



2004 THIRD QUARTER  
GROUNDWATER MONITORING REPORT  
FORMER SEARS RETAIL CENTER #1039  
1901-1911 TELEGRAPH AVENUE  
OAKLAND, CALIFORNIA  
CASE I.D. # STID 1630  
FOR SEARS, ROEBUCK & CO.

URS Job No. 29863493  
January 17, 2005

January 17, 2005

Mr. Don Hwang  
Hazardous Materials Specialist  
Alameda County Environmental Health Services  
1131 Harbor Bay Parkway, Number 250  
Alameda, California 94502

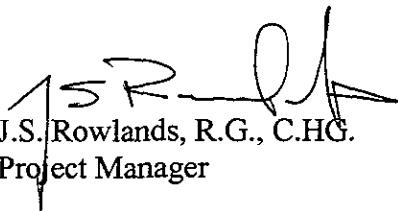
**Subject:** 2004 Third Quarter Groundwater Monitoring  
Former Sears Retail Center #1039  
1901- 1911 Telegraph Avenue  
Oakland, California  
Case I.D. #STID 1630  
For Sears, Roebuck & Co.

Dear Mr. Hwang:

Submitted with this letter is a URS report prepared on behalf of Sears, Roebuck & Co. Presented in the report are results of groundwater monitoring conducted at the above-referenced Site during the third quarter 2004. Please feel free to contact me at (714) 648-2793 if you have questions or comments.

Respectfully Submitted,

**URS CORPORATION**

  
J.S. Rowlands, R.G., C.HG.  
Project Manager

cc: Mr. Bruce Kaye, Sears Roebuck and Co.

1/17/05  
Environmental Health

# **2004 Third Quarter Groundwater Monitoring Report**

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## **2004 Third Quarter Groundwater Monitoring Report**

### **1.0 INTRODUCTION**

This report has been prepared by URS Corporation on behalf of Sears, Roebuck & Co., (Sears). It presents results of the 2004 third quarter groundwater monitoring conducted at the Sears Auto Center (Site) located at 1901-1911 Telegraph Avenue in Oakland, California (Figure 1). The groundwater monitoring event consisted of "post purge" groundwater sample collection from nine monitoring wells (MW-1 through MW-9). The purpose of the groundwater monitoring was to assess current groundwater conditions in the vicinity of a former gasoline concession area (Figure 2). The work is being performed under regulatory oversight of the Alameda County Environmental Health Services (ACEHS) pursuant to quarterly monitoring and reporting requirements under Title 23, Division 3, Chapter 16 of the California Code of Regulations.

## **2.0 SITE DESCRIPTION**

The Site is located at 1901-1911 Telegraph Avenue, Oakland, California (Figure 1). The Site is bordered by Williams Street to the north, Telegraph Avenue to the east, 19<sup>th</sup> Street to the south, and San Pablo Avenue to the west (Figure 2). A Sears Auto Center, a former Chevron Service Station, a three-story above-ground-parking garage, and a paved parking lot occupy the property.

### **2.1 REGIONAL GEOLOGY AND HYDROGEOLOGY**

The Site is approximately 1.5 miles east of the San Francisco Bay and three miles west of the Diablo Range in Oakland, California. The area is located on the eastern flank of The San Francisco Basin, a broad Franciscan depression. Basement rock of the basin is respectively overlain by the Santa Clara Formation, the Alameda Formation, and the Temescal Formation. These formations consist of unconsolidated sediments varying in total thickness from approximately 300 to 1,000 feet. The Pleistocene Santa Clara Formation consists primarily of alluvial fan deposits that are interspersed with lake, swamp, river channel, and flood plain deposits. The overlying Alameda Formation was deposited in an estuary environment and consists of organic clays and alluvial fan deposits of sands, gravels, and silts. The uppermost Holocene Temescal Formation is an alluvial deposit ranging in thickness from 1 to 50 feet, which primarily consists of silts and clays overlying a basal gravel unit. (California Regional Water Quality Control Board [RWQCB], San Francisco Bay Region, June 1999).

The Site is located within the Oakland sub-area of the East Bay Plain groundwater basin. The East Bay Plain groundwater basin encompasses approximately 115 square miles and is bounded by San Pablo Bay to the north, Alameda County to the south, the Hayward Fault to the east, and San Francisco Bay to the west. Groundwater flow direction in the basin typically follows surface topography. Historical high production wells in the Oakland sub-area were screened at depths greater than 200 feet below ground surface (bgs) beneath the Yerba Buena Mud Member of the Alameda Formation. The Yerba Buena Mud is a black organic clay with an average thickness of 25 to 50 feet that forms an aquitard between upper and lower groundwater bearing units. From the 1860's until water importation programs were initiated in the 1930's, groundwater in the East Bay Plain was utilized as the primary municipal water source. Current beneficial uses of groundwater in the basin are minimal due to "readily available high quality imported surface water" (RWQCB, June 1999). Alameda County Well permit applications indicated 91% of groundwater wells within the basin are used for "backyard" or commercial irrigation, 8.6% of the wells are used for industrial process water, and 0.4% are used for drinking water supply (RWQCB, June 1999).

### **3.0 BACKGROUND**

The Site consists of a Sears Auto Center, a multiple level parking structure, a paved parking lot, and a former Chevron Service Station. The Sears Auto Center is currently in operation; it is a converted former Goodyear Tire Center. Three gasoline underground storage tanks (USTs) and a used oil UST were installed at the former Chevron Service Station. On January 29, 1988, prior to Sears' ownership of the Site, one 3,000 gallon gasoline UST, one 5,000 gallon gasoline UST, one 7,000 gallon gasoline UST, and one 500 gallon used oil UST were removed under oversight of the Oakland Fire Department and the ACEHS. Approximately 20 to 30 cubic yards of gasoline impacted soil was removed from the "south area" of the gasoline USTs excavation and subsequently disposed at a Class I landfill in Buttonwillow, California. Following excavation, residual concentrations of total petroleum hydrocarbons as gasoline (TPHg) and benzene in soil were below 100 milligrams per kilogram (mg/kg) and 0.7 mg/kg, respectively. The UST excavations were subsequently backfilled with imported crushed rock and "clean excavated material" (Dames & Moore, 1988).

A total of nine groundwater monitoring wells (MW-1 through MW-9) have been installed, before and after the property's purchase by Sears, to evaluate the extent of gasoline impacted groundwater emanating from the former Chevron Station's UST area. The prior owners, Broadway/Federated Department Stores, began the initial investigation work and groundwater monitoring. Subsequent to the property's purchase by Sears during a bankruptcy proceeding, Sears has continued quarterly groundwater monitoring (since June 1996), and has installed additional wells to define the down-gradient extent of the gasoline groundwater plume (The IT Group, February 2000).

Groundwater has been monitored since January 1988. Well MW-1 has been monitored on a periodic basis since January 1988 while wells MW-2, MW-3, and MW-4 have been monitored on a periodic basis since June 1993. Wells MW-5, MW-6, and MW-7 have been monitored on a periodic basis since June 1994. Wells MW-8 and MW-9 have been monitored on a periodic basis since November 1999. Historical monitoring data shows that dissolved phase TPHg have been detected in six of the nine wells and dissolved phase benzene has been detected in seven of the nine wells. Available historical groundwater data (since October 1995); including depth to water, groundwater elevation, hydrocarbon and volatile organic compounds (VOCs) concentrations; are summarized in Appendix B.

## **4.0 HEALTH AND SAFETY PLAN**

Prior to initiating the field activities, URS prepared a site-specific Health & Safety (H&S) Plan to:

- ◆ Identify and describe potentially hazardous substances which may be encountered during field operations;
- ◆ Specify protective equipment and clothing for onsite activities;
- ◆ Outline measures to be implemented in the event of an emergency.

URS field personnel reviewed the H&S Plan prior to commencing the field procedures. Field monitoring activities were recorded in the H&S Plan and were maintained in the project files at URS's Santa Ana office. A copy of the H&S Plan remained onsite during field operations.

## **5.0 QUARTERLY GROUNDWATER MONITORING**

The 2004 third quarter groundwater monitoring was performed on August 11, 2004. The monitoring consisted of groundwater gauging, purging, and sampling of all nine wells (MW-1 through MW-9). A description of the monitoring procedures is presented in the following section.

### **5.1 GROUNDWATER GAUGING**

Prior to gauging, the groundwater monitoring wells were checked for the presence of separate phase product using a product interface probe. Separate phase product was not observed in any of the wells. Water levels in each well were measured using a Solinst™ water level indicator relative to a defined measuring point on the surveyed top of casing. Water level data was recorded to the nearest 0.01 foot. Before and after each well gauging, the water level indicator sensor and tape was rinsed with a solution of Alconox followed by rinsing with tap water and deionized water. Groundwater depths and elevations for the 2004 third quarter are listed in Table 1 and Appendix B.

### **5.2 PURGING AND SAMPLING METHODS**

Prior to sample collection, wells were purged of approximately three well casing volumes using a Grundfos™ RediFlo 2 submersible well pump. Water purged from each well was monitored for various field parameters including temperature, pH, turbidity, electrical conductivity, dissolved oxygen (DO), and oxidation reduction potential (ORP) using a YSI™ multi-parameter meter equipped with a flow-through cell. Purging continued until temperature, pH, and conductivity had stabilized. The stabilized field parameters are listed in Table 1.

Groundwater samples were collected from all nine monitoring wells for laboratory analysis during the 2004 third quarter groundwater monitoring event. Groundwater samples were collected from the discharge tubing of the well pump following purging. The Grundfos RediFlo 2™ submersible well pump was cleaned prior to use (and between wells) by washing in a solution of Alconox, rinsing with tap water, final rinsing with deionized water, and air drying. Pre-cleaned, disposable, polyethylene discharge tubing was attached to the pump following each decontamination and was changed between each well purging event. A blind duplicate was collected from well MW-7 and labeled DUP-1. One equipment blank sample, EB-1, was collected by pumping deionized water through the pump and into sample containers following decontamination procedures.

Sample containers and handling procedures for groundwater samples conformed to the established protocols for each specific parameter as described in EPA SW-846. The sample bottles, once filled and preserved as required, were properly labeled and logged on a chain of custody form. The label included well identification number, sample number, date and time sampled, job number, site/client name and location, and sampling personnel's initials. The sealed and labeled samples were placed in an ice chest with ice and transported to Southland Technical Services, Inc. (STS), a California Department of Health Services (CDHS) accredited laboratory for analysis. The ice chest temperature was recorded at 4 degrees

## **2004 Third Quarter Groundwater Monitoring Report**

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centigrade upon receipt by the laboratory. Chain-of-custody records were maintained throughout the sampling program.

### **5.3 LABORATORY ANALYSIS PROGRAM**

All groundwater samples and duplicates were analyzed by STS for TPHg by modified EPA Method 8015M. Groundwater samples were also analyzed for benzene, toluene, ethylbenzene, xylenes (BTEX), and fuel oxygenates Methyl tert-Butyl Ether (MTBE), Di-isopropyl Ether (DIPE), Ethyl tert-butyl Ether (ETBE), tert-Amyl Methyl Ether (TAME), tert-Butanol (TBA), and other volatile organic compounds (VOCs) by EPA Method 8260B.

### **5.4 WELL HEAD MAINTENANCE**

As part of the quarterly monitoring program each well head is inspected to ensure that wells are properly sealed and secured. The routine well maintenance associated with the quarterly groundwater sampling consists of: inspection of water-tight well caps and locks on all monitoring wells and replacement as necessary; replacement of missing or damaged bolts on well box covers; and removal and replacement of damaged well boxes and associated concrete aprons. During this quarterly event, all wells were properly sealed and secured.

### **5.5 WASTE MANAGEMENT**

Well purge water was collected and stored in two 55-gallon DOT-approved drums. The drums were labeled to identify the source of the wastes and individually numbered. The drums were stored onsite and properly disposed of by a licensed waste transporter under contract with Sears, Roebuck & Co., following review of the chemical analysis data.

