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RC 199

June 30, 2005

Alameda County  
JUL 1 1 2005  
Environmental Health

Mr. Don Hwang  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Re: Connell Automobile Dealership**  
3093 Broadway  
Oakland, CA

Dear Mr. Hwang:

The Hill Family Trust & Linden Broadway Property Trust (Trusts) have retained Pangea Environmental Services, Inc. (Pangea) to provide environmental consulting services for corrective action at the site referenced above. Pangea is submitting the attached report on behalf of the Trusts.

I, Paul Kibel of Fitzgerald Abbot & Beardsley, am the legal representative of the above-referenced Trusts. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report is true and correct to the best of my knowledge.

Sincerely

FITZGERALD ABBOTT & BEARDSLEY LLP

Paul S. Kibel



June 29, 2005

Mr. Don Hwang  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502

Re: **Groundwater Monitoring Report - Second Quarter 2005**  
Connell Automobile Dealership  
3093 Broadway  
Oakland, California  
ACHCSA Case No. 469

Alameda County  
JUL 11 2005  
Environmental Health

Dear Mr. Hwang:

On behalf of the Hill Family Trust and Linden Broadway Trust, Pangea Environmental Services, Inc. has prepared this *Groundwater Monitoring Report – Second Quarter 2005* for the subject site. This report describes groundwater monitoring, sampling, and other site activities.

If you have any questions or comments, please call me at (510) 435-8664.

Sincerely,  
**Pangea Environmental Services, Inc.**

Bob Clark-Riddell, P.E.  
Principal Engineer

Attachments: *Groundwater Monitoring Report – Second Quarter 2005*

cc: Mr. George Hill, 305 Sheridan Avenue, Piedmont, California 94611  
Mr. Gordon Linden, 150 La Salle Avenue, Piedmont, California 94611  
Mr. Paul Kibel, Fitzgerald, Abbott & Beardsley, LLP, 1221 Broadway, 21<sup>st</sup> Floor, Oakland, California 94612  
Mr. Leroy Griffin, Hazardous Materials Manager, Fire Department - OES, 1605 MLK Jr. Way, Oakland, California 94612

**PANGEA Environmental Services, Inc.**

436 14th Street, Suite 1123, Oakland, California 94612 Telephone 510.835.1801 Facsimile 510.893.2500 www.pangeaenv.com



**GROUNDWATER MONITORING REPORT – SECOND QUARTER 2005**

**Connell Automobile Dealership  
3093 Broadway  
Oakland, California  
ACHCSA Case No. 469**

**June 29, 2005**

*Prepared for:*

Hill Family Trust  
c/o Mr. George Hill  
305 Sheridan Avenue  
Piedmont, California 94611

and

Linden Broadway Trust  
c/o Mr. Gordon Linden  
150 La Salle Avenue  
Piedmont, California 94611


*Prepared by:*

Pangea Environmental Services, Inc.  
436 14th Street, Suite 1123  
Oakland, California 94612

*Written by:*

  
Morgan Gillies  
Project Manager



  
Bob Clark-Riddell, P.E.  
Principal Engineer

**PANGEA Environmental Services, Inc.**

## INTRODUCTION

As required by the Alameda County Health Care Services Agency (ACHCSA), Pangea Environmental Services, Inc. (Pangea) has prepared this *Groundwater Monitoring Report – Second Quarter 2005* for the subject site. On behalf of the Hill Family Trust and Linden Broadway Trust, Pangea conducted groundwater monitoring, sampling, and separate-phase hydrocarbon (SPH) measurement and removal during this quarter at the subject site (Figure 1). The purpose of the monitoring and sampling is to evaluate groundwater flow direction, concentrations of dissolved hydrocarbons in groundwater, and the thickness of SPH. If SPH is measured, the product is removed to provide additional remediation of residual hydrocarbons. The groundwater monitoring well locations, select site features, and current analytical data are shown on Figure 2. Current and historical analytical results and groundwater elevation data are summarized on Tables 1, 2 and 3. Table 4 summarizes SPH removal to date.

## SITE DESCRIPTION AND BACKGROUND

The site is located on the hillside of “Pill Hill” south of Hawthorne Avenue, between Broadway and Webster Street. The upper portion of the site is near the location of the former USTs (the presumed source area), while the lower portion of the site is near the bottom of the hill. Three underground storage tanks (USTs) that previously contained gasoline, diesel, and waste oil were removed from the site in December 1989. Soil and groundwater assessment has been ongoing since 1990. Between October 1996 and March 1998, operation of a soil vapor extraction (SVE) remediation system removed approximately 1,421 pounds of hydrocarbons. Manual removal of separate phase hydrocarbons (SPH) from monitoring wells has removed a total of approximately 948 pounds (155 gallons) of SPH since 1991. Chemicals of concern at the site are petroleum hydrocarbons, halogenated volatile organic compounds (e.g., 1,2 dichloroethane) and semi-volatile organic compounds (e.g., naphthalene). The petroleum hydrocarbons of concern are total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), benzene, toluene, ethylbenzene, and xylenes (BTEX). Analytical laboratories have quantified extractable hydrocarbons as total petroleum hydrocarbons as motor oil (TPHmo), but these hydrocarbons may represent the heavier fraction of TPHd. Methyl tertiary butyl ether (MTBE) is not a constituent of concern at this site.

## **GROUNDWATER MONITORING AND SAMPLING**

On May 11, 2005, Pangea gauged depth-to-water groundwater levels and inspected for SPH in site monitoring wells in accordance with the well monitoring protocol in Appendix A. The well monitoring protocol involves quarterly gauging of source area groundwater monitoring wells (MW-1, MW-6, MW-14 and MW-15) and quarterly gauging and sampling of select downgradient and crossgradient groundwater monitoring wells (MW-4, MW-7, MW-8, MW-9 and MW-13). Source area wells are sampled during the first quarter of each year, if no SPH is present.

Prior to sampling, groundwater levels and SPH thickness were measured in the wells within 60 minutes to evaluate groundwater elevation and flow patterns at the site. To facilitate groundwater sampling, approximately three well-casing volumes of groundwater were purged prior to sampling. The sampling technician measured and recorded groundwater pH, conductivity, temperature, and dissolved oxygen concentration. Groundwater samples were collected using clean, disposable bailers and were decanted into the appropriate containers supplied by the analytical laboratory. Samples were labeled, placed in protective plastic bags, stored on crushed, water-based ice at or below 4 degrees Celsius and transported under chain-of-custody to the laboratory. Field data sheets are presented as Appendix B.

## **MONITORING RESULTS**

Current and historical groundwater elevation data and analytical results are described below and summarized on Tables 1, 2 and 3. Current data is summarized on Figure 2. In accordance with the approved sampling protocol, groundwater samples were analyzed for TPHg by modified EPA Method 8015C; TPHd and TPHmo by EPA Method 8015C with silica gel cleanup; and BTEX and MTBE by EPA Method 8021B. During the first quarter of each year, groundwater samples are also analyzed for halogenated volatile organic compounds (HVOCs) by EPA Method 8260B. Table 1 summarizes current and historical analytical results for purgeable hydrocarbons and volatile organic compounds, and presents dissolved oxygen data. Table 2 summarizes extractable hydrocarbons (TPHd and TPHmo), and semi-volatile organic compounds (SVOCs). Table 3 presents historical LUFT metals concentrations in select site groundwater monitoring wells. Laboratory analyses were performed by McCampbell Analytical of Pacheco, California, a state-certified laboratory. The laboratory analytical report and chain of custody are included in Appendix C.

### **Groundwater Flow Direction**

Based on depth-to-water measurements collected on May 11, 2005, groundwater beneath the upper portion of the site generally flows in an easterly direction toward the lower portion of the site. Groundwater at the lower portion of the site generally flows toward the northeast (Figure 2). The inferred flow direction is consistent with previous quarters. Depth to water and groundwater elevation data are presented in Table 1.

### **Hydrocarbon Distribution in Groundwater**

SPH were detected in wells MW-1, MW-6, MW-14 and MW-15, ranging from 0.02 to 0.09 feet in thickness. Hydrocarbons were detected at concentrations above reporting limits in three of the five sampled wells. The maximum TPHg, TPHd, and benzene concentrations were detected in well MW-4 at 110,000 micrograms per liter ( $\mu\text{g/L}$ ), 16,000  $\mu\text{g/L}$ , and 10,000  $\mu\text{g/L}$ , respectively. No hydrocarbons were detected in down/crossgradient well MW-7 or downgradient, offsite well MW-13. No MTBE was detected in the sampled wells.

### **OTHER SITE ACTIVITIES**

#### **SPH Removal this Quarter**

SPH removal activities were conducted on May 11, 2005. A total of 0.28 gallons of SPH was removed during this quarter from wells MW-6, MW-14 and MW-15. SPH was removed from absorbent socks in MW-14 and from the skimmer in MW-6. Additionally, SPH was manually bailed from monitoring well MW-6, MW-14 and MW-15. Approximately 948 pounds (155.52 gallons) of SPH have been removed since SPH removal activities began in December 1991. Table 4 presents the SPH thickness measurements, amount of SPH removed from the wells, and cumulative volume of SPH removal.

## **Ongoing Monitoring and SPH Removal**

Pangea will continue quarterly groundwater monitoring and SPH bailing in accordance with the approved monitoring protocol. All program wells will be gauged for depth to water and SPH. For program wells without SPH, Pangea will collect groundwater samples and measure dissolved oxygen. All groundwater samples will be analyzed for TPHg/BTEX/MTBE by EPA Method 8015C/8021B and for TPHd/TPHmo by EPA Method 8015C with silica gel cleanup. During the first quarter of each year, groundwater samples will also be analyzed for HVOCs by EPA Method 8010. Pangea will summarize groundwater monitoring activities and results in a groundwater monitoring report.

## **ATTACHMENTS**

Figure 1 – Site Location Map

Figure 2 – Groundwater Elevation Contours and Hydrocarbon Concentration Map

Table 1 – Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs and DO

Table 2 – Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs

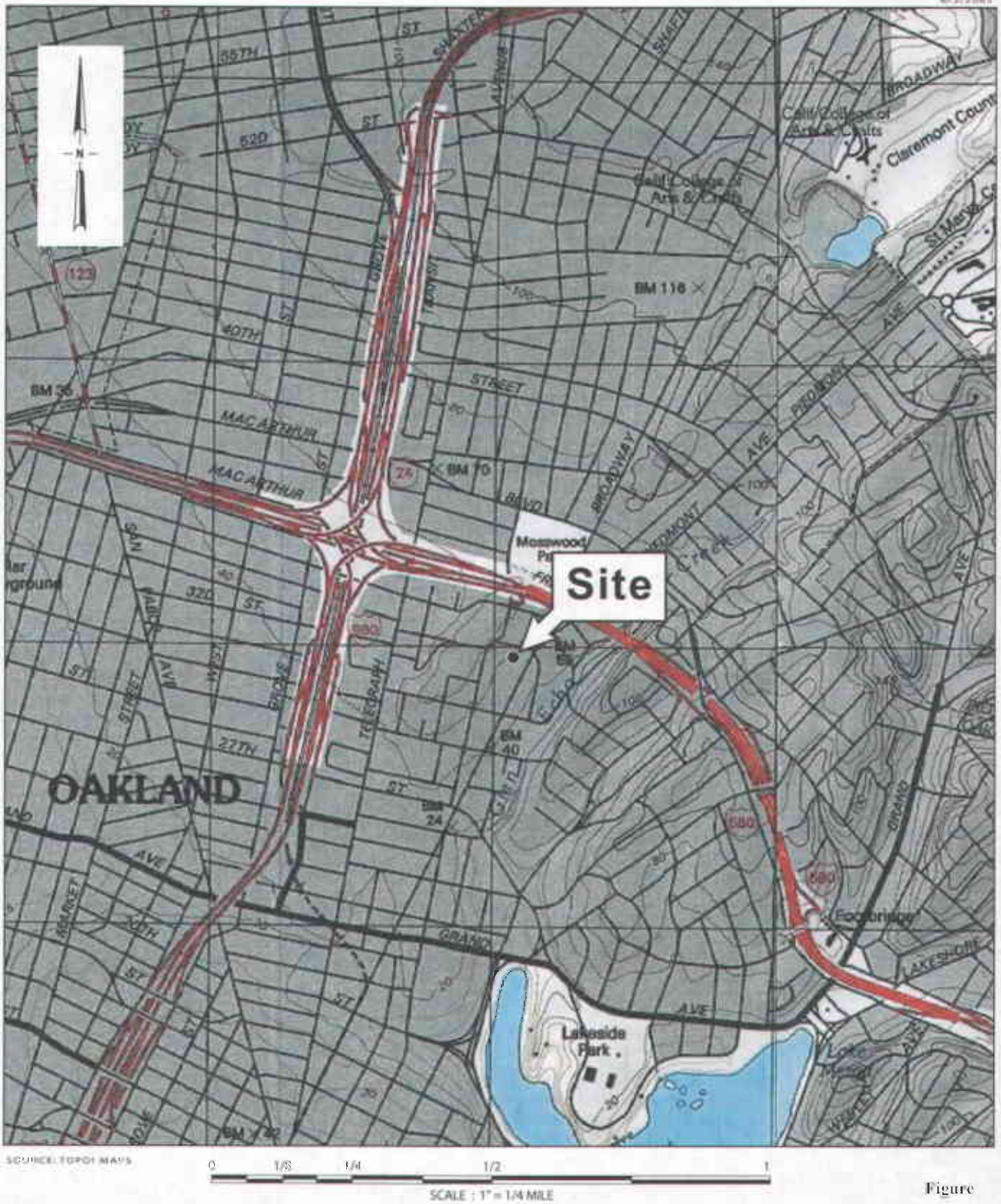
Table 3 – LUFT Metals in Groundwater

Table 4 – Separate-Phase Hydrocarbon Removal

Appendix A – Well Monitoring Protocol

Appendix B – Groundwater Monitoring Field Data Sheets

Appendix C – Laboratory Analytical Report



Figure

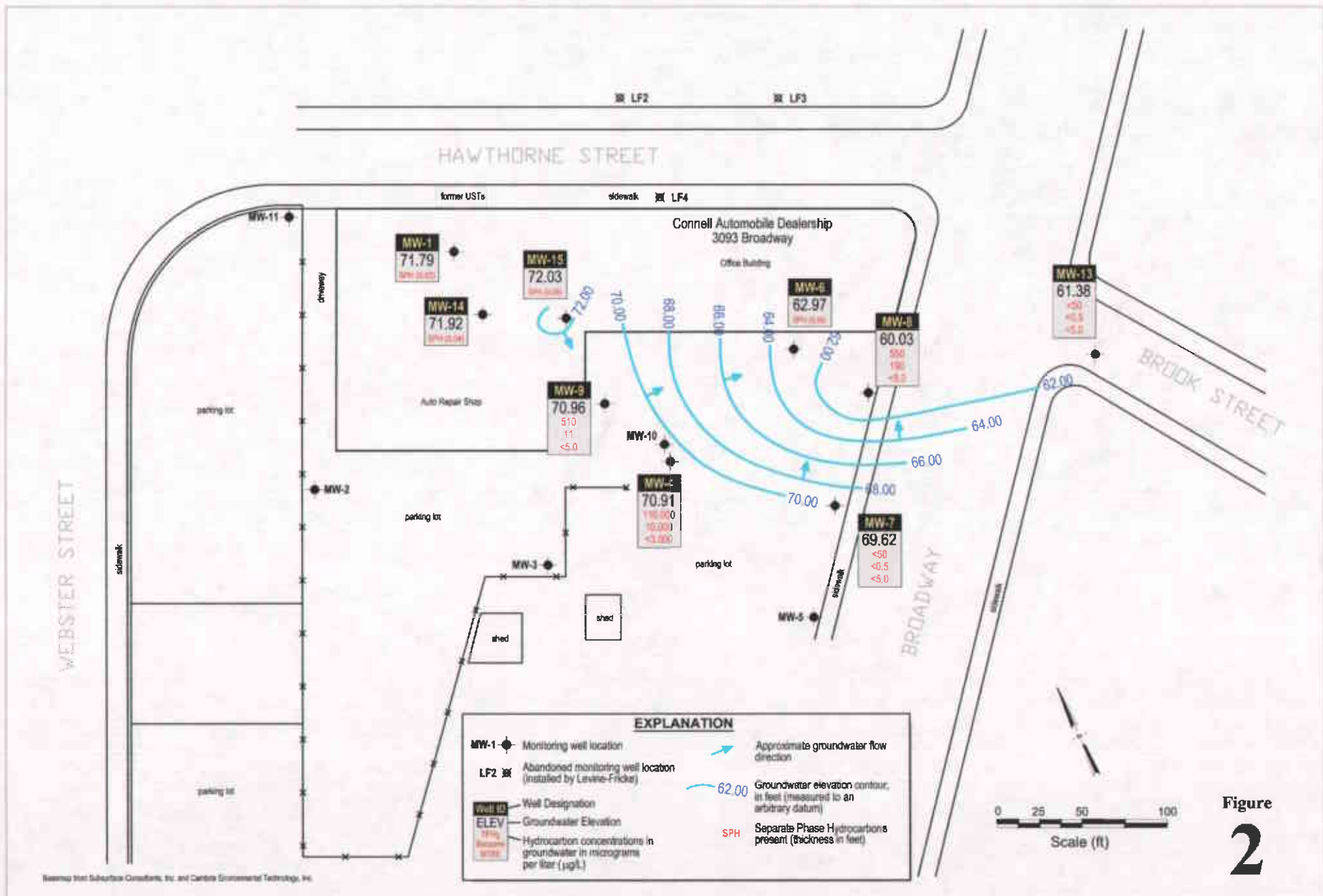
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Vicinity Map

Connell Automobile Dealership  
 3093 Broadway  
 Oakland, California







Revised from Subsurface Consultants, Inc. and Cambridge Environmental Technology, Inc.

