.41	7			

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 103232.030543

Date: 8/11/98  
 Page 2 of 10  
 Project Manager: Melissa Gossell

Well ID: Mw-1  
 Well Diameter: 2

DTW Measurements:  
 Initial: 11.60 Calc Well Volume: 116 gal  
 Recharge: \_\_\_\_\_ Well Volume: X3 4.9 gal  
 DTB: 21.77

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

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

Time	Temp <u>DC</u> F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
9:50	24.0	0.34	6.89	1	cloudy	
9:51	25.0	0.38	6.76	2	↓	
9:52	24.7	0.40	6.61	3		
9:53	24.5	0.41	6.51	4		
9:54	23.9	0.41	6.43	5		

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 103232.030543

Date: 8/11/98  
 Page 3 of 10  
 Project Manager: Melissa Gossell

Well ID: MW-6  
 Well Diameter: 2

DTW Measurements:  
 Initial: 11.21 Calc Well Volume: 1.7 gal  
 Recharge: \_\_\_\_\_ Well Volume: X3 5.13 gal  
 DTB: 22.05

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

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

Time	Temp <u>X</u> C ____ F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
10:15	23.4	0.37	6.37	1		Cloudy BROWN
10:16	23.0	0.36	6.39	2		
10:17	22.6	0.35	6.37	3		
10:18	22.2	0.34	6.38	4		
10:19	22.1	0.35	6.36	5	✓	✓



Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 103232.030543

Date: 8/10/98  
 Page 4 of 10  
 Project Manager: Melissa Gossell

Well ID: MW-7  
 Well Diameter: 2

DTW Measurements:  
 Initial: 11.55 Calc Well Volume: 1.6 gal  
 Recharge: \_\_\_\_\_ Well Volume: X3 4.9 gal  
 DTB: 2170

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

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

Time	Temp <u>Y</u> C _____ F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
10:48	23.2	0.43	6.43	1	↓	cloudy
10:49	22.1	0.40	6.42	2		
10:50	21.7	0.41	6.40	3		
10:51	21.5	0.42	6.39	4		
10:52	21.4	0.42	6.40	5		

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 103232.030543

Date: 8/11/98  
 Page 8 of 10  
 Project Manager: Melissa Gossell

Well ID: MW-8  
 Well Diameter: 2

DTW Measurements:  
 Initial: 12.60 Calc Well Volume: 1.5 gal  
 Recharge: \_\_\_\_\_ Well Volume: 3 4.6 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>✓</u> C F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
11:04	22.1	0.45	6.40	1	cloudy	
11:05	22.2	0.42	6.42	2		
11:06	22.2	0.41	6.44	3		
11:07	22.2	0.41	6.45	4	↓	Dry @ 4 Gallons
				5		

Well ID: MW-4 DTW Measurements: Initial: 11.90 Calc Well Volume: 1.7 gal  
 Well Diameter: 2 Recharge: \_\_\_\_\_ Well Volume: X3 5.2 gal  
 DTB: 22.57

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

Time	Temp <u>✓</u> C F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
11:19	22.8	0.41	6.46	1	cloudy	
11:20	22.9	0.42	6.45	2	↓	
11:21	22.9	0.42	6.45	3	↓	DRY @ 3 GALLONS
				4		
				5		

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 103232.030543

Date: 8/11/98  
 Page 7 of 10  
 Project Manager: Melissa Gossett

Well ID: MW-2  
 Well Diameter: 2

DTW Measurements:  
 Initial: 1156 Calc Well Volume: 166 gal  
 Recharge: \_\_\_\_\_ Well Volume: x3 510 gal  
 DTB: 21.79

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

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

Time	Temp C F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
	23.1	0.40	6.46	1	↓	
	23.0	0.42	6.45	2		
	23.0	0.41	6.44	3		
	21.9	0.40	6.44	4		
	22.8	0.42	6.44	5		

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 103232.030543

Date: 8/11/98  
 Page 8 of 10  
 Project Manager: Melissa Gossell

Well ID: NW-9  
 Well Diameter: 2

DTW Measurements: Initial: 12.15 Calc Well Volume: 1.3 gal  
 Recharge: \_\_\_\_\_ Well Volume: X3 3.9 gal  
 DTB: 20.30

Purge Method: Submersible  X  
 Crystalline   
 Gear Drive   
 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
11:46	23.1	0.40	6.43	1	Cloudy	
11:47	22.6	0.42	6.43	2	↓	
11:48	22.1	0.42	6.45	3		
11:49	21.9	0.43	6.46	4		
11:50	21.8	0.43	6.45	5		

Project Name: Sears / #1058/Oakland, CA  
 Site Address: 2633 Telegraph Ave., Oakland  
 Project Number: 103232.030543

Date: 8/11/98  
 Page 9 of 10  
 Project Manager: Melissa Gossell

Well ID: EW-1  
 Well Diameter: 4

DTW Measurements: Initial: 12.85 Calc Well Volume: 6.1 gal  
 Recharge: \_\_\_\_\_ Well Volume: 18.5 gal  
 DTB: 22.20

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>Y</u> C F	Conductivity (mmhos/cm)	pH	Purge Volume Gallons	Turbidity	Comments
12:10	22.1	0.44	6.58	5	cloudy	
12:13	21.9	0.44	6.61	10	↓	
12:15	22.0	0.44	6.61	15		
12:19	21.9	0.44	6.62	20		





# SEQUOIA ANALYTICAL CHAIN OF CUSTODY

680 Chesapeake Drive • Redwood City, CA 94063 • (650) 364-9600 FAX (650) 364-9233  
 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100  
 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 FAX (510) 988-9673

Company Name: <u>FLUOR DANIEL GT 1</u>		Project Name: <u>SEARS # 1058</u>	
Address: <u>757 ARNOUD DR. SUITE D</u>		Billing Address (if different):	
City: <u>MARTINEZ</u> State: <u>CA</u> Zip Code: <u>94533</u>	Job # <u>103232-030543</u>		
Telephone: <u>(925) 370-3990</u> FAX #: <u>(925) 370-3991</u>	P.O. #:		
Report To: <u>MELISA GOSEL</u> Sampler: <u>HECTOR MENDOZA</u>	QC Data: <input type="checkbox"/> Level D (Standard) <input type="checkbox"/> Level C <input type="checkbox"/> Level B <input type="checkbox"/> Level A		

Turnaround <input type="checkbox"/> 10 Working Days <input type="checkbox"/> 3 Working Days <input type="checkbox"/> 2 - 8 Hours	<input type="checkbox"/> Drinking Water	Analyses Requested
Time: <input type="checkbox"/> 7 Working Days <input type="checkbox"/> 2 Working Days <u>ASCOINACTED</u>	<input checked="" type="checkbox"/> Waste Water	
<input type="checkbox"/> 5 Working Days <input type="checkbox"/> 24 Hours	<input type="checkbox"/> Other	

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	Analyses Requested				Comments	
1. MW-1	8 13:00	GW	6	6 LITER 40ML		X	X				
2. MW-6	13:10		6			X	X				
3. MW-5	13:35		6			X	X				
4. MW-7	14:18		6			X	X				
5. MW-8	14:30		6			X	X				
6. MW-4	13:40		6			X	X				
7. MW2	13:46		6			X	X				
8. MW9	13:25		6			X	X				
9. EW1	98 13:58		6	V		X	X				NO BTEX (8020)
10. Dup MW4	98 13:47		3	40ml				X			