## **6.0 FINDINGS**

### **6.1 SHALLOW GROUNDWATER CONDITIONS**

The measured depth to groundwater beneath the Site during the third quarter monitoring event ranged from 13.35 feet to 17.30 feet bgs. Calculated groundwater elevations ranged from 2.95 feet to 5.73 feet above mean sea level (msl). Groundwater elevations in the wells have decreased an average of 0.37 feet since the 2004 second quarter monitoring event. Groundwater depths and elevations are listed in Table 1 and Appendix B. An interpretive groundwater elevation contour map, based on the 2004 third quarter groundwater level measurements, is provided as Figure 3. Groundwater elevation contours for the Site were generated by a geostatistical gridding method using SURFER™, a graphical, contouring software program. The resultant groundwater contours indicate an easterly groundwater flow direction with a gradient of about 0.011 (Figure 3).

### **6.2 LABORATORY ANALYTICAL RESULTS**

TPHg was detected in groundwater samples collected from wells MW-2 and MW-7 with concentrations of 426 micrograms per liter ( $\mu\text{g}/\text{L}$ ) and 31,800  $\mu\text{g}/\text{L}$ , respectively. Benzene was detected in samples collected from monitoring wells MW-2 and MW-7, with concentrations of 175  $\mu\text{g}/\text{L}$  and 22,700  $\mu\text{g}/\text{L}$ , respectively. Ethylbenzene and xylene were detected in the sample collected from MW-7 at concentrations of 800  $\mu\text{g}/\text{L}$  and 945  $\mu\text{g}/\text{L}$ , respectively.

Various chlorinated VOCs, including tetrachloroethene (PCE), trichloroethene (TCE) and 1,2-dichloroethane (1,2-DCA) were detected in the groundwater samples collected from wells MW-1, MW-2, MW-3, MW-8, and MW-9. PCE was detected in wells MW-1, MW-3, MW-8, and MW-9 with concentrations ranging from 4.2  $\mu\text{g}/\text{L}$  to 42.5  $\mu\text{g}/\text{L}$ . TCE was detected in wells MW-1, MW-2, MW-3 and MW-9 with concentrations ranging from 3.3  $\mu\text{g}/\text{L}$  to 10.6  $\mu\text{g}/\text{L}$ . 1,2-DCA was detected in well MW-9 at a concentration of 11.3  $\mu\text{g}/\text{L}$ .

Chemical analysis results of the 2004 third quarter groundwater monitoring are presented in Table 2. A copy of the laboratory reports and chain of custody records are included in Appendix C. Groundwater isoconcentration maps for TPHg and Benzene for the 2004 third quarter are shown on Figures 4 and 5, respectively. URS conducted a check of data completeness for the analytical laboratory reports. Results indicate that "these data are considered to be useable for meeting project objectives." A copy of URS' Data Validation Report is included in Appendix D.

### 7.0 DISCUSSION

The 2004 third quarter groundwater monitoring event represents the 36<sup>th</sup> groundwater-sampling event conducted at the Site. Groundwater elevations have decreased approximately 0.37 feet since the last sampling event conducted in May 2004. Groundwater flow direction is towards the east with a gradient of 0.011, which is consistent with previous monitoring events.

TPHg was detected in two of the nine monitoring wells sampled with concentrations up to 31,800 µg/L. Benzene was detected in two of nine monitoring wells sampled with concentrations up to 22,700 µg/L. The likely source is the former gasoline USTs and fuel dispensing area of the former Chevron Station located near the central portion of the Site.

Chlorinated VOCs have been detected in both the upgradient well MW-1 and the downgradient well MW-9 during this, and previous, groundwater sampling events. PCE and TCE concentrations have steadily increased in upgradient wells MW-1 and MW-3 during the last several years. Potential onsite sources of chlorinated VOCs have not been identified; however, a widespread groundwater plume containing chlorinated compounds has been identified in the Site vicinity by Harding ESE and is referenced in the Fourth Quarter 2001 Groundwater Monitoring Report for the Site (IT Corp., May 2002).

Based on the data collected during this and previous monitoring events, the lateral limits of TPHg and BTEX affected groundwater can be described by an oval shaped plume with the long axis trending southeast with a length of approximately 220 feet, and the short axis trending northeast with a length of approximately 140 feet. The plume is defined by the existing monitoring well network and is limited to the Site. Although TPHg and benzene concentrations have increased in well MW-7 since 1995, they have remained relatively stable during the last year. In general, monitoring data collected during the last year suggests that the dissolved phase TPHg and BTEX plume is stable and is not migrating laterally or further down gradient.

## **2004 Third Quarter Groundwater Monitoring Report**

### **8.0 SCHEDULE**

The schedule for work to be conducted during the following quarter is as follows:

- ◆ Quarterly groundwater monitoring of wells MW-1 through MW-9: February 2004,
- ◆ Submittal of 2004 Fourth Quarter Groundwater Monitoring Report to ACEHS: February 2005,

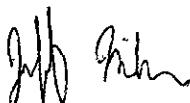
ACEHS will be notified of upcoming field activities.

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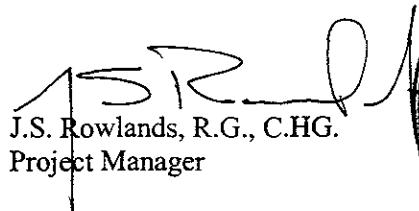
Should you have any questions or comments, please do not hesitate to contact us.

Respectfully Submitted,

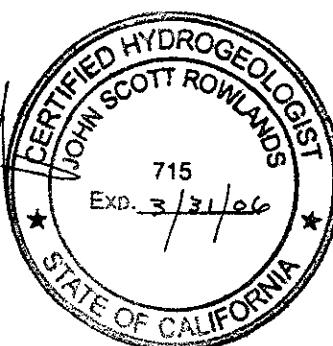
**URS CORPORATION**



Jeffrey Miller  
Staff Geologist



J.S. Rowlands, R.G., C.HG.  
Project Manager



### 9.0 REFERENCES

- Figures, S., 1998. *Groundwater Study and Water Supply History of the East Bay Plain, Alameda and Contra Costa Counties, California*, 12 p.
- Muir, Kenneth S., 1993. *Geologic Framework of the East Bay Plain Groundwater Basin, Alameda, California. Prepared for the Alameda County Flood Control and Water Conservation District*, August 1993.
- California Regional Water Quality Control Board—San Francisco Bay Region Groundwater Committee (RWQCB), 1999. *East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*. June 1999, 106 p.
- Environmental Science & Engineering, Inc., 1995. *Preliminary Site Investigation and Phase II Environmental Assessment*, Goodyear Tire Facility 1901-1911 Telegraph Avenue, Oakland, California 92612, December 27.
- The IT Group, 2000. *Soil and Groundwater Assessment Report*, Sears Auto Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, February 9.
- The IT Group, 2001. *First Quarter 2001 Groundwater Monitoring*, Sears Auto Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, July 8.
- The IT Group, 2001. *Second Quarter 2001 Groundwater Monitoring*, Sears Auto Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, January 8.
- The IT Group, 2002. *Fourth Quarter 2001 Groundwater Monitoring*, Sears Auto Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, May 29.
- URS Corporation, 2002. *2002 First Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, August 5.
- URS Corporation, 2002. *2002 Second Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, September 30.
- URS Corporation, 2002. *2002 Third Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, December 12.
- URS Corporation, 2003. *2002 Fourth Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, February 25.
- URS Corporation, 2003. *2003 First Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, April 28.
- URS Corporation, 2003. *2003 Second Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, September 3.
- URS Corporation, 2003. *2003 Third Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, December 10.

## **2004 Third Quarter Groundwater Monitoring Report**

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URS Corporation, 2004. *2003 Fourth Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, February 5.

URS Corporation, 2004. *2004 First Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, March 31.

URS Corporation, 2004. *2004 Second Quarter Groundwater Monitoring*, Former Sears Retail Center #1039, 1901-1911 Telegraph Avenue, Oakland, California, August 10.

**Table 1**  
**2004 3rd Quarter Groundwater Levels and Parameters**  
**Sears Retail Center Store No. 1039**  
**Oakland, California**

Monitoring Well No.	Date Collected	Notes	GROUNDWATER LEVELS				GROUNDWATER SAMPLING FIELD PARAMETERS						
			Product Thickness (ft)	Depth to Groundwater (feet bgs)	Casing Elevation (MSL)	Groundwater Elevation (MSL)	Temperature (Celsius)	pH	Conductivity ( $\mu\text{S}/\text{cm}$ )	O.R.P. (mV)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Ferrous Iron* (mg/L)
MW-1	8/11/2004	--	0.0	15.26	20.99	5.73	21.10	5.86	896	266.1	16.7	0.12	0.0
MW-2	8/11/2004	--	0.0	15.03	20.50	5.47	22.91	6.32	1700	-9.8	0.0	0.02	3.2
MW-3	8/11/2004	--	0.0	17.06	22.29	5.23	21.97	5.87	584	234.6	2.8	0.02	0.0
MW-4	8/11/2004	--	0.0	13.57	18.61	5.04	22.44	6.51	1634	-0.2	0.0	0.03	1.4
MW-5	8/11/2004	1	0.0	13.35	18.76	5.41	22.07	6.64	1813	-79.5	9.3	0.03	3.6
MW-6	8/11/2004	--	0.0	14.80	18.91	4.11	22.34	6.37	1796	357.7	2.6	0.07	0.0
MW-7	8/11/2004	1	0.0	16.26	20.39	4.13	22.80	6.23	1211	-33.3	11.2	0.04	3.0
MW-8	8/11/2004	--	0.0	17.30	21.12	3.82	22.63	6.09	482	212.5	9.0	0.32	0.0
MW-9	8/11/2004	--	0.0	16.25	19.20	2.95	23.35	6.16	1027	223.5	11.1	0.04	0.0

Notes:

MSL - Mean Sea Level

bgs - Below ground surface

Groundwater Elevation reference to MSL

Groundwater Elevation = Top of casing elevation (MSL) - Depth to Water

I - Petroleum hydrocarbon odor in groundwater

$\mu\text{S}/\text{cm}$  - microSiemens per centimeter

mV - millivolt

mg/L - milligrams per liter

NTU - nephelometric turbidity units

O.R.P. - Oxidation Reduction Potential

\* - Ferrous Iron Field Results

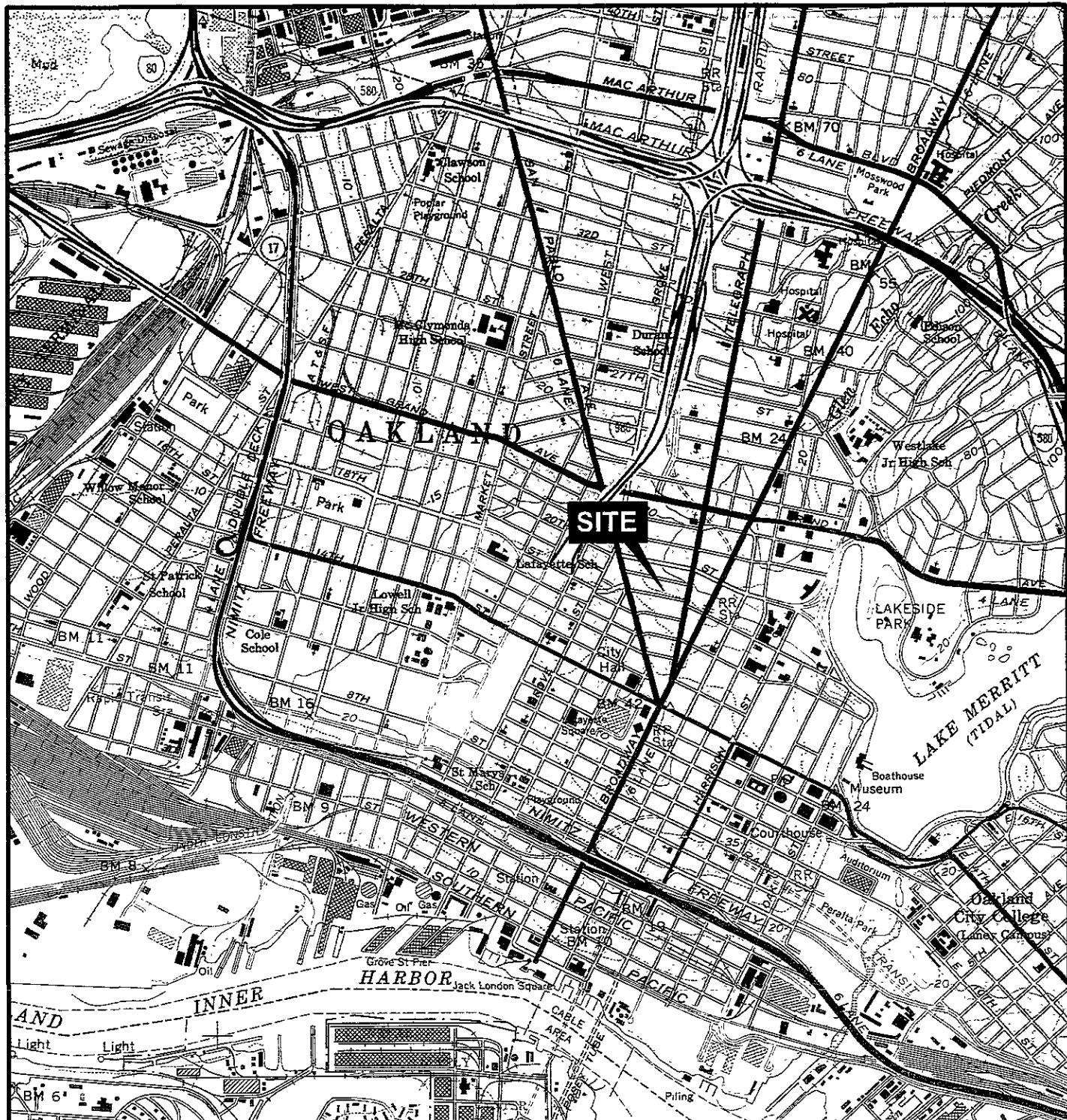
**Table 2**  
**2004 3rd Quarter Groundwater Analytical Results**  
**Sears Retail Center Store No. 1039**  
**Oakland, California**

