Subsurface Consultants, Inc.

R. William Rudolph, P.E.
President

November 26, 1996
SCI 447.055

Mr. George Hill
655 University Avenue, Suite 100
Sacramento, California 95825

Mr. Gordon Linden
150 LaSalle Avenue
Piedmont, California 94611

Groundwater Monitoring
November 1996 Event
3093 Broadway
Oakland, California

Dear Messers Hill & Linden:

This letter records the results of November 1996 groundwater monitoring event performed by Subsurface Consultants, Inc. (SCI) at the Connell Oldsmobile facility in Oakland, California. The facility is situated at the southwest corner of the intersection of Hawthorne Avenue and Broadway, as shown on the Site Plan, Plate 1.

BACKGROUND

Twelve wells have been periodically sampled at the site since 1990 to evaluate impacts to groundwater due to previous underground storage tank (UST) releases. Groundwater monitoring is performed in general accordance with the program outlined in the Corrective Action Plan (CAP) dated November 6, 1995 and approved by the Alameda County Health Care Services Agency (ACHCSA) in a letter dated November 29, 1995. This event was a quarterly event as described in the CAP and involved the sampling of monitoring wells MW-1, MW-4, MW-7, MW-8, MW-9 and MW-13.

Free product removal has been implemented in MW-6. On October 29, 1996, SCI installed an interim product removal system (PRS) consisting of an internal combustion engine that uses vapor extraction techniques to remove free product from well MW-6. Startup results have been submitted to the Bay Area Air Quality Management District (BAAQMD). To date approximately 40 pounds of hydrocarbons have been removed by the PRS between October 29 and November 5, 1996. The VES system is operated in general accordance with BAAQMD permit conditions. A detailed discussion is presented in a subsequent letter.

MONITORING EVENT RESULTS

A. General

On November 4, 1996 depth-to-water and free product thickness were measured in all wells. Free product was removed by hand bailing methods from the wells in which appreciable free product was measured. Free product removal data are summarized in Table 1. Groundwater and free product elevation data are summarized in Table 2. Our interpretation of the flow direction and gradient for the November 1996 event are presented on Plate 2.

On November 5, 1996, monitoring wells MW-1, MW-4, MW-7, MW-8, MW-9, and MW-13 were purged by removing water with new disposable bailers. The wells were purged until measurements of pH, temperature, and conductivity had stabilized. After the wells recharged to within 80 percent of their initial level they were sampled with new disposable bailers. Purge water was placed in a depression created on top of the existing soil stockpile and allowed to evaporate.

Samples were retained in pre-cleaned containers supplied by the analytical laboratory, and were placed in ice-filled coolers and remained iced until delivery to the analytical laboratory. Chain-of-custody records accompanied the samples to the laboratory.

Chemical characterization testing of individual samples was performed by Curtis & Tompkins, Ltd. A summary of sample preparation and test methods are presented below.

Analysis	Sample Preparation Method	Analysis Method
Total Volatile Hydrocarbons (TVH)	EPA 5030	EPA 8015 Mod.
Total Extractable Hydrocarbons (TEH)	EPA 3550	EPA 8015 Mod.
Benzene, Toluene, Ethylbenzene, Xylene (BTEX)	EPA 5030	EPA 8020
Hydrocarbon Oil and Grease	SMWW 5520	SMWW 5520
1,2-Dichloroethane (DCA)	EPA 5030	EPA 8010

Analytical test results are summarized in Table 3. Field sampling forms, analytical test reports and chain-of-custody documents are attached.

CONCLUSIONS

Free Product

The apparent lateral extent of free product has remained relatively constant when compared to the previous monitoring events. Free product continues to be present in wells MW-1 and MW-4. The product thickness in well MW-1 (0.78 feet), and well MW-4 (0.35) were consistent with previous events. To date, approximately 140 gallons of product have been removed by hand bailing as summarized in Table 2. Approximately 6 gallons of product have been removed by VES in 3 days of operation.

Free product was not measured in well MW-6 because this well is actively being remediated by a vapor extraction system.

Dissolved Product Plume

The distribution of the dissolved product plume remains relatively the same when compared to previous events. The dissolved plume appears to be stable and has not migrated significantly since monitoring began in March 1991. Samples from MW-8, situated at the downgradient property

boundary consistently contains low concentrations of petroleum hydrocarbons and samples from well MW-13, the farthest downgradient well, consistently contain 1,2-DCA.

Future Monitoring

The next monitoring event will occur in February 1997. During this quarterly event, monitoring wells MW-7, MW-8, and MW-13 will be sampled.

If you have any questions, please call.