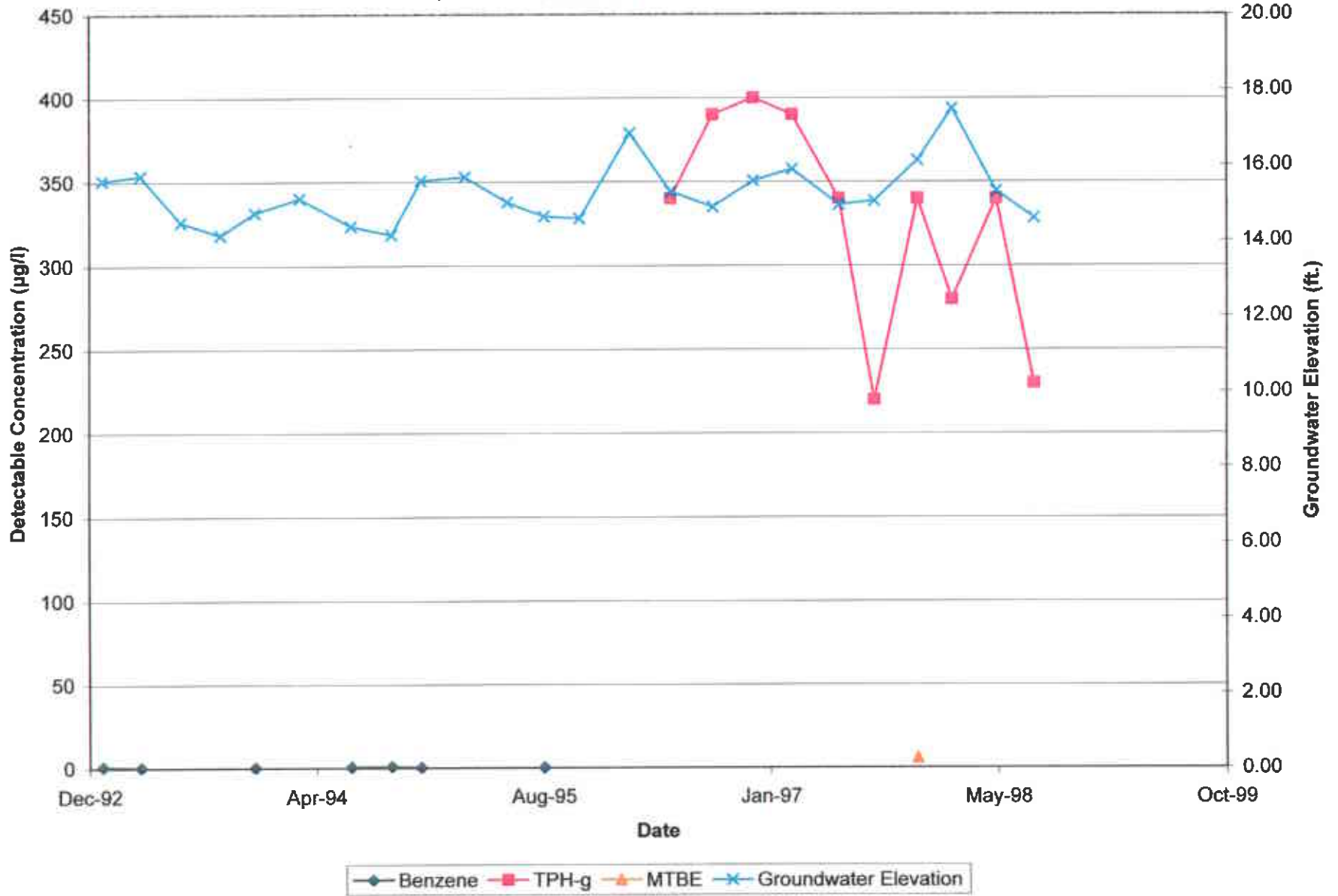
Relinquished By: <u>[Signature]</u>	Date: <u>8/11/98</u> Time: <u>3:05</u>	Received By: <u>[Signature]</u>	Date: <u>8-12-98</u> Time: <u>3:05</u>
Relinquished By: <u>[Signature]</u>	Date: _____ Time: _____	Received By: _____	Date: _____ Time: _____

Pink - Client  
 Yellow - Sequoia  
 White - Sequoia



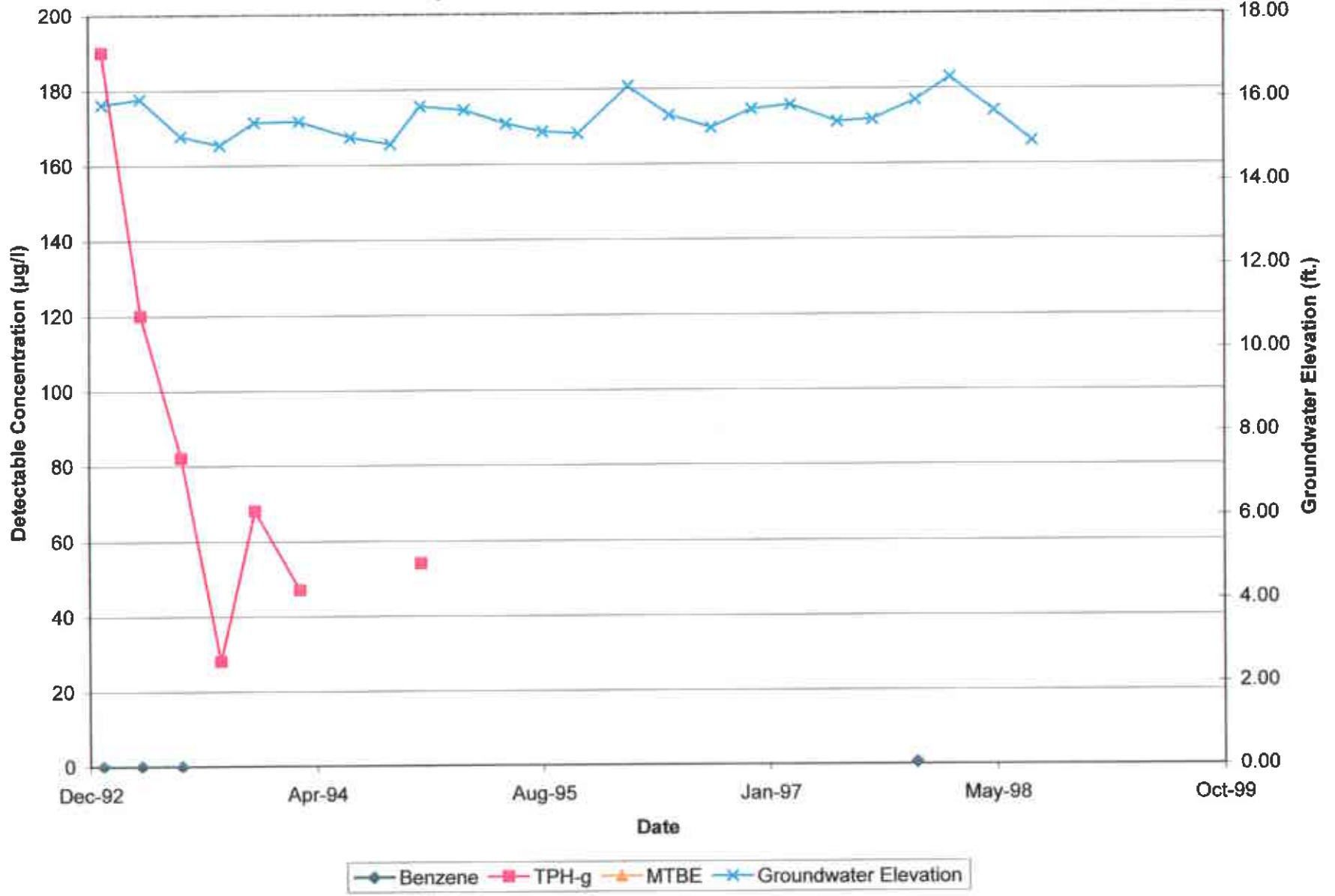
Graph 1, MW-1  
Sears Store No. 1058, 2633 Telegraph Avenue  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