**Connell Automobile Dealership**  
 3093 Broadway  
 Oakland, California

**Groundwater Elevation and Hydrocarbon Concentration Map**  
 May 11, 2005

**Figure 2**

# Pangea

**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
<b>Monitoring Well Data</b>												
MW-1	10/5/1990	26.40	68.08	620,000	33,000	50,000	7,900	41,000	--	--	ND	--
94.48	3/1/1991	27.46	67.02	SPH	--	--	--	--	--	--	--	--
	10/12/1992	26.44	68.04	490,000	51,000	59,000	5,000	27,000	--	--	--	--
	11/24/1992	26.63	67.85	320,000	35,000	43,000	4,200	22,000	--	--	ND	--
	4/5/1993	23.77	70.71	270,000	50,000	58,000	4,600	25,000	--	--	ND	--
	7/21/1993	24.51	69.97	SPH	--	--	--	--	--	--	--	--
	11/9/1993	26.06	68.42	SPH	--	--	--	--	--	--	--	--
	8/30/1995	21.73	72.75	SPH	--	--	--	--	--	--	--	--
	12/4/1995	21.94	72.54	SPH	--	--	--	--	<200	--	--	--
	5/2/1996	20.65	73.83	340,000	57,000	73,000	7,200	38,000	--	--	--	--
	11/5/1996	24.29	70.19	270,000	43,000	56,000	4,500	34,000	--	--	--	--
	5/9/1997	22.79	71.69	240,000	36,000	45,000	3,300	17,900	--	--	--	--
	11/5/1997	25.06	69.42	240,000	42,000	48,000	3,600	18,800	<1,000	--	--	--
	2/9/1998	22.64	71.84	220,000	47,000	60,000	5,200	29,800	<1,000	--	ND	--
	5/1/1998	19.95	74.53	160,000	35,000	42,000	2,800	16,000	<1,000	--	ND	--
	11/3/1998	23.29	71.19	200,000	39,000	49,000	4,400	26,000	<500	--	ND	--
	3/24/1999	22.30	72.18	SPH	--	--	--	--	--	--	--	--
	7/1/1999	22.70	71.78	SPH	--	--	--	--	--	--	--	--
	9/21/1999	23.81	70.67	SPH	--	--	--	--	--	--	--	--
	2/9/2000	23.95	70.59	SPH	--	--	--	--	--	--	--	--
	5/31/2000	22.05	72.43	SPH	--	--	--	--	--	--	--	--
	8/8/2000	22.49	71.99	SPH	--	--	--	--	--	--	--	--
	11/14/2000	24.65	69.83	SPH	--	--	--	--	--	--	--	--
	3/1/2001	24.22	70.28	SPH	--	--	--	--	--	--	--	--
	5/7/2001	23.85	70.67	SPH (0.05)	--	--	--	--	--	--	--	--
	8/1/2001	23.91	70.64	SPH (0.09)	--	--	--	--	--	--	--	--
	11/5/2001	23.95	70.67	SPH (0.18)	--	--	--	--	--	--	--	--
	2/13/2002	23.15	71.39	SPH(0.07)	--	--	--	--	--	--	--	--
	5/2/2002	23.91	70.60	SPH (0.04)	--	--	--	--	--	--	--	--
	8/4/2002	24.02	70.48	SPH (0.03)	--	--	--	--	--	--	--	--
	11/26/2002	24.47	70.05	SPH (0.05)	--	--	--	--	--	--	--	--
	1/20/2003	22.37	72.14	SPH (0.04)	--	--	--	--	--	--	--	--
	5/28/2003	21.77	72.73	SPH (0.02)	--	--	--	--	--	--	--	--
	8/5/2003	23.07	71.44	SPH (0.04)	--	--	--	--	--	--	--	--

# Pangea

**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
MW-1 <i>(continued)</i>	11/10/2003	22.53	71.97	SPH (0.03)	--	--	--	--	--	--	--	--
	2/18/2004	22.61	71.91	SPH (0.05)	--	--	--	--	--	--	--	--
	5/27/2004	22.08	72.44	SPH (0.05)	--	--	--	--	--	--	--	--
	8/19/2004	24.35	70.43	SPH (0.38)	--	--	--	--	--	--	--	--
	12/27/2004	24.62	70.21	SPH (0.44)	--	--	--	--	--	--	--	--
	2/18/2005	23.14	71.37	SPH (0.04)	--	--	--	--	--	--	--	--
	<b>5/11/2005</b>	<b>22.71</b>	<b>71.79</b>	<b>SPH (0.02)</b>	--	--	--	--	--	--	--	--
MW-2 94.85	3/1/1991	27.90	66.95	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/24/1992	27.95	66.90	<50	<0.5	1.1	<0.5	1.5	--	--	ND	--
	4/5/1993	25.99	68.86	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	25.63	69.22	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/10/1993	26.76	68.09	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	25.79	69.06	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	23.32	71.53	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	24.62	70.23	<50	<0.5	0.7	<0.5	<0.5	--	--	--	--
4/29/1998	22.22	72.63	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--	
MW-3 90.08	3/1/1991	23.17	66.91	<50	<50	0.6	<0.5	<0.5	--	--	ND	--
	11/25/1992	23.01	67.07	50	<0.5	0.9	<0.5	2	--	--	ND	--
	4/5/1993	22.11	67.97	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	23.93	66.15	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/10/1993	23.14	66.94	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	20.61	69.47	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	18.43	71.65	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	19.77	70.31	<50	<0.5	0.7	<0.5	<0.5	--	--	--	--
4/29/1998	17.92	72.16	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--	

# Pangea

**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
MW-4	3/1/1991	23.79	65.05	150,000	20,000	38,000	2,800	14,000	**	--	ND	--
88.84	10/12/1992	22.48	66.36	230,000	15,000	32,000	2,500	14,000	--	--	--	--
	11/24/1992	22.60	66.24	210,000	14,000	31,000	2,500	14,000	--	--	ND	--
	4/2/1993	20.11	68.73	SPH	--	--	--	--	--	--	--	--
	7/21/1993	20.48	68.36	SPH	--	--	--	--	--	--	--	--
	11/9/1993	21.71	67.13	SPH	--	--	--	--	--	--	--	--
	8/30/1995	19.90	68.94	SPH	--	--	--	--	--	--	--	--
	12/1/1995	19.40	69.44	SPH	--	--	--	--	--	--	--	--
	5/2/1996	17.50	71.34	140,000	24,000	50,000	3,000	15,100	--	--	ND	--
	11/4/1996	20.13	68.71	160,000	16,000	38,000	2,700	14,000	--	--	ND	--
	5/8/1997	18.63	70.21	170,000	16,000	37,000	2,400	15,900	--	--	--	--
	11/5/1997	20.19	68.65	190,000	15,000	31,000	2,200	14,600	<400	--	--	--
	2/9/1998	18.28	70.56	110,000	19,000	42,000	2,500	18,300	<500	--	--	--
	5/1/1998	16.11	72.73	130,000	15,000	31,000	2,000	13,400	<1,000	--	ND	--
	8/4/1998	17.54	71.30	130,000	16,000	34,000	2,400	15,700	<400	--	ND	--
	11/2/1998	19.21	69.63	140,000	16,000	32,000	2,300	15,500	<400	--	ND	--
	3/26/1999	17.51	71.33	110,000	15,000	30,000	1,600	15,000	450 <sup>4</sup>	--	<sup>5</sup>	--
	7/1/1999	18.80	70.04	110,000	13,000	23,000	1,600	12,000	<83	--	<sup>5</sup>	--
	9/21/1999	19.85	68.99	140,000	16,000	31,000	2,400	14,800	ND	--	<sup>5</sup>	3.27
	2/9/2000	19.76	69.08	140,000	16,000	28,000	2,100	14,000	<400	--	DCB: 5.9, MCB: 5.9	--
	5/31/2000	17.90	70.94	15,000	17,000	28,000	2,400	14,000	<0.5 <sup>6</sup>	--	ND	--
	8/8/2000	18.62	70.22	140,000	15,000	25,000	2,100	13,000	<300	--	ND	0.60
	11/14/2000	19.63	69.21	150,000	19,000	36,000	2,900	17,000	<200	--	ND	0.32
	3/1/2001	19.68	69.16	120,000	10,000	15,000	1,300	10,000	<2000	--	ND	0.13
	5/7/2001	18.60	70.24	210,000	12,000	19,000	1,900	12,000	<200	--	ND	0.23
	8/1/2001	18.73	70.11	160,000	13,000	21,000	2,200	13,000	<200	--	ND	--
	11/5/2001	18.97	69.87	220,000	15,000	26,000	3,100	16,000	<200	--	ND	--
	2/13/2002	18.59	70.25	180,000	6,100	11,000	1,400	13,000	<200	--	2-MNE: 620, NE: 1000	0.43
	5/2/2002	18.77	70.07	110,000	13,000	20,000	2,000	10,000	<1,200	--	ND	0.21
	8/4/2002	18.95	69.89	92,000	9,200	15,000	1,800	10,000	<2,000	--	ND	0.35
	11/26/2002	20.83	68.01	110,000	16,000	26,000	2,700	12,000	<1,000	--	ND	0.29
	1/20/2003	16.90	71.94	110,000	9,000	16,000	1,900	11,000	<1,200	--	ND	0.35
	5/28/2003	15.25	73.59	110,000	13,000	17,000	1,800	8,500	<1,000	--	ND	0.59
	8/5/2003	17.05	71.79	110,000	13,000	20,000	2,200	9,800	<1,000	--	<25	0.66
	11/10/2003	16.60	72.24	130,000	14,000	23,000	2,700	12,000	<2,700	--	--	0.74
	2/18/2004	16.59	72.25	110,000	11,000	17,000	1,600	9,900	<3,500	--	--	0.46

# Pangea

**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-4	5/27/2004	15.97	72.87	97,000	12,000	18,000	2,100	8,900	<3,000	--	--	0.59
(continued)	8/19/2004	18.11	70.73	92,000	9,500	15,000	1,900	8,600	<2,500	--	--	0.77
88.84	12/27/2004	19.53	69.31	120,000	16,000	28,000	2,800	12,000	<1,000	--	--	0.2
	2/18/2005	18.40	70.44	97,000	11,000	16,000	1,700	7,400	<4,000	<50	<50	0.89
	5/11/2005	17.93	70.91	110,000	10,000	16,000	1,900	8,400	<3,000	--	--	1.03
MW-5	3/15/1991	26.31	58.53	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
84.84	11/10/1992	26.83	58.01	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	4/2/1993	26.62	58.22	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	26.60	58.24	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/9/1993	27.24	57.60	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	27.46	57.38	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	26.02	58.82	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	26.76	58.08	<50	<0.5	0.5	<0.5	<0.5	--	--	--	--
	4/29/1998	26.55	58.29	<50	<0.5	0.5	<0.5	<0.5	<2	--	ND	--
MW-6	3/15/1991	25.82	59.80	80,000	12,000	13,000	1,100	5,400	--	--	DRCM: 160	--
85.62	10/12/1992	25.02	60.60	19,000	3,200	1,400	200	560	--	--	--	--
	12/1/1992	28.87	56.75	SPH	--	--	--	--	--	--	--	--
	4/2/1993	26.96	58.66	SPH	--	--	--	--	--	--	--	--
	7/21/1993	26.17	59.45	SPH	--	--	--	--	--	--	--	--
	11/9/1993	27.51	58.11	SPH	--	--	--	--	--	--	--	--
	8/30/1995	28.00	57.62	SPH	--	--	--	--	--	--	--	--
	12/1/1995	27.58	58.04	SPH	--	--	--	--	<8,000,000	--	--	--
86.94	5/3/1996	28.15	58.79	130,000	37,000	50,000	3,200	14,200	--	--	ND	--
	5/9/1997	26.54	60.40	1,700,000	14,000	27,000	4,000	28,200	--	--	--	--
	11/5/1997	26.16	60.78	160,000	13,000	19,000	1,900	14,300	<200	--	--	--
	5/1/1998	22.96	62.86	130,000	15,000	23,000	1,700	13,200	<500	--	ND	--
85.82	11/3/1998	24.35	61.47	110,000	17,000	21,000	1,800	10,700	<200	--	ND	--
	3/26/1999	23.82	62.00	SPH	--	--	--	--	--	--	--	--
	7/1/1999	24.45	61.37	SPH	--	--	--	--	--	--	--	--
	9/21/1999	24.58	61.24	SPH	--	--	--	--	--	--	--	--
	2/9/2000	24.93	61.24	SPH	--	--	--	--	--	--	--	--
	5/31/2000	23.47	62.41	SPH	--	--	--	--	--	--	--	--
	8/8/2000	23.85	61.97	SPH	--	--	--	--	--	--	--	--
	11/14/2000	24.61	61.21	SPH	--	--	--	--	--	--	--	--

# Pangea

**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**  
 Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-6	3/1/2001	23.97	61.85	SPH	--	--	--	--	--	--	--	--
(continued)	5/7/2001	23.17	62.71	SPH	--	--	--	--	--	--	--	--
	8/1/2001	obstruction in well		--	--	--	--	--	--	--	--	--
	11/5/2001	obstruction in well		--	--	--	--	--	--	--	--	--
	2/13/2002	obstruction in well		--	--	--	--	--	--	--	--	--
	5/2/2002	23.25	62.41	SPH (0.05)	--	--	--	--	--	--	--	--
	8/4/2002	23.55	62.29	SPH (0.03)	--	--	--	--	--	--	--	--
	11/26/2002	24.22	61.62	SPH (0.03)	--	--	--	--	--	--	--	--
	1/20/2003	22.49	63.36	SPH (0.04)	--	--	--	--	--	--	--	--
	5/28/2003	21.92	63.93	SPH (0.04)	--	--	--	--	--	--	--	--
	8/5/2003	23.98	61.87	SPH (0.04)	--	--	--	--	--	--	--	--
	11/10/2003	23.50	62.40	SPH (0.10)	--	--	--	--	--	--	--	--
	2/18/2004	22.21	63.64	SPH (0.04)	--	--	--	--	--	--	--	--
	5/27/2004	22.01	63.85	SPH (0.05)	--	--	--	--	--	--	--	--
	8/19/2004	24.16	61.68	SPH (0.03)	--	--	--	--	--	--	--	--
	12/27/2004	24.69	61.13	SPH (sheen)	--	--	--	--	--	--	--	--
	2/18/2005	23.55	62.33	SPH (0.08)	--	--	--	--	--	--	--	--
	5/11/2005	22.90	62.97	SPH (0.06)	--	--	--	--	--	--	--	--
MW-7	3/15/1991	21.63	63.78	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
85.41	11/24/1992	21.52	63.89	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	4/2/1993	20.08	65.33	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	19.59	65.82	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/9/1993	20.65	64.76	<50	<0.5	1	<0.5	1.7	--	--	ND	--
	8/30/1995	18.78	66.63	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	12/1/1995	19.47	65.94	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/2/1996	17.15	68.26	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--

