

C A M B R I A

February 6, 2002

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

Re: **Second Quarter 2001 Monitoring Report**
Connell Automobile Dealership
3093 Broadway
Oakland, California
StID #469

MAR 01 2002

Dear Mr. Seery:

On behalf of Messrs. George Hill and Gordon Linden, and as required by the Alameda County Health Care Services Agency (ACHCSA), Cambria Environmental Technology, Inc. (Cambria) has prepared this quarterly monitoring report for the above-referenced site. This report satisfies the quarterly reporting requirements prescribed by 23 CCR 2652d. The site background, second quarter 2001 activities and results, and anticipated third quarter 2001 activities are presented below.

SITE BACKGROUND

Three underground storage tanks (USTs) which previously contained gasoline, diesel, and waste oil were removed from the subject site in December 1989. Soil and groundwater investigation has been ongoing since 1990. Between October 1996 and March 1998, operation of a soil vapor extraction (SVE) remediation system removed approximately 1,421 lbs of hydrocarbons. Manual removal of separate phase hydrocarbons (SPH) from site monitoring wells has been conducted periodically since 1991.

SECOND QUARTER 2001 ACTIVITIES AND RESULTS

Groundwater Monitoring: Cambria monitored site groundwater following the sampling protocol described in Cambria's May 8, 2000 *Workplan Addendum* (Attachment A). On May 7, 2001 Cambria gauged monitoring wells MW-1, MW-4, MW-6, MW-7, MW-8, MW-9, MW-13, MW-14, and MW-15, and inspected the wells for SPH. Groundwater samples were collected from wells MW-4, MW-7, MW-8, MW-9, and MW-13. The samples were analyzed by a California Department of Health Services (DHS) certified analytical laboratory for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), methyl tertiary butyl ether (MTBE), TPH as diesel (TPHd), TPH as motor oil (TPHmo), and EPA List 8010 halogenated volatile organic compounds (HVOCs). Samples from well MW-9 were

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San Ramon, CA
Sonoma, CA

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additionally sampled for LUFT metals. The groundwater elevations, groundwater flow direction, and gradient are shown on Figure 1. The groundwater elevation, petroleum hydrocarbon, and HVOC data are presented in Tables 1 and 2. Dissolved metals data is presented in Table 3, and SPH thicknesses and quantities removed are presented in Table 4. The analytical laboratory report is included as Attachment B. Field data sheets are included as Attachment C.

Groundwater Flow Direction: Based on the May 7, 2001 depth-to-water measurements, groundwater flowed northeastward with a gradient of approximately 0.075 ft/ft during the second quarter of 2001 (Figure 1). This result is consistent with the historical local groundwater flow direction.

Contaminant Distribution in Groundwater: In general, monitoring results were consistent with past results for this site. SPH were detected in wells MW-1, MW-6, MW-14, and MW-15. The primary contaminants of concern (COCs) in site groundwater are benzene, 1,2 dichlorethane (1,2-DCA), naphthalene, lead and nickel; these COCs are typically associated with releases from USTs containing gasoline, diesel, and/or motor oil. During this quarter the maximum benzene concentration detected in groundwater was 12,000 micrograms per liter (ug/l) in MW-4, the maximum 1,2-DCA concentration was 400 ug/l in MW-9, the maximum TPHd concentration was 56,000 ug/l in MW-4, and the maximum TPHmo concentration was 3,600 ug/l, also in MW-4 (Tables 1 and 2). The contaminant plumes are adequately defined crossgradient (south) and downgradient (east) of the former UST complex location by wells MW-7 and MW-13, respectively.

Separate-Phase Hydrocarbon Removal: During site visits on April 3, May 4, and June 11, 2001, Cambria inspected the passive SPH recovery devices in wells MW-1, MW-6, and MW-14. Table 4 presents the SPH thickness measurements, the amount of SPH removed from the wells during each site visit. On April 3, 2001, Cambria removed and replaced the absorbent socks in MW-1 and MW-14, and emptied and reset the skimmer in MW-6. On May 4, 2001, Cambria removed and replaced the absorbent sock in MW-1, and the skimmer in MW-6 was emptied and reset. The sock in MW-14 was reversed and reused, as it was only partially saturated. On May 23, 2001 Cambria removed the skimmer and installed an absorbent sock at MW-6. On June 11, 2001, Cambria removed and replaced the absorbent socks in MW-1 and MW-14. Cambria recovered a total of approximately 1.54 lbs of SPH from the site monitoring wells during first quarter of 2001. As of June 11, 2001, a total of approximately 926.49 lbs of SPH had been recovered since liquid-phase (SPH) hydrocarbon removal began in December 1991. Table 4 presents the SPH thickness measurements and the amount of SPH removed from the wells during each site visit. Table 4 presents the cumulative mass of SPH removed from each well.

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ANTICIPATED THIRD QUARTER 2001 ACTIVITIES

Groundwater Monitoring and Reporting: As required by the ACHCSA, Cambria will gauge site wells MW-1, MW-4, MW-6, MW-7, MW-8, MW-9, MW-13, MW-14, and MW-15 on a quarterly basis, collecting groundwater samples from MW-4, MW-7, MW-8, MW-9, and MW-13. During the third quarter 2001, Cambria will analyze groundwater samples for TPHd, TPHmo, TPHg, BTEX, MTBE, EPA List 8010 HVOCS, semi-volatile organic compounds (SVOCs), lead, cadmium, chromium, zinc, and nickel (LUFT metals). Cambria will prepare a quarterly monitoring report that will include tabulated groundwater elevation and analytical data and a potentiometric surface map.



Separate-Phase Hydrocarbon Removal: Cambria will conduct monthly SPH recovery events. Proper functioning of the recovery devices in MW-1, MW-6, and MW-14 will be verified. Collected SPH will be transferred to labeled, DOT-approved steel drums pending disposal or recycling.

Feasibility Testing and Corrective Action Plan (CAP) Preparation: The *Feasibility Test Report* dated March 16, 2001 concluded that remediation would be feasible at the site and that the dissolved plume may not be stable. Although CAP preparation has been approved by the ACHCSA and the Fund, Cambria has requested that the ACHCSA confirm that CAP preparation is appropriate. Cambria has also requested an opportunity to meet with the ACHCSA to discuss required elements of a CAP for moving this site towards closure by the ACHCSA and the Regional Water Quality Control Board.

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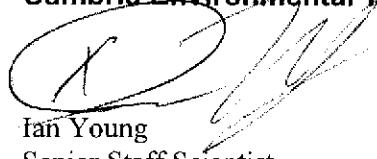
February 6, 2002

CLOSING

We trust that this report meets your requirements. If you have any questions or comments concerning this report, please call Bob Clark-Riddell at (510) 420-3303.

Sincerely,

Cambria Environmental Technology, Inc.



Ian Young
Senior Staff Scientist



Bob Clark-Riddell, P.E.
Principal Engineer



Figures: 1 - Groundwater Elevation Contour Map

Tables: 1 - Groundwater Elevation and Analytical Data: Volatile Hydrocarbons and HVOCS
2 - Groundwater Elevation and Analytical Data: Extractable Hydrocarbons and SVOCs
3 - LUFT Metals in Groundwater
4 - Liquid Phase Hydrocarbon Removal

Attachments: A - Well Sampling Protocol
B - Analytical Laboratory Report
C - Field Data Sheets

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

Groundwater Elevation Contours

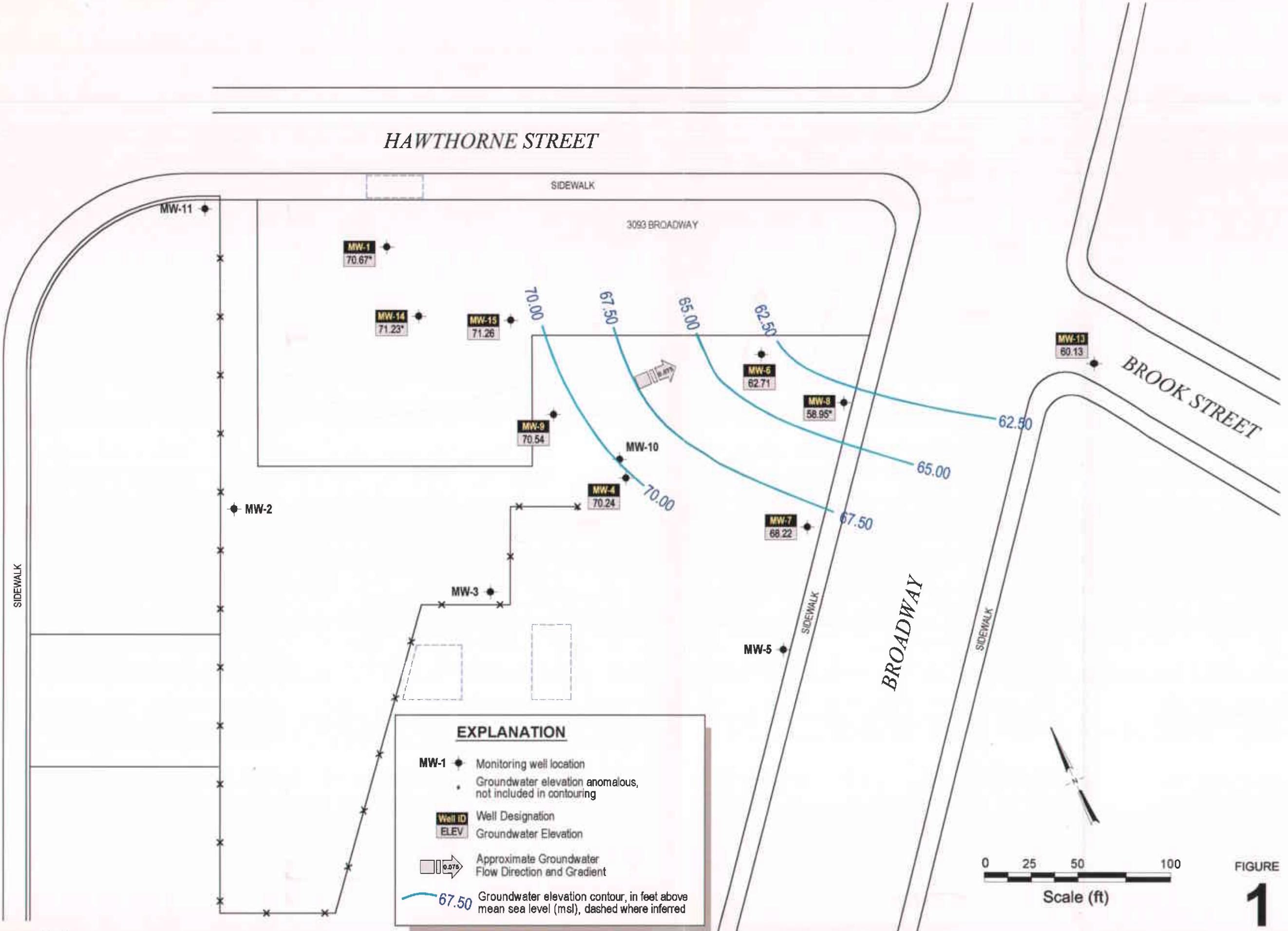
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Connell Automobile Dealership

3093 Broadway
Oakland, California

HAWTHORNE STREET

WEBSTER STREET



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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons and HVOCs