Monitoring Well No.	Sample Date	LABORATORY ANALYTICAL RESULTS													
		EPA Method 8015M				EPA Method 8260B									
		Notes	TPHg ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Xylenes ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	ETBE ( $\mu\text{g/L}$ )	DIPE ( $\mu\text{g/L}$ )	TAME ( $\mu\text{g/L}$ )	TBA ( $\mu\text{g/L}$ )	PCE ( $\mu\text{g/L}$ )	TCE ( $\mu\text{g/L}$ )	1,2-DCA ( $\mu\text{g/L}$ )
MW-1	8/11/2004	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	42.5	4.9	< 5
MW-2	8/11/2004	--	426	175	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	2.5	3.3	< 5
MW-3	8/11/2004	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	36.0	9.0	< 5
MW-4	8/11/2004	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	2.5	< 2.5	< 5
MW-5	8/11/2004	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	2.5	< 2.5	< 5
MW-6	8/11/2004	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	2.5	< 2.5	< 5
MW-7	8/11/2004	--	31,800	22,700	< 100	800	945	< 200	< 200	< 200	< 200	< 1000	250	< 250	< 500
	8/11/2004	1	33,000	22,500	< 100	820	835	< 200	< 200	< 200	< 200	< 1000	250	< 250	< 500
MW-8	8/11/2004	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	4.2	< 2.5	< 5
MW-9	8/11/2004	--	< 50	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	30.9	10.6	11.3

Notes:

- 1: Duplicate sample
- < - Analyte not detected above indicated method detection limit
- TPHg = Total Petroleum Hydrocarbons as gasoline
- MTBE - Methyl tertiary-butyl ether
- DIPE - Di-isopropyl Ether
- TAME - Tertiary Amyl Methyl Ether
- TBA - Tertiary Butyl Alcohol
- ETBE - Ethyl Tertiary Butyl Ether
- PCE - Tetrachloroethylene
- TCE - Trichloroethene
- 1,2-DCA - 1,2-Dichloroethane (EDC)

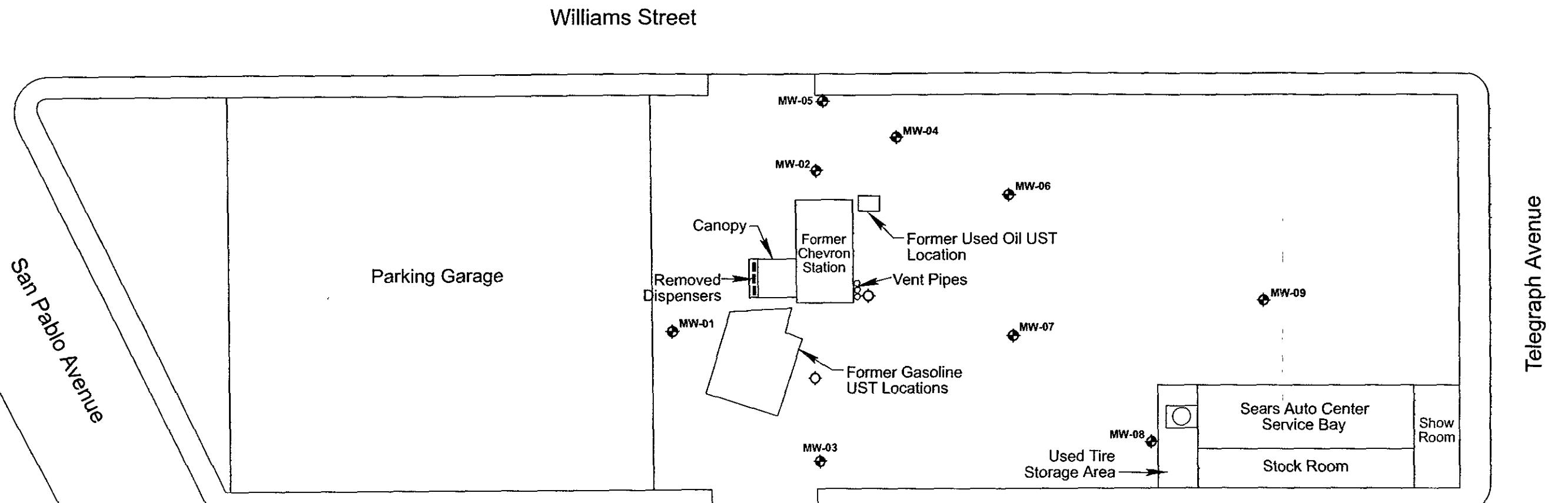
## **FIGURES**



REFERENCE: USGS 7.5 Minute Series Oakland West, CA Quad, 1959, Photorevised 1980

FIGURE 1  
**VICINITY MAP**  
SEARS AUTO CENTER #1039  
1901-1911 TELEGRAPH AVENUE  
OAKLAND, CALIFORNIA  
For Sears, Roebuck & Co.





#### EXPLANATION

- MW-15 MONITORING WELL LOCATION
- PROPOSED MONITORING WELL LOCATION

0 25 50  
Scale in Feet

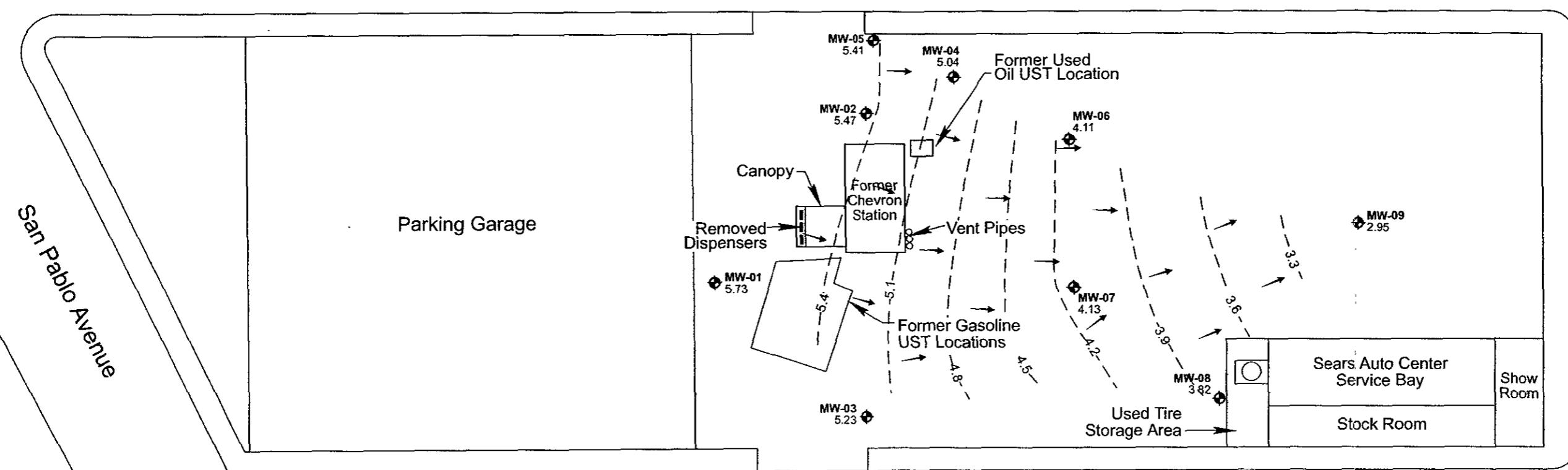
#### PLOT PLAN

Project: SEARS AUTO CENTER #1039, 1901-1911 TELEGRAPH AVE , OAKLAND, CA	
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Project No.: 29863493

Figure 2

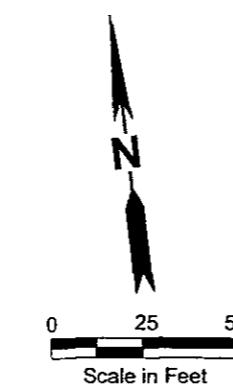
Williams Street



19th Street

EXPLANATION

- MW-05 ◆ MONITORING WELL LOCATION
- 4.8 — GROUNDWATER CONTOUR MSL
- GROUNDWATER FLOW DIRECTION
- 5.41 GROUNDWATER ELEVATION MSL



**GROUNDWATER CONTOUR MAP  
2004 THIRD QUARTER**

Project:	SEARS AUTO CENTER #1039, 1901-1911 TELEGRAPH AVE., OAKLAND, CA
Project No.:	29863493
Date Measured:	August 11, 2004