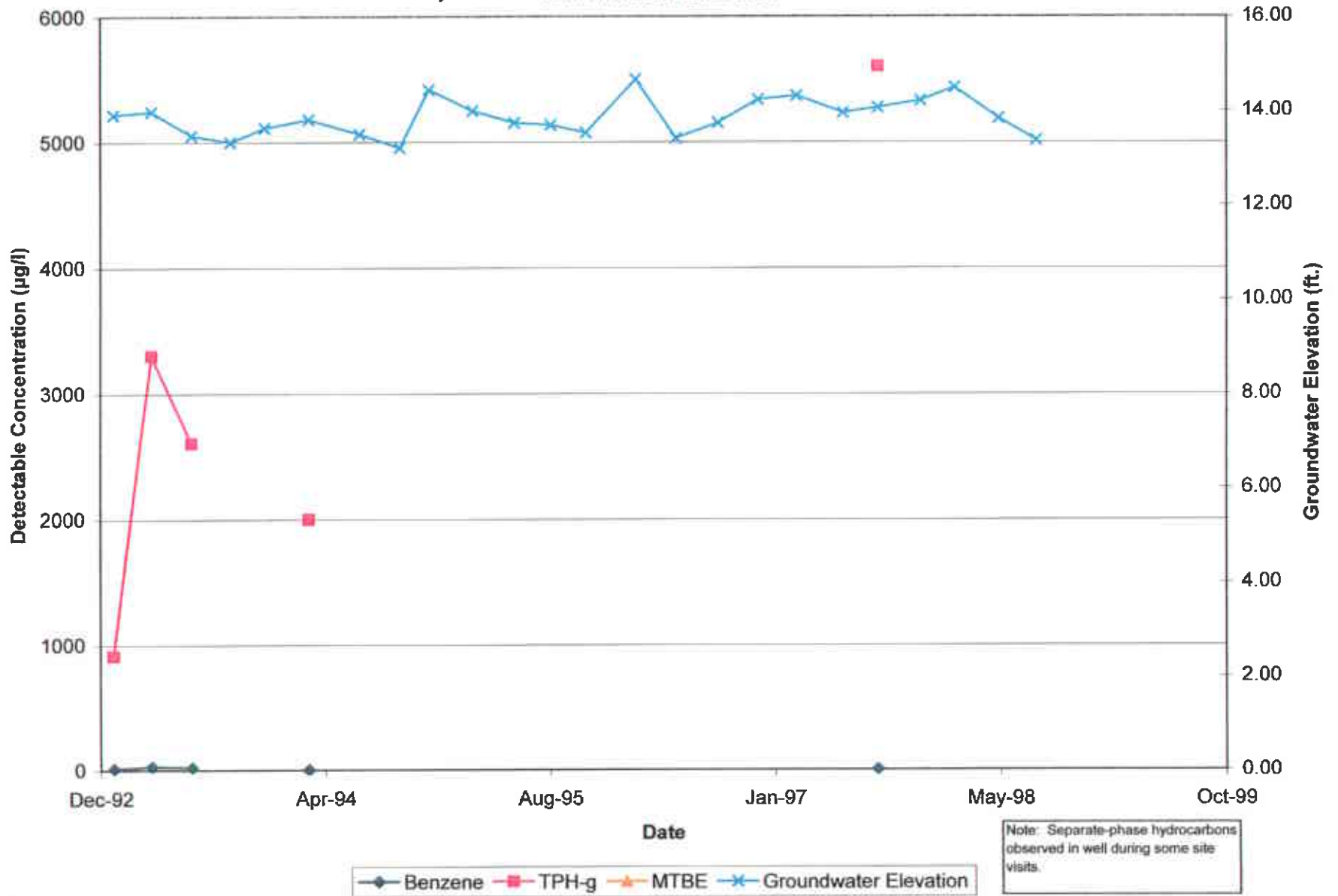
Graph 2, MW-2  
Sears Store No. 1058, 2633 Telegraph Avenue  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



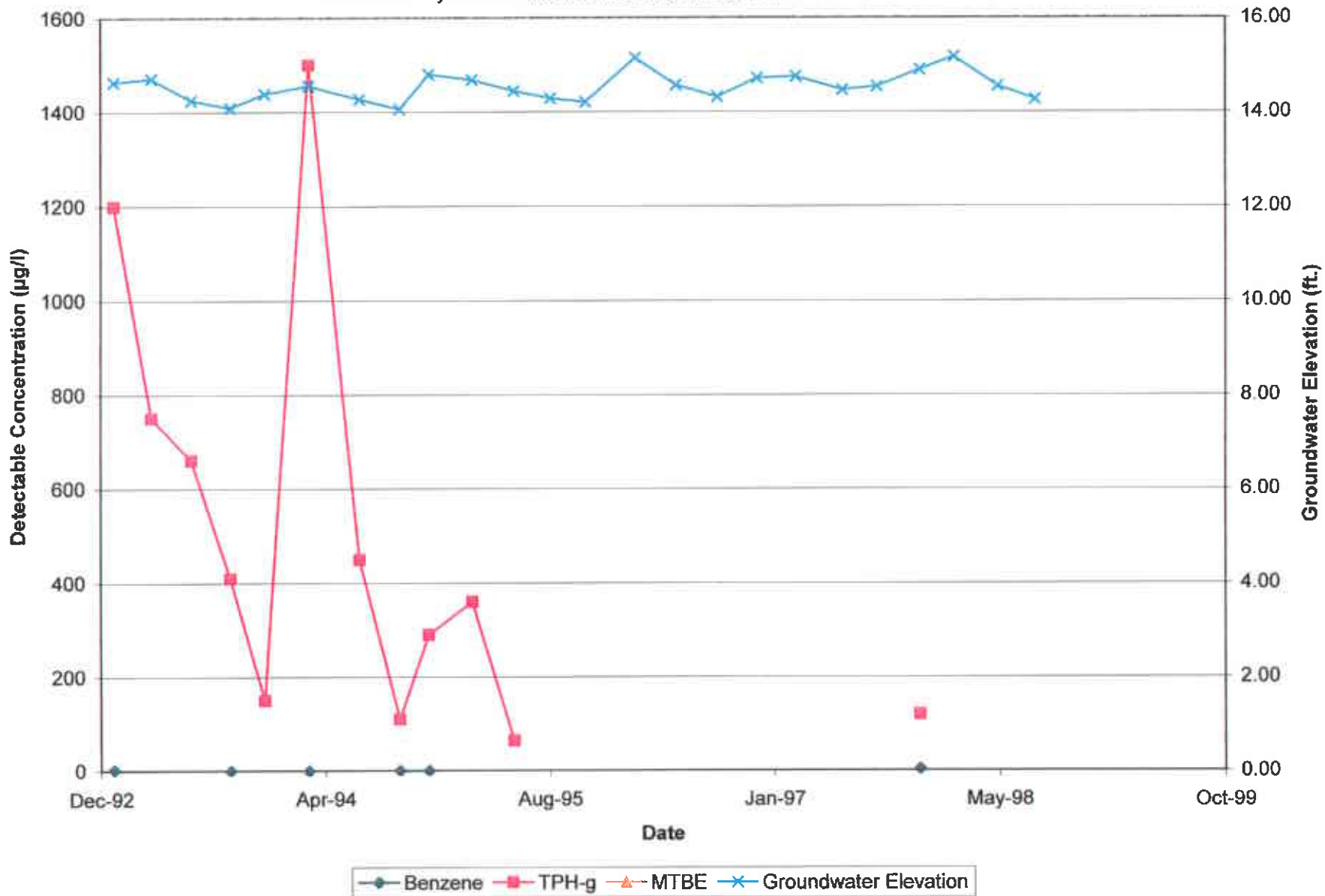
Graph 3, MW-3  
Sears Store No. 1058, 2633 Telegraph Avenue  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