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Ethyl- benzene		Xylenes	MTBE	1,2-DCA	Other HVOCs
						Benzene	Toluene				
MW-1	10/5/90	26.40	68.08	620,000	--	33,000	50,000	7,900	41,000	--	2,900
94.48	3/1/91	27.46	67.02	SPH	--	--	--	--	--	**	--
	10/12/92	26.44	68.04	490,000	--	51,000	59,000	5,000	27,000	--	1,300
	11/24/92	26.63	67.85	320,000	--	35,000	43,000	4,200	22,000	--	1,600
	4/5/93	23.77	70.71	270,000	--	50,000	58,000	4,600	25,000	--	1,800
	7/21/93	24.51	69.97	SPH	--	--	--	--	--	--	--
	11/9/93	26.06	68.42	SPH	--	--	--	--	--	--	--
	8/30/95	21.73	72.75	SPH	--	--	--	--	--	--	--
	12/4/95	21.94	72.54	SPH	--	--	--	--	--	<200	--
	5/2/96	20.65	73.83	340,000	--	57,000	73,000	7,200	38,000	--	1,200
	11/5/96	24.29	70.19	270,000	--	43,000	56,000	4,500	34,000	--	--
	5/9/97	22.79	71.69	240,000	--	36,000	45,000	3,300	17,900	--	930
	11/5/97	25.06	69.42	240,000	--	42,000	48,000	3,600	18,800	<1,000	1,200
	2/9/98	22.64	71.84	220,000	--	47,000	60,000	5,200	29,800	<1,000	1,500
	5/1/98	19.95	74.53	160,000	--	35,000	42,000	2,800	16,000	<1,000	1,100
	11/3/98	23.29	71.19	200,000	--	39,000	49,000	4,400	26,000	<500	1,200
	3/24/99	22.30	72.18	SPH	--	--	--	--	--	--	--
	7/1/99	22.70	71.78	SPH	--	--	--	--	--	--	--
	9/21/99	23.81	70.67	SPH	--	--	--	--	--	--	--
	2/9/00	23.95	70.59	SPH	--	--	--	--	--	--	--
	5/31/00	22.05	72.43	--	SPH	--	--	--	--	--	--
	8/8/00	22.49	71.99	--	SPH	--	--	--	--	--	--
	11/14/00	24.65	69.83	--	SPH	--	--	--	--	--	--
	3/1/01	24.22	70.28	--	SPH	--	--	--	--	--	--
	5/7/01	23.85	70.67	--	SPH (0.05)	--	--	--	--	--	--
MW-2	3/1/91	27.86	66.95	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0
94.81	11/24/92	27.91	66.90	<50	--	<0.5	1.1	<0.5	1.5	--	<1.0
	4/5/93	25.95	68.86	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0
	7/21/93	25.59	69.22	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0
	11/10/93	26.72	68.09	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0
											ND

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons and HVOCs

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH ←	TPHg	Benzene	Toluene	Ethyl- benzene μg/l	Xylenes	MTBE	1,2-DCA	Other HVOCs	→
MW-2 <i>94.81</i> <i>(cont'd)</i>	8/30/95	25.75	69.06	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--	
	5/3/96	23.28	71.53	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND	
	5/8/97	24.58	70.23	<50	--	<0.5	0.7	<0.5	<0.5	--	<1.0	--	
	4/29/98	22.18	72.63	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND	
MW-3 <i>90.08</i>	3/1/91	23.17	66.91	<50	--	<50	0.6	<0.5	<0.5	--	<1.0	ND	
	11/25/92	23.01	67.07	50	--	<0.5	0.9	<0.5	2	--	<1.0	ND	
	4/5/93	22.11	67.97	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND	
	7/21/93	23.93	66.15	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND	
	11/10/93	23.14	66.94	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND	
	8/30/95	20.61	69.47	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--	
	5/3/96	18.43	71.65	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND	
	5/8/97	19.77	70.31	<50	--	<0.5	0.7	<0.5	<0.5	--	<1.0	--	
	4/29/98	17.92	72.16	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND	
MW-4 <i>88.84</i>	3/1/91	23.79	65.05	150,000	--	20,000	38,000	2,800	14,000	**	610	ND	
	10/12/92	22.48	66.36	230,000	--	15,000	32,000	2,500	14,000	--	430	--	
	11/24/92	22.60	66.24	210,000	--	14,000	31,000	2,500	14,000	--	500	ND	
	4/2/93	20.11	68.73	SPH	--	--	--	--	--	--	--	--	
	7/21/93	20.48	68.36	SPH	--	--	--	--	--	--	--	--	
	11/9/93	21.71	67.13	SPH	--	--	--	--	--	--	--	--	
	8/30/95	19.90	68.94	SPH	--	--	--	--	--	--	--	--	
	12/1/95	19.40	69.44	SPH	--	--	--	--	--	--	--	--	
	5/2/96	17.50	71.34	140,000	--	24,000	50,000	3,000	15,100	--	420	ND	
	11/4/96	20.13	68.71	160,000	--	16,000	38,000	2,700	14,000	--	380	ND	
	5/8/97	18.63	70.21	170,000	--	16,000	37,000	2,400	15,900	--	290	--	
	11/5/97	20.19	68.65	190,000	--	15,000	31,000	2,200	14,600	<400	290	--	
	2/9/98	18.28	70.56	110,000	--	19,000	42,000	2,500	18,300	<500	300	--	
	5/1/98	16.11	72.73	130,000	--	15,000	31,000	2,000	13,400	<1,000	260	ND	
	8/4/98	17.54	71.30	130,000	--	16,000	34,000	2,400	15,700	<400	240	ND	

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons and HVOCs

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Benzene	Toluene	Ethyl- benzene		Xylenes	MTBE	1,2-DCA	Other HVOCs
								μg/l	←				
MW-4 88.84	11/2/98 3/26/99	19.21 17.51	69.63 71.33	140,000 110,000	-- --	16,000 15,000	32,000 30,000	2,300 1,600	15,500 15,000	<400 450 ⁴	230 210	ND 5	
<i>(cont'd)</i>	7/1/99	18.80	70.04	110,000	--	13,000	23,000	1,600	12,000	<83	170	5	
	9/21/99	19.85	68.99	140,000	--	16,000	31,000	2,400	14,800	ND	<1000	5	
	2/9/00	19.76	69.08	--	140,000	16,000	28,000	2,100	14,000	<400	100	DCB: 5.9, MCB: 5.9	
	5/31/00	17.90	70.94	--	15,000	17,000	28,000	2,400	14,000	<0.5 ⁶	<0.5	ND	
	8/8/00	18.62	70.22	--	140,000	15,000	25,000	2,100	13,000	<300	110	ND	
	11/14/00	19.63	69.21	--	150,000	19,000	36,000	2,900	17,000	<200	120	ND	
	3/1/01	19.68	69.16	--	120,000	10,000	15,000	1,300	10,000	<2000	110	ND	
	5/7/01	18.60	70.24	--	210,000	12,000	19,000	1,900	12,000	<200	100	ND	
MW-5 84.84	3/15/91 11/10/92 4/2/93 7/21/93 11/9/93 8/30/95 5/3/96 5/8/97 4/29/98	26.31 26.83 26.62 26.60 27.24 27.46 26.02 26.76 26.55	58.53 58.01 58.22 58.24 57.60 57.38 58.82 58.08 58.29	<50 <50 <50 <50 <50 <50 <50 <50 <50	-- -- -- -- -- -- -- -- --	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	<0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5 <0.5	-- -- -- -- -- -- -- -- --	<1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0 <1.0	ND	
MW-6 85.62	3/15/91 10/12/92 12/1/92 4/2/93 7/21/93 11/9/93 8/30/95 12/1/95 5/3/96 5/9/97 11/5/97 5/1/98	25.82 25.02 25.02 28.87 26.96 26.17 58.11 57.62 27.58 58.79 26.54 60.40 60.78 62.86	59.80 60.60 19,000 56.75 SPH SPH SPH SPH SPH 130,000 1,700,000 160,000 130,000	-- -- -- -- -- -- -- -- -- -- -- -- -- -- --	-- 3,200 1,400 200 -- -- -- -- -- 37,000 14,000 13,000 15,000	-- -- -- -- -- -- -- -- -- 50,000 27,000 19,000 23,000	12,000 1,100 5,400 560 -- -- -- -- -- 3,200 4,000 1,900 1,700	13,000 1,100 5,400 560 -- -- -- -- -- 14,200 28,200 14,300 13,200	-- -- -- -- -- -- -- -- -- -- -- -- -- --	1,400 840 -- -- -- -- -- -- -- <8,000,000 -- -- -- --	DBCM: 160 -- -- -- -- -- -- -- -- 71 2,400 1,200 790 1,100	ND	
86.94													
85.82													

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Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Benzene	Toluene	Ethyl- benzene µg/l	Xylenes	MTBE	1,2-DCA	Other HVOCs
MW-6	11/3/98	24.35	61.47	110,000	--	17,000	21,000	1,800	10,700	<200	990	ND
85.82	3/26/99	23.82	62.00	SPH	--	--	--	--	--	--	--	--
(cont'd)	7/1/99	24.45	61.37	SPH	--	--	--	--	--	--	--	--
	9/21/99	24.58	61.24	SPH	--	--	--	--	--	--	--	--
	2/9/00	24.93	61.24	SPH	--	--	--	--	--	--	--	--
	5/31/00	23.47	62.41	--	SPH	--	--	--	--	--	--	--
	8/8/00	23.85	61.97	--	SPH	--	--	--	--	--	--	--
	11/14/00	24.61	61.21	--	SPH	--	--	--	--	--	--	--
	3/1/01	23.97	61.85	--	SPH	--	--	--	--	--	--	--
	5/7/01	23.17	62.71	--	SPH (0.07)	--	--	--	--	--	--	--
MW-7	3/15/91	21.63	63.78	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
85.41	11/24/92	21.52	63.89	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	4/2/93	20.08	65.33	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	7/21/93	19.59	65.82	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	11/9/93	20.65	64.76	<50	--	<0.5	1	<0.5	1.7	--	<1.0	ND
	8/30/95	18.78	66.63	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--
	12/1/95	19.47	65.94	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	5/2/96	17.15	68.26	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	8/8/96	18.48	66.93	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
	11/4/96	18.69	66.72	<50	--	<1	<1	<1	<1	--	<1.0	ND
	2/6/97	17.44	67.97	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
	5/8/97	17.72	67.69	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--
	8/7/97	18.49	66.92	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
	11/5/97	18.86	66.55	<50	--	<0.5	<0.5	<0.5	<0.5	<2	1	--
	2/9/98	17.56	67.85	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	--
	4/29/98	16.23	69.18	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
	8/4/98	17.24	68.17	<50	--	<0.5	<0.5	<0.5	<0.5	<2	1.1	ND
	11/2/98	17.91	67.50	<50	--	<0.5	<0.5	<0.5	<0.5	<2	1.2	ND
	3/26/99	16.42	68.99	<50	--	<0.5	<0.5	<0.5	<0.5	<2	ND	ND
	7/1/99	17.90	67.51	85	--	<0.5	1.1	0.55	2.5	<0.5	1.0	5
	9/21/99	18.91	66.50	<50	--	0.7	1.8	<0.5	1.5	<5.0	<5.0	ND

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Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Benzene	Toluene	Ethyl- benzene µg/l	Xylenes	MTBE	1,2-DCA	Other HVOCs
MW-7 <i>85.41</i> <i>(cont'd)</i>	2/9/00	16.74	68.67	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<0.5
	5/31/00	16.21	69.20	--	<50	3	6	1	9	<0.5	<0.5	ND
	8/8/00	16.92	68.49	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	0.52	ND
	11/14/00	17.00	68.41	--	<50	<0.5	0.63	<0.5	<0.5	<5.0	<0.5	ND
	3/1/01	17.09	68.32	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	ND
	5/7/01	17.19	68.22	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	ND
MW-8 <i>85.50</i>	10/12/92	27.70	57.80	70	--	20	1	1	3	--	210	--
	11/25/92	27.62	57.88	<50	--	<0.5	<0.5	<0.5	<0.5	--	200	ND
	4/8/93	26.64	58.86	490	--	15	45	5.1	73	--	210	ND
	7/21/93	26.60	58.90	180	--	2.5	3	<0.5	1.9	--	350	ND
	11/11/93	27.18	58.32	310	--	23	<0.5	<0.5	<0.5	--	240	ND
	8/30/95	26.35	59.15	660	--	360	6.8	13	2.8	--	130	--
	12/4/95	26.72	58.78	250	--	46	0.9	4.9	<0.5	--	94	ND
	5/3/96	25.47	60.03	69	--	110	<0.5	<0.5	1.5	--	100	ND
	8/8/96	26.41	59.09	120	--	11	<0.5	<0.5	<0.5	<2	93	ND
	11/5/96	26.77	58.73	110	--	20	<1	1	<1	--	98	ND
	2/6/97	25.84	59.66	67 ^{1,2}	--	51	<0.5	0.56	<0.5	<2	81	ND
	5/9/97	26.39	59.11	110 ^{1,2}	--	59	<0.5	<0.5	<0.5	--	76	--
	8/7/97	26.72	58.78	<50	--	12 ³	<0.5	<0.5	<0.5	<2	79	ND
	11/5/97	26.82	58.68	<50	--	9.4	<0.5	<0.5	<0.5	<2	84	--
	2/9/98	25.57	59.93	<50	--	6	<0.5	<0.5	<0.5	<2	85	--
	5/1/98	25.64	59.86	430	--	490	7.1	27	26	<10	85	ND
	8/5/98	25.96	59.54	140	--	19	<0.5	5.2	5.3	<2	69	ND
	11/3/98	26.27	59.23	150	--	110	1.1	4.3	4.5	<2	67	ND
	3/31/99	20.93	64.57	54	--	170	1.5	4.1	1.9	4.4 ⁴	5.9	1,1 DCA: 0.7
	7/1/99	26.59	58.91	140	--	58	0.9	3	2.3	<0.5	55	⁵
	9/21/99	26.89	58.61	670	--	170	2.6	11	7.9	<5	41	ND
	2/9/00	26.60	58.90	--	300	60	1.2	4.8	1.2	<5.0	40	<0.5
	8/8/00	26.43	59.07	--	270	56	1.2	4.1	1.0	<5.0	39	ND
	11/14/00	26.60	58.90	--	330	64	1.3	3.5	0.60	<5.0	47	ND
	3/1/01	26.41	59.09	--	400	140	<0.5	<0.5	0.55	<5.0	16	ND
	5/7/01	26.55	58.95	--	240	37	0.71	2.5	0.77	<5.0	48	ND