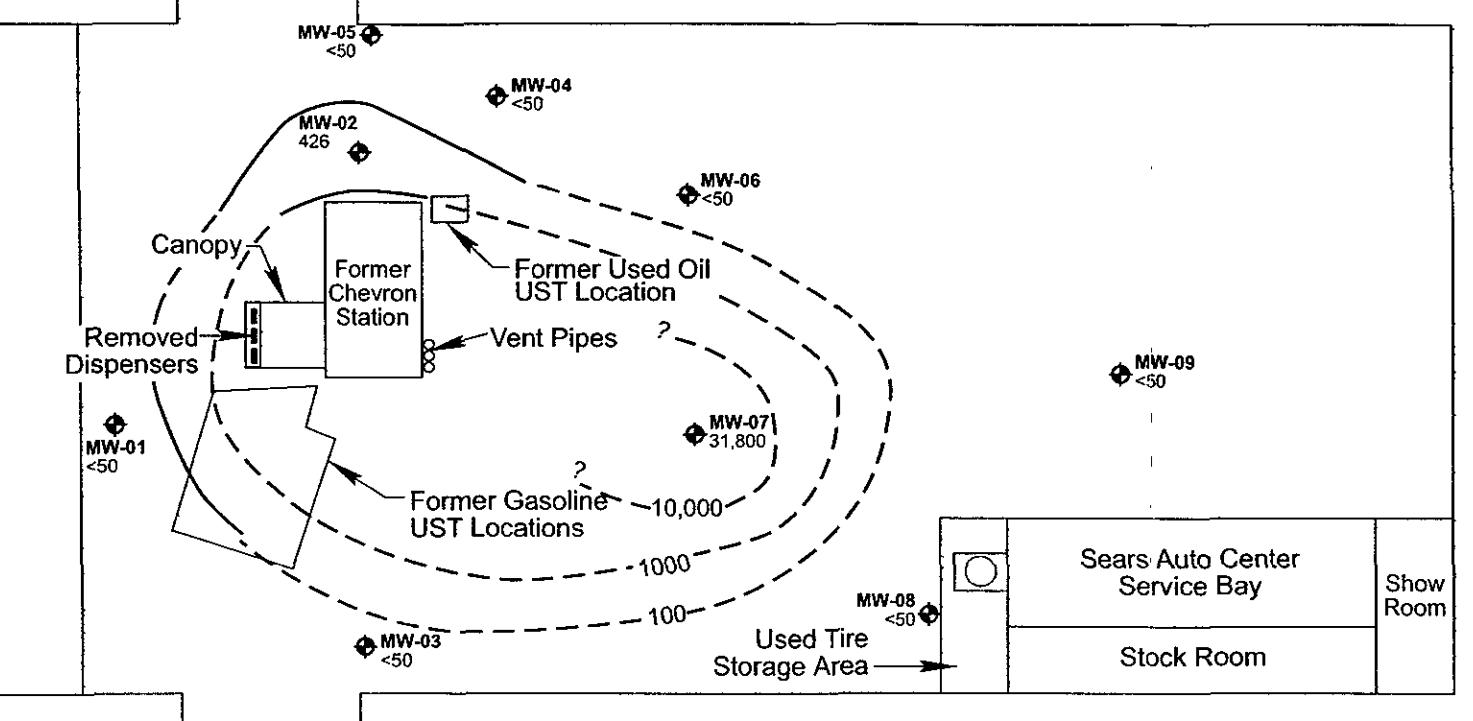
Figure 3

Williams Street

San Pablo Avenue

Parking Garage

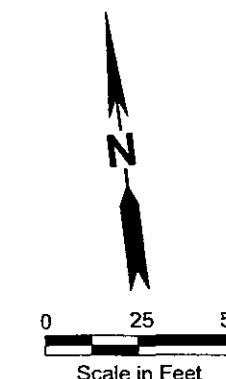
Telegraph Avenue



19th Street

#### EXPLANATION

MW-7  
31,800 ◆ MONITORING WELL LOCATION WITH TPHg CONCENTRATION IN  $\mu\text{g/L}$   
—100— TPHg ISOCONCENTRATION CONTOUR

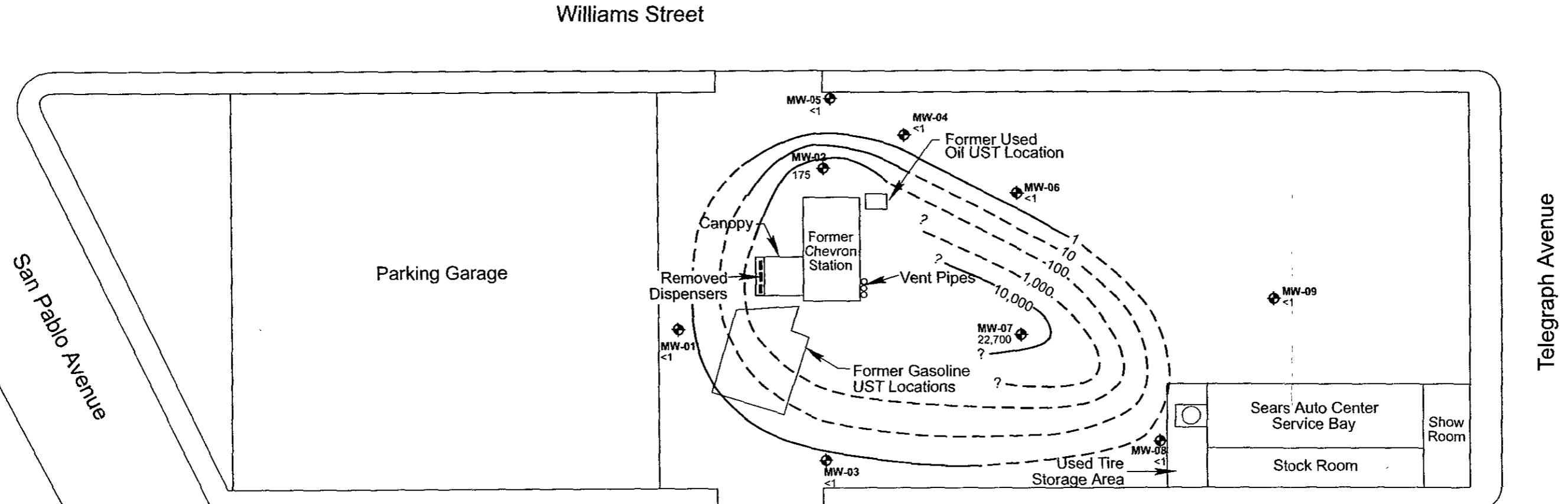


#### TPHg ISOCONCENTRATION CONTOUR MAP- 2004 THIRD QUARTER

Project: SEARS AUTO CENTER #1039,  
1901-1911 TELEGRAPH AVE, OAKLAND, CA

Date Sampled: August 11, 2004

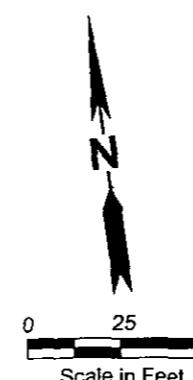
Figure 4



19th Street

#### EXPLANATION

- MW-7  
20,700 Monitoring Well Location with Benzene Concentration in  $\mu\text{g/L}$
- 100— Benzene Isoconcentration Contour



#### BENZENE ISOCONCENTRATION CONTOUR MAP - 2004 THIRD QUARTER

Project: SEARS AUTO CENTER #1039,  
1901-1911 TELEGRAPH AVE, OAKLAND, CA

Date Sampled: August 11, 2004

Figure 5

**APPENDIX A**  
**SWRCB GEOTRACKER SITE DATA**

## LUFT ANALYTICAL DATA REPORT

CHEVRON (OAKLAND)  
1911 TELEGRAPH AVE  
OAKLAND , CA 94612  
**CASE STATUS:** CLOSED  
[SHOW THIS SITE ON MAP](#)  
[RETURN TO REPORT MAIN MENU](#)

**REGIONAL BOARD - CASE #:** 01-0336  
SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)  
**CONTACT:** BETTY GRAHAM - (510) 622-2300  
**LOCAL AGENCY (LEAD AGENCY) - CASE #:** 1630  
ALAMEDA COUNTY LOP - (UNK)

[PLOT Selected Chemicals](#)

[RESUME](#)

Note: You may select up to 6 chemicals.

[\(All Data\)](#) | [\(Most Recent\)](#) | [\(Maximum Concentrations\)](#)

<u>NAME</u>	<u>DATE</u>	<u>PARAMETER</u>	<u>MATRIX</u>	<u>QUALIFIER</u>	<u>RESULT</u>	<u>UNITS</u>	<u>PLOT</u>
-------------	-------------	------------------	---------------	------------------	---------------	--------------	-------------

NO DATA HAS BEEN SUBMITTED TO THE SWRCB FOR THIS MONITORING WELL.

\* DENOTES A HISTORICAL VALUE

[Geotracker Home](#) | [Site/Facility Finder](#) | [Case Finder](#) | [MTBE/Case Reports](#)

## Detailed Release Information

**CHEVRON (OAKLAND)**  
1911 TELEGRAPH AVE  
OAKLAND , CA 94612  
**CASE STATUS:** CLOSED  
[SHOW THIS SITE ON MAP](#)  
[RETURN TO REPORT MAIN MENU](#)

**REGIONAL BOARD - CASE #:** 01-0336  
SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)  
**CONTACT:** BETTY GRAHAM - (510) 622-2300  
**LOCAL AGENCY (LEAD AGENCY) - CASE #:** 1630  
ALAMEDA COUNTY LOP - (UNK)

**CASE TYPE:**

Soil Only

**ENFORCEMENT TYPE:**

**FUNDING:**

**HOW LEAK WAS DISCOVERED:**

Tank Closure

**METHOD USED TO STOP DISCHARGE:**

Close Tank

**INTERIM:**

Y = Interim Action Taken

**CAUSE OF LEAK:**

Structural Failure

**SOURCE OF LEAK:**

Tank

**SUBSTANCES RELEASED:**

<u>Begin Date</u>	<u>Substance</u>	<u>Quantity</u>
UNKNOWN	WASTE OIL	

[Geotracker Home](#) | [Site/Facility Finder](#) | [Case Finder](#) | [MTBE/Case Reports](#)

## Remediation On Site

**CHEVRON (OAKLAND)**  
1911 TELEGRAPH AVE  
OAKLAND , CA 94612  
**CASE STATUS: CLOSED**  
[SHOW THIS SITE ON MAP](#)  
[RETURN TO REPORT MAIN MENU](#)

**REGIONAL BOARD - CASE #: 01-0336**  
SAN FRANCISCO BAY RWQCB (REGION 2) - (BG)  
**CONTACT:** BETTY GRAHAM - (510) 622-2300  
**LOCAL AGENCY (LEAD AGENCY) - CASE #: 1630**  
ALAMEDA COUNTY LOP - (UNK)

<u>Start Date</u>	<u>Method</u>	<u>Phase</u>
4/5/2000	Excavate And Dispose	Soil
4/5/2000	Excavate And Treat	Soil

[Geotracker Home](#) | [Site/Facility Finder](#) | [Case Finder](#) | [MTBE/Case Reports](#)

**APPENDIX B**

**HISTORICAL GROUNDWATER MONITORING RESULTS**

**Appendix B**  
**Historical Groundwater Monitoring Results**  
**Sears Auto Center # 1039**  
**Oakland California**  
**(Page 1 of 5)**