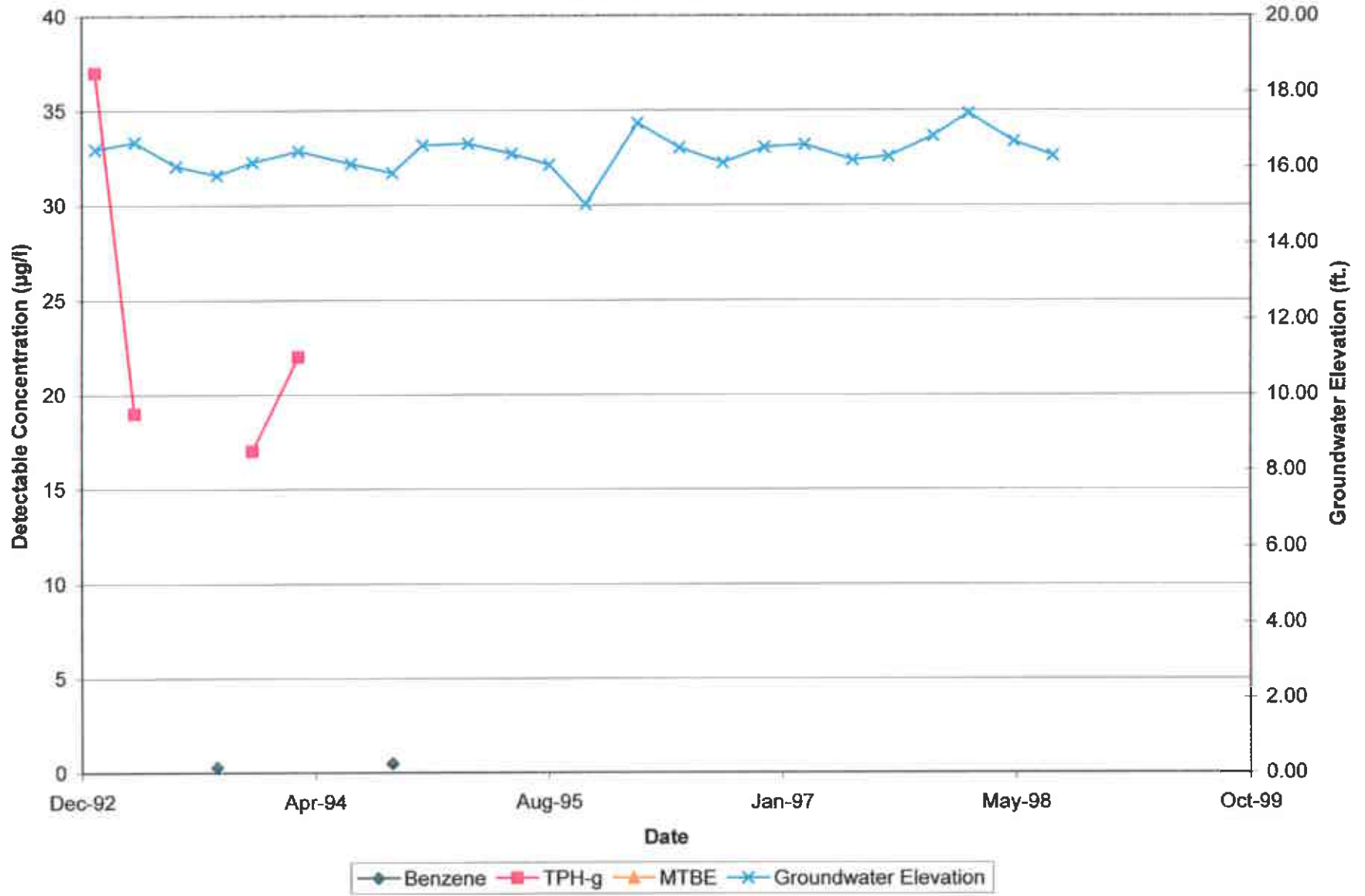
Graph 4, MW-4  
Sears Store No. 1058, 2633 Telegraph Avenue  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



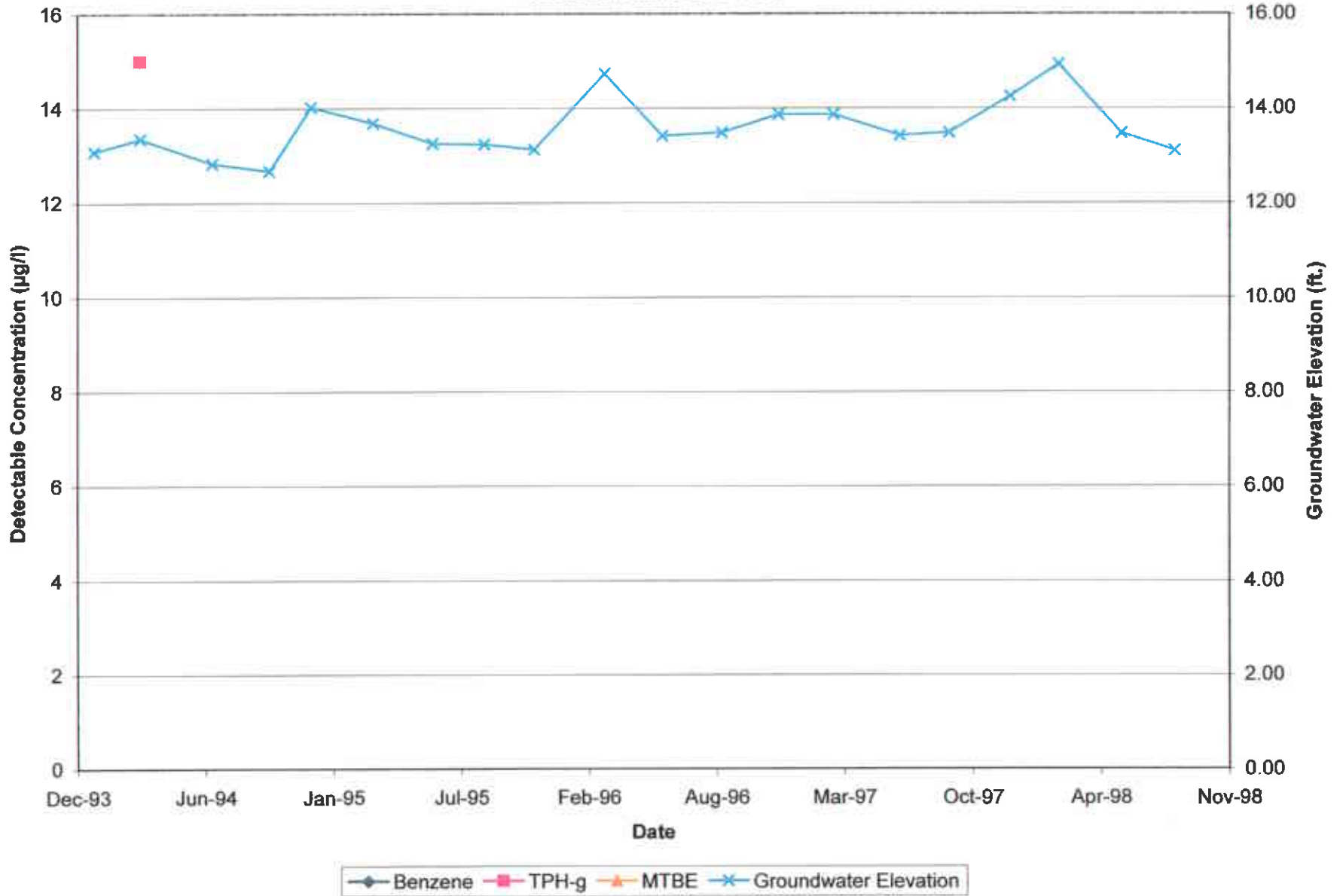
Graph 5, MW-5  
Sears Store No. 1058, 2633 Telegraph Avenue  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



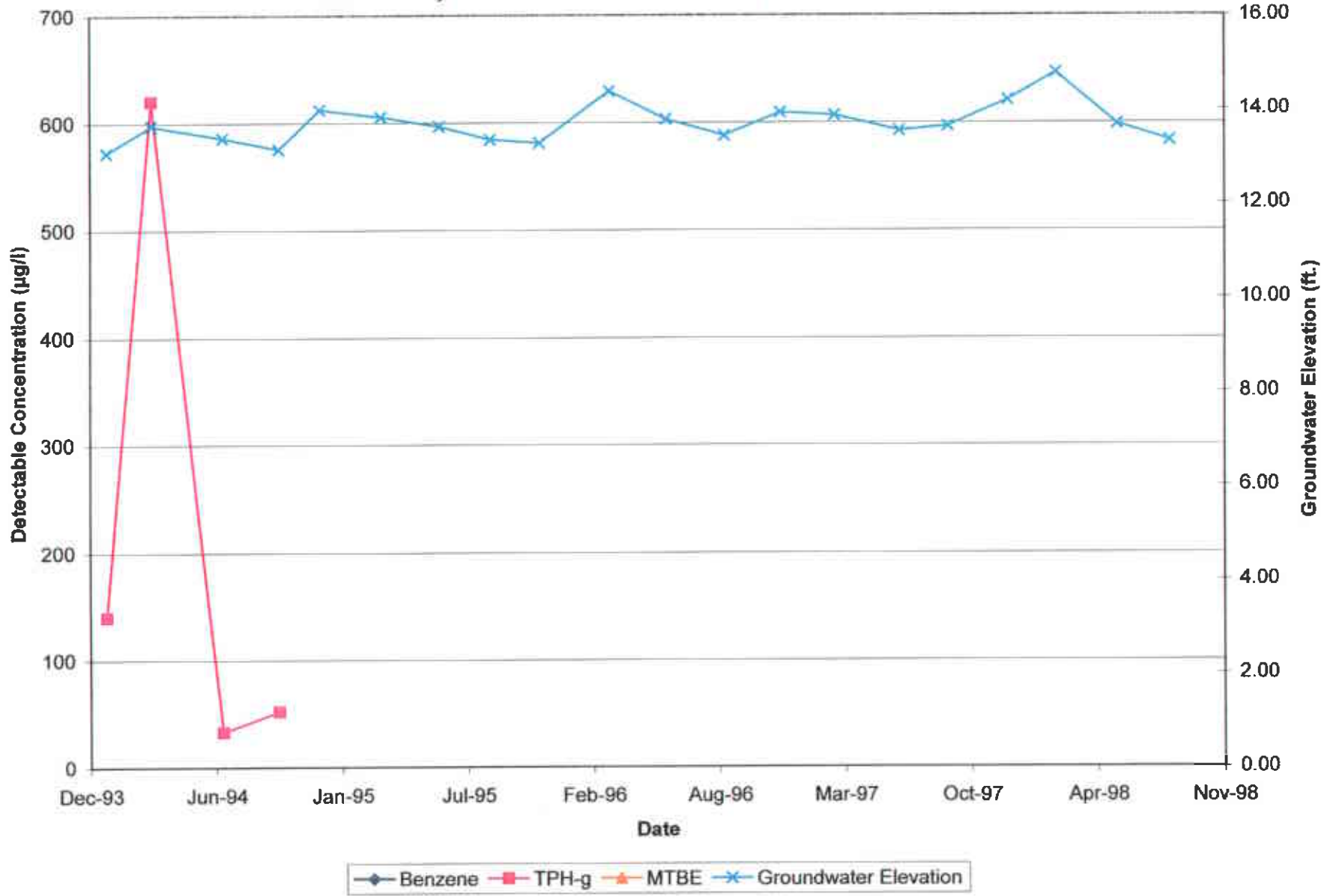
Graph 6, MW-6  
Sears Store No. 1058, 2633 Telegraph Avenue  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