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons and HVOCs

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Benzene	Toluene	Ethyl- benzene	Xylenes	MTBE	1,2-DCA	Other HVOCs
								µg/l				
MW-9	11/24/92	23.51	66.86	19,000	--	180	590	23	2000	--	340	TCM: 15
90.37	4/5/93	21.14	69.23	2,300	--	48	4	0.6	13	--	600	TCM: 2
	7/21/93	21.54	68.83	2,300	--	170	8.1	15	<0.5	--	1100	ND
	11/10/93	27.53	62.84	4,400	--	69	7.3	21	9.7	--	900	ND
	8/30/95	19.59	70.78	3,200	--	3,900	49	80	22.8	--	960	--
	12/4/95	20.65	69.72	--	--	--	--	--	--	<2	--	--
	5/2/96	18.63	71.74	<1300	--	2,600	<13	200	<13	--	550	ND
	11/5/96	20.69	69.68	1,800	--	280	<5	65	<5	--	770	ND
	5/9/97	19.96	70.41	1,100	--	160	<0.5	42	<0.5	--	690	--
	8/8/97	20.84	69.53	570 ^{1,2}	--	<0.5	<0.5	<0.5	0.78 ³	<2	680	ND
	11/5/97	21.55	68.82	490 ¹	--	<0.5	<0.5	6	<0.5	<2	500	--
	2/9/98	20.21	70.16	270 ¹	--	48	17	5.8	<0.5	<2	520	--
	5/1/98	19.27	71.10	550	--	70	<0.5	22	2.2	<2	390	ND
	8/5/98	19.35	71.02	550 ¹	--	88	<0.5	13	1.9 ³	<2	420	ND
	11/2/98	20.43	69.94	580	--	<0.5	<0.5	7.5 ³	1.6 ³	<2	430	ND
	3/25/99	18.46	71.91	1,100	--	160	<0.5	21	2.1 ³	5.7 ⁴	550	ND
	7/1/99	19.95	70.42	540	--	100	7.4	26	16.9	<1.3	400	⁵
	9/21/99	21.15	69.22	2,700	--	320	98	88	47	<20	540	ND
	2/9/00	21.08	69.29	--	1,600	81	3.6	19	18	<5.0	360	<0.5
	5/31/00	19.11	71.26	--	1,500	170	13	25	<1.0	<0.5	300	ND
	8/8/00	19.86	70.51	--	1,300	140	2.1	19	<0.5	<5.0	330	ND
	11/14/00	20.90	69.47	--	1,700	250	2.6	44	2.1	<5.0	610	ND
	3/1/01	20.45	69.92	--	1,800	170	5.6	30	2.5	<20	620	ND
	5/7/01	19.83	70.54	--	1,500	120	2.6	24	<0.5	<5.0	400	ND

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons and HVOCs

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Benzene	Toluene	Ethyl- benzene μg/l	Xylenes	MTBE	1,2-DCA	Other HVOCs
MW-10 88.60	10/12/92	21.55	67.05	28,000	--	2,700	3,800	210	1,300	--	150	--
	11/24/92	21.86	66.74	130,000	--	9,700	19,000	1,400	8,400	--	370	ND
	4/5/93	19.14	69.46	63,000	--	6,300	14,000	1,100	7,500	--	70	ND
	7/21/93	19.79	68.81	140,000	--	16,000	31,000	2,200	13,000	--	700	ND
	8/30/95	17.99	70.61	92,000	--	13,000	24,000	1,800	9,100	--	300	--
	5/3/96	17.04	71.56	81,000	--	17,000	29,000	2,100	8,500	--	320	ND
	5/9/97	18.36	70.24	63,000	--	7,400	13,000	940	4,100	--	150	--
	5/1/98	15.84	72.76	60,000	--	7,100	14,000	1,100	5,300	<250	120	ND
MW-11 102.06	11/24/92	33.65	68.41	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	12/8/92***	33.37	68.69	<50	--	<0.1	<0.1	<0.1	<0.1	--	--	--
	12/8/92	33.37	68.69	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--
	4/5/93	31.03	71.03	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	7/21/93	31.90	70.16	160	--	<0.5	1.8	<0.5	<0.5	--	<1.0	ND
	11/9/93	32.60	69.46	80	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	8/30/95	28.92	73.14	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--
	5/3/96	28.00	74.06	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	5/8/97	29.93	72.13	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	--
	4/29/98	27.22	74.84	<50	--	<0.5	<0.5	<0.5	<0.5	<2	<1.0	ND
MW-13 84.06	11/24/92	26.05	58.01	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	12/8/92***	25.08	58.98	<50	--	<0.1	<0.1	<0.1	<0.1	--	--	--
	12/8/92	25.08	58.98	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--
	4/5/93	24.64	59.42	<50	--	<0.5	0.9	<0.5	<0.5	--	<1.0	ND
	7/21/93	24.29	59.77	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	11/9/93	24.23	59.83	<50	--	<0.5	<0.5	<0.5	<0.5	--	<1.0	ND
	8/30/95	23.30	60.76	<50	--	49	<0.5	<0.5	<0.5	--	3.6	--
	12/1/95	23.80	60.26	<50	--	<0.5	<0.5	<0.5	<0.5	--	4.1	ND
	5/3/96	23.19	60.87	<50	--	<0.5	<0.5	<0.5	<0.5	--	4	ND
	8/8/96	23.44	60.62	<50	--	32	<0.5	<0.5	<0.5	<2	6.4	ND
	11/5/96	24.04	60.02	<50	--	<1	<1	<1	<1	--	5.7	ND
	2/6/97	23.24	60.82	<50	--	<0.5	<0.5	<0.5	<0.5	<2	3.5	ND
	5/8/97	23.46	60.60	<50	--	81	<0.5	<0.5	<0.5	--	5.5	--

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons and HVOCs

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. <i>(ft)</i>	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Benzene	Toluene	Ethyl- benzene μg/l	Xylenes	MTBE	1,2-DCA	Other HVOCs
MW-13 84.06	8/8/97 11/5/97	23.92 24.27	60.14 59.79	<50 <50	-- --	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<2 <2	6.8 5.5	ND --
<i>(cont'd)</i>	2/9/98	22.89	61.17	<50	--	<0.5	<0.5	<0.5	<0.5	<2	2.9	--
	4/29/98	22.27	61.79	<50	--	24	<0.5	<0.5	<0.5	<2	5.7	ND
	8/4/98	22.75	61.31	120	--	200	<1	<1	<1	<4	6.2	ND
	11/3/98	23.90	60.16	59 ¹	--	33	<0.5	<0.5	<0.5	<2	6.1	ND
	3/31/99	23.11	60.95	130	--	0.56	<0.5	<0.5	<0.5	<2	1.4	ND
	7/1/99	23.40	60.66	160	--	370	19	1.2	3.5	<1	4.2	⁵
	9/21/99	21.91	62.15	370	--	150	1.0	0.8	0.8	<5.0	<5.0	ND
	2/9/00	23.84	60.22	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	2.1	<0.5
	8/8/00	23.31	60.75	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	3.6	ND
	11/14/00	24.00	60.06	--	<50	<0.5	0.52	<0.5	<0.5	<5.0	3.3	ND
MW-14 94.66	3/1/01	23.93	60.13	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	ND
	5/7/01	23.93	60.13	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	1.3	ND
	5/26/98	21.67	72.99	41,000	--	7,100	11,000	720	3,900	<1000	440	ND
	7/1/99	22.95	71.71	SPH	--	--	--	--	--	--	--	--
	9/21/99	24.26	70.40	SPH	--	--	--	--	--	--	--	--
	2/9/00	24.13	70.53	--	92,000	12,000	17,000	1,300	8,700	<140	450	<0.5
	5/31/00	22.09	72.57	--	SPH	--	--	--	--	--	--	--
	8/8/00	22.88	71.78	--	SPH	--	--	--	--	--	--	--
	11/14/00	23.90	70.76	--	SPH	--	--	--	--	--	--	--
	3/1/01	23.97	70.69	--	SPH	--	--	--	--	--	--	--
	5/7/01	23.45	71.23	--	SPH (Sheen)	--	--	--	--	--	--	--

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Table 1. Groundwater Elevation and Analytical Data: Volatile Hydrocarbons and HVOCs

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID TOC Elev. (ft)	Sampling Date	Depth to Groundwater (ft)	Groundwater Elevation (ft)	TVH	TPHg	Benzene	Toluene	Ethyl- benzene μg/l	Xylenes	MTBE	1,2-DCA	Other HVOCs
MW-15	5/26/98	21.87	72.89	130,000	--	30,000	38,000	2,500	12,600	<1000	1,200	ND
94.76	7/1/99	22.25	72.51	SPH	--	--	--	--	--	--	--	--
	9/21/99	24.12	70.64	SPH	--	--	--	--	--	--	--	--
	2/9/00	24.42	70.34	--	180,000	32,000	37,000	2,800	14,000	<200	1,100	<0.5
	5/31/00	22.40	72.36	--	SPH	--	--	--	--	--	--	--
	8/8/00	23.17	71.59	--	SPH	--	--	--	--	--	--	--
	11/14/00	24.15	70.61	--	SPH	--	--	--	--	--	--	--
	3/1/01	23.99	70.77	--	SPH	--	--	--	--	--	--	--
	5/7/01	23.50	71.26	--	SPH (Sheen)	--	--	--	--	--	--	--

Abbreviations and Notes:

TOC Elev. (ft) = Top of casing elevation in feet above mean sea level

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

TVH = Total Volatile Hydrocarbons

TPHg = Total petroleum hydrocarbons as gasoline

MTBE = Methyl tert-butyl ether

1,2-DCA = 1,2 Dichloroethane

HVOCs = Halogenated volatile organic compounds by EPA Method 8010

DCB = 1, 3 Dichlorobenzene

MCB = Chlorobenzene

DBCM = Dibromochloromethane

TCM = Chloroform = trichloromethane

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

-- = Sample not analyzed

SPH = Free product encountered in well (SPH thickness in feet)

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

MW-1 was initially referred to as Sample 5.

* = 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.

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.