Well No.	Sample No.	Notes	Sample Date	Sample Period	GROUNDWATER LEVELS				LABORATORY ANALYTICAL RESULTS																		
					Depth to Groundwater (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPHg µg/L	TPHd µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L	PCE µg/L	TCE µg/L	1,2-DCA µg/L	cis-1,2 DCE µg/L	1,1-DCE µg/L	1,2,4-TMB µg/L	Naphthalene µg/L	
MW-1	MW-1	5	10/1/1995	Oct-95	—	—	94.34	—	< 50	—	ND	ND	ND	ND	—	—	—	—	—	9.9	ND	ND	—	—	—		
MW-1	MW-1	5	1/1/1996	Jan-96	—	—	94.34	—	< 50	—	ND	ND	ND	ND	—	—	—	—	—	9.9	14	ND	—	—	—		
MW-1	MW-1	5	6/12/1996	Jun-96	16.21	0.00	94.34	78.13	< 50	—	—	< 0.5	1.4	< 0.5	< 2	—	—	—	—	—	12	< 0.5	< 0.5	—	—	—	
MW-1	MW-1	5	9/5/1996	Sep-96	16.89	0.00	94.34	77.45	< 50	—	—	< 0.5	< 0.5	< 0.5	< 2	< 5.0	—	—	—	—	—	12	< 0.5	< 0.5	—	—	—
MW-1	MW-1	5	12/3/1996	Dec-96	17.07	0.00	94.34	77.27	< 50	—	—	< 0.5	< 0.5	< 0.5	< 2	< 5.0	—	—	—	—	—	12	< 0.5	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	5	2/27/1997	Feb-97	15.55	0.00	94.34	78.79	< 50	—	—	< 0.5	< 0.5	< 0.5	< 2	< 5.0	—	—	—	—	—	31	1.3	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	5	6/10/1997	Jun-97	16.46	0.00	94.34	77.85	< 50	—	—	< 0.5	< 0.5	< 0.5	< 2	< 5.0	—	—	—	—	—	19	< 0.5	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	5	8/27/1997	Aug-97	16.97	0.00	94.34	77.37	< 50	—	—	< 0.5	< 0.5	< 0.5	< 2	< 5.0	—	—	—	—	—	16	< 0.5	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	5	11/26/1997	Nov-97	17.24	0.00	94.34	77.10	< 50	—	—	< 0.5	< 0.5	< 0.5	< 2	< 5.0	—	—	—	—	—	17	< 0.5	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	5	2/31/1998	Feb-98	16.07	0.03	94.34	78.27	< 50	—	—	< 0.5	< 0.5	< 0.5	< 3	< 5.0	—	—	—	—	—	20	< 0.5	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	5	5/19/1998	May-98	15.43	0.00	94.34	78.91	< 50	—	—	< 0.5	< 0.5	< 0.5	< 4	< 5.0	—	—	—	—	—	14	< 0.5	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	5	8/10/1998	Aug-98	15.98	0.00	94.34	78.36	< 50	—	—	< 0.5	< 0.5	< 0.5	< 5	< 2.5	—	—	—	—	—	14	< 0.5	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	5	11/9/1998	Nov-98	16.63	0.00	94.34	77.71	< 50	—	—	< 0.5	< 0.5	< 0.5	< 0.5	3.1	—	—	—	—	—	16	< 0.5	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	5	2/8/1999	Feb-99	—	—	94.34	—	< 50	—	—	< 0.5	< 0.5	< 0.5	< 5	< 2.5	—	—	—	—	—	20	< 0.5	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	5	2/11/1999	Feb-99	16.55	0.00	94.34	77.79	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
MW-1	MW-1	5	5/10/1999	May-99	15.50	0.00	94.34	78.54	< 50	—	—	< 0.5	< 0.5	< 0.5	< 2.5	—	—	—	—	—	14	< 0.5	< 0.5	< 0.5	< 0.5	—	
MW-1	MW-1	5	8/9/1999	Aug-99	15.82	0.00	94.34	78.52	< 50	—	—	< 0.5	< 0.5	< 0.5	< 2.5	—	—	—	—	—	14	< 0.5	< 0.5	< 0.5	< 0.5	—	
MW-1	MW-1	5	11/5/1999	Nov-99	16.29	0.00	94.34	78.05	< 50	—	—	< 0.5	< 0.5	< 0.5	< 2.5	—	—	—	—	—	20	< 0.5	< 0.5	< 0.5	< 0.5	—	
MW-1	MW-1	5	2/1/2000	Feb-00	16.02	0.00	94.34	78.32	< 50	—	—	< 0.5	< 0.5	< 0.5	< 0.5	—	—	—	—	—	24	< 0.5	< 0.5	< 0.5	< 0.5	—	
MW-1	MW-1	5	5/2/2000	May-00	14.48	0.00	94.34	79.86	< 50	—	—	< 0.5	< 0.5	< 0.5	< 0.5	—	—	—	—	—	23	< 0.5	< 0.5	< 0.5	< 0.5	—	
MW-1	MW-1	5	8/3/2000	Aug-00	15.20	0.00	94.34	79.14	< 50	—	—	< 0.5	< 0.5	< 0.5	< 0.5	—	—	—	—	—	21	0.5	< 0.5	< 0.5	< 0.5	—	
MW-1	MW-1	5	11/6/2000	Nov-00	15.63	0.00	94.34	78.71	< 50	—	—	< 0.5	< 0.5	< 0.5	< 0.5	—	—	—	—	—	31	< 0.5	< 0.5	< 0.5	< 0.5	—	
MW-1	MW-1	5	2/16/2001	Feb-01	15.45	0.00	94.34	78.89	< 50	—	—	< 0.5	< 0.5	< 0.5	< 0.5	—	—	—	—	—	32	0.7	< 0.5	< 0.5	< 0.5	—	
MW-1	MW-1	5	4/27/2001	Apr-01	14.86	0.00	94.34	79.48	< 50	—	—	< 0.5	< 0.5	< 0.5	< 0.5	—	—	—	—	—	33	< 0.5	< 0.5	< 0.5	< 0.5	—	
MW-1	MW-1	5	7/24/2001	Jul-01	—	0.00	94.34	—	—	—	—	—	—	—	—	—	—	—	—	—	33	< 0.5	< 0.5	< 0.5	< 0.5	—	
MW-1	MW-1	2	3/28/2002	Mar-02	14.52	0.00	94.34	79.82	< 50	71	< 500	< 0.5	< 0.5	< 0.5	< 0.5	5.0	—	—	—	—	—	33	< 0.5	< 0.5	< 0.5	< 0.5	—
MW-1	MW-1	2	6/5/2002	Jun-02	14.72	0.00	94.34	78.52	< 50	20.99	6.27	< 50	< 1	< 1	< 1	2	< 2	< 2	< 2	< 2	< 10	27.1	< 2.5	< 5	< 5	< 5	—
MW-1	MW-1	2	9/6/2002	Sep-02	15.15	0.00	94.34	78.05	< 50	20.99	5.84	< 50	< 1														

**Appendix B**  
**Historical Groundwater Monitoring Results**  
**Sears Auto Center # 1039**  
**Oakland California**  
**(Page 2 of 5)**

Well No.	Sample No.	Notes	Sample Date	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS																		
					Depth to Groundwater (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPHg µg/L	TPHd µg/L	TPHo µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L	PCE µg/L	TCE µg/L	1,2-DCA µg/L	cis-1,2 DCE µg/L	1,1-DCE µg/L	1,2,4-TMB µg/L	Naphthalene µg/L	
MW-2	MW-2	2,3	12/12/2002	Dec-02	15.41	0.00	20.50	5.09	493	< 500	< 2000	87.2	< 1	3.7	9.5	< 2	< 2	< 2	< 2	< 10	< 2.5	7.3	9.3	< 5	< 5	< 5	-	-
MW-2	MW-2	2	3/13/2003	Mar-03	14.75	0.00	20.50	5.75	729	< 500	< 2000	151	< 1	4.8	9.3	< 2	< 2	< 2	< 2	28	< 2.5	9.0	14.1	< 5	< 5	< 5	< 5	-
MW-2	MW-2	2,3	3/13/2003	Mar-03	14.75	0.00	20.50	5.75	757	-	-	172	< 1	5.9	10.8	< 2	< 2	< 2	< 2	26	< 2.5	9.6	17.6	< 5	< 5	< 5	< 5	-
MW-2	MW-2	2,3	6/4/2003	Jun-03	14.43	0.00	20.50	6.07	930	< 500	< 2000	399.0	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	3.5	7.0	< 5	< 5	< 5	< 5	-
MW-2	MW-2	2	9/25/2003	Sep-03	15.25	0.00	20.50	5.25	180	-	-	23.7	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	6.8	9.8	< 5	< 5	< 5	< 5	-
MW-2	MW-2	2,3	9/25/2003	Sep-03	15.25	0.00	20.50	5.25	184	-	-	24.5	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	7.8	9.3	< 5	< 5	< 5	< 5	-
MW-2	MW-2	2	12/4/2003	Dec-03	15.40	0.00	20.50	5.10	174	-	-	5.2	< 2	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	4.4	5.7	< 5	< 5	< 5	< 5	-
MW-2	MW-2	2	2/11/2004	Feb-04	14.85	0.00	20.50	5.65	353	-	-	36.4	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	4.0	5.5	< 5	< 5	< 5	< 5	-
MW-2	MW-2	2	5/5/2004	May-04	14.61	0.00	20.50	5.89	98	-	-	27.6	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	6.1	11.6	< 5	< 5	< 5	< 5	-
MW-2	MW-2	2	8/11/2004	Aug-04	15.03	0.00	20.50	5.47	426	-	-	175	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	3.3	< 5	< 5	< 5	< 5	< 5	
MW-3	MW-3	5	10/1/1995	Oct-95	-	-	96.15	-	< 50	-	-	ND	ND	ND	ND	-	-	-	-	-	ND	ND	-	-	-	-	-	
MW-3	MW-3	5	1/1/1996	Jan-96	-	-	96.15	-	-	-	-	ND	ND	ND	ND	-	-	-	-	-	ND	ND	-	-	-	-	-	
MW-3	MW-3	5	6/12/1996	Jun-96	17.56	0.00	96.15	78.59	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-	
MW-3	MW-3	5	9/5/1996	Sep-96	18.32	0.00	96.15	77.83	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-	-
MW-3	MW-3	5	12/3/1996	Dec-96	18.57	0.00	96.15	77.58	< 50	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	2.3	< 0.5	< 0.5	< 0.5	< 0.5	-	
MW-3	MW-3	5	2/27/1997	Feb-97	17.43	0.00	96.15	78.72	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	6.3	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	6/10/1997	Jun-97	18.12	0.00	96.15	78.03	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	5.9	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	8/27/1997	Aug-97	18.47	0.00	96.15	77.68	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	5.8	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	11/16/1997	Nov-97	18.70	0.00	96.15	77.45	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	7.9	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	2/11/1998	Feb-98	17.76	0.00	96.15	78.39	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	7.9	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	5/19/1998	May-98	16.99	0.00	96.15	79.16	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	5.5	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	8/10/1998	Aug-98	17.51	0.00	96.15	78.64	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5			
MW-3	MW-3	5	11/9/1998	Nov-98	18.07	0.00	96.15	78.98	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	5.5	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	2/8/1999	Feb-99	-	-	96.15	-	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	6.4	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	2/11/1999	Feb-99	18.07	0.00	96.15	78.08	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	-	-	-	-	-	-		
MW-3	MW-3	5	5/10/1999	May-99	17.04	0.00	96.15	79.11	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	5.1	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	8/9/1999	Aug-99	17.77	0.00	96.15	78.38	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	4.8	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	11/5/1999	Nov-99	18.00	0.00	96.15	78.15	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	7.2	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	2/1/2000	Feb-00	17.95	0.00	96.15	78.20	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	6.9	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	5/2/2000	May-00	16.83	0.00	96.15	79.32	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	6.4	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	8/1/2000	Aug-00	17.13	0.00	96.15	79.02	< 50	-	< 0.5	< 0.5	< 0.5	< 0.5	< 2	< 5.0	-	-	-	-	5.6	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-3	MW-3	5	11/6/2000	Nov-00	17.54	0.00	96.15																					

**Appendix B**  
**Historical Groundwater Monitoring Results**  
**Sears Auto Center # 1039**  
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Well No.	Sample No.	Notes	Sample Date	Sample Period	GROUNDWATER LEVELS				LABORATORY ANALYTICAL RESULTS																	
					Depth to Groundwater (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPHg µg/L	TPHd µg/L	TPHo µg/L	Benzene µg/L	Toluene µg/L	Ethylbenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L	PCE µg/L	TCE µg/L	1,2-DCA µg/L	cis-1,2 DCE µg/L	1,1-DCE µg/L	1,2,4-TMB µg/L
MW-4	MW-4	5	5/2/2000	May-00	13.40	0.00	92.01	78.61	55	-	< 1000	8.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-
MW-4	MW-4	5	5/7/2000	May-00	13.70	0.00	92.01	78.31	<50	-	< 1000	0.9	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-
MW-4	MW-4	5	11/6/2000	Nov-00	14.00	0.00	92.01	78.01	88	-	< 1000	22	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-
MW-4	MW-4	5	2/16/2001	Feb-01	13.65	0.00	92.01	78.36	55	-	< 1000	16	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-
MW-4	MW-4	5	4/27/2001	Apr-01	13.40	0.00	92.01	78.61	< 50	-	< 1000	0.7	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-
MW-4	MW-4	5	7/24/2001	Jul-01	13.69	0.00	92.01	78.32	< 50	-	< 1000	0.7	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-
MW-4	MW-4	2	3/27/2002	Mar-02	13.22	0.00	92.01	78.79	< 50	< 50	< 500	1.4	< 0.50	< 0.50	< 1.0	< 5.0	-	-	-	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	-	-
MW-4	MW-4	2	6/5/2002	Jun-02	13.00	0.00	18.61	5.61	< 50	< 500	< 2000	2.1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	-	-
MW-4	MW-4	2	9/6/2002	Sep-02	13.46	0.00	18.61	5.35	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	-	-
MW-4	MW-4	2	12/12/2002	Dec-03	13.98	0.00	18.61	4.63	115	< 500	< 2000	4.3	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	-	-
MW-4	MW-4	2	3/13/2003	Mar-03	13.28	0.00	18.61	5.33	< 50	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5	
MW-4	MW-4	2	6/4/2003	Jun-03	13.03	0.00	18.61	5.58	< 50	< 500	< 2000	4.4	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	2	9/25/2003	Sep-03	13.67	0.00	18.61	4.94	< 50	-	-	1.6	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	2	3/2/2003	Dec-03	13.94	0.00	18.61	4.67	< 50	-	-	2.5	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	2	2/11/2004	Feb-04	14.14	0.00	18.61	4.47	< 50	-	-	1.5	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.0	< 2.5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	2	5/5/2004	May-04	13.44	0.00	18.61	5.17	< 50	-	-	1.0	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.0	< 2.5	< 5	< 5	< 5	< 5	< 5
MW-4	MW-4	2	8/11/2004	Aug-04	13.57	0.00	18.61	5.04	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	< 5
MW-5	MW-5	5	10/1/1995	Oct-95	-	0.00	92.09	-	260	-	-	86	ND	ND	ND	-	-	-	-	ND	ND	ND	-	-	-	-
MW-5	MW-5	5	1/1/1996	Jan-96	-	0.00	92.09	-	180	-	-	160	3.6	ND	ND	-	-	-	-	ND	ND	ND	-	-	-	-
MW-5	MW-5	5	6/12/1996	Jun-96	14.13	0.00	92.09	77.96	260	-	-	54	1.1	< 0.5	< 2	-	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-
MW-5	MW-5	5	9/5/1996	Sep-96	14.77	0.00	92.09	77.32	160	-	-	22	1.0	< 0.5	< 2	< 5.0	-	-	-	< 0.5	< 0.5	< 0.5	-	-	-	-
MW-5	MW-5	5	12/3/1996	Dec-96	13.99	0.00	92.09	78.10	170	-	-	18	0.6	< 0.5	< 2	6	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	2/27/1997	Feb-97	12.08	0.00	92.09	80.01	230	-	-	74	2.0	< 0.5	< 2	5	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	6/10/1997	Jun-97	16.00	0.00	92.09	76.09	1200	-	-	490	19.0	< 3.0	< 10	< 30	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	8/27/1997	Aug-97	14.55	0.00	92.09	77.54	340	-	-	100	4.6	< 0.5	< 2	< 5.0	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	11/26/1997	Nov-97	14.95	0.00	92.09	77.14	400	-	-	78	4.5	0.6	< 2	< 5.0	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	2/11/1998	Feb-98	13.97	0.00	92.09	78.12	320	-	-	62	2.9	< 0.5	< 2	< 5.0	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
MW-5	MW-5	5	5/19/1998	May-98	13.52	0.00																				