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**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-7	8/8/1996	18.48	66.93	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
(continued)	11/4/1996	18.69	66.72	<50	<1	<1	<1	<1	--	--	ND	--
	2/6/1997	17.44	67.97	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	5/8/1997	17.72	67.69	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	8/7/1997	18.49	66.92	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1997	18.86	66.55	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	2/9/1998	17.56	67.85	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	4/29/1998	16.23	69.18	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	8/4/1998	17.24	68.17	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/2/1998	17.91	67.50	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	3/26/1999	16.42	68.99	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	7/1/1999	17.90	67.51	85	<0.5	1.1	0.55	2.5	<0.5	--	'	--
	9/21/1999	18.91	66.50	<50	0.7	1.8	<0.5	1.5	<5.0	--	ND	4.32
	2/9/2000	16.74	68.67	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	--
	5/31/2000	16.21	69.20	<50	3	6	1	9	<0.5	--	ND	--
	8/8/2000	16.92	68.49	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.43
	11/14/2000	17.00	68.41	<50	<0.5	0.63	<0.5	<0.5	<5.0	--	ND	0.44
	3/1/2001	17.09	68.32	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	5/7/2001	17.19	68.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.51
	8/1/2001	17.25	68.16	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	11/5/2001	17.35	68.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	2/13/2002	17.50	67.91	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.80
	5/2/2002	17.30	68.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.31
	8/4/2002	17.58	67.83	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.37
	11/26/2002	18.35	67.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.28
	1/20/2003	15.84	69.57	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.61
	5/28/2003	15.19	70.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.74
	8/5/2003	17.00	68.41	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	0.61
	11/10/2003	16.54	68.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.65
	2/18/2004	16.47	68.94	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.74
	5/27/2004	15.93	69.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.65
	8/19/2004	18.05	67.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.71
	12/27/2004	17.35	68.06	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	2.0
	2/18/2005	16.23	69.18	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	0.93
	5/11/2005	15.79	69.62	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.18

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**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling	Depth to	Groundwater				Ethyl-					
TOC Elev.	Date	Groundwater	Elevation	TVH/TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	1,2-DCA	Other HVOCs	DO
(ft)		(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)
MW-8	10/12/1992	27.70	57.80	70	20	1	1	3	--	--	--	--
85.50	11/25/1992	27.62	57.88	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	4/8/1993	26.64	58.86	490	15	45	5.1	73	--	--	ND	--
	7/21/1993	26.60	58.90	180	2.5	3	<0.5	1.9	--	--	ND	--
	11/11/1993	27.18	58.32	310	23	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	26.35	59.15	660	360	6.8	13	2.8	--	--	--	--
	12/4/1995	26.72	58.78	250	46	0.9	4.9	<0.5	--	--	ND	--
	5/3/1996	25.47	60.03	69	110	<0.5	<0.5	1.5	--	--	ND	--
	8/8/1996	26.41	59.09	120	11	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1996	26.77	58.73	110	20	<1	1	<1	--	--	ND	--
	2/6/1997	25.84	59.66	67	51	<0.5	0.56	<0.5	<2	--	ND	--
	5/9/1997	26.39	59.11	110	59	<0.5	<0.5	<0.5	--	--	--	--
	8/7/1997	26.72	58.78	<50	12	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1997	26.82	58.68	<50	9.4	<0.5	<0.5	<0.5	<2	--	--	--
	2/9/1998	25.57	59.93	<50	6	<0.5	<0.5	<0.5	<2	--	--	--
	5/1/1998	25.64	59.86	430	490	7.1	27	26	<10	--	ND	--
	8/5/1998	25.96	59.54	140	19	<0.5	5.2	5.3	<2	--	ND	--
	11/3/1998	26.27	59.23	150	110	1.1	4.3	4.5	<2	--	ND	--
	3/31/1999	20.93	64.57	54	170	1.5	4.1	1.9	4.4	--	1,1 DCA: 0.7	--
	7/1/1999	26.59	58.91	140	58	0.9	3	2.3	<0.5	--	5	--
	9/21/1999	26.89	58.61	670	170	2.6	11	7.9	<5	--	ND	2.61
	2/9/2000	26.60	58.90	300	60	1.2	4.8	1.2	<5.0	--	<0.5	--
	8/8/2000	26.43	59.07	270	56	1.2	4.1	1.0	<5.0	--	ND	0.25
	11/14/2000	26.60	58.90	330	64	1.3	3.5	0.60	<5.0	--	ND	0.51
	3/1/2001	26.41	59.09	400	140	<0.5	<0.5	0.55	<5.0	--	ND	--
	5/7/2001	26.55	58.95	240	37	0.71	2.5	0.77	<5.0	--	ND	0.49
	8/1/2001	26.71	58.79	130	5.2	<0.5	<0.5	<0.5	<5.0	--	ND	--
	11/5/2001	26.67	58.83	140	3.3	<0.5	<0.5	<0.5	<5.0	--	ND	--
	2/13/2002	26.15	59.35	1,100	440	0.087	0.66	2.0	<5.0	--	ND	0.71
	5/2/2002	26.63	58.87	90	3.9	<0.5	<0.5	<0.5	<5.0	--	ND	0.37
	8/4/2002	26.80	58.70	120	2.4	0.77	<0.5	<0.5	<5.0	--	ND	0.44
	11/26/2002	27.50	58.00	85	3.7	<0.5	<0.5	<0.5	<5.0	--	ND	0.48
	1/20/2003	24.93	60.57	90	3.9	0.67	<0.5	<0.5	<5.0	--	ND	0.65
	5/28/2003	24.28	61.22	120	1.4	<0.5	<0.5	<0.5	<5.0	--	ND	0.71
	8/5/2003	26.51	58.99	150 <sup>f</sup>	<0.5	<0.5	<0.5	<0.5	<5.0	--	<1.0	0.67
	11/10/2003	26.04	59.46	50	0.84	<0.5	<0.5	<0.5	<5.0	--	--	0.70



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**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-8 (continued)	2/18/2004	25.97	59.53	52	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.69
	5/27/2004	25.31	60.19	75	0.76	<0.5	<0.5	<0.5	<5.0	--	--	0.98
	8/19/2004	27.55	57.95	72	1.7	<0.5	<0.5	<0.5	<5.0	--	--	1.41
	12/27/2004	26.50	59.00	160	22	0.74	2.2	0.55	<5.0	--	--	0.2
	2/18/2005	26.00	59.50	130	27	0.70	2.3	0.69	<5.0	47	<1.0	0.91
	5/11/2005	25.47	60.03	550	190	2.5	2.9	9.3	<5.0	--	--	1.22
MW-9 90.37	11/24/1992	23.51	66.86	19,000	180	590	23	2,000	--	--	TCM: 15	--
	4/5/1993	21.14	69.23	2,300	48	4	0.6	13	--	--	TCM: 2	--
	7/21/1993	21.54	68.83	2,300	170	8.1	15	<0.5	--	--	ND	--
	11/10/1993	27.53	62.84	4,400	69	7.3	21	9.7	--	--	ND	--
	8/30/1995	19.59	70.78	3,200	3,900	49	80	22.8	--	--	--	--
	12/4/1995	20.65	69.72	--	--	--	--	--	<2	--	--	--
	5/2/1996	18.63	71.74	<1300	2,600	<13	200	<13	--	--	ND	--
	11/5/1996	20.69	69.68	1,800	280	<5	65	<5	--	--	ND	--
	5/9/1997	19.96	70.41	1,100	160	<0.5	42	<0.5	--	--	--	--
	8/8/1997	20.84	69.53	570 <sup>1,2</sup>	<0.5	<0.5	<0.5	0.78 <sup>3</sup>	<2	--	ND	--
	11/5/1997	21.55	68.82	490 <sup>1</sup>	<0.5	<0.5	6	<0.5	<2	--	--	--
	2/9/1998	20.21	70.16	270 <sup>1</sup>	48	17	5.8	<0.5	<2	--	--	--
	5/1/1998	19.27	71.10	550	70	<0.5	22	2.2	<2	--	ND	--
	8/5/1998	19.35	71.02	550 <sup>1</sup>	88	<0.5	13	1.9 <sup>3</sup>	<2	--	ND	--
	11/2/1998	20.43	69.94	580	<0.5	<0.5	7.5 <sup>3</sup>	1.6 <sup>3</sup>	<2	--	ND	--
	3/25/1999	18.46	71.91	1,100	160	<0.5	21	2.1 <sup>3</sup>	5.7 <sup>4</sup>	--	ND	--
	7/1/1999	19.95	70.42	540	100	7.4	26	16.9	<1.3	--	5	--
9/21/1999	21.15	69.22	2,700	320	98	88	47	<20	--	ND	5.86	
2/9/2000	21.08	69.29	1,600	81	3.6	19	18	<5.0	--	<0.5	--	
5/31/2000	19.11	71.26	1,500	170	13	25	<1.0	<0.5	--	ND	--	
8/8/2000	19.86	70.51	1,300	140	2.1	19	<0.5	<5.0	--	ND	2.4	
11/14/2000	20.90	69.47	1,700	250	2.6	44	2.1	<5.0	--	ND	0.29	
3/1/2001	20.45	69.92	1,800	170	5.6	30	2.5	<20	--	ND	0.31	
5/7/2001	19.83	70.54	1,500	120	2.6	24	<0.5	<5.0	--	ND	0.18	

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**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-9 (continued)	8/1/2001	20.02	70.35	2,600	280	4.8	50	<0.5	<5.0	--	ND	--
	11/5/2001	19.85	70.52	2,200	170	4.5	100	0.54	<5.0	--	ND	--
	2/13/2002	19.80	70.57	1,800	98	3	58	1.5	<5.0	--	ND	0.53
	5/2/2002	19.93	70.44	1,100	82	1.4	20	<0.5	<10	--	ND	0.28
	8/4/2002	20.20	70.17	1,200	130	2.5	50	0.58	<10	--	ND	0.51
	11/26/2002	20.37	70.00	1,200	150	3.3	48	<2.5	<25	--	ND	0.53
	1/20/2003	17.93	72.44	840	110	1.2	31	0.76	<5.0	--	ND	0.31
	5/28/2003	17.25	73.12	1,100	40	1.9	3.0	<0.5	<20	--	ND	0.60
	8/5/2003	19.03	71.34	1,100 <sup>a</sup>	62	0.99	25	<0.5	<5.0	--	<10	0.54
	11/10/2003	18.65	71.72	1,500	120	7.6	41	<1.0	<10	--	--	0.62
	2/18/2004	18.41	71.96	820	50	1.2	19	<0.5	<5.0	--	--	0.58
	5/27/2004	17.89	72.48	730	36	2.0	11	1.6	<5.0	--	--	0.90
	8/19/2004	20.14	70.23	1,200	95	2.5	24	<0.5	<25	--	--	0.98
	12/27/2004	21.65	68.72	720	25	14	2.0	3.5	<15	--	--	2.5
	2/18/2005	19.97	70.40	600	24	<0.5	3.8	<0.5	<5.0	220	<5.0	0.88
	5/11/2005	19.41	70.96	510	11	<0.5	1.6	<0.5	<5.0	--	--	0.95
MW-10 88.60	10/12/1992	21.55	67.05	28,000	2,700	3,800	210	1,300	--	--	--	--
	11/24/1992	21.86	66.74	130,000	9,700	19,000	1,400	8,400	--	--	ND	--
	4/5/1993	19.14	69.46	63,000	6,300	14,000	1,100	7,500	--	--	ND	--
	7/21/1993	19.79	68.81	140,000	16,000	31,000	2,200	13,000	--	--	ND	--
	8/30/1995	17.99	70.61	92,000	13,000	24,000	1,800	9,100	--	--	--	--
	5/3/1996	17.04	71.56	81,000	17,000	29,000	2,100	8,500	--	--	ND	--
	5/9/1997	18.36	70.24	63,000	7,400	13,000	940	4,100	--	--	--	--
	5/1/1998	15.84	72.76	60,000	7,100	14,000	1,100	5,300	<250	--	ND	--
MW-11 102.06	11/24/1992	33.65	68.41	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	12/8/92***	33.37	68.69	<50	<0.1	<0.1	<0.1	<0.1	--	--	--	--
	12/8/1992	33.37	68.69	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	4/5/1993	31.03	71.03	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	7/21/1993	31.90	70.16	160	<0.5	1.8	<0.5	<0.5	--	--	ND	--
	11/9/1993	32.60	69.46	80	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	28.92	73.14	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	5/3/1996	28.00	74.06	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/8/1997	29.93	72.13	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	4/29/1998	27.22	74.84	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--

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**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
MW-13	11/24/1992	26.05	58.01	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
84.06	12/8/92***	25.08	58.98	<50	<0.1	<0.1	<0.1	<0.1	--	--	--	--
	12/8/1992	25.08	58.98	<50	<0.5	<0.5	<0.5	<0.5	--	--	--	--
	4/5/1993	24.64	59.42	<50	<0.5	0.9	<0.5	<0.5	--	--	ND	--
	7/21/1993	24.29	59.77	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	11/9/1993	24.23	59.83	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/30/1995	23.30	60.76	<50	49	<0.5	<0.5	<0.5	--	--	--	--
	12/1/1995	23.80	60.26	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	5/3/1996	23.19	60.87	<50	<0.5	<0.5	<0.5	<0.5	--	--	ND	--
	8/8/1996	23.44	60.62	<50	32	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1996	24.04	60.02	<50	<1	<1	<1	<1	--	--	ND	--
	2/6/1997	23.24	60.82	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	5/8/1997	23.46	60.60	<50	81	<0.5	<0.5	<0.5	--	--	--	--
	8/8/1997	23.92	60.14	<50	<0.5	<0.5	<0.5	<0.5	<2	--	ND	--
	11/5/1997	24.27	59.79	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	2/9/1998	22.89	61.17	<50	<0.5	<0.5	<0.5	<0.5	<2	--	--	--
	4/29/1998	22.27	61.79	<50	24	<0.5	<0.5	<0.5	<2	--	ND	--
	8/4/1998	22.75	61.31	120	200	<1	<1	<1	<4	--	ND	--
	11/3/1998	23.90	60.16	59 <sup>1</sup>	33	<0.5	<0.5	<0.5	<2	--	ND	--
	3/31/1999	23.11	60.95	130	0.56	<0.5	<0.5	<0.5	<2	--	ND	--
	7/1/1999	23.40	60.66	160	370	19	1.2	3.5	<1	--	5	--
	9/21/1999	21.91	62.15	370	150	1.0	0.8	0.8	<5.0	--	ND	3.76
	2/9/2000	23.84	60.22	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	--
	8/8/2000	23.31	60.75	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	1.76
	11/14/2000	24.00	60.06	<50	<0.5	0.52	<0.5	<0.5	<5.0	--	ND	0.49
	3/1/2001	23.93	60.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	5/7/2001	23.93	60.13	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.59
	8/1/2001	24.10	59.96	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	11/5/2001	24.02	60.04	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	--
	2/13/2002	23.70	60.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.55
	5/2/2002	23.97	60.09	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.63
	8/4/2002	24.19	59.87	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.31
	11/26/2002	24.78	59.28	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.47
	1/20/2003	22.10	61.96	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.53
	5/28/2003	21.72	62.34	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	ND	0.75
	8/5/2003	23.99	60.07	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	<0.5	0.59

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**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**  
 Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
>>MW-13 <i>(continued)</i>	11/10/2003	23.47	60.59	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.70
	2/18/2004	22.58	61.48	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.52
	5/27/2004	21.95	62.11	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.84
	8/19/2004	24.29	59.77	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	0.98
	12/27/2004	23.70	60.36	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	5.5
	2/18/2005	23.15	60.91	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5	0.97
	5/11/2005	22.68	61.38	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	1.05
MW-14 94.66	5/26/1998	21.67	72.99	41,000	7,100	11,000	720	3,900	<1000	--	ND	--
	7/1/1999	22.95	71.71	SPH	--	--	--	--	--	--	--	--
	9/21/1999	24.26	70.40	SPH	--	--	--	--	--	--	--	--
	2/9/2000	24.13	70.53	92,000	12,000	17,000	1,300	8,700	<140	--	<0.5	--
	5/31/2000	22.09	72.57	SPH	--	--	--	--	--	--	--	--
	8/8/2000	22.88	71.78	SPH	--	--	--	--	--	--	--	--
	11/14/2000	23.90	70.76	SPH	--	--	--	--	--	--	--	--
	3/1/2001	23.97	70.69	SPH	--	--	--	--	--	--	--	--
	5/7/2001	23.45	71.23	SPH (sheen)	--	--	--	--	--	--	--	--
	8/1/2001	23.57	71.12	SPH (0.06)	--	--	--	--	--	--	--	--
	11/5/2001	23.50	71.18	SPH (0.03)	--	--	--	--	--	--	--	--
	2/13/2002	22.99	71.70	SPH (0.04)	--	--	--	--	--	--	--	--
	5/2/2002	23.51	71.17	SPH (0.02)	--	--	--	--	--	--	--	--
	8/4/2002	23.61	71.06	SPH (0.01)	--	--	--	--	--	--	--	--
	1/20/2003	22.35	72.31	SPH (sheen)	--	--	--	--	--	--	--	--
	5/28/2003	21.95	72.74	SPH (0.04)	--	--	--	--	--	--	--	--
	8/5/2003	23.03	71.66	SPH (0.04)	--	--	--	--	--	--	--	--
11/10/2003	22.70	72.02	SPH (0.07)	--	--	--	--	--	--	--	--	
2/18/2004	22.37	72.32	SPH (0.04)	--	--	--	--	--	--	--	--	
5/27/2004	21.78	72.92	SPH (0.05)	--	--	--	--	--	--	--	--	
8/19/2004	24.13	70.57	SPH (0.05)	--	--	--	--	--	--	--	--	
12/27/2004	24.19	70.47	SPH (sheen)	--	--	--	--	--	--	--	--	
2/18/2005	23.24	71.46	SPH (0.05)	--	--	--	--	--	--	--	--	
5/11/2005	22.77	71.92	SPH (0.04)	--	--	--	--	--	--	--	--	