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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. (ft)</i>	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH	TPHd	TPHmo	2-Methyl naphthalene µg/l	Naphthalene	Other SVOCs
MW-1 94.48	10/5/90	26.40	68.08	<500	--	--	--	--	--
	3/1/91	27.46	67.02	SPH	--	--	--	--	--
	10/12/92	26.44	68.04	--	--	--	--	--	--
	11/24/92	26.63	67.85	4,600	--	--	--	--	--
	4/5/93	23.77	70.71	25,000	--	--	--	--	--
	7/21/93	24.51	69.97	SPH	--	--	--	--	--
	11/9/93	26.06	68.42	SPH	--	--	--	--	--
	8/30/95	21.73	72.75	SPH	--	--	630	1,200	ND
	12/4/95	21.94	72.54	SPH	--	--	--	--	--
	5/2/96	20.65	73.83	32,000	--	--	250	640	ND
	11/5/96	24.29	70.19	--	--	--	--	--	--
	5/9/97	22.79	71.69	28,000	--	--	280	650	ND
	11/5/97	25.06	69.42	28,000	--	--	720	1,500	ND
	2/9/98	22.64	71.84	27,000	--	--	160	570	ND
	5/1/98	19.95	74.53	29,000	--	--	--	--	--
	5/27/98	--	--	--	--	--	120	630	ND
	11/3/98	23.29	71.19	37,000	--	--	500	1,100	ND
	3/24/99	22.30	72.18	SPH	--	--	--	--	--
	7/1/99	22.70	71.78	SPH	--	--	--	--	--
	9/21/99	23.81	70.67	SPH	--	--	--	--	--
	2/9/00	23.95	70.59	--	SPH	--	--	--	--
MW-2 94.81	5/31/00	22.05	72.43	--	SPH	--	--	--	--
	11/14/00	24.65	69.83	--	SPH	--	--	--	--
	3/1/01	24.22	70.28	--	SPH	--	--	--	--
	5/7/01	23.85	70.67	--	SPH	--	--	--	--
	3/1/91	27.86	66.95	<50	--	--	--	--	--
	11/24/92	27.91	66.90	<50	--	--	--	--	--
	4/5/93	25.95	68.86	870	--	--	--	--	--
	7/21/93	25.59	69.22	<50	--	--	--	--	--
	11/10/93	26.72	68.09	240	--	--	--	--	--
	8/30/95	25.75	69.06	150	--	--	--	--	--

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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	TPHd	TPHmo	2-Methyl naphthalene µg/l	Naphthalene	Other SVOCs
MW-2	5/3/96	23.28	71.53	<50	--	--	--	--	--
94.81	5/8/97	24.58	70.23	<50	--	--	--	--	--
(cont'd)	4/29/98	22.18	72.63	<47	--	--	--	--	--
MW-3	3/1/91	23.17	66.91	<50	--	--	--	--	--
90.08	11/25/92	23.01	67.07	160	--	--	--	--	--
	4/5/93	22.11	67.97	<50	--	--	--	--	--
	7/21/93	23.93	66.15	<50	--	--	--	--	--
	11/10/93	23.14	66.94	<50	--	--	--	--	--
	8/30/95	20.61	69.47	<50	--	--	--	--	--
	5/3/96	18.43	71.65	<50	--	--	--	--	--
	5/8/97	19.77	70.31	<50	--	--	--	--	--
	4/29/98	17.92	72.16	<47	--	--	--	--	--
MW-4	3/1/91	23.79	65.05	<500	--	--	--	--	--
88.84	10/12/92	22.48	66.36	--	--	--	--	--	--
	11/24/92	22.60	66.24	1,600	--	--	--	--	--
	4/2/93	20.11	68.73	SPH	--	--	--	--	--
	7/21/93	20.48	68.36	SPH	--	--	--	--	--
	11/9/93	21.71	67.13	SPH	--	--	--	--	--
	8/30/95	19.90	68.94	SPH	--	--	--	--	--
	12/1/95	19.40	69.44	SPH	--	--	--	--	--
	5/2/96	17.50	71.34	9,200	--	--	--	--	--
	11/4/96	20.13	68.71	4,700	--	--	--	--	--
	5/8/97	18.63	70.21	5,100	--	--	--	--	--
	11/5/97	20.19	68.65	3,700	--	--	--	--	--
	2/9/98	18.28	70.56	4,800	--	--	--	--	--
	5/1/98	16.11	72.73	5,000	--	--	--	--	--
	8/4/98	17.54	71.30	3,500	--	--	--	--	--
	11/2/98	19.21	69.63	7,200	--	--	--	--	--
	3/26/99	17.51	71.33	14,000	--	--	--	--	--

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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	TPIid	TPHmo	2-Methyl naphthalene µg/l	Naphthalene	Other SVOCs
MW-4 88.84	7/1/99 9/21/99	18.80 19.85	70.04 68.99	17,000 14,000	-- --	-- --	370 360	860 820	ND ND
(cont'd)	2/9/00	19.76	69.08	--	12,000	1,000	290	700	ND
	5/31/00	17.90	70.94	--	14,000 **	<500	--	--	--
	11/14/00	19.63	69.21	--	8,000	290	--	--	--
	3/1/01	19.68	69.16	--	57,000	2,800	210	510	ND
	5/7/01	18.60	70.24	--	56,000	3,600	--	--	--
MW-5 84.84	3/15/91 11/10/92 4/2/93 7/21/93 11/9/93 8/30/95 5/3/96 5/8/97 4/29/98	26.31 26.83 26.62 26.60 27.24 27.46 26.02 26.76 26.55	58.53 58.01 58.22 58.24 57.60 57.38 58.82 58.08 58.29	<50 50 <50 190 170 180 <50 <50 <47	-- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- --
MW-6 85.62	3/15/91 10/12/92 12/1/92 4/2/93 7/21/93 11/9/93 8/30/95 12/1/95 5/3/96 5/9/97 11/5/97	25.82 25.02 28.87 26.96 26.17 27.51 28.00 27.58 26.83 26.54 26.16	59.80 60.60 56.75 58.66 59.45 58.11 57.62 58.04 58.79 60.40 60.78	<50 -- SPH SPH SPH SPH SPH SPH 9,000 53,000 65,000	-- -- -- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- -- -- --	-- -- -- -- -- -- -- -- -- -- --
86.94	5/1/98 11/3/98	22.96 24.35	62.86 61.47	25,000 30,000	-- --	-- --	-- --	-- --	-- --
	3/26/99	23.82	62.00	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 <i>TOC Elev. (ft)</i>	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH	TPHd	TPHmo	2-Methyl naphthalene µg/l	Naphthalene	Other SVOCs
MW-6	7/1/99	24.45	61.37	SPH	--	--	--	--	--
85.82	9/21/99	24.58	61.24	SPH	--	--	--	--	--
<i>(cont'd)</i>	2/9/00	24.93	61.24	--	SPH	--	--	--	--
	5/31/00	23.47	62.41	--	SPH	--	--	--	--
	11/14/00	24.61	61.21	--	SPH	--	--	--	--
	3/1/01	23.97	61.85	--	SPH	--	--	--	--
	5/7/01	23.17	62.71	--	SPH	--	--	--	--
MW-7	3/15/91	21.63	63.78	<50	--	--	--	--	--
85.41	11/24/92	21.52	63.89	<50	--	--	--	--	--
	4/2/93	20.08	65.33	<50	--	--	--	--	--
	7/21/93	19.59	65.82	150	--	--	--	--	--
	11/9/93	20.65	64.76	200	--	--	--	--	--
	8/30/95	18.78	66.63	170	--	--	--	--	--
	12/1/95	19.47	65.94	<50	--	--	--	--	--
	5/2/96	17.15	68.26	<50	--	--	--	--	--
	8/8/96	18.48	66.93	<50	--	--	--	--	--
	11/4/96	18.69	66.72	<50	--	--	--	--	--
	2/6/97	17.44	67.97	<50	--	--	--	--	--
	5/8/97	17.72	67.69	<50	--	--	--	--	--
	8/7/97	18.49	66.92	<50	--	--	--	--	--
	11/5/97	18.86	66.55	<50	--	--	--	--	--
	2/9/98	17.56	67.85	<50	--	--	--	--	--
	4/29/98	16.23	69.18	<47	--	--	--	--	--
	8/4/98	17.24	68.17	<50	--	--	--	--	--
	11/2/98	17.91	67.50	<50	--	--	--	--	--
	3/26/99	16.42	68.99	<50	--	--	--	--	--
	7/1/99	17.90	67.51	<50	--	--	<10	<10	ND
	9/21/99	18.91	66.50	<48	--	--	<9.5	<9.5	ND
	2/9/00	16.74	68.67	--	<50	<250	<10	<10	ND
	5/31/00	16.21	69.20	--	<50	<500	--	--	--
	11/14/00	17.00	68.41	--	<50	<250	--	--	--
	3/1/01	17.09	68.32	--	<50	<250	<10	<10	ND
	5/7/01	17.19	68.22	--	<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	TPHd	TPHmo	2-Methyl naphthalene µg/l	Naphthalene	Other SVOCs
MW-8 <i>85.50</i>	10/12/92	27.70	57.80	--	--	--	--	--	--
	11/25/92	27.62	57.88	170	--	--	--	--	--
	4/8/93	26.64	58.86	100	--	--	--	--	--
	7/21/93	26.60	58.90	90	--	--	--	--	--
	11/11/93	27.18	58.32	170	--	--	--	--	--
	8/30/95	26.35	59.15	240	--	--	--	--	--
	12/4/95	26.72	58.78	<50	--	--	--	--	--
	5/3/96	25.47	60.03	94	--	--	--	--	--
	8/8/96	26.41	59.09	250	--	--	--	--	--
	11/5/96	26.77	58.73	<50	--	--	--	--	--
	2/6/97	25.84	59.66	130	--	--	--	--	--
	5/9/97	26.39	59.11	120	--	--	--	--	--
	8/7/97	26.72	58.78	150	--	--	--	--	--
	11/5/97	26.82	58.68	110	--	--	--	--	--
	2/9/98	25.57	59.93	75	--	--	--	--	--
	5/1/98	25.64	59.86	210	--	--	--	--	--
	8/5/98	25.96	59.54	260	--	--	--	--	--
	11/3/98	26.27	59.23	190	--	--	--	--	--
	3/31/99	20.93	64.57	200	--	--	--	--	--
	7/1/99	26.59	58.91	170	--	--	<9.6	<9.6	ND
<i>90.37</i>	9/21/99	26.89	58.61	420	--	--	<9.4	<9.4	ND
	2/9/00	26.60	58.90	--	120	280	<10	<10	ND
	5/31/00	26.16	59.34	--	160 **	<500	--	--	--
	11/14/00	26.60	58.90	--	150	<250	--	--	--
	3/1/01	26.41	59.09	--	54	<250	<10	<10	Phenol: 25
MW-9 <i>90.37</i>	5/7/01	26.55	58.95	--	<50	<250	--	--	--
	11/24/92	23.51	66.86	320	--	--	--	--	--
	4/5/93	21.14	69.23	920	--	--	--	--	--
	7/21/93	21.54	68.83	450	--	--	--	--	--
	11/10/93	27.53	62.84	450	--	--	--	--	--
	8/30/95	19.59	70.78	680	--	--	--	--	--

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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	TPHd	TPHmo	2-Methyl naphthalene µg/l	Naphthalene	Other SVOCs
MW-9	12/4/95	20.65	69.72	--	--	--	--	--	--
90.37	5/2/96	18.63	71.74	710	--	--	--	--	--
(cont'd)	11/5/96	20.69	69.68	420	--	--	--	--	--
	5/9/97	19.96	70.41	490	--	--	--	--	--
	8/8/97	20.84	69.53	480	--	--	--	--	--
	11/5/97	21.55	68.82	370	--	--	--	--	--
	2/9/98	20.21	70.16	410	--	--	--	--	--
	5/1/98	19.27	71.10	450	--	--	--	--	--
	8/5/98	19.35	71.02	630	--	--	--	--	--
	11/2/98	20.43	69.94	500	--	--	--	--	--
	3/25/99	18.46	71.91	630	--	--	--	--	--
	7/1/99	19.95	70.42	570	--	--	<9.5	<9.5	ND
	9/21/99	21.15	69.22	770	--	--	<9.4	<9.4	ND
	2/9/00	21.08	69.29	--	320	<250	<10	<10	ND
	5/31/00	19.11	71.26	--	390 **	<500	--	--	--
	11/14/00	20.90	69.47	--	160	< 250	--	--	--
	3/1/01	20.45	69.92	--	220	<250	<10	<10	ND
	5/7/01	19.83	70.54	--	290	<250	--	--	--
MW-10	10/12/92	21.55	67.05	--	--	--	--	--	--
88.60	11/24/92	21.86	66.74	1,300	--	--	--	--	--
	4/5/93	19.14	69.46	5,000	--	--	--	--	--
	7/21/93	19.79	68.81	20,000	--	--	--	--	--
	8/30/95	17.99	70.61	5,900	--	--	--	--	--
	5/3/96	17.04	71.56	5,600	--	--	--	--	--
	5/9/97	18.36	70.24	2,500	--	--	--	--	--
	5/1/98	15.84	72.76	2,000	--	--	--	--	--
MW-11	11/24/92	33.65	68.41	220	--	--	--	--	--
102.06	12/8/92*	33.37	68.69	140	--	--	--	--	--
	12/8/92	33.37	68.69	120	--	--	--	--	--
	4/5/93	31.03	71.03	<50	--	--	--	--	--
	7/21/93	31.90	70.16	150	--	--	--	--	--