**Appendix B**  
**Historical Groundwater Monitoring Results**  
**Sears Auto Center # 1039**  
**Oakland California**  
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Well No.	Sample No.	Notes	Sample Date	Sample Period	GROUNDWATER LEVELS				LABORATORY ANALYTICAL RESULTS																	
					Depth to Groundwater (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPHg $\mu\text{g/L}$	TPHd $\mu\text{g/L}$	TPHo $\mu\text{g/L}$	Benzene $\mu\text{g/L}$	Toluene $\mu\text{g/L}$	Ethylbenzene $\mu\text{g/L}$	Xylenes $\mu\text{g/L}$	MTBE $\mu\text{g/L}$	ETBE $\mu\text{g/L}$	DIPE $\mu\text{g/L}$	TAME $\mu\text{g/L}$	TBA $\mu\text{g/L}$	PCE $\mu\text{g/L}$	TCE $\mu\text{g/L}$	1,2-DCA $\mu\text{g/L}$	cis-1,2 DCE $\mu\text{g/L}$	1,1-DCE $\mu\text{g/L}$	1,2,4-TMB $\mu\text{g/L}$
MW-6	MW-6	5	8/10/1998	Aug-98	14.90	0.00	92.16	77.26	< 50	-	9,000	< 0.5	< 0.5	< 0.5	< 2.5	-	-	-	0.5	0.59	1.3	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	11/9/1998	Nov-98	15.39	0.00	92.16	76.77	< 50	-	< 500	< 0.5	< 0.5	< 0.5	< 2.5	-	-	-	1.2	0.92	1.7	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	2/8/1999	Feb-99	-	-	92.16	76.95	-	-	< 500	< 0.5	< 0.5	< 0.5	< 2.5	-	-	-	0.86	< 0.5	1.3	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	2/11/1999	Feb-99	15.21	0.00	92.16	76.95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-6	MW-6	5	5/10/1999	May-99	14.12	0.00	92.16	78.04	< 50	-	< 5000	< 0.5	< 0.5	< 0.5	< 2.5	-	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	8/9/1999	Aug-99	15.00	0.00	92.16	77.16	< 50	-	< 1000	< 0.5	< 0.5	< 0.5	< 2.5	-	-	-	0.52	< 0.5	< 0.5	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	11/5/1999	Nov-99	15.55	0.00	92.16	76.61	< 50	-	-	< 0.5	< 0.5	< 0.5	< 2.5	-	-	-	0.89	0.89	1.2	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	2/1/2000	Feb-00	15.40	0.00	92.16	76.76	< 50	-	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	1.2	0.9	2.2	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	5/2/2000	May-00	14.55	0.00	92.16	77.61	< 50	-	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	2.6	0.8	1.3	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	8/1/2000	Aug-00	14.85	0.00	92.16	77.31	< 50	-	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	0.8	0.9	2.3	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	11/6/2000	Nov-00	15.10	0.00	92.16	77.06	< 50	-	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	0.9	0.9	3.3	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	2/16/2001	Feb-01	14.93	0.00	92.16	77.23	< 50	-	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	0.9	1.1	6.2	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	4/27/2001	Apr-01	14.40	0.00	92.16	77.76	< 50	-	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	0.7	0.7	3.9	< 0.5	< 0.5	-	-	
MW-6	MW-6	5	7/24/2001	Jul-01	14.68	0.00	92.16	77.48	< 50	-	< 1000	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	0.6	1	4.8	< 0.5	< 0.5	-	-	
MW-6	MW-6	4	3/27/2002	Mar-02	14.09	0.00	92.16	78.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MW-6	MW-6	4	6/5/2002	Jun-02	14.26	0.00	18.91	4.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MW-6	MW-6	4	9/6/2002	Sep-02	14.69	0.00	18.91	4.22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MW-6	MW-6	2	12/12/2002	Dec-02	15.33	0.00	18.91	3.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
MW-6	MW-6	2	3/13/2003	Mar-03	14.65	0.00	18.91	4.26	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	
MW-6	MW-6	2	6/4/2003	Jun-03	14.27	0.00	18.91	4.64	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	
MW-6	MW-6	2	9/25/2003	Sep-03	14.89	0.00	18.91	4.92	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	
MW-6	MW-6	2	12/4/2003	Dec-03	15.07	0.00	18.91	3.84	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	
MW-6	MW-6	2	2/11/2004	Feb-04	14.67	0.00	18.91	4.22	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	
MW-6	MW-6	2	5/5/2004	May-04	14.49	0.00	18.91	4.42	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	
MW-6	MW-6	2	8/11/2004	Aug-04	14.80	0.00	18.91	4.11	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	< 5	
MW-7	MW-7	5	10/1/1995	Oct-95	-	0.00	93.80	-	< 50	-	-	ND	ND	ND	ND	-	-	-	-	5.3	3.5	8.3	-	-	-	-
MW-7	MW-7	5	1/1/1996	Jan-96	-	0.00	93.80	-	< 50	-	-	ND	ND	ND	ND	-	-	-	-	9.3	4.8	5.7	-	-	-	-
MW-7	MW-7	5	6/12/1996	Jun-96	16.56	0.00	93.80	77.24	< 50	-	-	0.6	< 0.5	< 0.5	< 2	-	-	-	-	6.1	3.4	2.9	-	-	-	-
MW-7	MW-7	5	9/5/1996	Sep-96	17.10	0.00	93.80	76.70	< 50	-	-	1.2	< 0.5	< 0.5	< 2	< 5	-	-	-	8.3	4.2	5.9	-</td			

**Appendix B**  
**Historical Groundwater Monitoring Results**  
**Sears Auto Center # 1039**  
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Well No.	Sample No.	Notes	Sample Date	Sample Period	GROUNDWATER LEVELS					LABORATORY ANALYTICAL RESULTS																	
					Depth to Groundwater (ft bgs)	Stand Prod Thickness (ft)	Casing Elevation (ft MSL)	Groundwater Elevation (ft MSL)	TPHg µg/L	TPHd µg/L	TPHo µg/L	Benzene µg/L	Toluene µg/L	Ethybenzene µg/L	Xylenes µg/L	MTBE µg/L	ETBE µg/L	DIPE µg/L	TAME µg/L	TBA µg/L	PCE µg/L	TCE µg/L	1,2-DCA µg/L	cis-1,2 DCE µg/L	1,1-DCE µg/L	1,2,4-TMB µg/L	Naphthalene µg/L
MW-8	MW-8	5	11/5/1999	Nov-99	18.15	0.00	94.49	76.34	< 50	-	-	< 0.5	< 1	< 0.5	< 2.5	-	-	-	-	6.2	< 0.5	< 0.5	< 0.5	< 0.5	-		
MW-8	MW-8	5	2/1/2000	Feb-00	18.10	0.00	94.49	76.39	< 50	-	-	0.6	< 0.5	< 0.5	< 0.5	< 0.5*	-	-	-	-	7.8	< 0.5	< 0.5	< 0.5	< 0.5	-	
MW-8	MW-8	5	5/2/2000	May-00	17.26	0.00	94.49	77.23	< 50	-	-	1.1	< 0.5	< 0.5	< 0.5	< 0.5*	-	-	-	-	5.9	< 0.5	< 0.5	< 0.5	< 0.5	-	
MW-8	MW-8	5	8/1/2000	Aug-00	17.52	0.00	94.49	76.97	< 50	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-	5.6	< 0.5	< 0.5	< 0.5	< 0.5	-	
MW-8	MW-8	5	11/6/2000	Nov-00	17.53	0.00	94.49	76.66	< 50	-	-	1.3	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-	5.5	< 0.5	< 0.5	< 0.5	< 0.5	-	
MW-8	MW-8	5	2/1/2001	Feb-01	17.24	0.00	94.49	76.75	< 50	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-	6.0	< 0.5	< 0.5	< 0.5	< 0.5	-	
MW-8	MW-8	5	4/27/2001	Apr-01	17.10	0.00	94.49	77.39	< 50	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-	4.2	< 0.5	< 0.5	< 0.5	< 0.5	-	
MW-8	MW-8	5	7/24/2001	Jul-01	17.33	0.00	94.49	77.16	< 50	-	-	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	-	-	-	-	4.9	< 0.5	< 0.5	< 0.5	< 0.5	-	
MW-8	MW-8	4	3/27/2002	Mar-02	16.87	0.00	94.49	77.62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-8	MW-8	4	6/5/2002	Jun-02	16.81	0.00	21.12	4.31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MW-8	MW-8	2	9/6/2002	Sep-02	17.26	0.00	21.12	3.84	< 50	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	4.5	< 2.5	< 5	< 5	< 5	-	
MW-8	MW-8	2	12/12/2002	Dec-02	17.62	0.00	21.12	3.58	69	< 500	< 2000	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	< 2.5	< 2.5	< 5	< 5	< 5	-	
MW-8	MW-8	2	3/13/2003	Mar-03	17.19	0.00	21.12	3.93	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	5.2	< 2.5	< 5	< 5	< 5	< 5	-
MW-8	MW-8	2	6/4/2003	Jun-03	16.98	0.00	21.12	4.31	< 50	< 500	< 2000	1.2	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	2.5	< 2.5	< 5	< 5	< 5	< 5	-
MW-8	MW-8	2	9/25/2003	Sep-03	17.39	0.00	21.12	3.73	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	4.7	< 2.5	< 5	< 5	< 5	< 5	-
MW-8	MW-8	2	12/4/2003	Dec-03	17.63	0.00	21.12	3.49	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	3.3	< 2.5	< 5	< 5	< 5	< 5	-
MW-8	MW-8	2	2/11/2004	Feb-04	17.26	0.00	21.12	3.86	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	5	< 2.5	< 5	< 5	< 5	< 5	-
MW-8	MW-8	2	5/5/2004	May-04	17.32	0.00	21.12	4.18	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	3.3	< 2.5	< 5	< 5	< 5	< 5	-
MW-8	MW-8	2	8/11/2004	Aug-04	17.30	0.00	21.12	3.82	< 50	-	-	< 1	< 1	< 1	< 2	< 2	< 2	< 2	< 2	< 10	4.2	< 2.5	< 5	< 5	< 5	< 5	-
MW-9	MW-9	5	11/5/1999	Nov-99	16.86	0.00	92.54	75.68	< 50	-	-	< 0.5	< 0.5	< 0.5	< 0.5	372.4*	-	-	-	-	65	29	32	< 0.5	< 0.5	-	
MW-9	MW-9	5	2/1/2000	Feb-00	16.70	0.00	92.54	75.84	< 50	-	-	2.6	< 0.5	< 0.5	< 0.5	3.0*	-	-	-	-	60	22	36	0.7	< 0.5	-	
MW-9	MW-9	5	5/2/2000	May-00	16.02	0.00	92.54	76.52	77	-	-	0.6	< 0.5	< 0.5	< 0.5	2.0*	-	-	-	-	39	19	30	0.5	< 0.5	-	
MW-9	MW-9	5	8/1/2000	Aug-00	16.34	0.00	92.54	76.20	70	-	-	< 0.5	< 0.5	< 0.5	< 0.5	2.7	-	-	-	-	41	19	37	0.7	< 0.5	-	
MW-9	MW-9	5	11/6/2000	Nov-00	16.45	0.00	92.54	75.99	74	-	-	0.6	< 0.5	< 0.5	< 0.5	3.2	-	-	-	-	31	15	34	0.8	< 0.5	-	
MW-9	MW-9	5	2/16/2001	Feb-01	16.51	0.00	92.54	76.23	52	-	-	< 0.5	< 0.5	< 0.5	< 0.5	3.4	-	-	-	-	26	14	33	0.9	< 0.5	-	
MW-9	MW-9	5	4/27/2001	Apr-01	15.90	0.00	92.54	76.64	64	-	-	< 0.5	< 0.5	< 0.5	< 0.5	1.9	-	-	-	-	42	16	38	0.6	< 0.5	-	
MW-9	MW-9	5	7/24/2001	Jul-01	16.19	0.00	92.54	76.35	< 50	-	-	< 0.5	< 0.5	< 0.5	< 0.5	1.7	-	-	-	-	31	12	34	0.7	< 0.5	-	
MW-9	MW-9	2	3/27/2002	Mar-02	15.61	0.00	92.54	76.93	< 50	< 500	< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	-	-	-	-	32	10	17	0.73	< 0			