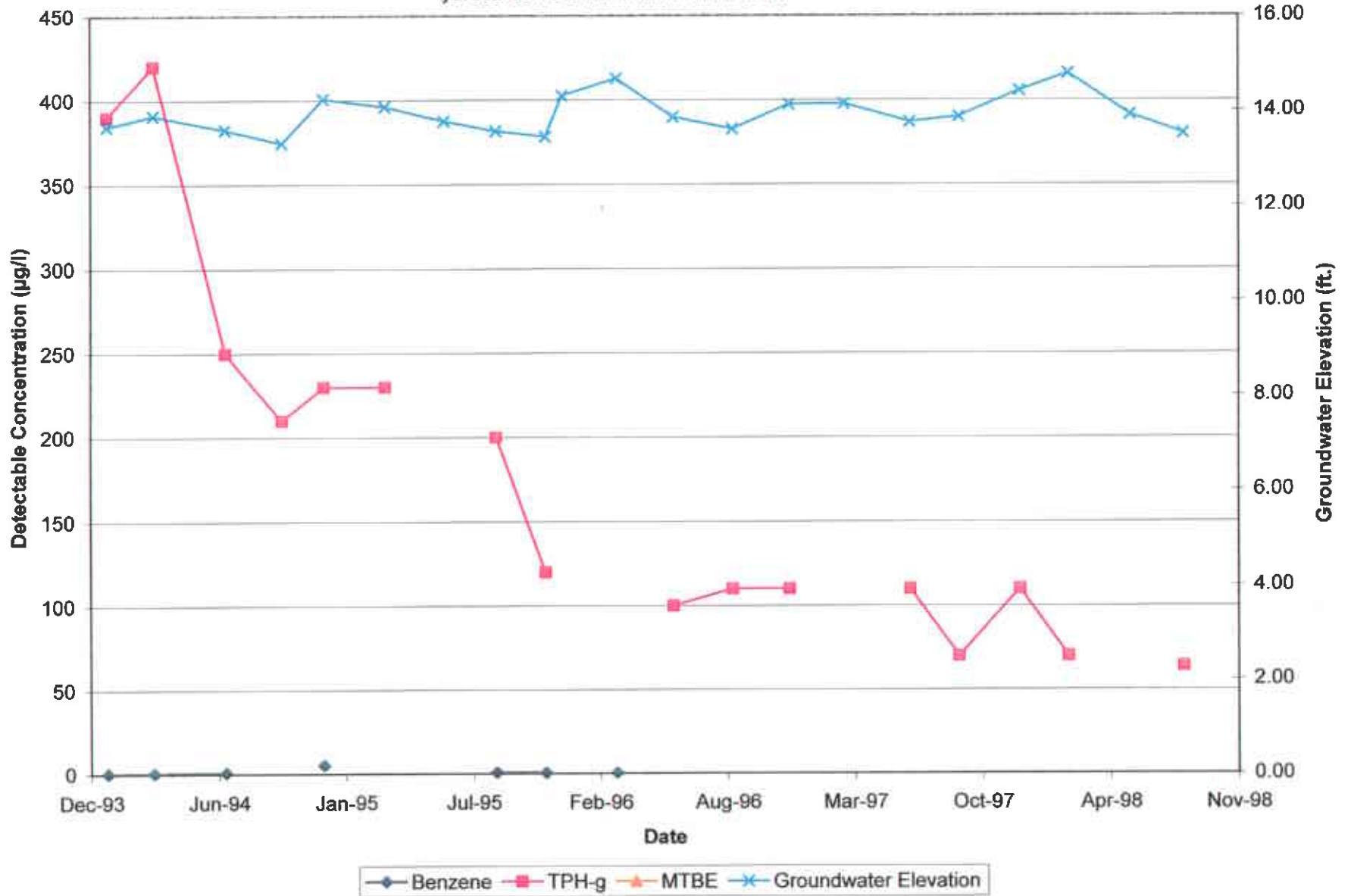
Graph 7, MW-7  
Sears Store No. 1058, 2633 Telegraph Avenue  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



Graph 8, MW-8  
Sears Store No. 1058, 2633 Telegraph Avenue  
Oakland, California

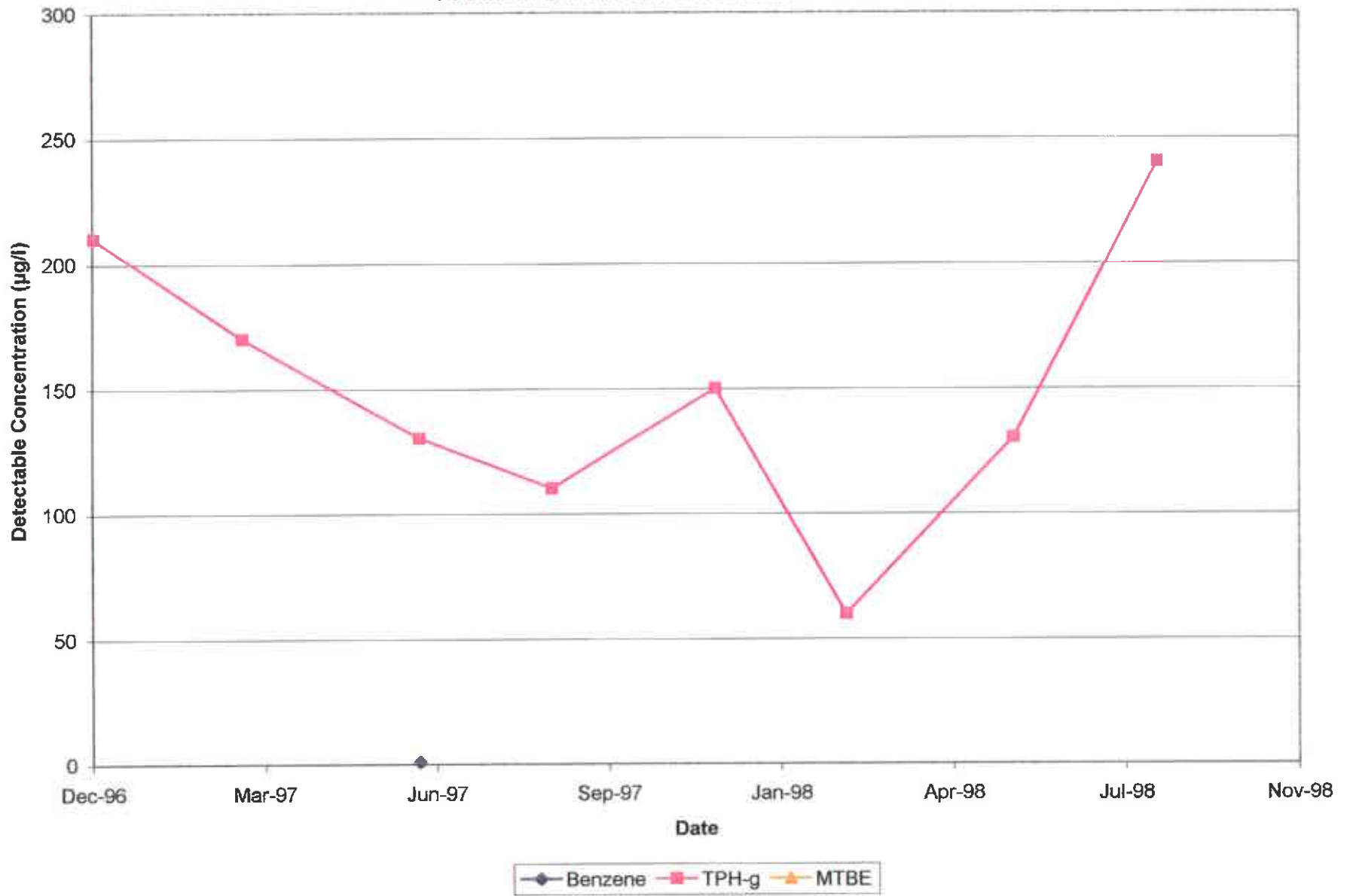
Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time