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**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH/TPHg (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)	1,2-DCA (µg/L)	Other HVOCs (µg/L)	DO (mg/L)
MW-15	5/26/1998	21.87	72.89	130,000	30,000	38,000	2,500	12,600	<1000	--	ND	--
94.76	7/1/1999	22.25	72.51	SPH	--	--	--	--	--	--	--	--
	9/21/1999	24.12	70.64	SPH	--	--	--	--	--	--	--	--
	2/9/2000	24.42	70.34	180,000	32,000	37,000	2,800	14,000	<200	--	<0.5	--
	5/31/2000	22.40	72.36	SPH	--	--	--	--	--	--	--	--
	8/8/2000	23.17	71.59	SPH	--	--	--	--	--	--	--	--
	11/14/2000	24.15	70.61	SPH	--	--	--	--	--	--	--	--
	3/1/2001	23.99	70.77	SPH	--	--	--	--	--	--	--	--
	5/7/2001	23.50	71.26	SPH (sheen)	--	--	--	--	--	--	--	--
	8/1/2001	23.62	71.14	SPH (sheen)	--	--	--	--	--	--	--	--
	11/5/2001	23.65	71.11	SPH (sheen)	--	--	--	--	--	--	--	--
	2/13/2002	23.09	71.67	68,000	9,300	8,500	760	2,600	<200	--	ND	0.59
	5/2/2002	23.59	71.17	SPH (sheen)	--	--	--	--	--	--	--	--
	8/4/2002	23.65	71.11	SPH (sheen)	--	--	--	--	--	--	--	--
	11/26/2002	24.59	70.17	SPH (sheen)	--	--	--	--	--	--	--	--
	1/20/2003	22.08	72.68	48,000	9,900	10,000	1,000	3,600	<1,200	--	ND	0.24
	5/28/2003	21.68	73.08	SPH (sheen)	--	--	--	--	--	--	--	--
	8/5/2003	24.05	70.71	SPH (sheen)	--	--	--	--	--	--	--	--
	11/10/2003	23.68	71.08	SPH (sheen)	--	--	--	--	--	--	--	--
	2/18/2004	23.51	71.25	25,000	5,200	3,600	390	1,100	<1,000	--	--	0.63
	5/27/2004	22.98	71.78	SPH (sheen)	--	--	--	--	--	--	--	--
	8/19/2004	25.31	69.45	SPH (sheen)	--	--	--	--	--	--	--	0.42
	12/27/2004	24.46	70.30	SPH (sheen)	--	--	--	--	--	--	--	--
	2/18/2005	23.27	71.57	SPH (0.10)	--	--	--	--	--	--	--	--
	5/11/2005	22.80	72.03	SPH (0.09)	--	--	--	--	--	--	--	--

## Grab Sampling Data

### Sample ID

CPT-1****	10/6/1992	--	--	490	20	60	10	60	--	1	--	--
CPT-3	10/6/1992	--	--	50	<0.4	<0.4	3	3	--	<4	--	--
CPT-4	10/6/1992	--	--	1,100	60	50	80	15	--	110	--	--
CPT-5	10/6/1992	--	--	600,000	2,300	53,000	8,000	43,000	--	730	--	--
CPT-7	10/6/1992	--	--	1,700,000	40,000	120,000	25,000	120,000	--	2,900	--	--

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**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling	Depth to	Groundwater				Ethyl-					
TOC Elev.	Date	Groundwater	Elevation	TVH/TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	1,2-DCA	Other HVOCs	DO
(ft)		(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)
CPT-9	10/7/1992	--	--	2,100,000	49,000	140,000	28,000	145,000	--	620	--	--
CPT-10	10/7/1992	--	--	190,000	13,000	16,000	3,900	18,000	--	1,400	--	--
CPT-11	10/7/1992	--	--	2,000	200	50	30	70	--	11	--	--
CPT-12	10/7/1992	--	--	130,000	4,100	10,000	2,600	10,000	--	9	--	--
CPT-13(MW-10)	10/7/1992	--	--	28,000	2,700	3,800	210	1,300	--	150	--	--
CPT-17 (B-12)	10/6/1992	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	<1	ND	--
B (boring)	5/16/1998	--	--	140	37	0.64	6.6	1.7	<2	17		
C (boring)	5/16/1998	--	--	<50	0.72	<0.5	<0.5	<0.5	<2	210		
G (boring)	5/16/1998	--	--	590,000	15,000	25,000	2,100	10,800	<500	880		

**Abbreviations and Notes:**

TOC Elev. (ft) = Top of casing elevation, surveyed to an arbitrary datum (measured in feet)

µg/L = micrograms per liter = parts per billion = ppb

-- = Not measured or not analyzed

ND = Not detected above laboratory reporting limit; see laboratory reports for individual reporting limits.

SPH = Separate-phase hydrocarbons encountered in well (value in parentheses is thickness in feet)

TVH = Total Volatile Hydrocarbons

TPHg = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015; value in parentheses by EPA Method 8260

Benzene, toluene, ethylbenzene, and xylenes by EPA Method 8021B; value in parentheses by EPA Method 8260

MTBE = Methyl tertiary butyl ether by EPA Method 8021B; values in parentheses by EPA Method 8260

HVOCs = Halogenated volatile organic compounds by EPA Method 8010

1,2-DCA = 1,2 Dichloroethane by EPA Method 8010

DCB = 1, 3 Dichlorobenzene

DBCM = Dibromochloromethane

MCB = Chlorobenzene

NE = Naphthalene (results for MW-1 from 1995 through 1998 from SCI reporting of SVOC results)

TCM = Chloroform = trichloromethane

DO = Dissolved oxygen, measured in the field.

<n = Chemical not present at a concentration in excess of detection limit shown.

\* = Suspect laboratory contamination contributing to test result.

\*\* = Fuel fingerprint analysis indicates MTBE is not present in the free product sample collected from this well.

\*\*\* = Duplicate sample sent to a different chemical laboratory.

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**Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons, HVOCs, and Dissolved Oxygen**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling	Depth to	Groundwater				Ethyl-					
TOC Elev.	Date	Groundwater	Elevation	TVH/TPHg	Benzene	Toluene	benzene	Xylenes	MTBE	1,2-DCA	Other HVOCs	DO
(ft)		(ft)	(ft)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)

\*\*\*\* = CPT-2, 6, 8, 14, 15 and 16 were not sampled.

1 = Sample exhibits fuel pattern which does not resemble standard

2 = Lighter hydrocarbons than indicated standard

3 = Presence of this compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two.

4 = Detection may potentially be a false positive, to be checked during the next event.

5 = One or more of the following substances found: Acetone, 1,2-Dibromoethane, 1,3,5-Trimethylbenzene, 2-Chlorotoluene, 1,2,4-Trimethylbenzene, n-Butylbenzene, and Naphthalene.

See laboratory results for details.

6 = Confirmed by GC/MS.

# Pangea

**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-1	10/5/1990	26.40	68.08	<500	--	--	--	--	--
94.48	3/1/1991	27.46	67.02	SPH	--	--	--	--	--
	10/12/1992	26.44	68.04	--	--	--	--	--	--
	11/24/1992	26.63	67.85	4,600	--	--	--	--	--
	4/5/1993	23.77	70.71	25,000	--	--	--	--	--
	7/21/1993	24.51	69.97	SPH	--	--	--	--	--
	11/9/1993	26.06	68.42	SPH	--	--	--	--	--
	8/30/1995	21.73	72.75	SPH	--	--	630	1,200	1
	12/4/1995	21.94	72.54	SPH	--	--	--	--	--
	5/2/1996	20.65	73.83	32,000	--	--	250	640	ND
	11/5/1996	24.29	70.19	--	--	--	--	--	--
	5/9/1997	22.79	71.69	28,000	--	--	280	650	2
	11/5/1997	25.06	69.42	28,000	--	--	720	1,500	ND
	2/9/1998	22.64	71.84	27,000	--	--	160	570	3
	5/1/1998	19.95	74.53	29,000	--	--	--	--	--
	5/27/1998	--	--	--	--	--	120	630	4
	11/3/1998	23.29	71.19	37,000	--	--	500	1,100	ND?
	3/24/1999	22.30	72.18	SPH	--	--	--	--	--
	7/1/1999	22.70	71.78	SPH	--	--	--	--	--
	9/21/1999	23.81	70.67	SPH	--	--	--	--	--
	2/9/2000	23.95	70.59	--	SPH	--	--	--	--
	5/31/2000	22.05	72.43	--	SPH	--	--	--	--
	11/14/2000	24.65	69.83	--	SPH	--	--	--	--
	3/1/2001	24.22	70.28	--	SPH	--	--	--	--
	5/7/2001	23.85	70.67	--	SPH	--	--	--	--
	8/1/2001	23.91	70.64	--	SPH	--	--	--	--
	11/5/2001	23.95	70.67	--	SPH	--	--	--	--
	2/13/2002	23.15	71.39	--	SPH (0.07)	--	--	--	--
	5/2/2002	23.91	70.60	--	SPH (0.04)	--	--	--	--
	8/4/2002	24.02	70.48	--	SPH (0.03)	--	--	--	--
	11/26/2002	24.47	70.05	--	SPH (0.05)	--	--	--	--
	1/20/2003	22.37	72.14	--	SPH (0.04)	--	--	--	--
	5/28/2003	21.77	72.73	--	SPH (0.02)	--	--	--	--
	8/5/2003	23.07	71.44	--	SPH (0.04)	--	--	--	--
	11/10/2003	22.53	71.97	--	SPH (0.03)	--	--	--	--



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**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-1	2/18/2004	22.61	71.91	--	SPH (0.05)	--	--	--	--
(cont'd)	5/27/2004	22.08	72.44	--	SPH (0.05)	--	--	--	--
	8/19/2004	24.35	70.43	--	SPH (0.38)	--	--	--	--
	12/27/2004	24.62	70.21	--	SPH (0.44)	--	--	--	--
	2/18/2005	23.14	71.37	--	SPH (0.04)	--	--	--	--
	5/11/2005	22.71	71.79	--	SPH (0.02)	--	--	--	--
MW-2	3/1/1991	27.86	66.95	<50	--	--	--	--	--
94.81	11/24/1992	27.91	66.90	<50	--	--	--	--	--
	4/5/1993	25.95	68.86	870	--	--	--	--	--
	7/21/1993	25.59	69.22	<50	--	--	--	--	--
	11/10/1993	26.72	68.09	240	--	--	--	--	--
	8/30/1995	25.75	69.06	150	--	--	--	--	--
	5/3/1996	23.28	71.53	<50	--	--	--	--	--
	5/8/1997	24.58	70.23	<50	--	--	--	--	--
	4/29/1998	22.18	72.63	<47	--	--	--	--	--
MW-3	3/1/1991	23.17	66.91	<50	--	--	--	--	--
90.08	11/25/1992	23.01	67.07	160	--	--	--	--	--
	4/5/1993	22.11	67.97	<50	--	--	--	--	--
	7/21/1993	23.93	66.15	<50	--	--	--	--	--
	11/10/1993	23.14	66.94	<50	--	--	--	--	--
	8/30/1995	20.61	69.47	<50	--	--	--	--	--
	5/3/1996	18.43	71.65	<50	--	--	--	--	--
	5/8/1997	19.77	70.31	<50	--	--	--	--	--
	4/29/1998	17.92	72.16	<47	--	--	--	--	--
MW-4	3/1/1991	23.79	65.05	<500	--	--	--	--	--
88.84	10/12/1992	22.48	66.36	--	--	--	--	--	--
	11/24/1992	22.60	66.24	1,600	--	--	--	--	--
	4/2/1993	20.11	68.73	SPH	--	--	--	--	--
	7/21/1993	20.48	68.36	SPH	--	--	--	--	--
	11/9/1993	21.71	67.13	SPH	--	--	--	--	--
	8/30/1995	19.90	68.94	SPH	--	--	--	--	--
	12/1/1995	19.40	69.44	SPH	--	--	--	--	--

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**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-4	5/2/1996	17.50	71.34	9,200	--	--	--	--	--
(cont'd)	11/4/1996	20.13	68.71	4,700	--	--	--	--	--
	5/8/1997	18.63	70.21	5,100	--	--	--	--	--
	11/5/1997	20.19	68.65	3,700	--	--	--	--	--
	2/9/1998	18.28	70.56	4,800	--	--	--	--	--
	5/1/1998	16.11	72.73	5,000	--	--	--	--	--
	8/4/1998	17.54	71.30	3,500	--	--	--	--	--
	11/2/1998	19.21	69.63	7,200	--	--	--	--	--
	3/26/1999	17.51	71.33	14,000	--	--	--	--	--
	7/1/1999	18.80	70.04	17,000	--	--	370	860	ND
	9/21/1999	19.85	68.99	14,000	--	--	360	820	ND
	2/9/2000	19.76	69.08	--	12,000	1,000	290	700	ND
	5/31/2000	17.90	70.94	--	14,000 **	<500	--	--	--
	11/14/2000	19.63	69.21	--	8,000	290	--	--	--
	3/1/2001	19.68	69.16	--	57,000	2,800	210	510	ND
	5/7/2001	18.60	70.24	--	56,000	3,600	--	--	--
	8/1/2001	18.73	70.11	--	42,000	6,700	--	--	--
	11/5/2001	18.97	69.87	--	49,000	14,000	--	--	--
	2/13/2002	18.59	70.25	--	140,000	11,000	620	1000	--
	5/2/2002	18.77	70.07	--	68,000	<25,000	--	--	--
	8/4/2002	18.95	69.89	--	58,000	<25,000	--	--	--
	11/26/2002	20.83	68.01	--	7,100	<250	--	--	--
	1/20/2003	16.90	71.94	--	29,000	<2500	--	--	--
	5/28/2003	15.25	73.59	--	12,000	300	--	--	--
	8/5/2003	17.05	71.79	--	6,600	<250	--	--	--
	11/10/2003	16.60	72.24	--	15,000	--	--	--	--
	2/18/2004	16.59	72.25	--	16,000	--	--	--	--
	5/27/2004	15.97	72.87	--	23,000	<2,500	--	--	--
	8/19/2004	18.11	70.73	--	19,000	--	--	--	--
	12/27/2004	19.53	69.31	--	8,700	<2,500	--	--	--
	2/18/2005	18.40	70.44	--	13,000	<250	--	--	--
	5/11/2005	17.93	70.91	--	16,000	<1,200	--	--	--

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**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-5	3/15/1991	26.31	58.53	<50	--	--	--	--	--
84.84	11/10/1992	26.83	58.01	50	--	--	--	--	--
	4/2/1993	26.62	58.22	<50	--	--	--	--	--
	7/21/1993	26.60	58.24	190	--	--	--	--	--
	11/9/1993	27.24	57.60	170	--	--	--	--	--
	8/30/1995	27.46	57.38	180	--	--	--	--	--
	5/3/1996	26.02	58.82	<50	--	--	--	--	--
	5/8/1997	26.76	58.08	<50	--	--	--	--	--
	4/29/1998	26.55	58.29	<47	--	--	--	--	--
MW-6	3/15/1991	25.82	59.80	<50	--	--	--	--	--
85.62	10/12/1992	25.02	60.60	--	--	--	--	--	--
	12/1/1992	28.87	56.75	SPH	--	--	--	--	--
	4/2/1993	26.96	58.66	SPH	--	--	--	--	--
	7/21/1993	26.17	59.45	SPH	--	--	--	--	--
	11/9/1993	27.51	58.11	SPH	--	--	--	--	--
	8/30/1995	28.00	57.62	SPH	--	--	--	--	--
	12/1/1995	27.58	58.04	SPH	--	--	--	--	--
	5/3/1996	26.83	58.79	9,000	--	--	--	--	--
86.94	5/9/1997	26.54	60.40	53,000	--	--	--	--	--
	11/5/1997	26.16	60.78	65,000	--	--	--	--	--
85.82	5/1/1998	22.96	62.86	25,000	--	--	--	--	--
	11/3/1998	24.35	61.47	30,000	--	--	--	--	--
	3/26/1999	23.82	62.00	SPH	--	--	--	--	--
	7/1/1999	24.45	61.37	SPH	--	--	--	--	--
	9/21/1999	24.58	61.24	SPH	--	--	--	--	--
	2/9/2000	24.93	61.24	--	SPH	--	--	--	--
	5/31/2000	23.47	62.41	--	SPH	--	--	--	--
	11/14/2000	24.61	61.21	--	SPH	--	--	--	--
	3/1/2001	23.97	61.85	--	SPH	--	--	--	--
	5/7/2001	23.17	-23.11	--	SPH	--	--	--	--
	8/1/2001	obstruction in well		--	--	--	--	--	--
	11/5/2001	obstruction in well		--	--	--	--	--	--
	2/13/2002	obstruction in well		--	--	--	--	--	--
	5/2/2002	23.25	62.41	--	SPH (0.05)	--	--	--	--