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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	TPHd	TPHmo	2-Methyl naphthalene		Naphthalene	Other SVOCs
							µg/l	ppb		
MW-11	11/9/93	32.60	69.46	60	--	--	--	--	--	--
<i>102.06</i>	8/30/95	28.92	73.14	240	--	--	--	--	--	--
<i>(cont'd)</i>	5/3/96	28.00	74.06	<50	--	--	--	--	--	--
	5/8/97	29.93	72.13	<50	--	--	--	--	--	--
	4/29/98	27.22	74.84	<47	--	--	--	--	--	--
MW-13	11/24/92	26.05	58.01	3,600	--	--	--	--	--	--
<i>84.06</i>	12/8/92*	25.08	58.98	210	--	--	--	--	--	--
	12/8/92	25.08	58.98	100	--	--	--	--	--	--
	4/5/93	24.64	59.42	<50	--	--	--	--	--	--
	7/21/93	24.29	59.77	<50	--	--	--	--	--	--
	11/9/93	24.23	59.83	160	--	--	--	--	--	--
	8/30/95	23.30	60.76	<50	--	--	--	--	--	--
	12/1/95	23.80	60.26	<50	--	--	--	--	--	--
	5/3/96	23.19	60.87	<50	--	--	--	--	--	--
	8/8/96	23.44	60.62	<50	--	--	--	--	--	--
	11/5/96	24.04	60.02	<50	--	--	--	--	--	--
	2/6/97	23.24	60.82	<50	--	--	--	--	--	--
	5/8/97	23.46	60.60	<50	--	--	--	--	--	--
	8/8/97	23.92	60.14	<50	--	--	--	--	--	--
	11/5/97	24.27	59.79	<50	--	--	--	--	--	--
	2/9/98	22.89	61.17	<50	--	--	--	--	--	--
	4/29/98	22.27	61.79	<47	--	--	--	--	--	--
	8/4/98	22.75	61.31	78	--	--	--	--	--	--
	11/3/98	23.90	60.16	<50	--	--	--	--	--	--
	3/31/99	23.11	60.95	<48	--	--	--	--	--	--
	7/1/99	23.40	60.66	100	--	--	<9.6	<9.6	ND	ND
	9/21/99	21.91	62.15	<48	--	--	<9.4	<9.4	ND	ND
	2/9/00	23.84	60.22	--	<50	<250	<10	<10	ND	ND
	5/31/00	22.97	61.09	--	<50	<500	--	--	ND	ND
	11/14/00	24.00	60.06	--	65	<250	--	--	ND	ND
	3/1/01	23.93	60.13	--	<50	<250	<10	<10	ND	ND
	5/7/01	23.93	60.13	--	<50	<250	--	--	ND	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 TOC Elev. (ft)	Sampling Date	Depth to water (ft)	Groundwater Elevation (ft)	TEH	TPHd	TPHmo	2-Methyl naphthalene µg/l	Naphthalene	Other SVOCs
MW-14 94.66	5/26/98	21.67	72.99	7,700	--	--	--	--	--
	7/1/99	22.95	71.71	SPH	--	--	--	--	--
	9/21/99	24.26	70.40	SPH	--	--	--	--	--
	2/9/00	24.13	70.53	--	14,000	1,500	290	600	ND
	5/31/00	22.09	72.57	--	SPH	--	--	--	--
	11/14/00	23.90	70.76	--	SPH	--	--	--	--
	3/1/01	23.97	70.69	--	SPH	--	--	--	--
	5/7/01	23.45	71.23	--	SPH	--	--	--	--
MW-15 94.76	5/26/98	21.87	72.89	1,700	--	--	--	--	--
	7/1/99	22.25	72.51	SPH	--	--	--	--	--
	9/21/99	24.12	70.64	SPH	--	--	--	--	--
	2/9/00	24.42	70.34	--	4,000	1,200	50	270	ND
	5/31/00	22.40	72.36	--	SPH	--	--	--	--
	11/14/00	24.15	70.61	--	SPH	--	--	--	--
	3/1/01	23.99	70.77	--	SPH	--	--	--	--
	5/7/01	23.50	71.26	--	SPH	--	--	--	--

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

TPHho = Total petroleum hydrocarbons as hydraulic 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

< n = Not detected above n µg/l

-- = Not analyzed/not available

* = Duplicate sample sent to a different chemical laboratory

** = Does not match diesel pattern

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

Well ID	Sampling Date	Cadmium	Chromium	Lead	Nickel	Zinc
MW-4	7/1/99	<5	<10	59	<20	<20
	9/21/99	<5	<10	66	<20	33
	2/9/00	<5	17	68	<50	<50
MW-7	7/1/99	<5	<10	<3	<20	<20
	9/21/99	<5	<10	<3	<20	<20
	2/9/00	<5	14	8.6	59	<50
MW-8	7/1/99	<5	<10	<3	<20	<20
	9/21/99	<5	<10	<3	<20	<20
	2/9/00	<5	<5	<5	<50	<50
MW-9	7/1/99	<5	<10	<3	34	<20
	9/21/99	<5	<10	<3	25	37
	2/9/00	<5	82	29	160	130
	3/1/01	<5	47	<5	72	<50
	5/7/01	<5	49	<5	<50	<50
MW-13	7/1/99	<5	<10	<3	<20	<20
	9/21/99	<5	<10	<3	<20	<20
	2/9/00	<5	12	15	<50	<50
MW-14	2/9/00	<5	210	24	2,500	280
MW-15	2/9/00	<5	140	1,800	220	150

Abbreviations and Notes:

LUFT metals analyzed by EPA Method 6010

ug/l = micrograms per liter

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Table 4. Liquid-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> (ft)	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
MW-1	12/23/91	26.86	1.15	2.00	12.20	12.20	1
94.48	12/26/91	26.08	0.22	0.50	3.05	15.25	1
	1/13/92	26.53	0.66	1.00	6.10	21.35	1
	2/28/92	27.75	0.42	2.00	12.20	33.55	1
	11/9/93	26.06	1.17	0.50	3.05	36.60	1
	11/3/95	23.10	0.76	0.75	4.58	41.18	1
	11/30/95	23.38	0.70	0.25	1.53	42.70	1
	1/3/96	23.30	0.78	0.53	3.23	45.93	1
	2/2/96	22.96	0.84	0.75	4.58	50.51	1
	3/1/96	21.69	0.14	0.10	0.61	51.12	1
	4/4/96	21.11	0.00	0.00	0.00	51.12	1
	5/2/96	20.96	0.00	0.00	0.00	51.12	1
	6/5/96	20.98	0.04	0.10	0.61	51.73	1
	7/9/96	21.64	0.20	0.10	0.61	52.34	1
	8/8/96	22.43	0.33	0.05	0.31	52.64	1
	9/10/96	23.25	0.60	0.10	0.61	53.25	1
	10/1/96	23.58	0.60	0.25	1.53	54.78	1
	11/4/96	24.29	0.78	0.13	0.79	55.57	1
	12/2/96	24.63	0.88	0.26	1.59	57.16	1
	1/3/97	24.08	0.81	0.39	2.38	59.54	1
	2/6/97	22.46	0.30	0.01	0.06	59.60	1
	3/5/97	23.00	0.00	0.00	0.00	59.60	1
	4/1/97	22.29	0.20	0.01	0.06	59.66	1
	5/8/97	22.79	0.33	0.02	0.12	59.78	1
	6/6/97	24.33	1.69	0.26	1.59	61.37	1
	7/8/97	24.00	0.96	0.20	1.22	62.59	1
	8/7/97	24.58	1.29	1.00	6.10	68.69	1
	9/10/97	24.93	1.21	1.50	9.15	77.84	1
	10/1/97	24.89	0.86	0.26	1.59	79.42	1
	11/4/97	25.06	0.77	0.26	1.59	81.01	1
	12/4/97	24.76	0.54	0.19	1.16	82.17	1
	1/8/98	23.66	0.00	0.00	0.00	82.17	1
	2/5/98	22.64	0.00	0.00	0.00	82.17	1
	3/6/98	20.80	0.00	0.00	0.00	82.17	1
	4/2/98	20.31	0.00	0.00	0.00	82.17	1
	4/29/98	19.95	0.00	0.00	0.00	82.17	1
	6/3/98	20.41	0.00	0.00	0.00	82.17	1
	7/9/98	20.97	0.07	0.00	0.00	82.17	1
	8/4/98	21.40	trace	trace	0.00	82.17	1

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Table 4. Liquid-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev. (ft)</i>	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
MW-1	8/26/98	21.85	0.10	trace	0.00	82.17	1
<i>(cont'd)</i>	11/2/98	22.92	0.39	trace	0.00	82.17	1
	12/4/98	23.29	0.29	0.01	0.06	82.23	1
	1/5/99	23.51	0.42	0.03	0.18	82.41	1
	2/8/99	23.08	0.05	0.25	1.53	83.94	1
	3/24/99	21.90	0.01	0.01	0.06	84.00	1
	4/30/99	21.52	0.00	0.00	0.00	84.00	1
	7/1/99	22.70	0.03	0.01	0.06	84.06	1
	9/21/99	23.81	0.08	0.20	1.22	85.28	1
	10/20/99	23.90	0.10	0.01	0.06	85.34	1
	12/13/99	24.24	trace	0.00	0.00	85.34	1
	2/9/00	23.95	0.07	0.05	0.31	85.64	1
	2/15/00	--	0.00	0.00	0.00	85.64	2
	2/25/00	23.69	0.00	0.06	0.38	86.03	2
	3/3/00	23.27	0.00	0.05	0.31	86.33	2
	3/28/00	22.39	0.00	0.13	0.79	87.13	2
	5/2/00	22.29	0.00	0.05	0.29	87.42	2
	5/31/00	22.05	0.00	0.00	0.00	87.42	2
	7/3/00	22.10	trace	0.02	0.12	87.54	2
	8/4/00	22.40	0.00	0.01	0.06	87.60	2
	10/6/00	23.47	0.46	0.01	0.06	87.66	1
	11/3/00	24.14	0.78	0.00	0.00	87.66	
	12/1/00	25.40	0.83	1.75	10.50	98.16	1,2
	1/4/01	25.13	0.09	0.25	1.53	99.69	2
	2/2/01	25.12	0.03	0.13	0.79	100.48	2
	4/3/01	23.19	0.24	0.10	0.61	101.09	
	5/4/01	23.31	0.47	0.00	0.00	101.09	
	6/11/01	23.77	0.67	0.00	0.00	101.09	
MW-4	12/23/91	22.63	0.98	2.50	15.25	15.25	1
88.84	12/26/91	22.52	0.96	6.00	36.60	51.85	1
	1/10/92	22.74	0.99	5.00	30.50	82.35	1
	2/28/92	22.00	0.67	4.00	24.40	106.75	1
	3/11/92	21.71	0.55	3.50	21.35	128.10	1
	3/13/92	21.56	0.49	3.50	21.35	149.45	1
	3/17/92	25.46	0.44	2.25	13.73	163.18	1
	3/18/92	21.38	0.44	2.50	15.25	178.43	1
	3/19/92	21.33	0.48	1.50	9.15	187.58	1
	3/23/92	21.29	0.42	4.00	24.40	211.98	1
	3/24/92	21.31	0.38	1.50	9.15	221.13	1