**APPENDIX C**

**LABORATORY REPORTS AND CHAIN-OF-CUSTODY DOCUMENTS**



# Southland Technical Services, Inc.

Environmental Laboratories

08-24-2004

Mr. Scott Rowlands  
URS Corporation  
2020 E. First Street, Suite 400  
Santa Ana, CA 92705

Project: 29863493.04034/Sears Oakland 1039  
Project Site: 1901 Telegraph Ave., Oakland, CA  
Sample Date: 08-11-2004  
Lab Job No.: UR408092

Dear Mr. Rowlands:

Enclosed please find the analytical report for the sample(s) received by STS Environmental Laboratories on 08-12-2004 and analyzed for the following parameters:

EPA 8015M (Gasoline)  
EPA 8260B (VOCs by GC/MS)

All analyses have met the QA/QC criteria of this laboratory.

The sample(s) arrived in good conditions (i.e., chilled at 4°C, intact) and with a chain of custody record attached.

STS Environmental Laboratory is certified by CA DHS (Certificate Number 1986). Thank you for giving us the opportunity to serve you. Please feel free to call me at (323) 888-0728 if our laboratory can be of further service to you.

Sincerely,

A handwritten signature in black ink, appearing to read "RW".

Roger Wang, Ph. D.  
Laboratory Director

Enclosures

This cover letter is an integral part of this analytical report.



# Southland Technical Services, Inc.

Environmental Laboratories

08-24-2004

Client:	URS Corporation	Lab Job No.:	UR408092
Project:	29863493.04034/Sears Oakland 1039		
Project Site:	1901 Telegraph Ave.. Oakland, CA	Date Sampled	08-11-2004
Matrix:	Water	Date Received:	08-12-2004
Batch No.:	BMH18-GW1	Date Analyzed:	08-18-2004

**EPA 8015M (Gasoline)**  
**Reporting Unit: µg/L (ppb)**

Date of Analysis for TPH (Gasoline)		08-18-04	08-18-04	08-18-04	08-18-04	08-18-04
Preparation Method for TPH (Gasoline)		5030	5030	5030	5030	5030
LAB SAMPLE ID.		MB	UR408092-1	UR408092-2	UR408092-3	UR408092-4
CLIENT SAMPLE ID.			MW-1	MW-2	MW-3	MW-4
Analyte	DF	1	1	1	1	1
TPH-Gasoline (C4 - C12)	MDL=50	ND	ND	426	ND	ND
Surrogate	Spk Conc.	ACP%	MB %RC	%RC	%RC	%RC
BFB (for TPH-Gasoline)	20 ppb	70-130	88	87	123	88
						89

Date of Analysis for TPH (Gasoline)		08-18-04	08-18-04	08-18-04	08-18-04	08-18-04
Preparation Method for TPH (Gasoline)		5030	5030	5030	5030	5030
LAB SAMPLE ID.		UR408092-5	UR408092-6	UR408092-7	UR408092-8	UR408092-9
CLIENT SAMPLE ID.		MW-5	MW-6	MW-7	MW-8	MW-9
Analyte	DF	1	1	100	1	1
TPH-Gasoline (C4 - C12)	MDL=50	ND	ND	31,800	ND	ND
Surrogate	Spk Conc.	ACP%	%RC	%RC	%RC	%RC
BFB (for TPH-Gasoline)	20 ppb	70-130	84	88	122	90
						90

Date of Analysis for TPH (Gasoline)		08-18-04	08-18-04	08-18-04	08-18-04	
Preparation Method for TPH (Gasoline)		5030	5030	5030	5030	
LAB SAMPLE ID.		MB	UR408092-10	UR408092-11	UR408092-12	
CLIENT SAMPLE ID.			DUP-1	EB-1	Trip Blank	
Analyte	DF	1	100	1	1	
TPH-Gasoline (C4 - C12)	MDL=50	ND	33,000	ND	ND	
Surrogate	Spk Conc.	ACP%	MB %RC	%RC	%RC	%RC
BFB (for TPH-Gasoline)	20 ppb	70-130	88	135 m	88	90

SPK Conc.=Spiking Concentration; ACP%=Acceptable Range of Percent; %RC=% Recovery

MDL=Method Detection Limit; MB=Method Blank; ND=Not Detected(Below MDL); NA=Not Analyzed  
m=Matrix interference.

Checked & approved by:

Roger Wang, Ph.D.  
Laboratory Director.



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR408092

Date Reported: 08-24-2004

Project: 29863493.04034/Sears Oakland 1039

Matrix: Water

Date Sampled: 08-11-2004

**EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/L(ppb)**

Date ANALYZED	08-18-04	08-18-04	08-18-04	08-18-04	08-18-04	08-18-04	08-18-04
PREPARATION METHOD	5030	5030	5030	5030	5030	5030	5030
DILUTION FACTOR	1	1	1	1	1	1	1
LAB SAMPLE ID.		UR408092-1	UR408092-2	UR408092-3	UR408092-4	UR408092-5	UR408092-6
CLIENT SAMPLE I.D.		MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane(EDC)	5	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	1	ND	ND	175	ND	ND	ND
Trichloroethene	2.5	ND	4.9	3.3	9.0	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	1	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2.5	ND	42.5	ND	36.0	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation

Project: 29863493.04034/Sears Oakland 1039

Lab Job No.: UR408092

Matrix: Water

Date Reported: 08-24-2004

Date Sampled: 08-11-2004

**EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb**

COMPOUND	MDL	MB	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6
Chlorobenzene	5	ND						
1,1,1,2-Tetrachloroethane	5	ND						
Ethylbenzene	1	ND						
Total Xylenes	2	ND						
Styrene	5	ND						
1,1,2,2-Tetrachloroethane	5	ND						
1,2,3-Trichloropropane	5	ND						
n-Propylbenzene	5	ND						
2-Chlorotoluene	5	ND						
4-Chlorotoluene	5	ND						
1,3,5-Trimethylbenzene	5	ND						
tert-Butylbenzene	5	ND						
1,2,4-Trimethylbenzene	5	ND						
Sec-Butylbenzene	5	ND						
1,3-Dichlorobenzene	5	ND						
p-Isopropyltoluene	5	ND						
1,4-Dichlorobenzene	5	ND						
1,2-Dichlorobenzene	5	ND						
n-Butylbenzene	5	ND						
1,2,4-Trichlorobenzene	5	ND						
1,2-Dibromo-3-Chloropropane	5	ND						
Hexachlorobutadiene	5	ND						
Naphthalene	5	ND						
1,2,3-Trichlorobenzene	5	ND						
Acetone	25	ND						
2-Butanone (MEK)	25	ND						
Carbon disulfide	25	ND						
4-Methyl-2-pentanone	25	ND						
2-Hexanone	25	ND						
Vinyl Acetate	25	ND						
Ethanol	500	ND						
MTBE	2	ND						
ETBE	2	ND						
DIPE	2	ND						
TAME	2	ND						
t-Butyl Alcohol	10	ND						
<b>SURROGATE</b>	<b>Accept Limit%</b>	<b>%RC</b>						
Dibromofluoro-methane	79-126	100	102	103	101	98	106	106
Toluene-d8	79-121	93	95	93	97	95	89	90
Bromofluoro-benzene	71-131	103	91	104	98	96	88	96

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF × MDL).

Note: Surrogate spike concentration is 25 ppb for all compounds.



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR408092

Date Reported: 08-24-2004

Project: 29863493.04034/Sears Oakland 1039

Matrix: Water

Date Sampled: 08-11-2004

EPA 8260B (VOCs by GC/MS, Page 1 of 2) Reporting Unit: µg/L(ppb)

Date ANALYZED	08-18-04	08-18-04	08-18-04	08-18-04	08-18-04	08-18-04	08-18-04
PREPARATION METHOD	5030	5030	5030	5030	5030	5030	5030
DILUTION FACTOR	1	100	1	1	100	1	1
LAB SAMPLE LD.		UR408092-7	UR408092-8	UR408092-9	UR408092-10	UR408092-11	UR408092-12
CLIENT SAMPLE LD.		MW-7	MW-8	MW-9	DUP-1	EB-1	Trip Blank
COMPOUND	MDL	MB					
Dichlorodifluoromethane	5	ND	ND	ND	ND	ND	ND
Chloromethane	5	ND	ND	ND	ND	ND	ND
Vinyl Chloride	2	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Iodomethane	5	ND	ND	ND	ND	ND	ND
Methylene Chloride	5	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND
Chloroform	5	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane(EDC)	5	ND	ND	ND	11.3	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND
Benzene	1	ND	22,700	ND	ND	22,500	ND
Trichloroethene	2.5	ND	ND	ND	10.6	ND	ND
1,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Bromodichloromethane	5	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	ND	ND	ND	ND	ND
Trans-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	5	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	5	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND
Dibromochloromethane	5	ND	ND	ND	ND	ND	ND
2-Chloroethylvinyl ether	5	ND	ND	ND	ND	ND	ND
Bromoform	5	ND	ND	ND	ND	ND	ND
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND
Toluene	1	ND	ND	ND	ND	ND	ND
Tetrachloroethene	2.5	ND	ND	4.2	30.9	ND	ND
1,2-Dibromoethane(EDB)	5	ND	ND	ND	ND	ND	ND



# Southland Technical Services, Inc.

Environmental Laboratories

Client: URS Corporation

Lab Job No.: UR408092

Date Reported: 08-24-2004

Project: 29863493.04034/Sears Oakland 1039

Matrix: Water

Date Sampled: 08-11-2004

**EPA 8260B (VOCs by GC/MS, Page 2 of 2) Reporting Unit: ppb**

COMPOUND	MDL	MB	MW-7	MW-8	MW-9	DUP-1	EB-1	Trip Blank
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	1	ND	800	ND	ND	820	ND	ND
Total Xylenes	2	ND	945	ND	ND	835	ND	ND
Styrene	5	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	5	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND	ND
2-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND
4-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	415	ND	ND	407	ND	ND
Sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	5	ND	ND	ND	ND	ND	ND	ND
Naphthalene	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
Acetone	25	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	25	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	25	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	25	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	25	ND	ND	ND	ND	ND	ND	ND
Vinyl Acetate	25	ND	ND	ND	ND	ND	ND	ND
Ethanol	500	ND	ND	ND	ND	ND	ND	ND
MTBE	2	ND	ND	ND	ND	ND	ND	ND
ETBE	2	ND	ND	ND	ND	ND	ND	ND
DIPE	2	ND	ND	ND	ND	ND	ND	ND
TAME	2	ND	ND	ND	ND	ND	ND	ND
t-Butyl Alcohol	10	ND	ND	ND	ND	ND	ND	ND
SURROGATE	Accept Limit%	%RC	%RC	%RC	%RC	%RC	%RC	%RC
Dibromofluoro-methane	79-126	100	86	97	107	85	111	101
Toluene-d4	79-121	93	79	93	96	81	91	93
Bromofluoro-benzene	71-131	103	91	100	105	89	94	97

MB=Method Blank; MDL=Method Detection Limit; ND=Not Detected (below DF × MDL).