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**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPhd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-6 (cont'd)	8/4/2002	23.55	62.29	--	SPH (0.03)	--	--	--	--
	11/26/2002	24.22	61.62	--	SPH (0.03)	--	--	--	--
	1/20/2003	22.49	63.36	--	SPH (0.04)	--	--	--	--
	5/28/2003	21.92	63.93	--	SPH (0.04)	--	--	--	--
	8/5/2003	23.98	61.87	--	SPH (0.04)	--	--	--	--
	11/10/2003	23.50	62.40	--	SPH (0.10)	--	--	--	--
	2/18/2004	22.21	63.64	--	SPH (0.04)	--	--	--	--
	5/27/2004	22.01	63.85	--	SPH (0.05)	--	--	--	--
	8/19/2004	24.16	61.68	--	SPH (0.03)	--	--	--	--
	12/27/2004	24.69	61.13	--	SPH (sheen)	--	--	--	--
	2/18/2005	23.55	62.33	--	SPH (0.08)	--	--	--	--
	5/11/2005	22.90	62.97	--	SPH (0.06)	--	--	--	--
	MW-7 85.41	3/15/1991	21.63	63.78	<50	--	--	--	--
11/24/1992		21.52	63.89	<50	--	--	--	--	--
4/2/1993		20.08	65.33	<50	--	--	--	--	--
7/21/1993		19.59	65.82	150	--	--	--	--	--
11/9/1993		20.65	64.76	200	--	--	--	--	--
8/30/1995		18.78	66.63	170	--	--	--	--	--
12/1/1995		19.47	65.94	<50	--	--	--	--	--
5/2/1996		17.15	68.26	<50	--	--	--	--	--
8/8/1996		18.48	66.93	<50	--	--	--	--	--
11/4/1996		18.69	66.72	<50	--	--	--	--	--
2/6/1997		17.44	67.97	<50	--	--	--	--	--
5/8/1997		17.72	67.69	<50	--	--	--	--	--
8/7/1997		18.49	66.92	<50	--	--	--	--	--
11/5/1997		18.86	66.55	<50	--	--	--	--	--
2/9/1998		17.56	67.85	<50	--	--	--	--	--
4/29/1998		16.23	69.18	<47	--	--	--	--	--
8/4/1998		17.24	68.17	<50	--	--	--	--	--
11/2/1998	17.91	67.50	<50	--	--	--	--	--	
3/26/1999	16.42	68.99	<50	--	--	--	--	--	
7/1/1999	17.90	67.51	<50	--	--	<10	<10	ND	
9/21/1999	18.91	66.50	<48	--	--	<9.5	<9.5	ND	
2/9/2000	16.74	68.67	--	<50	<250	<10	<10	ND	

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**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to water <i>(ft)</i>	Groundwater Elevation <i>(ft)</i>	TEH <i>(µg/L)</i>	TPHd <i>(µg/L)</i>	TPHmo <i>(µg/L)</i>	2-Methyl naphthalene <i>(µg/L)</i>	Naphthalene <i>(µg/L)</i>	Other SVOCs <i>(µg/L)</i>
MW-7	5/31/2000	16.21	69.20	--	<50	<500	--	--	--
<i>(cont'd)</i>	11/14/2000	17.00	68.41	--	<50	<250	--	--	--
	3/1/2001	17.09	68.32	--	<50	<250	<10	<10	ND
	5/7/2001	17.19	68.22	--	<50	<250	--	--	--
	8/1/2001	17.25	68.16	--	<50	<250	--	--	--
	11/5/2001	17.35	68.06	--	<50	<250	--	--	--
	2/13/2002	17.50	67.91	--	<50	<250	--	--	--
	5/2/2002	17.30	68.11	--	<50	<250	--	--	--
	8/4/2002	17.58	67.83	--	<50	<250	--	--	--
	11/26/2002	18.35	67.06	--	<50	<250	--	--	--
	1/20/2003	15.84	69.57	--	83	<250	--	--	--
	5/28/2003	15.19	70.22	--	<50	<250	--	--	--
	8/5/2003	17.00	68.41	--	<50	<250	--	--	--
	11/10/2003	16.54	68.87	--	<50	--	--	--	--
	2/18/2004	16.47	68.94	--	<50	--	--	--	--
	5/27/2004	15.93	69.48	--	<50	<250	--	--	--
	8/19/2004	18.05	67.36	--	<50	--	--	--	--
	12/27/2004	17.35	68.06	--	<50	<250	--	--	--
	2/18/2005	16.23	69.18	--	<50	<250	--	--	--
	<b>5/11/2005</b>	<b>15.79</b>	<b>69.62</b>	--	<b>&lt;50</b>	<b>&lt;250</b>	--	--	--
MW-8	10/12/1992	27.70	57.80	--	--	--	--	--	--
85.50	11/25/1992	27.62	57.88	170	--	--	--	--	--
	4/8/1993	26.64	58.86	100	--	--	--	--	--
	7/21/1993	26.60	58.90	90	--	--	--	--	--
	11/11/1993	27.18	58.32	170	--	--	--	--	--
	8/30/1995	26.35	59.15	240	--	--	--	--	--
	12/4/1995	26.72	58.78	<50	--	--	--	--	--
	5/3/1996	25.47	60.03	94	--	--	--	--	--
	8/8/1996	26.41	59.09	250	--	--	--	--	--
	11/5/1996	26.77	58.73	<50	--	--	--	--	--
	2/6/1997	25.84	59.66	130	--	--	--	--	--
	5/9/1997	26.39	59.11	120	--	--	--	--	--
	8/7/1997	26.72	58.78	150	--	--	--	--	--
	11/5/1997	26.82	58.68	110	--	--	--	--	--

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**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-8	2/9/1998	25.57	59.93	75	--	--	--	--	--
(cont'd)	5/1/1998	25.64	59.86	210	--	--	--	--	--
	8/5/1998	25.96	59.54	260	--	--	--	--	--
	11/3/1998	26.27	59.23	190	--	--	--	--	--
	3/31/1999	20.93	64.57	200	--	--	--	--	--
	7/1/1999	26.59	58.91	170	--	--	<9.6	<9.6	ND
	9/21/1999	26.89	58.61	420	--	--	<9.4	<9.4	ND
	2/9/2000	26.60	58.90	--	120	280	<10	<10	ND
	5/31/2000	26.16	59.34	--	160 **	<500	--	--	--
	11/14/2000	26.60	58.90	--	150	<250	--	--	--
	3/1/2001	26.41	59.09	--	54	<250	<10	<10	Phenol: 25
	5/7/2001	26.55	58.95	--	<50	<250	--	--	--
	8/1/2001	26.71	58.79	--	58	<250	--	--	--
	11/5/2001	26.67	58.83	--	84	<250	--	--	--
	2/13/2002	26.15	59.35	--	83	<250	--	--	--
	5/2/2002	26.63	58.87	--	<50	<250	--	--	--
	8/4/2002	26.80	58.70	--	260	<250	--	--	--
	11/26/2002	27.50	58.00	--	<50	<250	--	--	--
	1/20/2003	24.93	60.57	--	63	<250	--	--	--
	5/28/2003	24.28	61.22	--	<50	<250	--	--	--
	8/5/2003	26.51	58.99	--	2,700	380	--	--	--
	11/10/2003	26.04	59.46	--	<50	--	--	--	--
	2/18/2004	25.97	59.53	--	<50	--	--	--	--
	5/27/2004	25.31	60.19	--	<50	<250	--	--	--
	8/19/2004	27.55	57.95	--	<50	--	--	--	--
	12/27/2004	26.50	59.00	--	<50	<250	--	--	--
	2/18/2005	26.00	59.50	--	<50	<250	--	--	--
	5/11/2005	25.47	60.03	--	<50	<250	--	--	--

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**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-9	11/24/1992	23.51	66.86	320	--	--	--	--	--
90.37	4/5/1993	21.14	69.23	920	--	--	--	--	--
	7/21/1993	21.54	68.83	450	--	--	--	--	--
	11/10/1993	27.53	62.84	450	--	--	--	--	--
	8/30/1995	19.59	70.78	680	--	--	--	--	--
	12/4/1995	20.65	69.72	--	--	--	--	--	--
	5/2/1996	18.63	71.74	710	--	--	--	--	--
	11/5/1996	20.69	69.68	420	--	--	--	--	--
	5/9/1997	19.96	70.41	490	--	--	--	--	--
	8/8/1997	20.84	69.53	480	--	--	--	--	--
	11/5/1997	21.55	68.82	370	--	--	--	--	--
	2/9/1998	20.21	70.16	410	--	--	--	--	--
	5/1/1998	19.27	71.10	450	--	--	--	--	--
	8/5/1998	19.35	71.02	630	--	--	--	--	--
	11/2/1998	20.43	69.94	500	--	--	--	--	--
	3/25/1999	18.46	71.91	630	--	--	--	--	--
	7/1/1999	19.95	70.42	570	--	--	<9.5	<9.5	ND
	9/21/1999	21.15	69.22	770	--	--	<9.4	<9.4	ND
	2/9/2000	21.08	69.29	--	320	<250	<10	<10	ND
	5/31/2000	19.11	71.26	--	390 **	<500	--	--	--
	11/14/2000	20.90	69.47	--	160	<250	--	--	--
	3/1/2001	20.45	69.92	--	220	<250	<10	<10	ND
	5/7/2001	19.83	-19.83	--	290	<250	--	--	--
	8/1/2001	20.02	70.35	--	460	<250	--	--	--
	11/5/2001	19.85	70.52	--	230	<250	--	--	--
	2/13/2002	19.80	70.57	--	210	<250	--	--	--
	5/2/2002	19.93	70.44	--	250	<250	--	--	--
	8/4/2002	20.20	70.17	--	300	<250	--	--	--
	11/26/2002	20.37	70.00	--	270	<250	--	--	--
	1/20/2003	17.93	72.44	--	350	<250	--	--	--
	5/28/2003	17.25	73.12	--	91	<250	--	--	--
	8/5/2003	19.03	71.34	--	210	<250	--	--	--
	11/10/2003	18.65	71.72	--	250	--	--	--	--
	2/18/2004	18.41	71.96	--	250	--	--	--	--
	5/27/2004	17.89	72.48	--	160	<250	--	--	--

# Pangea

**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-9 <i>(cont'd)</i>	8/19/2004	20.14	70.23	--	160	--	--	--	--
	12/27/2004	21.65	68.72	--	91	<250	--	--	--
	2/18/2005	19.97	70.40	--	120	<250	--	--	--
	5/11/2005	19.41	70.96	--	76	<250	--	--	--
MW-10 88.60	10/12/1992	21.55	67.05	--	--	--	--	--	--
	11/24/1992	21.86	66.74	1,300	--	--	--	--	--
	4/5/1993	19.14	69.46	5,000	--	--	--	--	--
	7/21/1993	19.79	68.81	20,000	--	--	--	--	--
	8/30/1995	17.99	70.61	5,900	--	--	--	--	--
	5/3/1996	17.04	71.56	5,600	--	--	--	--	--
	5/9/1997	18.36	70.24	2,500	--	--	--	--	--
5/1/1998	15.84	72.76	2,000	--	--	--	--	--	
MW-11 102.06	11/24/1992	33.65	68.41	220	--	--	--	--	--
	12/8/92*	33.37	68.69	140	--	--	--	--	--
	12/8/1992	33.37	68.69	120	--	--	--	--	--
	4/5/1993	31.03	71.03	<50	--	--	--	--	--
	7/21/1993	31.90	70.16	150	--	--	--	--	--
	11/9/1993	32.60	69.46	60	--	--	--	--	--
	8/30/1995	28.92	73.14	240	--	--	--	--	--
	5/3/1996	28.00	74.06	<50	--	--	--	--	--
	5/8/1997	29.93	72.13	<50	--	--	--	--	--
4/29/1998	27.22	74.84	<47	--	--	--	--	--	
MW-13 84.06	11/24/1992	26.05	58.01	3,600	--	--	--	--	--
	12/8/92*	25.08	58.98	210	--	--	--	--	--
	12/8/1992	25.08	58.98	100	--	--	--	--	--
	4/5/1993	24.64	59.42	<50	--	--	--	--	--
	7/21/1993	24.29	59.77	<50	--	--	--	--	--
	11/9/1993	24.23	59.83	160	--	--	--	--	--
	8/30/1995	23.30	60.76	<50	--	--	--	--	--
	12/1/1995	23.80	60.26	<50	--	--	--	--	--



# Pangea

**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-13	5/3/1996	23.19	60.87	<50	--	--	--	--	--
(cont'd)	8/8/1996	23.44	60.62	<50	--	--	--	--	--
	11/5/1996	24.04	60.02	<50	--	--	--	--	--
	2/6/1997	23.24	60.82	<50	--	--	--	--	--
	5/8/1997	23.46	60.60	<50	--	--	--	--	--
	8/8/1997	23.92	60.14	<50	--	--	--	--	--
	11/5/1997	24.27	59.79	<50	--	--	--	--	--
	2/9/1998	22.89	61.17	<50	--	--	--	--	--
	4/29/1998	22.27	61.79	<47	--	--	--	--	--
	8/4/1998	22.75	61.31	78	--	--	--	--	--
	11/3/1998	23.90	60.16	<50	--	--	--	--	--
	3/31/1999	23.11	60.95	<48	--	--	--	--	--
	7/1/1999	23.40	60.66	100	--	--	<9.6	<9.6	ND
	9/21/1999	21.91	62.15	<48	--	--	<9.4	<9.4	ND
	2/9/2000	23.84	60.22	--	<50	<250	<10	<10	ND
	5/31/2000	22.97	61.09	--	<50	<500	--	--	--
	11/14/2000	24.00	60.06	--	65	<250	--	--	--
	3/1/2001	23.93	60.13	--	<50	<250	<10	<10	ND
	5/7/2001	23.93	60.13	--	<50	<250	--	--	--
	8/1/2001	24.10	59.96	--	<50	<250	--	--	--
	11/5/2001	24.02	60.04	--	350	610	--	--	--
	2/13/2002	23.70	60.36	--	<50	<250	--	--	--
	5/2/2002	23.97	60.09	--	<50	<250	--	--	--
	8/4/2002	24.19	59.87	--	810	310	--	--	--
	11/26/2002	24.78	59.28	--	66	<250	--	--	--
	1/20/2003	22.10	61.96	--	<50	<250	--	--	--
	5/28/2003	17.25	66.81	--	<50	<250	--	--	--
	8/5/2003	23.99	60.07	--	<50	<250	--	--	--
	11/10/2003	23.47	60.59	--	<50	--	--	--	--
	2/18/2004	22.58	61.48	--	<50	--	--	--	--
	5/27/2004	21.95	62.11	--	<50	<250	--	--	--
	8/19/2004	24.29	59.77	--	<50	--	--	--	--
	12/27/2004	23.70	60.36	--	<50	<250	--	--	--
	2/18/2005	23.15	60.91	--	<50	<250	--	--	--
	5/11/2005	22.68	61.38	--	<50	<250	--	--	--