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Table 4. Liquid-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> <i>(ft)</i>	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
MW-4 <i>(cont'd)</i>	3/25/92	21.17	0.36	1.00	6.10	227.23	1
	3/26/92	21.08	0.35	1.00	6.10	233.33	1
	3/27/92	20.92	0.26	0.50	3.05	236.38	1
	3/31/92	21.15	0.44	0.50	3.05	239.43	1
	4/1/92	20.90	0.24	0.25	1.53	240.95	1
	4/2/92	20.90	0.17	0.13	0.79	241.74	1
	4/6/92	--	--	0.13	0.79	242.54	1
	4/10/92	20.91	0.33	0.25	1.53	244.06	1
	4/13/92	21.04	0.42	0.25	1.53	245.59	1
	4/20/92	20.74	0.19	0.13	0.79	246.38	1
	5/4/92	20.83	0.33	0.13	0.79	247.17	1
	5/18/92	21.33	0.23	0.13	0.79	247.97	1
	5/26/92	20.83	0.17	0.13	0.79	248.76	1
	6/1/92	20.85	0.19	0.06	0.37	249.12	1
	6/29/92	21.38	0.53	0.25	1.53	250.65	1
	7/29/92	21.69	0.56	1.11	6.77	257.42	1
	8/28/92	21.35	0.63	1.68	10.25	267.67	1
	4/3/93	20.11	0.51	0.13	0.79	268.46	1
	11/9/93	20.48	0.52	0.03	0.18	268.64	1
	8/30/95	21.71	0.63	1.75	10.68	279.32	1
	10/2/95	19.90	2.20	0.50	3.05	282.37	1
	11/3/95	18.76	0.57	0.25	1.53	283.89	1
	11/30/95	19.17	0.65	0.25	1.53	285.42	1
	1/3/96	19.45	0.44	0.05	0.31	285.72	1
	2/2/96	19.50	0.32	0.10	0.61	286.33	1
	3/1/96	19.31	0.20	0.20	1.22	287.55	1
	4/4/96	17.53	0.18	0.20	1.22	288.77	1
	5/2/96	17.50	0.25	0.20	1.22	289.99	1
	6/5/96	17.67	0.39	0.15	0.92	290.91	1
	7/9/96	18.29	0.50	0.16	0.98	291.89	1
	8/8/96	18.84	0.00	0.00	0.00	291.89	1
	9/10/96	19.31	0.34	0.05	0.31	292.19	1
	10/1/96	19.51	0.29	0.05	0.31	292.50	1
	11/4/96	20.13	0.35	0.02	0.12	292.62	1
	12/2/96	20.23	0.33	0.02	0.12	292.74	1
	1/3/97	19.33	0.10	0.02	0.12	292.86	1
	2/6/97	18.13	0.01	0.01	0.06	292.92	1
	4/30/99	17.28	trace	0.00	0.00	292.92	1
	2/9/00	19.76	0.00	0.00	0.00	292.92	1
	2/15/00	--	0.00	0.00	0.00	292.92	2

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Table 4. Liquid-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev. (ft)</i>	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
	2/25/00	19.30	0.00	0.00	0.00	292.92	2
MW-6	12/23/91	28.40	3.21	7.50	45.75	45.75	1
85.62	12/26/91	27.25	1.67	2.00	12.20	57.95	1
	1/10/92	27.23	0.90	1.00	6.10	64.05	1
	2/4/92	27.71	2.04	2.00	12.20	76.25	1
	2/28/92	27.92	3.00	3.00	18.30	94.55	1
	3/10/92	27.16	2.06	2.75	16.78	111.33	1
	3/12/92	25.96	0.52	2.00	12.20	123.53	1
	3/23/92	26.34	1.09	1.00	6.10	129.63	1
	3/30/92	25.73	0.35	0.50	3.05	132.68	1
	4/10/92	25.29	0.05	0.25	1.53	134.20	1
	4/13/92	25.52	0.21	0.13	0.79	134.99	1
	4/20/92	25.38	0.10	0.13	0.79	135.79	1
	5/4/92	25.40	--	0.13	0.79	136.58	1
	5/8/92	25.50	0.17	0.06	0.37	136.95	1
	5/26/92	25.46	0.13	0.13	0.79	137.74	1
	6/1/92	25.46	0.09	0.06	0.37	138.10	1
	6/29/92	25.59	0.14	0.19	1.16	139.26	1
	7/29/92	26.90	1.71	0.60	3.66	142.92	1
	8/28/92	25.09	2.62	2.40	14.64	157.56	1
	12/2/92	--	--	0.00	0.00	157.56	1
	4/3/93	26.96	2.86	1.75	10.68	168.24	1
	11/9/93	27.51	3.06	0.83	5.06	173.30	1
	8/30/95	28.00	7.96	4.50	27.45	200.75	1
	10/2/95	28.24	6.14	4.00	24.40	225.15	1
	11/3/95	28.39	6.13	3.00	18.30	243.45	1
	11/30/95	26.91	3.44	2.50	15.25	258.70	1
	1/3/96	27.58	4.41	2.50	15.25	273.95	1
	2/2/95	27.58	4.37	5.00	30.50	304.45	1
	3/1/96	27.96	5.15	4.00	24.40	328.85	1
	4/4/96	27.96	5.41	5.00	30.50	359.35	1
	5/2/96	26.83	4.66	4.50	27.45	386.80	1
	6/5/96	27.15	5.17	4.00	24.40	411.20	1
	7/9/96	27.08	4.86	4.50	27.45	438.65	1
	8/8/96	26.71	4.05	4.00	24.40	463.05	1
	9/10/96	26.83	3.82	3.50	21.35	484.40	1
	10/1/96	26.96	3.77	4.00	24.40	508.80	1
	11/4/96	--	--	NM	NM	NM	4
86.94	12/2/96	--	--	NM	NM	NM	4

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Table 4. Liquid-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev.</i> (ft)	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
	1/3/97	--	--	NM	NM	NM	4
	2/6/97	25.08	0.20	NM	NM	NM	4
MW-6	3/5/97	24.20	0.00	NM	NM	NM	4
<i>(cont'd)</i>	4/1/97	24.04	0.00	NM	NM	NM	4
85.82	5/8/97	26.54	1.88	0.40	2.44	511.24	1
	6/6/97	25.33	0.21	0.03	0.18	511.42	1
	7/8/97	25.30	0.07	0.00	0.00	511.42	1
	8/7/97	25.52	0.00	0.00	0.00	511.42	1
	9/10/97	25.76	0.00	0.00	0.00	511.42	1
	10/1/97	25.12	0.00	0.00	0.00	511.42	1
	11/4/97	26.16	0.18	0.02	0.12	511.55	1
	12/4/97	26.08	0.16	0.05	0.31	511.85	1
	1/8/98	25.79	0.10	0.66	4.03	515.88	1
	2/5/98	25.31	0.89	NM	NM	NM	4
	3/6/98	24.63	0.46	0.04	0.24	516.12	1
	4/2/98	24.45	0.59	0.10	0.61	516.73	1
	4/29/98	22.96	0.55	0.09	0.55	517.28	1
	6/3/98	22.81	0.41	0.03	0.18	517.46	1
	7/9/98	23.04	0.35	0.05	0.31	517.77	1
	8/4/98	23.29	0.35	0.04	0.24	518.01	1
	8/26/98	23.50	0.31	0.01	0.06	518.07	1
	11/2/98	24.24	0.43	0.02	0.12	518.20	1
	12/4/98	24.35	0.32	0.01	0.06	518.26	1
	1/5/99	24.51	0.40	0.03	0.18	518.44	1
	2/8/99	24.00	0.03	0.13	0.76	519.20	1
	3/24/99	23.82	0.19	0.03	0.18	519.38	1
	4/30/99	23.60	1.13	0.10	0.61	519.99	1
	7/1/99	24.45	0.42	0.06	0.38	520.38	1
	7/27/99	25.35	0.24	0.06	0.38	520.76	1
	8/19/99	24.87	0.24	0.06	0.37	521.12	1
	9/21/99	24.58	0.10	0.20	1.22	522.34	1
	10/20/99	25.05	0.17	0.20	1.22	523.56	1
	12/13/99	25.08	0.10	0.06	0.37	523.93	1
	2/9/00	24.93	0.44	0.25	1.53	525.45	1
	2/15/00	--	0.00	0.07	0.43	525.88	3
	2/25/00	24.23	0.00	0.01	0.06	525.94	3
	3/3/00	24.00	0.00	0.00	0.01	525.95	3
	3/28/00	23.54	0.00	0.05	0.31	526.26	3
	5/2/00	23.52	0.06	0.03	0.15	526.41	3
	5/31/00	23.39	0.08	0.00	0.00	526.41	3

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Table 4. Liquid-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev. (ft)</i>	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
	7/3/00	23.61	trace	0.02	0.12	526.53	3
	8/4/00	23.80	0.10	0.01	0.06	526.59	3
MW-6	10/6/00	24.22	0.04	0.01	0.06	526.65	
<i>(cont'd)</i>	11/3/00	24.30	0.09	0.00	0.00	526.65	
85.82	12/1/00	24.38	0.07	0.03	0.18	526.83	2, 3
	1/4/01	24.65	0.17	0.00	0.00	526.83	5
	2/2/01	24.72	0.22	0.25	1.53	528.36	3
	4/3/01	23.90	0.06	0.05	0.31	528.67	
	5/4/01	23.95	0.07	0.05	0.31	528.97	
	6/11/01	24.25	0.10	0.00	0.00	528.97	
MW-9 90.37	8/8/96	19.89	0.35	0.10	0.61	0.61	1
MW-14 94.66	12/4/98	23.42	0.23	0.01	0.06	0.06	1
	1/5/99	23.36	0.12	0.01	0.06	0.12	1
	2/8/99	23.17	trace	0.01	0.06	0.18	1
	3/24/99	22.08	trace	trace	0.00	0.18	1
	4/30/99	21.17	0.01	trace	0.00	0.18	1
	7/1/99	22.95	0.04	trace	0.00	0.18	1
	9/21/99	24.26	trace	trace	0.00	0.18	1
	10/20/99	24.10	0.00	0.00	0.00	0.18	1
	2/9/00	24.13	0.00	0.00	0.00	0.18	1
	2/15/00	--	0.00	0.00	0.00	0.18	1
	2/25/00	--	0.00	0.00	0.00	0.18	2
	3/3/00	23.27	0.00	0.05	0.31	0.49	2
	3/28/00	22.40	0.00	0.13	0.76	1.25	2
	5/2/00	22.22	0.00	0.04	0.24	1.49	2
	5/31/00	22.09	0.00	0.00	0.00	1.49	2
	7/3/00	22.35	trace	0.01	0.06	1.55	2
	8/4/00	22.78	0.00	0.03	0.18	1.73	2
	10/6/00	23.48	0.00	0.00	0.00	1.73	
	11/3/00	23.60	0.00	0.00	0.00	1.73	
	12/1/00	23.90	0.04	0.04	0.24	1.97	1, 2
	1/4/01	24.10	0.00	0.00	0.00	1.97	
	2/2/01	24.27	0.00	0.10	0.61	2.58	2
	4/3/01	23.06	0.00	0.05	0.31	2.89	
	5/4/01	23.05	0.00	0.00	0.00	2.89	
	6/11/01	23.40	0.00	0.00	0.00	2.89	

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Table 4. Liquid-Phase Hydrocarbon Removal

Connell Automobile Dealership, 3093 Broadway, Oakland, California

Well ID <i>TOC Elev. (ft)</i>	Sampling Date	Depth to Water (ft)	LPH Thickness (ft)	Hydrocarbons Removed (gallons)	Hydrocarbons Removed (lbs)	Cumulative Hydrocarbons Removed (lbs)	Notes
MW-15	9/20/99	24.12	trace	trace	0.00	0.00	1
94.76	10/20/99	24.40	0.00	0.00	0.00	0.00	1
	12/13/99	24.61	0.00	0.00	0.00	0.00	1

Abbreviations and Notes:

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

-- = Not measured or not applicable

NM = product was being removed by vapor extraction at time of measurement.