Graph 9, MW-9  
Sears Store No. 1058, 2633 Telegraph Avenue  
Oakland, California

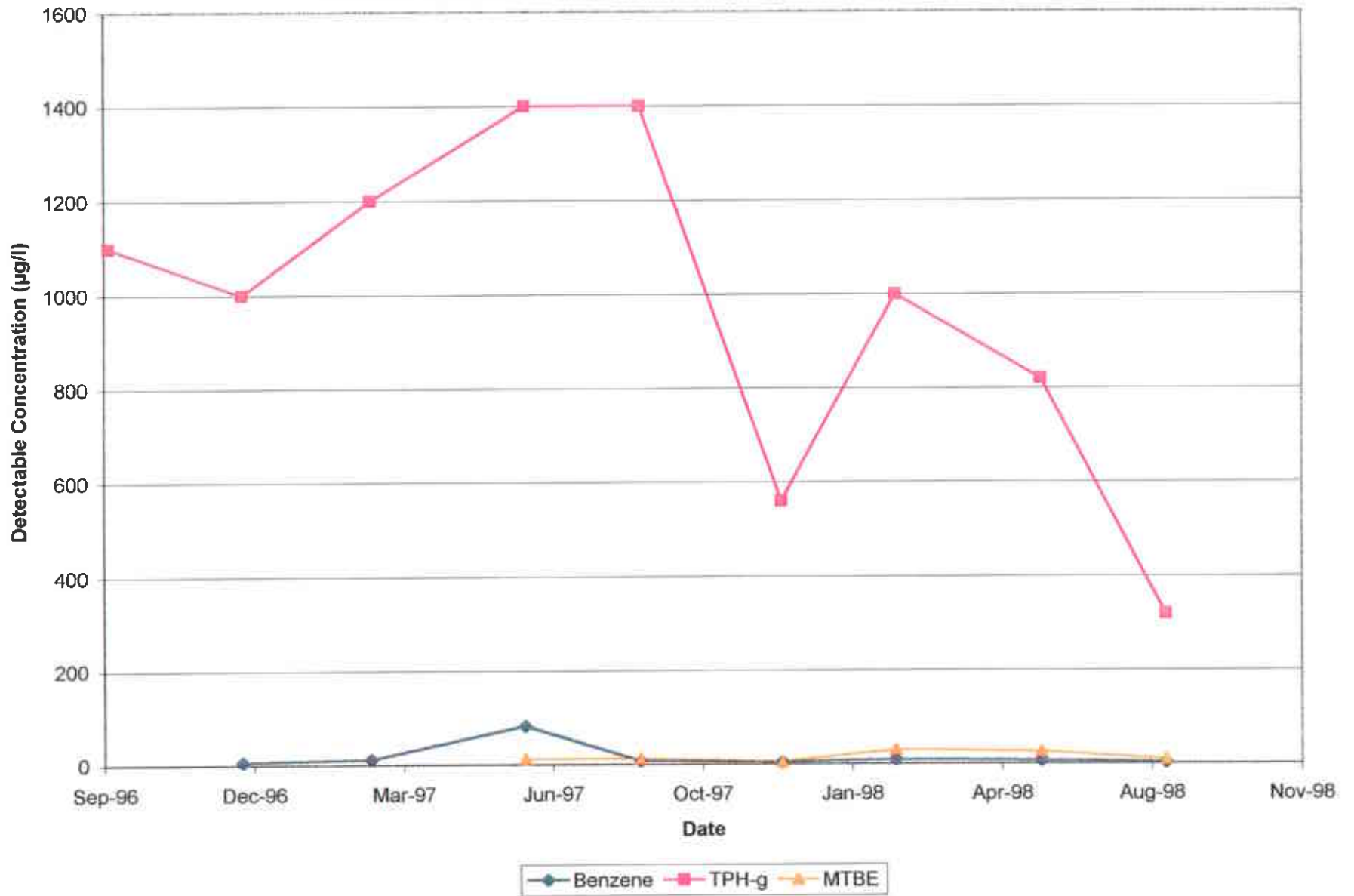
Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



NOTE:  
Groundwater elevation not measured

Graph 10, EW-1  
Sears Store No. 1058, 2633 Telegraph Avenue  
Oakland, California

Detectable Hydrocarbon Concentrations and Groundwater Elevation vs. Time



NOTE:  
Groundwater elevation not measured

**Attachment 5**

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

1058QH98.WPD





Sequoia  
Analytical

680 Chesapeake Drive  
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(707) 792-1865

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FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Melisa Gosel	Client Proj. ID: Sears #1058  Lab Proj. ID: 9808821	Received: 08/12/98  Reported: 08/27/98
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### LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 27 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Daniel A. Picquette  
Project Manager





**Sequoia  
Analytical**

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Client Name: Daniel GTI Address: 737 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9808821-01	Sampled: 08/11/98 Received: 08/12/98 Extracted: 08/20/98 Analyzed: 08/25/98 Reported: 09/11/98
--	--	--

QC Batch Number: GC0820980HBPEXZ  
Instrument ID: GCHP4B

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	85

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

SEQUOIA ANALYTICAL - ELAP #1210

*David A. Pichette*  
\_\_\_\_\_  
David A. Pichette  
Project Manager





Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808821-01	Sampled: 08/11/98 Received: 08/12/98 Analyzed: 08/23/98 Reported: 09/11/98
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QC Batch Number: GC082398BTEX21A  
Instrument ID: GCHP21

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	230
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern: Gas & Unidentified HC		C6-C12

Surrogates	Control Limits %	% Recovery
1,1-Difluorotoluene	70	130
		85

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

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





**Sequoia  
Analytical**

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FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Client Name: Daniel GTI Address: 157 Arnold Dr., Suite D Martinez, CA 94553 Attention: Melissa Gossel	Client Proj. ID: Sears #1058 Sample Descript: MW-6 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9808821-02	Sampled: 08/11/98 Received: 08/12/98 Extracted: 08/20/98 Analyzed: 08/25/98 Reported: 09/11/98
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QC Batch Number: GC0820980HBPEXZ  
Instrument ID: GCHP4B

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 90

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

SEQUOIA ANALYTICAL - ELAP #1210

*David A. Pichette*

David A. Pichette  
Project Manager





Fluor Daniel GTI 157 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: MW-6 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808821-02	Sampled: 08/11/98 Received: 08/12/98 Analyzed: 08/20/98 Reported: 09/11/98
--	--	---

QC Batch Number: GC081998BTEX02A  
Instrument ID: GCHP-02

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	79

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

SEQUOIA ANALYTICAL - ELAP #1210

*David A. Pichette*

David A. Pichette  
Project Manager







Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553	Client Proj. ID: Sears #1058 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9808821-03	Sampled: 08/11/98 Received: 08/12/98 Extracted: 08/20/98 Analyzed: 08/25/98 Reported: 09/11/98
---	--	--