# Pangea

**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-14 94.66	5/26/1998	21.67	72.99	7,700	--	--	--	--	--
	7/1/1999	22.95	71.71	SPH	--	--	--	--	--
	9/21/1999	24.26	70.40	SPH	--	--	--	--	--
	2/9/2000	24.13	70.53	--	14,000	1,500	290	600	ND
	5/31/2000	22.09	72.57	--	SPH	--	--	--	--
	11/14/2000	23.90	70.76	--	SPH	--	--	--	--
	3/1/2001	23.97	70.69	--	SPH	--	--	--	--
	5/7/2001	23.45	71.23	--	SPH	--	--	--	--
	8/1/2001	23.57	71.12	--	SPH	--	--	--	--
	11/5/2001	23.50	71.18	--	SPH	--	--	--	--
	2/13/2002	22.99	71.70	--	SPH (0.04)	--	--	--	--
	5/2/2002	23.51	71.17	--	SPH (0.02)	--	--	--	--
	8/4/2002	23.61	71.06	--	SPH (0.01)	--	--	--	--
	11/26/2002	24.35	70.31	--	SPH (sheen)	--	--	--	--
	1/20/2003	22.35	72.31	--	SPH (sheen)	--	--	--	--
	5/28/2003	21.95	72.74	--	SPH (0.04)	--	--	--	--
	8/5/2003	23.03	71.66	--	SPH (0.04)	--	--	--	--
	11/10/2003	22.70	72.02	--	SPH (0.07)	--	--	--	--
	2/18/2004	22.37	72.32	--	SPH (0.04)	--	--	--	--
	5/27/2004	21.78	72.92	--	SPH (0.05)	--	--	--	--
8/19/2004	24.13	70.57	--	SPH (0.05)	--	--	--	--	
12/27/2004	24.19	70.47	--	SPH (sheen)	--	--	--	--	
2/18/2005	23.24	71.46	--	SPH (0.05)	--	--	--	--	
5/11/2005	22.77	71.92	--	SPH (0.04)	--	--	--	--	
MW-15 94.76	5/26/1998	21.87	72.89	1,700	--	--	--	--	--
	7/1/1999	22.25	72.51	SPH	--	--	--	--	--
	9/21/1999	24.12	70.64	SPH	--	--	--	--	--
	2/9/2000	24.42	70.34	--	4,000	1,200	50	270	ND
	5/31/2000	22.40	72.36	--	SPH	--	--	--	--
	11/14/2000	24.15	70.61	--	SPH	--	--	--	--
	3/1/2001	23.99	70.77	--	SPH	--	--	--	--
	5/7/2001	23.50	71.26	--	SPH	--	--	--	--
	8/1/2001	23.62	71.14	--	SPH	--	--	--	--

# Pangea

**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	2-Methyl naphthalene (µg/L)	Naphthalene (µg/L)	Other SVOCs (µg/L)
MW-15	11/5/2001	23.65	71.11	--	SPH (sheen)	--	--	--	--
(cont'd)	2/13/2002	23.09	71.67	--	3,100	<250	17	68	5
	5/2/2002	23.59	71.17	--	SPH (sheen)	--	--	--	--
	8/4/2002	23.65	71.11	--	SPH (sheen)	--	--	--	--
	11/26/2002	24.59	70.17	--	SPH (sheen)	--	--	--	--
	1/20/2003	22.08	72.68	--	3,700	340	--	--	--
	5/28/2003	21.68	73.08	--	SPH (sheen)	--	--	--	--
	8/5/2003	24.05	70.71	--	SPH (sheen)	--	--	--	--
	11/10/2003	23.68	71.08	--	SPH (sheen)	--	--	--	--
	2/18/2004	23.51	71.25	--	1,100	--	--	--	--
	5/27/2004	22.98	71.78	--	SPH (sheen)	--	--	--	--
	8/19/2004	25.31	69.45	--	SPH (sheen)	--	--	--	--
	12/27/2004	24.46	70.30	--	SPH (sheen)	--	--	--	--
	2/18/2005	23.27	71.57	--	SPH (0.10)	--	--	--	--
	5/11/2005	22.80	72.03	--	SPH (0.09)	--	--	--	--

### Grab Sampling Data

B (boring)	5/16/1998	--	--	77**	--	--	--	--	--
C (boring)	5/16/1998	--	--	48**	--	--	--	--	--
G (boring)	5/16/1998	--	--	35,000**	--	--	--	--	--

### Abbreviations and Notes:

TOC Elev. (ft) = Top of casing elevation, surveyed to an arbitrary datum

TEH = Total extractable hydrocarbons

TPHd = Total petroleum hydrocarbons as diesel

TPHmo = Total petroleum hydrocarbons as motor oil

SVOCs = Semi-volatile organic compounds

Other SVOC's = All other compounds analyzed by EPA Method 8270

µg/l = micrograms per liter = parts per billion = ppb

ND = None detected above laboratory reporting limit, see laboratory report for individual reporting limits

1 = ND except for 1,700 µg/l 2,4 dichlorophenol, 240 µg/l bis (2-ethyl hexyly) phthalate. Also 10 mg/l oil and grease.

2 = ND except for 570 µg/l benzoic acid and 93 µg/l phenol. Also 20 mg/l oil and grease.

3 = ND except for 700 µg/l benzoic acid, 92 µg/l phenol, and 52 µg/l 3,4 methyl phenol.

# Pangea

**Table 2. Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to water <i>(ft)</i>	Groundwater Elevation <i>(ft)</i>	TEH <i>(µg/L)</i>	TPHd <i>(µg/L)</i>	TPHmo <i>(µg/L)</i>	2-Methyl naphthalene <i>(µg/L)</i>	Naphthalene <i>(µg/L)</i>	Other SVOCs <i>(µg/L)</i>
--	------------------	----------------------------------	---	----------------------	-----------------------	------------------------	--	------------------------------	------------------------------

4 = ND except for 74 ug/l benzoic acid and 68 ug/l creosol.

5 = ND except for 480 ug/l phenol, 110 ug/l 2,4 dimethylphenol, 210 ug/l 2-methylphenol, 200 ug/l 3,4-methylphenol, and 5.7 mg/l oil and grease.

< n = Not detected above n ug/l

-- = Not analyzed/not available

\* = Duplicate sample sent to a different chemical laboratory

\*\* = Does not match TPHd or TEH pattern

# Pangea

**Table 3. LUFT Metals in Groundwater**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Sampling Date	Cadmium (µg/L)	Chromium (µg/L)	Lead (µg/L)	Nickel (µg/L)	Zinc (µg/L)
MW-4	7/1/1999	<5	<10	59	<20	<20
	9/21/1999	<5	<10	66	<20	33
	2/9/2000	<5	17	68	<50	<50
MW-7	7/1/1999	<5	<10	<3	<20	<20
	9/21/1999	<5	<10	<3	<20	<20
	2/9/2000	<5	14	8.6	59	<50
MW-8	7/1/1999	<5	<10	<3	<20	<20
	9/21/1999	<5	<10	<3	<20	<20
	2/9/2000	<5	<5	<5	<50	<50
MW-9	7/1/1999	<5	<10	<3	34	<20
	9/21/1999	<5	<10	<3	25	37
	2/9/2000	<5	82	29	160	130
	3/1/2001	<5	47	<5	72	<50
	5/7/2001	<5	49	<5	<50	<50
	8/1/2001	<5	<20	<5	<50	<50
	2/13/2002	<5	--	<5	<50	<50
	1/20/2003	<5	<20	<5	<50	<50
MW-13	7/1/1999	<5	<10	<3	<20	<20
	9/21/1999	<5	<10	<3	<20	<20
	2/9/2000	<5	12	15	<50	<50
MW-14	2/9/2000	<5	210	24	2,500	280
MW-15	2/9/2000	<5	140	1,800	220	150
	2/13/2002	<5	--	<5	<50	<50
	1/20/2003	<5	<20	36	<50	<50

**Abbreviations and Notes:**

LUFT metals analysis no longer required by Agency

LUFT metals analyzed by EPA Method 6010

ug/l = micrograms per liter

-- = Not analyzed/not available

# Pangea

**Table 4. Separate-Phase Hydrocarbon Removal**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (mL)	SPH Removed (gallons)	SPH Removed (lbs)	Cumulative SPH Removed (gallons)	Notes
MW-1	12/23/1991	26.86	1.15		2.00	12.20	2.00	1
94.48	12/26/1991	26.08	0.22		0.50	3.05	2.50	1
	1/13/1992	26.53	0.66		1.00	6.10	3.50	1
	2/28/1992	27.75	0.42		2.00	12.20	5.50	1
	11/9/1993	26.06	1.17		0.50	3.05	6.00	1
	11/3/1995	23.10	0.76		0.75	4.58	6.75	1
	11/30/1995	23.38	0.70		0.25	1.53	7.00	1
	1/3/1996	23.30	0.78		0.53	3.23	7.53	1
	2/2/1996	22.96	0.84		0.75	4.58	8.28	1
	3/1/1996	21.69	0.14		0.10	0.61	8.38	1
	4/4/1996	21.11	0.00		0.00	0.00	8.38	1
	5/2/1996	20.96	0.00		0.00	0.00	8.38	1
	6/5/1996	20.98	0.04		0.10	0.61	8.48	1
	7/9/1996	21.64	0.20		0.10	0.61	8.58	1
	8/8/1996	22.43	0.33		0.05	0.31	8.63	1
	9/10/1996	23.25	0.60		0.10	0.61	8.73	1
	10/1/1996	23.58	0.60		0.25	1.53	8.98	1
	11/4/1996	24.29	0.78		0.13	0.79	9.11	1
	12/2/1996	24.63	0.88		0.26	1.59	9.37	1
	1/3/1997	24.08	0.81		0.39	2.38	9.76	1
	2/6/1997	22.46	0.30		0.01	0.06	9.77	1
	3/5/1997	23.00	0.00		0.00	0.00	9.77	1
	4/1/1997	22.29	0.20		0.01	0.06	9.78	1
	5/8/1997	22.79	0.33		0.02	0.12	9.80	1
	6/6/1997	24.33	1.69		0.26	1.59	10.06	1
	7/8/1997	24.00	0.96		0.20	1.22	10.26	1
	8/7/1997	24.58	1.29		1.00	6.10	11.26	1
	9/10/1997	24.93	1.21		1.50	9.15	12.76	1
	10/1/1997	24.89	0.86		0.26	1.59	13.02	1
	11/4/1997	25.06	0.77		0.26	1.59	13.28	1
	12/4/1997	24.76	0.54		0.19	1.16	13.47	1
	1/8/1998	23.66	0.00		0.00	0.00	13.47	1
	2/5/1998	22.64	0.00		0.00	0.00	13.47	1
	3/6/1998	20.80	0.00		0.00	0.00	13.47	1
	4/2/1998	20.31	0.00		0.00	0.00	13.47	1
	4/29/1998	19.95	0.00		0.00	0.00	13.47	1
	6/3/1998	20.41	0.00		0.00	0.00	13.47	1
	7/9/1998	20.97	0.07		0.00	0.00	13.47	1
	8/4/1998	21.40	trace		0.00	0.00	13.47	1
	8/26/1998	21.85	0.10		0.00	0.00	13.47	1
	11/2/1998	22.92	0.39		0.00	0.00	13.47	1
	12/4/1998	23.29	0.29		0.01	0.06	13.48	1
	1/5/1999	23.51	0.42		0.03	0.18	13.51	1
	2/8/1999	23.08	0.05		0.25	1.53	13.76	1
	3/24/1999	21.90	0.01		0.01	0.06	13.77	1
	4/30/1999	21.52	0.00		0.00	0.00	13.77	1
	7/1/1999	22.70	0.03		0.01	0.06	13.78	1
	9/21/1999	23.81	0.08		0.20	1.22	13.98	1

# Pangea

**Table 4. Separate-Phase Hydrocarbon Removal**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
TOC Elev.	Sampled	Groundwater	Thickness	Removed	Removed	Removed	Removed	
(ft)		(feet)	(feet)	(mL)	(gallons)	(lbs)	(gallons)	
MW-1	10/20/1999	23.90	0.10		0.01	0.06	13.99	1
(cont'd)	12/13/1999	24.24	trace		0.00	0.00	13.99	1
	2/9/2000	23.95	0.07		0.05	0.31	14.04	1
	2/15/2000	--	0.00		0.00	0.00	14.04	2
	2/25/2000	23.69	0.00		0.06	0.38	14.10	2
	3/3/2000	23.27	0.00		0.05	0.31	14.15	2
	3/28/2000	22.39	0.00		0.13	0.76	14.28	2
	5/2/2000	22.29	0.00		0.05	0.29	14.32	2
	5/31/2000	22.05	0.00		0.00	0.00	14.32	2
	7/3/2000	22.10	trace		0.02	0.12	14.34	2
	8/4/2000	22.40	0.00		0.01	0.06	14.35	2
	10/6/2000	23.47	0.46		0.01	0.06	14.36	1
	11/3/2000	24.14	0.78		0.00	0.00	14.36	
	12/1/2000	25.40	0.83		1.75	10.68	16.11	1,2
	1/4/2001	25.13	0.09		0.25	1.53	16.36	2
	2/2/2001	25.12	0.03		0.13	0.76	16.49	2
	4/3/2001	23.19	0.24		0.10	0.61	16.59	
	5/4/2001	23.31	0.47		0.00	0.00	16.59	
	5/7/2001	23.85	0.05		0.03	0.16	16.62	2
	6/11/2001	23.77	0.67		0.00	0.00	16.62	2
	5/2/2002	23.41	0.46		0.01	0.04	16.62	
	6/14/2002	23.95	0.03		0.01	0.04	16.63	2
	8/4/2002	24.02	0.03		0.01	0.06	16.64	2
	9/24/2002	24.59	0.01		0.003	0.02	16.64	2
	10/16/2002	25.08	0.03		0.003	0.02	16.64	2
	11/6/2002	25.71	0.08		0.005	0.03	16.65	2
	11/26/2002	24.47	0.05		0.003	0.02	16.65	2
	12/9/2002	24.08	0.07		0.009	0.06	16.66	2
	1/17/2003	22.14	0.07		0.005	0.03	16.67	1,2
	1/27/2003	22.55	0.02		0.003	0.02	16.67	2
	3/5/2003	23.53	0.02		0.25	1.53	16.92	1,2
	4/11/2003	23.11	0.03		0.007	0.04	16.93	1,2
	5/13/2003	22.95	0.02		0.007	0.04	16.93	1,2
	5/28/2003	21.77	0.02		0.008	0.05	16.94	1,2
	6/13/2003	21.84	0.03		0.013	0.08	16.95	1,2
	7/24/2003	23.19	0.05		0.003	0.02	16.96	1,2
	8/5/2003	23.07	0.04		0.013	0.08	16.97	1,2
	9/12/2003	23.74	0.05		0.021	0.13	16.99	1,2
	10/10/2003	23.90	0.06		0.026	0.16	17.02	1,2
	11/10/2003	22.53	0.03		0.016	0.10	17.03	1,2
	11/21/2003	23.12	0.02		0.026	0.16	17.06	1,2
	12/4/2003	22.95	0.03		0.026	0.16	17.09	1,2
	1/23/2004	22.40	0.04	70	0.018	0.11	17.10	1,2
	2/6/2004	22.74	0.05	65	0.017	0.10	17.12	1,2
	2/18/2004	22.61	0.05	70	0.018	0.11	17.14	1,2
	3/28/2004	22.81	0.01	5	0.001	0.01	17.14	1,2
	4/9/2004	22.61	0.00	0	0.000	0.00	17.14	1,2
	5/27/2004	22.08	0.05	35	0.009	0.06	17.15	1,2