Note: Surrogate spike concentration is 25 ppb for all compounds.



# **Southland Technical Services, Inc.**

Environmental Laboratories

08-24-2004

## **EPA 8015M (TPH) Batch QA/QC Report**

Client: URS Corporation Lab Job No.: UR408092  
Project: 29863493.04034/Sears Oakland 1039  
Matrix: Water Lab Sample ID: UR408092-4  
Batch No.: BMH18-GW1 Date Analyzed: 08-18-2004

### **I. MS/MSD Report**

Unit: ppb

Analyte	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
TPH-g	ND	1,000	1,150	1,120	115.0	112.0	2.6	30	70-130

### **II. LCS Result**

Unit: ppb

Analyte	LCS Value	True Value	Rec.%	Accept. Limit
TPH-g	1,040	1,000	104.0	80-120

ND: Not Detected.



# Southland Technical Services, Inc.

Environmental Laboratories

08-24-2004

## EPA 8260B Batch QA/QC Report

Client: URS Corporation  
Project: 29863493.04034/Sears Oakland 1039  
Matrix: Water  
Batch No: 0818-VOBW

Lab Job No.: UR408092  
Lab Sample ID: UR408092-4  
Date Analyzed: 08-18-2004

### I. MS/MSD Report Unit: ppb

Compound	Sample Conc.	Spike Conc.	MS	MSD	MS %Rec.	MSD %Rec.	% RPD	%RPD Accept. Limit	%Rec Accept. Limit
1,1-Dichloroethene	ND	20	20.4	21.3	102.0	106.5	4.3	30	70-130
Benzene	ND	20	17.6	19.4	88.0	97.0	9.7	30	70-130
Trichloro-ethene	ND	20	24.2	18.0	121.0	90.0	29.4	30	70-130
Toluene	ND	20	16.4	18.3	82.0	91.5	11.0	30	70-130
Chlorobenzene	ND	20	16.2	18.1	81.0	90.5	11.1	30	70-130

### II. LCS Result Unit: ppb

Compound	LCS Report Value	True Value	Rec.%	Accept. Limit
1,1-Dichloroethene	52.6	50	105.2	80-120
Benzene	47.7	50	95.4	80-120
Trichloro-ethene	48.4	50	96.8	80-120
Toluene	54.4	50	108.8	80-120
Chlorobenzene	44.0	50	88.0	80-120

ND: Not Detected (at the specified limit)

# URS CORPORATION

2020 East First Street, Suite 400  
 Santa Ana, CA 92705  
 (714) 835-6886  
 FAX (714) 667-7147

Date: 8/11/04

## CHAIN OF CUSTODY RECORD

Page 1 of 2

Data Requested in GISKey Format

Lab Name <i>STS</i>	URS Project/PO Number <b>29863493.04034</b>						Requested Analyses				Special Instructions
Client Name/Project Name/Location <b>URS / SEARS OAKLAND</b>	GeoTracker Information										
URS Project Manager <b>S. ROWLANS</b>	EDF Reporting Y N Global ID										
Sampler Name and Signature <i>TIM Neff</i>	COELT Log Number										
Sample Name <i>SL</i>	Sample Date <i>8/11/04</i>	Sample Time <i>0817</i>	Preserved <i>O</i>	Matrix <i>S</i>	Container Type <i>Acetate SS. Brass Jar Encore</i>	# of Cont <i>3</i>	<i>TPTEC lot 607516</i>	<i>BTEX + FUEL OX</i>	<i>EPA 8260B</i>		<i>HOLD</i>
<i>MW-5 - 5</i>			<i>N HCl</i>	<i>G</i>	<i>ml Amb. Plas Glass VOA</i>						
<i>MW-6 - 6</i>		<i>0848</i>	<i>Y</i>	<i>S</i>	<i>Acetate SS. Brass Jar Encore</i>	<i>3</i>					
<i>MW-4 - 4</i>		<i>0950</i>	<i>Y</i>	<i>S</i>	<i>ml Amb. Plas Glass VOA</i>	<i>3</i>					
<i>MW-2 - 2</i>		<i>1112</i>	<i>Y</i>	<i>S</i>	<i>Acetate SS. Brass Jar Encore</i>	<i>3</i>					
<i>MW-8 - 8</i>		<i>1140</i>	<i>Y</i>	<i>S</i>	<i>ml Amb. Plas Glass VOA</i>	<i>3</i>					
<i>MW-3 - 3</i>		<i>1220</i>	<i>Y</i>	<i>S</i>	<i>Acetate SS. Brass Jar Encore</i>	<i>3</i>					
<i>MW-1 - 1</i>		<i>1243</i>	<i>Y</i>	<i>S</i>	<i>ml Amb. Plas. Glass VOA</i>	<i>3</i>					
<i>MW-9 - 9</i>		<i>1312</i>	<i>Y</i>	<i>S</i>	<i>Acetate SS. Brass Jar Encore</i>	<i>3</i>					
<i>EB-1 - 11</i>		<i>1330</i>	<i>Y</i>	<i>S</i>	<i>ml Amb. Plas. Glass VOA</i>	<i>3</i>					
<i>MW-7 - 7</i>		<i>1347</i>	<i>Y</i>	<i>S</i>	<i>Acetate SS. Brass Jar Encore</i>	<i>3</i>					
Relinquished by <i>TIM Neff</i>	Date <i>8/12/04</i>	Received By <i>HS 92-16</i>	Date/Time <i>8/12/04 6:00pm</i>				Turnaround Time (Check)		<b>Lab Use Only</b>		
Relinquished by	Date	Received By	Date/Time				Same Day	72 Hour			
Relinquished by	Date	Received By	Date/Time				24 Hour	5 Day			
Relinquished by	Date	Received By	Date/Time				48 Hour	Standard	<i>48°C</i>		
<b>URS</b>											

S=Solid L=Liquid G=Gas

White Copy in Final Report, Yellow to File, Pink to URS at Dropoff

# URS CORPORATION

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 Santa Ana, CA 92705  
 (714) 835-6886  
 FAX (714) 667-7147

## CHAIN OF CUSTODY RECORD

Date: 8/11/04  
 Page 2 of 2

Data Requested in GISKey Format

Lab Name <b>STS</b>		URS Project/PO Number <b>29863493 .04034</b>		Requested Analyses						Special Instructions					
Client Name/Project Name/Location <b>URS / SEARS OAKLAND</b>		GeoTracker Information													
URS Project Manager <b>J. GOWLAND</b>		EOF Reporting Y N Global ID													
Sample Name and Signature <b>JIM Mylar</b>		COELT Log Number													
Sample Name	Sample Date	Sample Time	Preserved	Matrix	Container Type	# of Cont	TRAY BY STS	FUEL +	FUEL OIL	ELPT S260B					HOLD
DUP - 148-92-10	8/11/04	1352	N HCl	S L G	Acetate SS Brass Jar Encore ml Amb Plas. Glass VOA	3	X	X							
TB - 1 - 12	—	—	N HCl	S L G	Acetate SS Brass Jar Encore ml Amb Plas. Glass VOA	2	X	X							
TEMP. BLANK	—	—	Y	S L G	Acetate SS Brass Jar Encore ml Amb Plas. Glass VOA	1									
		Y	S L G	Acetate SS Brass Jar Encore ml Amb Plas. Glass VOA											
		Y	S L G	Acetate SS Brass Jar Encore ml Amb Plas. Glass VOA											
		Y	S L G	Acetate SS Brass Jar Encore ml Amb Plas. Glass VOA											
		Y	S L G	Acetate SS Brass Jar Encore ml Amb Plas. Glass VOA											
		Y	S L G	Acetate SS Brass Jar Encore ml Amb Plas. Glass VOA											
		Y	S L G	Acetate SS Brass Jar Encore ml Amb Plas. Glass VOA											
		Y	S L G	Acetate SS Brass Jar Encore ml Amb Plas. Glass VOA											
Relinquished by <b>JIM Mylar</b>		Date <b>8/10/04</b>	Received By <b>STS</b>		Date/Time <b>8/11/04 6:00 pm</b>	Turnaround Time (Check)			Lab Use Only Cooler Temperature*: <b>4°C</b>						
Relinquished by		Date	Received By		Date/Time	Same Day	72 Hour		24 Hour	5 Day		48 Hour	Standard	*Record upon arrival	
Relinquished by		Date	Received By		Date/Time									<b>URS</b>	

S=Solid L=Liquid G=Gas

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**APPENDIX D**

**URS DATA VALIDATION REPORTS**

### Level III Data Validation Summary

**PROJECT:** Sears Oakland 1039  
**LABORATORY:** Southland Technical Services, Inc. (STS)  
**MATRIX:** Water  
**LAB PROJECT #:** UR408092  
**SAMPLES:** See table below

Field ID	QC Designations	Lab ID	TPH-Gasoline	VOCs (including Fuel Oxygenates)
MW-5		UR408092-5	X	X
MW-6		UR408092-6	X	X
MW-4		UR408092-4	X	X
MW-2		UR408092-2	X	X
MW-8		UR408092-8	X	X
MW-3		UR408092-3	X	X
MW-1		UR408092-1	X	X
MW-9		UR408092-9	X	X
EB-1	Equipment blank	UR408092-11	X	X
MW-7		UR408092-7	X	X
DUP-1	Field duplicate of MW-7	UR408092-10	X	X
Trip Blank	Trip Blank	UR408092-12	X	X

Date Sampled: 08/11/04

TPH-Gasoline= Total petroleum hydrocarbons – gasoline range (C4-C12)

VOCs = Volatile organic compounds

Fuel Oxygenates = t-butyl alcohol (TBA), t-amyl methyl ether (TAME), di - isopropyl ether (DIPE), ethyl-t-butyl ether (ETBE), methyl t-butyl ether (MTBE).

STS is certified by California Department of Health Services (Certificate Number 1986).

### DATA REVIEW MATRIX

QC Parameter	TPH-Gasoline EPA5030/8015M	VOCs EPA5030/8260B
Chain-of-custody (COC)	✓	✓
Sample Receipt	✓	✓
Holding Times	✓	✓
Method Blank	✓	✓
Surrogate Recovery	(1)	✓
Laboratory Control Sample	✓	✓
Matrix Spike	✓(2)	✓(2)
Duplicate or Spike Duplicate	✓(2)	✓(2)
Field Duplicate	✓	✓
Equipment Blank	✓	✓
Trip Blank	✓	✓

✓ = Quality control evaluation criteria met.

Notes:

1. The surrogate recovery result for TPH-gasoline was outside of laboratory acceptance criterion for sample Dup-1. Consequently, the result for TPH-gasoline was qualified as estimated (J) for this sample.
2. MS/MSD was conducted on sample MW-4. The results were within acceptance criterion.

Summary: Based on this limited validation covering the QC parameters listed in the table above, these data are considered to be useable for meeting project objectives. However, the data user must evaluate the ultimate usability of the data based on the reporting limits obtained. The table below lists the detection limits obtained for undiluted samples.

Analyte	Detection Limits Obtained
TPH-Gasoline	50
VOCs	1 to 25
MTBE	2
TBA	10
Ethanol	500
Other Fuel Oxygenates	2

Aqueous units are microgram per Liter ( $\mu\text{g/L}$ )

Samples MW-7 and DUP-1 required dilution for the 8015M and 8260B analyses due to the high concentration of non-target and target analytes. For these samples, there are also non-detect VOCs results with elevated reporting limits. The data user must evaluate the utility of non-detect VOCs results with elevated reporting limits.