QC Batch Number: GC0820980HBPEXZ  
Instrument ID: GCHP4B

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	90

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

SEQUOIA ANALYTICAL - ELAP #1210

*David A. Pichette*

David A. Pichette  
Project Manager





Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: MW-5 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808821-03	Sampled: 08/11/98 Received: 08/12/98 Analyzed: 08/20/98 Reported: 09/11/98
--	--	---


QC Batch Number: GC081998BTEX02A  
Instrument ID: GCHP-02

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	75

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

SEQUOIA ANALYTICAL - ELAP #1210

  
 \_\_\_\_\_  
 David A. Pichette  
 Project Manager





Client: Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1058  
Sample Descript: MW-7  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808821-04

Sampled: 08/11/98  
Received: 08/12/98  
Extracted: 08/20/98  
Analyzed: 08/21/98  
Reported: 09/11/98

Attention: Mellisa Gossel  
QC Batch Number: GC0820980HBPEXB  
Instrument ID: GCHP5B

### Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	95

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

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Client Name: Daniel GTI Address: 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: MW-7 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808821-04	Sampled: 08/11/98 Received: 08/12/98 Analyzed: 08/20/98 Reported: 09/11/98
--	--	---

QC Batch Number: GC081998BTEX02A  
Instrument ID: GCHP-02

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	74

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

SEQUOIA ANALYTICAL - ELAP #1210

*David A. Pichette*  
\_\_\_\_\_  
David A. Pichette  
Project Manager





Client: Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1058  
Sample Descript: MW-8  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808821-05

Sampled: 08/11/98  
Received: 08/12/98  
Extracted: 08/20/98  
Analyzed: 08/21/98  
Reported: 09/11/98

Attention: Mellisa Gossel

QC Batch Number: GC0820980HBPEXB  
Instrument ID: GCHP5B

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	92

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

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Client: Daniel GTI 157 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: MW-8 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808821-05	Sampled: 08/11/98 Received: 08/12/98 Analyzed: 08/20/98 Reported: 09/11/98
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QC Batch Number: GC081998BTEX02A  
Instrument ID: GCHP-02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	64
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		Gas
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	75

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

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553	Client Proj. ID: Sears #1058 Sample Descript: MW-4 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9808821-06	Sampled: 08/11/98 Received: 08/12/98 Extracted: 08/24/98 Analyzed: 08/25/98 Reported: 09/11/98
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QC Batch Number: GC0824980HBPEXB  
Instrument ID: GCHP4A

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50                      150	96

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

SEQUOIA ANALYTICAL - ELAP #1210

  
David A. Pichette  
Project Manager





**Sequoia Analytical**

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(707) 792-1865

FAX (650) 364-9233  
FAX (925) 988-9673  
FAX (916) 921-0100  
FAX (707) 792-0342

Analyst: Daniel GTI	Client Proj. ID: Sears #1058	Sampled: 08/11/98
757 Arnold Dr., Suite D	Sample Descript: MW-4	Received: 08/12/98
Martinez, CA 94553	Matrix: LIQUID	
Attention: Mellisa Gossel	Analysis Method: 8015Mod/8020	Analyzed: 08/20/98
	Lab Number: 9808821-06	Reported: 09/11/98

QC Batch Number: GC081998BTEX02A  
Instrument ID: GCHP-02

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	78

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

SEQUOIA ANALYTICAL - ELAP #1210

*[Signature]*  
\_\_\_\_\_  
David A. Pichette  
Project Manager







Fluor Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: MW-2 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9808821-07	Sampled: 08/11/98 Received: 08/12/98 Extracted: 08/24/98 Analyzed: 08/25/98 Reported: 09/11/98
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QC Batch Number: GC0824980HBPEXB  
Instrument ID: GCHP4A

Fuel Fingerprint : Motor Oil

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500 C16-C36	1200 Motor Oil
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 116

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

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Client: Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1058  
Sample Descript: MW-2  
Matrix: LIQUID  
Analysis Method: 8015Mod/8020  
Lab Number: 9808821-07

Sampled: 08/11/98  
Received: 08/12/98  
Analyzed: 08/20/98  
Reported: 09/11/98

Attention: Mellisa Gossel

QC Batch Number: GC081998BTEX02A


Instrument ID: GCHP-02

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		N.D.
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70 130	75

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

SEQUOIA ANALYTICAL - ELAP #1210

  
David A. Pichette  
Project Manager





Client: Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553

Client Proj. ID: Sears #1058  
Sample Descript: MW-9  
Matrix: LIQUID  
Analysis Method: EPA 8015 Mod  
Lab Number: 9808821-08

Sampled: 08/11/98  
Received: 08/12/98  
Extracted: 08/20/98  
Analyzed: 08/21/98  
Reported: 09/11/98

Attention: Mellisa Gossel

QC Batch Number: GC0820980HBPEXB  
Instrument ID: GCHP5B

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern:	500	N.D.
Surrogates n-Pentacosane (C25)	Control Limits % 50                      150	% Recovery 103

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

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Major Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: MW-9 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808821-08	Sampled: 08/11/98 Received: 08/12/98 Analyzed: 08/20/98 Reported: 09/11/98
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QC Batch Number: GC081998BTEX02A  
Instrument ID: GCHP-02

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	240
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	0.76
Chromatogram Pattern: Weathered Gas		C9-C12

Surrogates	Control Limits %	% Recovery
1,2-Difluorotoluene	70	130
		87

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

SEQUOIA ANALYTICAL - ELAP #1210



David A. Pichette  
Project Manager





Client: Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Melissa Gossel	Client Proj. ID: Sears #1058 Sample Descript: EW-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9808821-09	Sampled: 08/11/98 Received: 08/12/98 Extracted: 08/20/98 Analyzed: 08/24/98 Reported: 09/11/98
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QC Batch Number: GC0820980HBPEXB  
Instrument ID: GCHP5B

**Fuel Fingerprint : Motor Oil**

Analyte	Detection Limit ug/L	Sample Results ug/L
Extractable HC as Motor Oil Chromatogram Pattern: Identified HC	1000 C16-C36+	5400 Motor Oil C16-C36
<b>Surrogates</b> n-Pentacosane (C25)	<b>Control Limits %</b> 50                      150	<b>% Recovery</b> 298 Q

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

SEQUOIA ANALYTICAL - ELAP #1210



David A. Pichette  
Project Manager





Client: Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: EW-1 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808821-09	Sampled: 08/11/98 Received: 08/12/98 Analyzed: 08/20/98 Reported: 09/11/98
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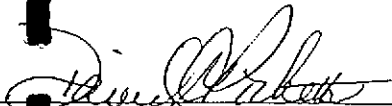
QC Batch Number: GC081998BTEX02A  
Instrument ID: GCHP-02

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	320
Methyl t-Butyl Ether	2.5	8.7
Benzene	0.50	2.6
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	0.86
Chromatogram Pattern:		GAS
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	76

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

SEQUOIA ANALYTICAL - ELAP #1210

  
 David A. Pichette  
 Project Manager





Director Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: Dup MW4 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808821-10	Sampled: 08/11/98 Received: 08/12/98 Analyzed: 08/20/98 Reported: 09/11/98
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QC Batch Number: GC081998BTEX02A  
Instrument ID: GCHP-02

**Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE**

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	72

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

SEQUOIA ANALYTICAL - ELAP #1210

David A. Pichette  
Project Manager





Daniel GTI 757 Arnold Dr., Suite D Martinez, CA 94553 Attention: Mellisa Gossel	Client Proj. ID: Sears #1058 Sample Descript: TB-LB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9808821-11	Sampled: 08/11/98 Received: 08/12/98 Analyzed: 08/17/98 Reported: 09/11/98
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QC Batch Number: GC081798BTEX06A  
Instrument ID: GCHP6

## Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
<b>Surrogates</b>	<b>Control Limits %</b>	<b>% Recovery</b>
Trifluorotoluene	70                      130	90

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

SEQUOIA ANALYTICAL - ELAP #1210



David A. Pichette  
Project Manager







Fluor Daniel GTI  
757 Arnold Dr., Ste. D  
Martinez, CA 94553  
Attention: Melisa Gosel