# Pangea

**Table 4. Separate-Phase Hydrocarbon Removal**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (mL)	SPH Removed (gallons)	SPH Removed (lbs)	Cumulative SPH Removed (gallons)	Notes
MW-1	7/29/2004	24.52	0.92	2500	0.660	4.03	17.81	1, 2
(cont'd)	8/6/2004	23.98	0.25	1000	0.264	1.61	18.08	1, 2
	8/19/2004	24.35	0.38	1000	0.264	1.61	18.34	1, 2
	9/3/2004	24.47	0.29	1000	0.264	1.61	18.60	1, 2
	12/27/2004	24.18	0.44	450	0.119	0.73	18.72	1, 2
	2/18/2005	23.14	0.04	250	0.066	0.40	18.79	1, 2
	5/11/2005	22.71	0.02	0	0.000	0.00	18.79	
MW-4	12/23/1991	22.63	0.98		2.50	15.25	2.50	1
88.84	12/26/1991	22.52	0.96		6.00	36.60	8.50	1
	1/10/1992	22.74	0.99		5.00	30.50	13.50	1
	2/28/1992	22.00	0.67		4.00	24.40	17.50	1
	3/11/1992	21.71	0.55		3.50	21.35	21.00	1
	3/13/1992	21.56	0.49		3.50	21.35	24.50	1
	3/17/1992	25.46	0.44		2.25	13.73	26.75	1
	3/18/1992	21.38	0.44		2.50	15.25	29.25	1
	3/19/1992	21.33	0.48		1.50	9.15	30.75	1
	3/23/1992	21.29	0.42		4.00	24.40	34.75	1
	3/24/1992	21.31	0.38		1.50	9.15	36.25	1
	3/25/1992	21.17	0.36		1.00	6.10	37.25	1
	3/26/1992	21.08	0.35		1.00	6.10	38.25	1
	3/27/1992	20.92	0.26		0.50	3.05	38.75	1
	3/31/1992	21.15	0.44		0.50	3.05	39.25	1
	4/1/1992	20.90	0.24		0.25	1.53	39.50	1
	4/2/1992	20.90	0.17		0.13	0.79	39.63	1
	4/6/1992	--	--		0.13	0.79	39.76	1
	4/10/1992	20.91	0.33		0.25	1.53	40.01	1
	4/13/1992	21.04	0.42		0.25	1.53	40.26	1
	4/20/1992	20.74	0.19		0.13	0.79	40.39	1
	5/4/1992	20.83	0.33		0.13	0.79	40.52	1
	5/18/1992	21.33	0.23		0.13	0.79	40.65	1
	5/26/1992	20.83	0.17		0.13	0.79	40.78	1
	6/1/1992	20.85	0.19		0.06	0.37	40.84	1
	6/29/1992	21.38	0.53		0.25	1.53	41.09	1
	7/29/1992	21.69	0.56		1.11	6.77	42.20	1
	8/28/1992	21.35	0.63		1.68	10.25	43.88	1
	4/3/1993	20.11	0.51		0.13	0.79	44.01	1
	11/9/1993	20.48	0.52		0.03	0.18	44.04	1
	8/30/1995	21.71	0.63		1.75	10.68	45.79	1
	10/2/1995	19.90	2.20		0.50	3.05	46.29	1
	11/3/1995	18.76	0.57		0.25	1.53	46.54	1
	11/30/1995	19.17	0.65		0.25	1.53	46.79	1
	1/3/1996	19.45	0.44		0.05	0.31	46.84	1
	2/2/1996	19.50	0.32		0.10	0.61	46.94	1
	3/1/1996	19.31	0.20		0.20	1.22	47.14	1
	4/4/1996	17.53	0.18		0.20	1.22	47.34	1
	5/2/1996	17.50	0.25		0.20	1.22	47.54	1
	6/5/1996	17.67	0.39		0.15	0.92	47.69	1



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**Table 4. Separate-Phase Hydrocarbon Removal**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (mL)	SPH Removed (gallons)	SPH Removed (lbs)	Cumulative SPH Removed (gallons)	Notes
MW-4	7/9/1996	18.29	0.50		0.16	0.98	47.85	1
(cont'd)	8/8/1996	18.84	0.00		0.00	0.00	47.85	1
	9/10/1996	19.31	0.34		0.05	0.31	47.90	1
	10/1/1996	19.51	0.29		0.05	0.31	47.95	1
	11/4/1996	20.13	0.35		0.02	0.12	47.97	1
	12/2/1996	20.23	0.33		0.02	0.12	47.99	1
	1/3/1997	19.33	0.10		0.02	0.12	48.01	1
	2/6/1997	18.13	0.01		0.01	0.06	48.02	1
	4/30/1999	17.28	trace		0.00	0.00	48.02	1
	2/9/2000	19.76	0.00		0.00	0.00	48.02	1
	2/15/2000	--	0.00		0.00	0.00	48.02	2
	2/25/2000	19.30	0.00		0.00	0.00	48.02	2
MW-6	12/23/1991	28.40	3.21		7.50	45.75	7.50	1
85.62	12/26/1991	27.25	1.67		2.00	12.20	9.50	1
	1/10/1992	27.23	0.90		1.00	6.10	10.50	1
	2/4/1992	27.71	2.04		2.00	12.20	12.50	1
	2/28/1992	27.92	3.00		3.00	18.30	15.50	1
	3/10/1992	27.16	2.06		2.75	16.78	18.25	1
	3/12/1992	25.96	0.52		2.00	12.20	20.25	1
	3/23/1992	26.34	1.09		1.00	6.10	21.25	1
	3/30/1992	25.73	0.35		0.50	3.05	21.75	1
	4/10/1992	25.29	0.05		0.25	1.53	22.00	1
	4/13/1992	25.52	0.21		0.13	0.79	22.13	1
	4/20/1992	25.38	0.10		0.13	0.79	22.26	1
	5/4/1992	25.40	--		0.13	0.79	22.39	1
	5/8/1992	25.50	0.17		0.06	0.37	22.45	1
	5/26/1992	25.46	0.13		0.13	0.79	22.58	1
	6/1/1992	25.46	0.09		0.06	0.37	22.64	1
	6/29/1992	25.59	0.14		0.19	1.16	22.83	1
	7/29/1992	26.90	1.71		0.60	3.66	23.43	1
	8/28/1992	25.09	2.62		2.40	14.64	25.83	1
	12/2/1992	--	--		0.00	0.00	25.83	1
	4/3/1993	26.96	2.86		1.75	10.68	27.58	1
	11/9/1993	27.51	3.06		0.83	5.06	28.41	1
	8/30/1995	28.00	7.96		4.50	27.45	32.91	1
	10/2/1995	28.24	6.14		4.00	24.40	36.91	1
	11/3/1995	28.39	6.13		3.00	18.30	39.91	1
	11/30/1995	26.91	3.44		2.50	15.25	42.41	1
	1/3/1996	27.58	4.41		2.50	15.25	44.91	1
	2/2/1996	27.58	4.37		5.00	30.50	49.91	1
	3/1/1996	27.96	5.15		4.00	24.40	53.91	1
	4/4/1996	27.96	5.41		5.00	30.50	58.91	1
	5/2/1996	26.83	4.66		4.50	27.45	63.41	1
	6/5/1996	27.15	5.17		4.00	24.40	67.41	1
	7/9/1996	27.08	4.86		4.50	27.45	71.91	1
	8/8/1996	26.71	4.05		4.00	24.40	75.91	1
	9/10/1996	26.83	3.82		3.50	21.35	79.41	1

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**Table 4. Separate-Phase Hydrocarbon Removal**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (mL)	SPH Removed (gallons)	SPH Removed (lbs)	Cumulative SPH Removed (gallons)	Notes
MW-6	10/1/1996	26.96	3.77		4.00	24.40	83.41	1
(cont'd)	11/4/1996	--	NM		0.00	0.00	83.41	4
86.94	12/2/1996	--	NM		0.00	0.00	83.41	4
	1/3/1997	--	NM		0.00	0.00	83.41	4
	2/6/1997	25.08	0.20		0.00	0.00	83.41	4
	3/5/1997	24.20	0.00		0.00	0.00	83.41	4
	4/1/1997	24.04	0.00		0.00	0.00	83.41	4
	5/8/1997	26.54	1.88		0.40	2.44	83.81	1
	6/6/1997	25.33	0.21		0.03	0.18	83.44	1
85.82	7/8/1997	25.30	0.07		0.00	0.00	83.41	1
	8/7/1997	25.52	0.00		0.00	0.00	83.41	1
	9/10/1997	25.76	0.00		0.00	0.00	83.41	1
	10/1/1997	25.12	0.00		0.00	0.00	83.41	1
	11/4/1997	26.16	0.18		0.02	0.12	83.43	1
	12/4/1997	26.08	0.16		0.05	0.31	83.86	1
	1/8/1998	25.79	0.10		0.66	4.03	84.10	1
	2/5/1998	25.31	0.89		0.00	0.00	84.10	4
	3/6/1998	24.63	0.46		0.04	0.24	84.14	1
	4/2/1998	24.45	0.59		0.10	0.61	84.24	1
	4/29/1998	22.96	0.55		0.09	0.55	84.33	1
	6/3/1998	22.81	0.41		0.03	0.18	84.36	1
	7/9/1998	23.04	0.35		0.05	0.31	84.41	1
	8/4/1998	23.29	0.35		0.04	0.24	84.45	1
	8/26/1998	23.50	0.31		0.01	0.06	84.46	1
	11/2/1998	24.24	0.43		0.02	0.12	84.48	1
	12/4/1998	24.35	0.32		0.01	0.06	84.49	1
	1/5/1999	24.51	0.40		0.03	0.18	84.52	1
	2/8/1999	24.00	0.03		0.13	0.76	84.65	1
	3/24/1999	23.82	0.19		0.03	0.18	84.68	1
	4/30/1999	23.60	1.13		0.10	0.61	84.78	1
	7/1/1999	24.45	0.42		0.06	0.38	84.84	1
	7/27/1999	25.35	0.24		0.06	0.38	84.90	1
	8/19/1999	24.87	0.24		0.06	0.37	84.96	1
	9/21/1999	24.58	0.10		0.20	1.22	85.16	1
	10/20/1999	25.05	0.17		0.20	1.22	85.36	1
	12/13/1999	25.08	0.10		0.06	0.37	85.42	1
	2/9/2000	24.93	0.44		0.25	1.53	85.67	1
	2/15/2000	--	0.00		0.07	0.43	85.74	3
	2/25/2000	24.23	0.00		0.01	0.06	85.75	3
	3/3/2000	24.00	0.00		0.00	0.01	85.75	3
	3/28/2000	23.54	0.00		0.05	0.31	85.80	3
	5/2/2000	23.52	0.06		0.03	0.15	85.83	3
	5/31/2000	23.39	0.08		0.00	0.00	85.83	3
	7/3/2000	23.61	trace		0.02	0.12	85.85	3
	8/4/2000	23.80	0.10		0.01	0.06	85.86	3
	10/6/2000	24.22	0.04		0.01	0.06	85.87	
	11/3/2000	24.30	0.09		0.00	0.00	85.87	
	12/1/2000	24.38	0.07		0.03	0.18	85.90	2, 3

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**Table 4. Separate-Phase Hydrocarbon Removal**

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
TOC Elev.	Sampled	Groundwater	Thickness	Removed	Removed	Removed	Removed	
(ft)		(feet)	(feet)	(mL)	(gallons)	(lbs)	(gallons)	
MW-6	1/4/2001	24.65	0.17		0.00	0.00	85.90	5
(cont'd)	2/2/2001	24.72	0.22		0.25	1.53	86.15	3
	4/3/2001	23.90	0.06		0.05	0.31	86.20	
	5/4/2001	23.95	0.07		0.05	0.31	86.25	
	5/7/2001	--	--		0.08	0.48	86.33	
	6/11/2001	24.25	0.10		0.00	0.00	86.33	
	5/2/2002	23.25	0.01		0.00	0.02	86.33	2
	6/14/2002	23.17	0.07		0.01	0.04	86.34	1
	8/4/2002	23.55	0.03		0.01	0.06	86.35	1
	9/24/2002	23.98	0.02		0.007	0.04	86.35	1
	10/16/2002	24.20	0.09		0.005	0.03	86.36	1
	11/6/2002	25.78	0.07		0.005	0.03	86.36	1
	11/26/2002	24.22	0.03		0.009	0.06	86.37	1,3
	12/9/2002	23.97	0.05		0.021	0.13	86.39	1,3
	1/17/2003	21.30	0.06		0.013	0.08	86.41	1,3
	1/27/2003	22.49	0.02		0.016	0.10	86.42	1,3
	3/5/2003	24.35	0.06		0.013	0.08	86.44	1,3
	4/11/2003	24.05	0.07		0.029	0.18	86.46	3
	5/13/2003	23.98	0.03		0.016	0.10	86.48	3
	5/28/2003	21.92	0.04		0.021	0.13	86.50	1,3
	6/13/2003	21.98	0.06		0.020	0.12	86.52	1,3
	7/24/2003	24.11	0.07		0.040	0.24	86.56	1,3
	8/5/2003	23.98	0.04		0.021	0.13	86.58	1,3
	9/12/2003	24.53	0.06		0.026	0.16	86.61	1,3
	10/10/2003	24.88	0.10		0.026	0.16	86.64	1,3
	11/10/2003	23.50	0.10		0.032	0.19	86.67	1,3
	11/21/2003	23.81	0.06		0.026	0.16	86.69	1,3
	12/4/2003	23.61	0.08		0.029	0.18	86.72	1,3
	1/23/2004	23.09	0.10	100	0.026	0.16	86.75	1,3
	2/6/2004	22.39	0.05	80	0.021	0.13	86.77	1,3
	2/18/2004	22.21	0.04	70	0.018	0.11	86.79	1,3
	3/28/2004	23.91	0.06	50	0.013	0.08	86.80	1,3
	4/9/2004	23.89	0.03	100	0.026	0.16	86.83	1,3
	5/27/2004	22.01	0.05	140	0.037	0.23	86.87	1,3
	5/27/2004	22.01	0.05	140	0.037	0.23	86.90	1,3
	7/29/2004	24.35	0.00	0	0.000	0.00	86.90	1,3
	8/6/2004	24.05	0.03	20	0.005	0.03	86.91	1,3
	8/19/2004	24.16	0.03	10	0.003	0.02	86.91	1,3
	9/3/2004	24.29	0.02	10	0.003	0.02	86.91	1,3
	12/27/2004	24.69	sheen	80	0.021	0.13	86.93	3
	2/18/2005	23.55	0.08	130	0.034	0.21	86.97	1,3
	<b>5/11/2005</b>	<b>22.90</b>	<b>0.06</b>	<b>120</b>	<b>0.032</b>	<b>0.19</b>	<b>87.00</b>	<b>1,3</b>
MW-9	8/8/1996	19.89	0.35		0.10	0.61	0.61	1

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**Table 4. Separate-Phase Hydrocarbon Removal**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID	Date	Depth to	SPH	SPH	SPH	SPH	Cumulative SPH	Notes
TOC Elev.	Sampled	Groundwater	Thickness	Removed	Removed	Removed	Removed	
(ft)		(feet)	(feet)	(mL)	(gallons)	(lbs)	(gallons)	
MW-14	12/4/1998	23.42	0.23		0.01	0.06	0.01	1
94.66	1/5/1999	23.36	0.12		0.01	0.06	0.02	1
	2/8/1999	23.17	trace		0.01	0.06	0.03	1
	3/24/1999	22.08	trace		0.00	0.00	0.03	1
	4/30/1999	21.17	0.01		0.00	0.00	0.03	1
	7/1/1999	22.95	0.04		0.00	0.00	0.03	1
	9/21/1999	24.26	trace		0.00	0.00	0.03	1
	10/20/1999	24.10	0.00		0.00	0.00	0.03	1
	2/9/2000	24.13	0.00		0.00	0.00	0.03	1
	2/15/2000	--	0.00		0.00	0.00	0.03	1
	2/25/2000	--	0.00		0.00	0.00	0.03	2
	3/3/2000	23.27	0.00		0.05	0.31	0.08	2
	3/28/2000	22.40	0.00		0.13	0.76	0.21	2
	5/2/2000	22.22	0.00		0.04	0.24	0.25	2
	5/31/2000	22.09	0.00		0.00	0.00	0.25	2
	7/3/2000	22.35	trace		0.01	0.06	0.26	2
	8/4/2000	22.78	0.00		0.03	0.18	0.29	2
	10/6/2000	23.48	0.00		0.00	0.00	0.29	
	11/3/2000	23.60	0.00		0.00	0.00	0.29	
	12/1/2000	23.90	0.04		0.04	0.24	0.33	1, 2
	1/4/2001	24.10	0.00		0.00	0.00	0.33	
	2/2/2001	24.27	0.00		0.10	0.61	0.43	2
	4/3/2001	23.06	0.00		0.05	0.31	0.48	
	5/4/2001	23.05	0.00		0.00	0.00	0.48	
	5/7/2001	23.45	0.02		0.01	0.05	0.48	2
	6/11/2001	23.40	0.00		0.00	0.00	0.48	
	5/2/2002	23.51	0.02		0.003	0.02	0.49	2
	6/14/2002	23.88	0.01		0.003	0.02	0.49	2
	8/4/2002	23.61	0.01		0.004	0.02	0.49	2
	9/24/2002	24.07	0.01		0.007	0.04	0.50	2
	10/16/2002	24.29	trace		0.007	0.04	0.51	2
	11/6/2002	25.85	0.00		0.00	0.00	0.51	2
	11/26/2002	24.35	trace		0.00	0.00	0.51	2
	12/9/2002	24.05	trace		0.00	0.00	0.51	2
	1/17/2003	22.09	0.00		0.00	0.00	0.51	2
	1/27/2003	22.60	0.00		0.00	0.00	0.51	2
	3/5/2003	23.63	0.00		0.13	0.79	0.64	1,2
	4/11/2003	23.63	0.02		0.003	0.02	0.64	1,2
	5/13/2003	23.11	0.03		0.003	0.02	0.64	1,2
	5/28/2003	21.95	0.04		0.007	0.04	0.65	1,2
	6/13/2003	22.05	0.03		0.004	0.02	0.65	1,2
	7/24/2003	23.10	0.02		0.003	0.02	0.65	1,2
	8/5/2003	23.03	0.04		0.011	0.06	0.66	1,2
	9/12/2003	23.81	0.06		0.013	0.08	0.68	1,2
	10/10/2003	24.03	0.05		0.021	0.13	0.70	1,2
	11/10/2003	22.70	0.07		0.013	0.08	0.71	1,2
	11/21/2003	22.85	0.05		0.013	0.08	0.73	1,2
	12/4/2003	22.69	0.02		0.008	0.05	0.73	1,2

# Pangea

**Table 4. Separate-Phase Hydrocarbon Removal**  
Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Date Sampled	Depth to Groundwater (feet)	SPH Thickness (feet)	SPH Removed (mL)	SPH Removed (gallons)	SPH Removed (lbs)	Cumulative SPH Removed (gallons)	Notes
MW-14	1/23/2004	22.05	0.04	40	0.011	0.06	0.74	1,2
(cont'd)	2/6/2004	22.49	0.04	50	0.013	0.08	0.76	1,2
	2/18/2004	22.37	0.04	50	0.013	0.08	0.77	1,2
	3/28/2004	22.79	0.00	5	0.001	0.01	0.77	1,2
	4/9/2004	22.81	0.00	0	0.000	0.00	0.77	1,2
	5/27/2004	21.78	0.05	40	0.011	0.06	0.78	1,2
	7/29/2004	23.80	0.02	10	0.003	0.02	0.78	1,2
	8/6/2004	23.99	0.02	100	0.026	0.16	0.81	1,2
	8/19/2004	24.13	0.05	100	0.026	0.16	0.84	1,2
	9/3/2004	24.22	0.02	50	0.013	0.08	0.85	1,2
	12/27/2004	24.19	sheen	5	0.001	0.01	0.85	2
	2/18/2005	23.24	0.05	120	0.032	0.19	0.88	1,2
	5/11/2005	22.77	0.04	500	0.132	0.81	1.02	1,2
MW-15	2/18/2005	23.27	0.10	20	0.005	0.03	0.01	1
	5/11/2005	22.80	0.09	450	0.119	0.73	0.12	1

**Total SPH Removed (gallons): 155.52**

**Total SPH Removed (pounds): 948.67**

**Abbreviations and Notes:**

TOC Elev. (ft) = Top of casing elevation, surveyed to an arbitrary datum (measured in feet)

SPH = Separate-phase hydrocarbons

SPH converted from volume to weight using the estimated relation 1 gallon SPH = 6.1 pounds.