1 = LPH removed by manual bailing

2 = LPH removed from well by absorbent sock

3 = LPH removed from well by passive skimmer

4 = vapor extraction system operating in well

5 = No product removed; skimmer adjusted incorrectly and filled with water.

Liquid-phase hydrocarbons (LPH) converted from volume to weight using the relation 1 gallon LPH= 6.1 pounds.

ATTACHMENT A

Well Sampling Protocol

ATTACHMENT A

Well Sampling Protocol - May 8, 2000 Workplan Addendum

Well Sampling Protocol - May 8, 2000 Workplan Addendum				
Well	Sampling Frequency	Analytics	Additions from Prior Protocol	Reductions/Removals from Prior Protocol
Source Area Wells				
MW-1				
MW-6	Annually (1st Qtr)			
MW-14				
MW-15	<i>(Gauge Quarterly)</i>	TPHd, TPHmo, TPHg, BTEX, MTBE, HVOCs, SVOCs, LUFT Metals, DO	DO	Reduced Well Sampling Frequency
Down-Gradient/Cross-Gradient Wells				
MW-4				
MW-7	Quarterly			
MW-13				
MW-8	<i>(Annually for SVOCs - 1st Qtr)</i>	TPHd, TPHmo, TPHg, BTEX, MTBE, HVOCs, DO (SVOCs - 1st qtr only)	DO	LUFT Metals, Annual SVOCs
MW-9	Quarterly <i>(Annually for SVOCs and LUFT Metals - 1st Qtr)</i>	TPHd, TPHmo, TPHg, BTEX, MTBE, HVOCs, DO (SVOCs, LUFT Metals - 1st qtr only)	DO	Annual LUFT Metals, Annual SVOC
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.				

ATTACHMENT B

Analytical Laboratory Report



McCAMPBELL ANALYTICAL INC.

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Cambria Environmental Technology 1144 65 th Street, Suite C Oakland, CA 94608	Client Project ID: #425-1580; Connel		Date Sampled: 05/07/01
			Date Received: 05/09/01
	Client Contact: Bob Clark Riddel		Date Extracted: 05/09-05/10/01
	Client P.O:		Date Analyzed: 05/09-05/10/01

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	MTBE	Benzene	Toluene	Ethyl-benzene	Xylenes	% Recovery Surrogate
67092	MW-4	W	210,000,a,h	ND<200	12,000	19,000	1900	12,000	105
67093	MW-7	W	ND	ND	ND	ND	ND	ND	101
67094	MW-8	W	240,a	ND	37	0.71	2.5	0.77	112
67095	MW-9	W	1500,a	ND	120	2.6	24	ND	105
67096	MW-13	W	ND	ND	ND	ND	ND	ND	102
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	5.0	0.5	0.5	0.5	0.5		
	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005		

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

* cluttered chromatogram; sample peak coelutes with surrogate peak

*The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

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Cambria Environmental Technology 1144 65 th Street, Suite C Oakland, CA 94608	Client Project ID: #425-1580; Connel	Date Sampled: 05/07/01
	Client Contact: Bob Clark Riddel	Date Received: 05/09/01
	Client P.O:	Date Extracted: 05/09/01
		Date Analyzed: 05/09/01

Diesel Range (C10-C23) and Oil-Range (C18+) Extractable Hydrocarbons as Diesel and Motor Oil*

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d) [†]	TPH(mo) [†]	% Recovery Surrogate
67092	MW-4	W	56,000,d,h	3600	110
67093	MW-7	W	ND	ND	98
67094	MW-8	W	ND	ND	101
67095	MW-9	W	290,d	ND	110
67096	MW-13	W	ND	ND	114
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	250 ug/L		
	S	1.0 mg/kg	5.0 mg/kg		

*water samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP / STLC / SPLP extracts in ug/L

[†] cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1622
<http://www.mccampbell.com> E-mail: main@mccampbell.com

Cambria Environmental Technology 1144 65 th Street, Suite C Oakland, CA 94608	Client Project ID: #425-1580; Connel		Date Sampled: 05/07/01	
			Date Received: 05/09/01	
	Client Contact: Bob Clark Riddel		Date Extracted: 05/14-05/15/01	
	Client P.O:		Date Analyzed: 05/14-05/15/01	
Volatile Halocarbons				
EPA method 601 or 8010	Lab ID	67092	67093	67094
	Client ID	MW-4	MW-7	MW-8
	Matrix	W	W	W
Compound	Concentration			
Bromodichloromethane	ND<10	ND	ND<0.65	ND<10
Bromoform ^(b)	ND<10	ND	ND<0.65	ND<10
Bromomethane	ND<10	ND	ND<0.65	ND<10
Carbon Tetrachloride ^(c)	ND<10	ND	ND<0.65	ND<10
Chlorobenzene	ND<10	ND	ND<0.65	ND<10
Chloroethane	ND<10	ND	ND<0.65	ND<10
2-Chloroethyl Vinyl Ether ^(d)	ND<10	ND	ND<0.65	ND<10
Chloroform ^(e)	ND<10	ND	ND<0.65	ND<10
Chloromethane	ND<10	ND	ND<0.65	ND<10
Dibromochloromethane	ND<10	ND	ND<0.65	ND<10
1,2-Dichlorobenzene	ND<10	ND	ND<0.65	ND<10
1,3-Dichlorobenzene	ND<10	ND	ND<0.65	ND<10
1,4-Dichlorobenzene	ND<10	ND	ND<0.65	ND<10
Dichlorodifluoromethane	ND<10	ND	ND<0.65	ND<10
1,1-Dichloroethane	ND<10	ND	ND<0.65	ND<10
1,2-Dichloroethane	100	ND	48	400
1,1-Dichloroethene	ND<10	ND	ND<0.65	ND<10
cis 1,2-Dichloroethene	ND<10	ND	ND<0.65	ND<10
trans 1,2-Dichloroethene	ND<10	ND	ND<0.65	ND<10
1,2-Dichloropropane	ND<10	ND	ND<0.65	ND<10
cis 1,3-Dichloropropene	ND<10	ND	ND<0.65	ND<10
trans 1,3-Dichloropropene	ND<10	ND	ND<0.65	ND<10
Methylene Chloride ^(f)	ND<20	ND	ND<0.65	ND<10
1,1,2,2-Tetrachloroethane	ND<10	ND	ND<0.65	ND<10
Tetrachloroethene	ND<10	ND	ND<0.65	ND<10
1,1,1-Trichloroethane	ND<10	ND	ND<0.65	ND<10
1,1,2-Trichloroethane	ND<10	ND	ND<0.65	ND<10
Trichloroethene	ND<10	ND	ND<0.65	ND<10
Trichlorofluoromethane	ND<10	ND	ND<0.65	ND<10
Vinyl Chloride ^(g)	ND<10	ND	ND<0.65	ND<10
% Recovery Surrogate	101	98	97	100
Comments	h			

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe
 ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.



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		Date Received: 05/09/01
	Client Contact: Bob Clark Riddel	Date Extracted: 05/14-05/15/01
	Client P.O:	Date Analyzed: 05/14-05/15/01

Volatile Halocarbons

EPA method 601 or 8010

Compound	Concentration				
Bromodichloromethane	ND				
Bromoform ^(b)	ND				
Bromomethane	ND				
Carbon Tetrachloride ^(c)	ND				
Chlorobenzene	ND				
Chloroethane	ND				
2-Chloroethyl Vinyl Ether ^(d)	ND				
Chloroform ^(e)	ND				
Chloromethane	ND				
Dibromochloromethane	ND				
1,2-Dichlorobenzene	ND				
1,3-Dichlorobenzene	ND				
1,4-Dichlorobenzene	ND				
Dichlorodifluoromethane	ND				
1,1-Dichloroethane	ND				
1,2-Dichloroethane	1.3				
1,1-Dichloroethene	ND				
cis 1,2-Dichloroethene	ND				
trans 1,2-Dichloroethene	ND				
1,2-Dichloropropane	ND				
cis 1,3-Dichloropropene	ND				
trans 1,3-Dichloropropene	ND				
Methylene Chloride ^(f)	ND				
1,1,2,2-Tetrachloroethane	ND				
Tetrachloroethene	ND				
1,1,1-Trichloroethane	ND				
1,1,2-Trichloroethane	ND				
Trichloroethene	ND				
Trichlorofluoromethane	ND				
Vinyl Chloride ^(g)	ND				
% Recovery Surrogate	100				
Comments					

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil and sludge samples in ug/kg, wipe samples in ug/wipe
 Reporting limit unless otherwise stated: water/TCLP/SPLP extracts, ND<0.5ug/L; soils and sludges, ND<5ug/kg; wipes, ND<0.2ug/wipe

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

(b) tribromomethane; (c) tetrachloromethane; (d) (2-chloroethoxy) ethene; (e) trichloromethane; (f) dichloromethane; (g) chloroethene; (h) a lighter than water immiscible sheen is present; (i) liquid sample that contains greater than ~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director



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* water samples are reported in mg/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in mg/L

* Lead is analysed using EPA method 6010 (ICP) for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

^a EPA extraction methods 1311(TCLP), 3010/3020(water, TTLC), 3040(organic matrices, TTLC), 3050(solids, TTLC); STLC - CA Title 22

^a DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.

* surrogate diluted out of range; N/A means surrogate not applicable to this analysis

* reporting limit raised due to matrix interference

i) liquid sample that contains greater than ± 2

If a liquid sample that contains greater than 2% vol. % sediment, this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.



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QC REPORT

Date: 05/09/01 Matrix: Water

Extraction: TTLC

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	

SampleID: 52201

Instrument: GC-12

Surrogate1	0.000	91.0	92.0	100.00	91	92	1.1
Xylenes	0.000	27.8	29.0	30.00	93	97	4.2
Ethyl Benzene	0.000	9.1	9.6	10.00	91	96	5.3
Toluene	0.000	9.1	9.4	10.00	91	94	3.2
Benzene	0.000	8.9	9.4	10.00	89	94	5.5
MTBE	0.000	10.8	11.0	10.00	108	110	1.8
GAS	0.000	89.6	78.2	100.00	90	78	13.6

SampleID: 50501

Instrument: GC-2 A

Surrogate1	0.000	93.0	95.0	100.00	93	95	2.1
TPH (diesel)	0.000	6975.0	8475.0	7500.00	93	113	19.4

$$\% \text{ Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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QC REPORT

EPA 8010/8020/EDB

Date: 05/14/01-05/15/01 Matrix: Water

Extraction: N/A

Compound	Concentration: ug/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 52001							Instrument: GC-1
Surrogate1	0.000	90.0	90.0	100.00	90	90	0.0
Chlorobenzene	0.000	94.0	95.0	100.00	94	95	1.1
Trichloroethane	0.000	91.0	92.0	100.00	91	92	1.1
1,1-DCE	0.000	88.0	90.0	100.00	88	90	2.2

$$\% \text{ Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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QC REPORT

LUFT

Date: 05/10/01-05/11/01 Matrix: Water

Extraction: Dissolved

Compound	Concentration: mg/L				%Recovery		RPD
	Sample	MS	MSD	Amount Spiked	MS	MSD	
SampleID: 52001						Instrument:	ICP-1 AA
Copper	0.000	5.9	5.1	5.00	118	101	14.8
Zinc	0.000	5.1	5.2	5.00	103	104	0.6
Lead	0.000	5.3	5.3	5.00	106	106	0.1
Nickel	0.000	4.8	4.8	5.00	97	97	0.3
Chromium	0.000	5.4	5.4	5.00	108	108	0.6
Cadmium	0.000	5.6	5.6	5.00	113	113	0.3

$$\% \text{ Recovery} = \frac{(MS - Sample)}{AmountSpiked} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation

McCAMPBELL ANALYTICAL INC.