Client Project ID: Sears #1058

QC Sample Group: 9808821

Reported: Aug 27, 1998

**QUALITY CONTROL DATA REPORT**

Matrix: Liquid  
Method: EPA 8015A  
Analyst: A. PORTER

ANALYTE Diesel

QC Batch #: GC0824980HBPEXB

Sample No.: 9808767-4  
Date Prepared: 8/24/98  
Date Analyzed: 8/25/98  
Instrument I.D.#: GCHP4B

Sample Conc., ug/L: N.D.  
Conc. Spiked, ug/L: 1000

Matrix Spike, ug/L: 820  
% Recovery: 82

Matrix  
Spike Duplicate, ug/L: 730  
% Recovery: 73

Relative % Difference: 12

RPD Control Limits: 0-50

LCS Batch#: BLK082498BS

Date Prepared: 8/24/98  
Date Analyzed: 8/25/98  
Instrument I.D.#: GCHP4B

Conc. Spiked, ug/L: 1000

Recovery, ug/L: 770  
LCS % Recovery: 77

Percent Recovery Control Limits:

MS/MSD	50-150
LCS	60-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

**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 matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

*David A. Pichette*  
David A. Pichette  
Project Manager





Fluor Daniel GTI  
757 Arnold Dr., Ste. D  
Martinez, CA 94553  
Attention: Melisa Gosel

Client Project ID: Sears #1058

QC Sample Group: 9808821

Reported: Aug 27, 1998

**QUALITY CONTROL DATA REPORT**

Matrix: Liquid  
Method: EPA 8015A  
Analyst: A. PORTER

ANALYTE Diesel

QC Batch #: GC0820980HBPEXZ

Sample No.: 9808727-7  
Date Prepared: 8/20/98  
Date Analyzed: 8/24/98  
Instrument I.D.#: GCHP4B

Sample Conc., ug/L: 170  
Conc. Spiked, ug/L: 1000

Matrix Spike, ug/L: 870  
% Recovery: 70

Matrix  
Spike Duplicate, ug/L: 890  
% Recovery: 72

Relative % Difference: 2.8

RPD Control Limits: 0-50

LCS Batch#: BLK082098ZS

Date Prepared: 8/20/98  
Date Analyzed: 8/24/98  
Instrument I.D.#: GCHP4B

Conc. Spiked, ug/L: 1000

Recovery, ug/L: 730  
LCS % Recovery: 73

Percent Recovery Control Limits:

MS/MSD 50-150  
LCS 60-140

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

**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 matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

*David A. Pichette*  
David A. Pichette  
Project Manager





# Sequoia Analytical

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FAX (707) 792-0342

Fluor Daniel GTI  
757 Arnold Dr., Ste. D  
Martinez, CA 94553  
Attention: Melisa Gosel

Client Project ID: Sears #1058

QC Sample Group: 9808821

Reported: Aug 27, 1998

## QUALITY CONTROL DATA REPORT

Matrix: Liquid  
Method: EPA 8020  
Analyst: A.M.

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
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QC Batch #: GC082398BTEX21A

Sample No.: GW9808A87-04

	8/23/98	8/23/98	8/23/98	8/23/98
Date Prepared:	8/23/98	8/23/98	8/23/98	8/23/98
Date Analyzed:	8/23/98	8/23/98	8/23/98	8/23/98
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Sample Conc., ug/L:	N.D.	N.D.	N.D.	N.D.
Conc. Spiked, ug/L:	10	10	10	30
Matrix Spike, ug/L:	12	11	11	34
% Recovery:	120	110	110	113
Matrix Spike Duplicate, ug/L:	12	12	11	35
% Recovery:	120	120	110	117
Relative % Difference:	0.0	8.7	0.0	3.5
RPD Control Limits:	0-25	0-25	0-25	0-25

LCS Batch#: GWLCS082398A

	8/23/98	8/23/98	8/23/98	8/23/98
Date Prepared:	8/23/98	8/23/98	8/23/98	8/23/98
Date Analyzed:	8/23/98	8/23/98	8/23/98	8/23/98
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked, ug/L:	10	10	10	30
LCS Recovery, ug/L:	10	9.7	9.6	29
LCS % Recovery:	100	97	96	97

Percent Recovery Control Limits:

	60-140	60-140	60-140	60-140
MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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 matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

David A. Pichette  
Project Manager





# Sequoia Analytical

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(707) 792-1865 FAX (707) 792-0342

Fluor Daniel GTI  
757 Arnold Dr., Suite D  
Martinez, CA 94553  
Attention: Melisa Gossiel

Client Project ID: Sears #1058

QC Sample Group: 9808821

Reported: Aug 28, 1998

## QUALITY CONTROL DATA REPORT

Matrix: Liquid  
Method: EPA 8020  
Analyst: AM

ANALYTE	Benzene	Toluene	Ethylbenzene	Xylenes
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QC Batch #: GC082398BTEX02A

Sample No.: GW9808A87-01

	8/23/98	8/23/98	8/23/98	8/23/98
Date Prepared:	8/23/98	8/23/98	8/23/98	8/23/98
Date Analyzed:	8/23/98	8/23/98	8/23/98	8/23/98
Instrument I.D.#:	GCHP02	GCHP02	GCHP02	GCHP02
Sample Conc., ug/L:	N.D.	N.D.	N.D.	N.D.
Conc. Spiked, ug/L:	10	10	10	30
Matrix Spike, ug/L:	11	11	11	33
% Recovery:	110	110	110	110
Matrix Spike Duplicate, ug/L:	12	12	12	36
% Recovery:	120	120	120	120
Relative % Difference:	8.7	8.7	8.7	8.7
RPD Control Limits:	0-25	0-25	0-25	0-25

LCS Batch#: GWLCS082398A

	8/23/98	8/23/98	8/23/98	8/23/98
Date Prepared:	8/23/98	8/23/98	8/23/98	8/23/98
Date Analyzed:	8/23/98	8/23/98	8/23/98	8/23/98
Instrument I.D.#:	GCHP02	GCHP02	GCHP02	GCHP02
Conc. Spiked, ug/L:	10	10	10	30
LCS Recovery, ug/L:	13	13	13	38
LCS % Recovery:	130	130	130	127

Percent Recovery Control Limits:

MS/MSD	60-140	60-140	60-140	60-140
LCS	70-130	70-130	70-130	70-130

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

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 matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL

David A. Pichette  
Project Manager





# SEQUOIA ANALYTICAL

## CHAIN OF CUSTODY

980 800 450-1100 (Sacramento) 360 938-0000 (Walnut Creek) (510) 988-9600 (Folsom) (916) 921-9235  
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 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600 FAX (510) 988-9673

Company Name: FLUOR DANIEL GTI Project Name: SEARS # 1058  
 Address: 757 ARNOLD DR. SUITE D Billing Address (if different):  
 City: Marysville State: CA Zip Code: 94537 JOSEPH 103232-030593  
 Telephone: (925) 370-3990 FAX #: (925) 370-3991 P.O. #:  
 Report To: MELISA GOSEL Sampler: HECTOR MEJIA QC Data:  Level D (Standard)  Level C  Level B  Level A

Turnaround Time:  
 10 Working Days  3 Working Days  2 - 8 Hours  
 7 Working Days  2 Working Days AS CONTRACTED  
 5 Working Days  24 Hours

Drinking Water  Waste Water  Other  
 Analyses Requested: 9508821

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH	DL	BTEX	MTBE	TPH-G	Comments
1. MW-1	13:00	GW	6	40ML	1	X	X				
2. MW-6	13:10		6		2	X	X				
3. MW-5	13:35		6		3	X	X				
4. MW-7	14:18		6		4	X	X				
5. MW-8	14:30		6		5	X	X				
6. MW-4	13:40		6		6	X	X				
7. MW2	13:46		6		7	X	X				
8. MW9	13:25		6		8	X	X				
9. EW1	13:58		6	V	9	X	X				NO BTEX (8020)
10. DUP MW4	13:47		3	40ML	10			X			

Relinquished By: [Signature] Date: 8/11/98 Time: 3:05 Received By: [Signature] Date: 8-12-98 Time: 3:05  
 Relinquished By: [Signature] Date: 8-12-98 Time: Received By: Lab: [Signature] Date: 8/14/98 Time: 6:46

Pink - Client  
Yellow - Sequoia  
White - Sequoia