-- = Not measured or not applicable

NM = Not Measured. Product was being removed by vapor extraction at time of measurement.

1 = SPH removed by manual bailing

2 = SPH removed from well by absorbent sock

3 = SPH removed from well by passive skimmer

4 = Vapor extraction system operating in well

5 = No product removed; skimmer adjusted incorrectly.

**APPENDIX A**

Well Monitoring Protocol

## APPENDIX A

### Well Monitoring Protocol

Well Monitoring Protocol			
Well	Gauging Frequency	Sampling Frequency	Analytes
<b>Source Area Wells</b>			
MW-1	<b>Quarterly</b>	<b>Annually (1<sup>st</sup> Qtr)</b>	TPHd, TPHmo, TPHg, BTEX, MTBE, <i>HVOCs</i> , DO
MW-6			(SVOCs and LUFT Metals no longer required)
MW-14			
MW-15			
<b>Down-Gradient/Cross-Gradient Wells</b>			
MW-4	<b>Quarterly</b>	<b>Quarterly</b>	TPHd, TPHmo, TPHg, BTEX, MTBE, DO
MW-7			( <i>HVOCs</i> 1 <sup>st</sup> qtr only)
MW-8			
MW-9			(SVOCs and LUFT Metals no longer required)
MW-13			
<ol style="list-style-type: none"> <li>1. Per the May 3, 1999, ACHCSA letter to Messrs. Hill and Linden, monitoring wells MW-2, MW-3, MW-5, MW-10, and MW-11 were dropped from the monitoring program.</li> <li>2. For cost control purposes, frequency for <i>HVOC</i> sample analysis for the cross/downgradient wells was reduced from quarterly to annually.</li> <li>3. SVOCs and LUFT Metal analysis no longer required by ACHCSA for this site.</li> <li>4. Wells will not be sampled if SPH is observed.</li> </ol>			

**APPENDIX B**

Groundwater Monitoring Field Data Sheets





## WELL GAUGING SHEET

**Client:** Pange Environmental Services Inc.

**Site**  
**Address:** 3093 Broadway Oakland, CA

**Date:** 5/11/2005

**Signature:**

Well ID	Time	Depth to SPH	Depth to Water	SPH Thickness	Depth to Bottom	Comments
MW-1	9:15	22.69	22.71	0.02		MW-6 was gauged with skimmer out of well. MW-6 removed 100 ml SPH from skimmer and 20 ml by bailing. MW-14 removed 400 ml of sph from soak and 100 ml by bailing. MW-15 removed 250 ml sph from soak and 200 ml by bailing.
MW-4	8:50		17.93		24.27	
MW-6	9:10	22.84	22.90	0.06		
MW-7	8:35		15.79		30.16	
MW-8	8:40		25.47		39.32	
MW-9	8:45		19.41		30.60	
MW-13	8:30		22.68		39.51	
MW-14	9:20	22.73	22.77	0.04		
MW-15	9:25	22.71	22.80	0.09		



## WELL SAMPLING FORM

<b>Date:</b>		5/11/2005				
<b>Client:</b>		Pangea Environmental Services Inc.				
<b>Site Address:</b>		3093 Broadway Oakland, CA				
<b>Well ID:</b>		MW-4				
<b>Well Diameter:</b>		2"				
<b>Purging Device:</b>		Disposable Bailer				
<b>Sampling Method:</b>		Disposable Bailer				
<b>Total Well Depth:</b>		24.27	<b>Fe=</b> mg/L			
<b>Depth to Water:</b>		17.93	<b>ORP=</b> mV			
<b>Water Column Height:</b>		6.34	<b>DO=</b> 1.03 mg/L			
<b>Gallons/ft:</b>		0.16				
<b>1 Casing Volume (gal):</b>		1.01	<b>COMMENTS:</b> Turbid, Odor			
<b>3 Casing Volumes (gal):</b>		3.04				
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>			<b>pH</b>	<b>COND. (µS)</b>
1:30	1.0	27.2			6.91	590
1:35	2.0	27.4			6.85	620
1:40	3.0	27.4	6.88	634		
<b>Sample ID:</b>	<b>Date:</b>	<b>Time</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MW-4	5/11/2005	1:45	Voa	HCl	TPHg, BTEX, MTBE, TPHd, TPHmo	8015, 8021, 8015 with silica gel cleanup
			Amber			
<b>Signature:</b>						



## WELL SAMPLING FORM

<b>Date:</b>		5/11/2005				
<b>Client:</b>		Pangea Environmental Services Inc.				
<b>Site Address:</b>		3093 Broadway Oakland, CA				
<b>Well ID:</b>		MW-7				
<b>Well Diameter:</b>		2"				
<b>Purging Device:</b>		Disposable Bailer				
<b>Sampling Method:</b>		Disposable Bailer				
<b>Total Well Depth:</b>		30.16	<b>Fe=</b> mg/L			
<b>Depth to Water:</b>		15.79	<b>ORP=</b> mV			
<b>Water Column Height:</b>		14.37	<b>DO=</b> 1.18 mg/L			
<b>Gallons/ft:</b>		0.16				
<b>1 Casing Volume (gal):</b>		2.30	<b>COMMENTS:</b> Turbid			
<b>3 Casing Volumes (gal):</b>		6.90				
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>			<b>pH</b>	<b>COND. (µS)</b>
11:10	2.3	26.9			6.98	849
11:15	4.6	27.2	6.95	872		
11:20	6.9	27.4	6.93	906		
<b>Sample ID:</b>	<b>Date:</b>	<b>Time</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MW-7	5/11/2005	11:25	Voa	HCl	TPHg, BTEX, MTBE, TPHd, TPHmo	8015, 8021, 8015 with silica gel cleanup
			Amber			
<b>Signature:</b>						



## WELL SAMPLING FORM

<b>Date:</b>		5/11/2005				
<b>Client:</b>		Pangea Environmental Services Inc.				
<b>Site Address:</b>		3093 Broadway Oakland, CA				
<b>Well ID:</b>		MW-8				
<b>Well Diameter:</b>		6"				
<b>Purging Device:</b>		Whaler Pump				
<b>Sampling Method:</b>		Disposable Bailer				
<b>Total Well Depth:</b>		39.32	<b>Fe=</b> mg/L			
<b>Depth to Water:</b>		25.47	<b>ORP=</b> mV			
<b>Water Column Height:</b>		13.85	<b>DO=</b> 1.22 mg/L			
<b>Gallons/ft:</b>		1.65				
<b>1 Casing Volume (gal):</b>		22.85	<b>COMMENTS:</b>			
<b>3 Casing Volumes (gal):</b>		68.56				
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>			<b>pH</b>	<b>COND. (µS)</b>
11:45	22.9	27.3			7.02	629
12:05	45.7	26.9			6.98	594
12:25	68.6	27.0	7.00	613		
<b>Sample ID:</b>	<b>Date:</b>	<b>Time</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MW-8	5/11/2005	12:30	Voa	HCl	TPHg, BTEX, MTBE, TPHd, TPHmo	8015, 8021, 8015 with silica gel cleanup
			Amber			
<b>Signature:</b>						



## WELL SAMPLING FORM

<b>Date:</b>		5/11/2005				
<b>Client:</b>		Pangea Environmental Services Inc.				
<b>Site Address:</b>		3093 Broadway Oakland, CA				
<b>Well ID:</b>		MW-9				
<b>Well Diameter:</b>		2"				
<b>Purging Device:</b>		Disposable Bailer				
<b>Sampling Method:</b>		Disposable Bailer				
<b>Total Well Depth:</b>		30.60	<b>Fe=</b> <b>mg/L</b>			
<b>Depth to Water:</b>		19.41	<b>ORP=</b> <b>mV</b>			
<b>Water Column Height:</b>		11.19	<b>DO=</b> <b>0.95 mg/L</b>			
<b>Gallons/ft:</b>		0.16				
<b>1 Casing Volume (gal):</b>		1.79	<b>COMMENTS:</b> Turbid			
<b>3 Casing Volumes (gal):</b>		5.37				
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>			<b>pH</b>	<b>COND. (µS)</b>
12:55	1.8	27.5	7.11	974		
1:00	3.6	27.8	7.07	908		
1:05	5.4	27.6	7.06	924		
<b>Sample ID:</b>	<b>Date:</b>	<b>Time</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MW-9	5/11/2005	1:10	Voa	HCl	TPHg, BTEX, MTBE, TPHd, TPHmo	8015, 8021, 8015 with silica gel cleanup
			Amber			
				<b>Signature:</b>		



## WELL SAMPLING FORM

<b>Date:</b>		5/11/2005				
<b>Client:</b>		Pangea Environmental Services Inc.				
<b>Site Address:</b>		3093 Broadway Oakland, CA				
<b>Well ID:</b>		MW-13				
<b>Well Diameter:</b>		2"				
<b>Purging Device:</b>		Disposable Bailer				
<b>Sampling Method:</b>		Disposable Bailer				
<b>Total Well Depth:</b>		39.51	<b>Fe=</b> mg/L			
<b>Depth to Water:</b>		22.68	<b>ORP=</b> mV			
<b>Water Column Height:</b>		16.83	<b>DO=</b> 1.05 mg/L			
<b>Gallons/ft:</b>		0.16				
<b>1 Casing Volume (gal):</b>		2.69	<b>COMMENTS:</b> Turbid			
<b>3 Casing Volumes (gal):</b>		8.08				
<b>TIME:</b>	<b>CASING VOLUME (gal)</b>	<b>TEMP (Celsius)</b>			<b>pH</b>	<b>COND. (µS)</b>
10:30	2.7	27.6			6.92	498
10:35	5.4	27.3			6.95	470
10:40	8.1	27.3	6.97	490		
<b>Sample ID:</b>	<b>Date:</b>	<b>Time</b>	<b>Container Type</b>	<b>Preservative</b>	<b>Analytes</b>	<b>Method</b>
MW-13	5/11/2005	10:45	Voa	HCl	TPHg, BTEX, MTBE, TPHd, TPHmo	8015, 8021, 8015 with silica gel cleanup
			Amber			
<b>Signature:</b>						

## **APPENDIX C**

Laboratory Analytical Report

**McC Campbell Analytical, Inc.**

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560  
Telephone : 925-798-1620 Fax : 925-798-1622  
Website: www.mcccampbell.com E-mail: main@mcccampbell.com

Pangea Environmental Svcs., Inc. 64 Sonia Street Oakland, CA 94618	Client Project ID: Connell	Date Sampled: 05/11/05
		Date Received: 05/12/05
	Client Contact: Bob Clark-Riddell	Date Reported: 05/18/05
	Client P.O.:	Date Completed: 05/18/05

**WorkOrder: 0505179**

May 18, 2005

Dear Bob:

Enclosed are:

- 1). the results of **5** analyzed samples from your **Connell project**,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions please contact me. McC Campbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager









QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0505179

EPA Method: SW8021B/8015Cm		Extraction: SW5030B			BatchID: 16205			Spiked Sample ID: 0505171-002A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) <sup>£</sup>	ND	60	88.5	92.7	4.63	93.8	93.8	0	70 - 130	70 - 130
MTBE	ND	10	93.5	85.5	8.95	88.5	84.6	4.53	70 - 130	70 - 130
Benzene	ND	10	99.6	101	1.44	96.2	95	1.19	70 - 130	70 - 130
Toluene	ND	10	97.5	99.7	2.18	94.6	97.7	3.20	70 - 130	70 - 130
Ethylbenzene	ND	10	99.8	99.4	0.464	98.2	95.9	2.32	70 - 130	70 - 130
Xylenes	ND	30	90.7	90.7	0	90.3	86	4.91	70 - 130	70 - 130
%SS:	95	10	107	109	1.62	102	104	1.79	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 16205 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505179-001A	5/11/05 1:45 AM	5/12/05	5/12/05 9:46 PM	0505179-002A	5/11/05 11:25 AM	5/12/05	5/12/05 10:51 PM
0505179-003A	5/11/05 12:30 PM	5/12/05	5/12/05 11:24 PM	0505179-004A	5/11/05 1:10 AM	5/12/05	5/12/05 11:57 PM
0505179-005A	5/11/05 10:45 AM	5/13/05	5/13/05 12:29 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

# cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0505179

EPA Method: SW8015C		Extraction: SW3510C			BatchID: 16206			Spiked Sample ID: N/A		
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	92.6	91.5	1.19	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	87	85	2.44	N/A	70 - 130
All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE										

#### BATCH 16206 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0505179-001B	5/11/05 1:45 AM	5/12/05	5/16/05 12:22 PM	0505179-002B	5/11/05 11:25 AM	5/12/05	5/13/05 8:29 PM
0505179-003B	5/11/05 12:30 PM	5/12/05	5/13/05 9:38 PM	0505179-004B	5/11/05 1:10 AM	5/12/05	5/16/05 3:50 PM
0505179-005B	5/11/05 10:45 AM	5/12/05	5/16/05 2:41 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**McC Campbell Analytical, Inc.**

**CHAIN-OF-CUSTODY RECORD**



110 Second Avenue South, #D7  
 Pacheco, CA 94553-5560  
 (925) 798-1620

WorkOrder: 0505179

ClientID: PEO

**Report to:**

Bob Clark-Riddell  
 Pangea Environmental Svcs., Inc.  
 64 Sonia Street  
 Oakland, CA 94618

TEL: (510) 435-8664  
 FAX: (510) 654-4006  
 ProjectNo: Connell  
 PO:

**Bill to:**

Bob Clark-Riddell  
 Pangea Environmental Svcs., Inc.  
 64 Sonia Street  
 Oakland, CA 94618

Requested TAT:

5 days

Date Received: 05/12/2005

Date Printed: 05/12/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
0505179-001	MW-4	Water	05/11/2005	<input type="checkbox"/>	A	A	B													
0505179-002	MW-7	Water	05/11/2005	<input type="checkbox"/>	A		B													
0505179-003	MW-8	Water	05/11/2005	<input type="checkbox"/>	A		B													
0505179-004	MW-9	Water	05/11/2005	<input type="checkbox"/>	A		B													
0505179-005	MW-13	Water	05/11/2005	<input type="checkbox"/>	A		B													

**Test Legend:**

1	G-MBTEX_W	2	PREDF REPORT	3	TPH(DMO)WSG_W	4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Sonia Valles

**Comments:**

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.