110 2nd AVENUE SOUTH, #D7
PACHICO, CA 94553

Telephone: (925) 798-1620

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Report To: Bob Clark Riddel Bill To: Cambria Env.
Company: Cambria Environmental Technology
1144 65th Street, Suite C
Oakland, CA 94608

Tele: (510) 420-0700 (510) 420-3303 Fax: (510) 420-9170
Project #: 425-1580 Project Name: Conwell
Project Location: 3093 Broadway, Oakland, Ca
Sampler Signature:

Digitized by srujanika@gmail.com

173 ZC 386

CHAIN OF CUSTODY RECORD

TURN AROUND TIME

RUSH 24 HOUR 48 HOUR 5 DAY

Report To: <u>Bob Clark Riddel</u>				Bill To: <u>Cambria Env.</u>											
Company: Cambria Environmental Technology															
1144 65 th Street, Suite C															
Oakland, CA 94608															
Tele: (510) 420-0700 (510) 420-3303 Fax: (510) 420-9170															
Project #: 425-1580				Project Name: <u>Connel</u>											
Project Location: 3093 Broadway, Oakland, Ca															
Sampler Signature: <u>L. Miller</u>															
SAMPLE ID	LOCATION	SAMPLING		# Containers	MATRIX			METHOD PRESERVED			Analysis Request			Other	Comments
		Date	Time		Water	Soil	Air	Sludge	Other	Ice	HCl	HNO ₃	Other		
MW-4	5-7-01	14:36	8 VOA Amber	X				X	X			Total Petroleum Oil & Grease (55/20 E&F/F&F)			
MW-7	5-7-01	14:45	8 VOA Amber	X				X	X			Total Petroleum Hydrocarbons (418.1)			
MW-8	5-7-01	14:45	8 VOA Amber	X				X	X			EPA 601 / 8010			
MW-9	5-7-01	15:07	9 VOA Amber VOC PVC PVC VOA Amber	X				X	X			BTEX ONLY (EPA 602 / 8020)			
MW-13	5-7-01	13:30	8 VOA Amber	X				X	X			EPA 608 / 8080			
												EPA 608 / 8080 PCB's ONLY			
												EPA 624 / 8240 / 8260			
												EPA 625 / 8270			
												PAH's / PNA's by EPA 625 / 8270 / 8310			
												CAM-17 Metals			
												LUFT 5 Metals			
												Lead (7240/7421/7239/7260/10)			
												RCI			
												TPHmo			
												H VOC's			
												Pb, Cd, Cr, Zn, Ni, Ds			
												67092			
												67093			
												67094			
												67095			
												67096			
Relinquished By:	Date:	Time:	Received By:	Remarks:											
<u>L. Miller</u>	5-9	12:55	<u>David Weller</u> 5/9/01	<input checked="" type="checkbox"/> ICE+ ✓ <input type="checkbox"/> GOOD CONDITION <input type="checkbox"/> HEAD SPACE ABSENT											
Relinquished By:	Date:	Time:	Received By:	<input type="checkbox"/> PRESERVATION <input type="checkbox"/> APPROPRIATE <input type="checkbox"/> CONTAINERS											
<u>David Weller</u>	5-9	14:15	<u>S. Miller</u> 5/9	<input type="checkbox"/> VOA O&G <input type="checkbox"/> METALS OTHER <small>FILTERED & PRESERVED IN LAB UPON RECEIPT.</small>											
Relinquished By:	Date:	Time:	Received By:												

CAM A

WELL DEPTH MEASUREMENTS

Project Name: ~~Project X~~ Project Y Cont'd

Measured By:

Project Number: 425-1580

Date: 57-01

CAMBRIA

WELL SAMPLING FORM

Project Name: Connell	Cambria Mgr: RWS	Well ID: MW-4
Project Number: 425-1580	Date: 5-7-01	Well Yield: -----
Site Address: 3093 Broadway Oakland, California	Sampling Method:	Well Diameter: " pvc 2
	Disposable bailer	Technician(s): SC
Initial Depth to Water: 18.60	Total Well Depth: 24.06	Water Column Height: 6.00
Volume/ft: 0.16	1 Casing Volume: 0.46	3 Casing Volumes: 2.88
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 3
Start Purge Time: 14:25	Stop Purge Time: 14:30	Total Time: 5 mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. μS	Comments
14:27	1	25.1	7.42	463	older
14:29	2	23.5	7.49	574	
14:31	3	23.1	7.20	592	
					DO = 0.23 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-4	5-7-01	14:36	6 voa's	HCL	TPHg, BTEX, MTBE SVOCs HVOCs	8015M/8020, confirm MTBE 8260, SVOCs by 8270, 8010 list
			2- 1L ambers	none	TPHd/TPHmo	8015 multi-range
			1- 0.5L plastic	none	Luft 5 Metals - Pb, Cr, Cd, Zn, Ni	

WELL SAMPLING FORM

Project Name: Connell	Cambria Mgr: RWS	Well ID: MW-7
Project Number: 425-1580	Date: 5-7-01	Well Yield: -----
Site Address: 3093 Broadway Oakland, California	Sampling Method:	Well Diameter: " pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 17.19	Total Well Depth: 30.0	Water Column Height: 12.81
Volume/ft: 0.16	1 Casing Volume: 2.04	3 Casing Volumes: 6.12
Purging Device: Disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 6
Start Purge Time: 14:00	Stop Purge Time: 14:09	Total Time: 9 mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. μS	Comments
14:02	2	24.1	7.65	327	
14:06	4	23.8	7.26	355	
14:10	6	22.9	7.32	359	
					DO = 0.51 mg/l

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-7	5-7-01	14:15	6 voa's	HCL	TPHg, BTEX, MTBE SVOCs HVOCs	8015M/8020, confirm MTBE 8260, SVOCs by 8270, 8010 list
			2- 1L ambers	none	TPHd/TPHmo	8015 multi-range
			1- 0.5L plastic	none	Luft 5 Metals - Pb, Cr, Cd, Zn, Ni	

CAMBRIA

WELL SAMPLING FORM

Project Name: Connell	Cambria Mgr: RWS	Well ID: MW-8
Project Number: 425-1580	Date: 5-7-01	Well Yield: -----
Site Address: 3093 Broadway Oakland, California	Sampling Method:	Well Diameter: 6 " pvc
	Disposable bailer	Technician(s): SG
Initial Depth to Water: 26.55	Total Well Depth: 39.40	Water Column Height: 12.85
Volume/ft: 1.47	1 Casing Volume: 13.88	3 Casing Volumes: 56.60
Purging Device: SEO pump	Did Well Dewater?: no	Total Gallons Purged: 55
Start Purge Time: 13:40	Stop Purge Time: 14:39	Total Time: 59 mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. μS	Comments
13:50	18	24.3	7.27	661	
14:30	36	24.1	7.25	789	
14:40	55	24.3	7.29	851	
					DO = 0.49 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-8	5-7-01	14:45	6 voa's	HCL	TPHg, BTEX, MTBE SVOCs HVOCs	8015M/8020, confirm MTBE 8260, SVOCs by 8270, 8010 list
			2- 1L ambers	none	TPHd/TPHmo	8015 multi-range
			1- 0.5L plastic	none	Luft 5 Metals - Pb, Cr, Cd, Zn, Ni	

CAMBRIA

WELL SAMPLING FORM

Project Name: Connell	Cambria Mgr: RWS	Well ID: MW-9
Project Number: 425-1580	Date: 5-7-01	Well Yield: -----
Site Address: 3093 Broadway Oakland, California	Sampling Method:	Well Diameter: " pvc 2
	Disposable bailer	Technician(s): SC
Initial Depth to Water: 19.83	Total Well Depth: 30.50	Water Column Height: 10.67
Volume/ft: 0.16	1 Casing Volume: 1.70	3 Casing Volumes: 5.12
Purging Device: disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 5
Start Purge Time: 14:55	Stop Purge Time: 15:01	Total Time: 6mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp °C	pH	Cond. µS	Comments
14:57	1.5	23.1	7.59	315	
14:59	3	23.5	7.51	317	
15:02	5	23.9	7.55	392	
					00-0-18ms/l

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-9	5-7-01	15:07	6 voa's	HCL	TPHg, BTEX, MTBE SVOCs HVOCS	8015M/8020, confirm MTBE 8260, SVOCs by 8270, 8010 list
			2- 1L ambers	none	TPHd/TPHmo	8015 multi-range
			1- 0.5L plastic	none	Luft 5 Metals - Pb, Cr, Cd, Zn, Ni	

CAMBRIA

WELL SAMPLING FORM

Project Name: Connell	Cambria Mgr: RWS	Well ID: MW-13
Project Number: 425-1580	Date: 5-7-01	Well Yield: -----
Site Address: 3093 Broadway Oakland, California	Sampling Method:	Well Diameter: " pvc ?
	Disposable bailer	Technician(s): SC
Initial Depth to Water: 23.93	Total Well Depth: 39.45	Water Column Height: 15.52
Volume/ft: 0.16	1 Casing Volume: 2.48	3 Casing Volumes: 7.44
Purging Device: Disposable bailer	Did Well Dewater?: no	Total Gallons Purged: 7.5
Start Purge Time: 13:10	Stop Purge Time: 13:25	Total Time: 14 mins

1 Casing Volume = Water column height x Volume/ ft.

Well Diam.	Volume/ft (gallons)
2"	0.16
4"	0.65
6"	1.47

Time	Casing Volume	Temp. °C	pH	Cond. μS	Comments
13:15	2.5	17.6	7.69	715	
13:20	5	20.9	7.55	612	
13:25	7.5	20.1	7.53	729	
					DO = 0.5 mg/L

Sample ID	Date	Time	Container Type	Preservative	Analytes	Analytic Method
MW-13	5-7-01	13:30	6 voa's	HCL	TPHg, BTEX, MTBE SVOCs HVOCs	8015M/8020, confirm MTBE 8260, SVOCs by 8270, 8010 list
			2- 1L ambers	none	TPHd/TPHmo	8015 multi-range
			1- 0.5L plastic	none	Luft 5 Metals - Pb, Cr, Cd, Zn, Ni	

Product Removal Form Connell Automobile Dealership, Oakland, CA

By: 63

Date: 5-4-01

Project and Task #: 425-1580-1

Well	Treatment	Time	Gallons Removed*	DTW/ DTP	Comments
MW-1	SoakEase			23.31 22.84	removed & replaced sock
MW-6	Skimmer	6:30	.05 gal	23.95 23.88	Reset skimmer @ same depth
MW-14	SoakEase			23.05	No product detected only 1/2 of sock saturated, reverse & reuse existing sock

* If SoakEase is removed, wring out used sock into bucket and estimate vol. removed. Saturated socks theoretically hold about 1 quart (0.25 gal) of product. Skimmer receptacle holds about $\frac{1}{2}$ quart (0.14 gal) of product.

Notes

No. of Product Drums Onsite: 3 (55 gal), 1 (15 gal), 2 (carbon drums)

Drum capacity available: +25%

Product Removal Form Connell Automobile Dealership, Oakland, CA

By: GB Date: 4-3-01

Project and Task #: 425-1580-1

Well	Treatment	Time	Gallons Removed*	DTW/ DTP	Comments
MW-1	SoakEase		.10	23.19 22.95	removed & replaced sock
MW-6	Skimmer		.05 gal	23.90 23.84	reset skimmer @ 24.85
MW-14	SoakEase		.05 gal	23.06	No product detected replaced sock

* If SoakEase is removed, wring out used sock into bucket and estimate vol. removed. Saturated socks theoretically hold about 1 quart (0.25 gal) of product. Skimmer receptacle holds about $\frac{1}{2}$ quart (0.14 gal) of product.

Notes: (2) carbon drums left on site from Pilot Test

No. of Product Drums Onsite: 3(55gal), 1 (15gal) for socks

Drum capacity available: 25%

Product Removal Form Connell Automobile Dealership, Oakland, CA

By: GP Date: 6-11-01

Project and Task #: 425-1580-1

Well	Treatment	Time	Gallons Removed*	DTW/ DTP	Comments
MW-1	SoakEase			23.77 23.10	Remove and replace sock
MW-6	Skimmer			24.15 24.25	Sock partially saturated. Reset. Sock fully submerged in well.
MW-14	SoakEase			23.40	No product detected Remove & replace saturated sock

* If SoakEase is removed, wring out used sock into bucket and estimate vol. removed. Saturated socks theoretically hold about 1 quart (0.25 gal) of product. Skimmer receptacle holds about $\frac{1}{2}$ quart (0.14 gal) of product.

Notes MW-6 was not fully saturated because it was not fully submerged. Weighted and reset sock so it will be fully submerged

No. of Product Drums Onsite: 7

Drum capacity available: 20%