Yours very truly,

Subsurface Consultants, Inc.

Samuel C. Won
Project Engineer
Registered Environmental Assessor 06711 (exp. 6/30/97)

Jeriann N. Alexander
Civil Engineer 40469 (expires 3/31/99)
Registered Environmental Assessor 03130 (exp. 6/30/97)

Attachments: Table 1 - Free Product Recovery
Table 2 - Groundwater Elevation Data
Table 3 - Summary of Contaminant Concentrations in Groundwater
Plate 1 - Site Plan
Plate 2 - Groundwater Surface Elevation Contours. 11/4/96
Field forms
Analytical test reports
Chain-of-custody documents

1 copy submitted

cc: ✓Ms. Susan Hugo
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Oakland, California 94612

SCW:JNA:sld

TABLE 1
FREE PRODUCT RECOVERY
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed (gallons)
MW-1	12/23/91	2.00	2.00
	12/26/91	0.50	2.50
	1/13/92	1.00	3.50
	2/28/92	2.00	5.50
	11/9/93	0.50	6.00
	11/3/95	0.25	6.75
	11/30/95	0.25	7.00
	1/3/96	0.53	7.53
	2/2/96	0.75	8.28
	3/1/96	0.10	8.38
	4/4/96	0.00	8.38
	5/2/96	0.00	8.38
	6/5/96	0.10	8.48
	7/9/96	0.10	8.58
	8/8/96	0.05	8.63
	9/10/96	0.10	8.73
	10/1/96	0.25	8.98
	11/4/96	0.13	9.11
MW-4	12/23/91	2.50	2.50
	12/26/91	6.00	8.50
	1/10/92	5.00	13.50
	2/28/92	4.00	17.50
	3/11/92	3.50	21.00
	3/13/92	3.50	24.50
	3/17/92	2.25	26.75
	3/18/92	2.50	29.25
	3/19/92	1.50	30.75
	3/23/92	4.00	34.75
	3/24/92	1.50	36.25

TABLE 1
FREE PRODUCT RECOVERY
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed (gallons)
MW-4	3/25/92	1.00	37.25
	3/26/92	1.00	38.25
	3/27/92	0.50	38.75
	3/31/92	0.50	39.25
	4/1/92	0.25	39.50
	4/2/92	0.13	39.63
	4/6/92	0.13	39.76
	4/10/92	0.25	40.01
	4/13/92	0.25	40.26
	4/20/92	0.13	40.39
	5/4/92	0.13	40.52
	5/18/92	0.13	40.65
	5/26/92	0.13	40.78
	6/1/92	0.06	40.84
	6/29/92	0.25	41.09
	7/29/92	1.11	42.20
	8/28/92	1.68	43.88
	4/3/93	0.13	44.01
	11/9/93	0.03	44.04
	8/30/95	1.75	45.79
	10/2/95	0.50	46.29
	11/3/95	0.25	46.54
	11/30/95	0.25	46.79
	1/3/96	0.05	46.84
	2/2/96	0.10	46.94
	3/1/96	0.20	47.14
	4/4/96	0.20	47.34
	5/2/96	0.20	47.54
	6/5/96	0.15	47.59
	7/9/96	0.16	47.75

TABLE 1
FREE PRODUCT RECOVERY
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed (gallons)
MW-4	8/8/96	0.00	47.75
	9/10/96	0.05	47.80
	10/1/96	0.05	47.85
	11/4/96	0.02	47.87
MW-6	12/23/91	7.50	7.50
	12/26/91	2.00	9.50
	1/10/92	1.00	10.50
	2/4/92	2.00	12.50
	2/28/92	3.00	15.50
	3/10/92	2.75	18.25
	3/12/92	2.00	20.25
	3/23/92	1.00	21.25
	3/30/92	0.50	21.75
	4/10/92	0.25	22.00
	4/13/92	0.13	22.13
	4/20/92	0.13	22.26
	5/4/92	0.13	22.39
	5/8/92	0.06	22.45
	5/26/92	0.13	22.58
	6/1/92	0.06	22.64
	6/29/92	0.19	22.83
	7/29/92	0.60	23.43
	8/28/92	2.40	25.83
	12/2/92	(obstruction in well)	--
	4/3/93	1.75	27.58
	11/9/93	0.83	28.41
	8/30/95	4.50	32.91
	10/2/95	4.0	36.91
	11/3/95	3.00	39.91

TABLE 1
FREE PRODUCT RECOVERY
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Removal Date	Product Removed (gallons)	Cumulative Product Removed (gallons)
MW-6	11/30/95	2.50	42.41
	1/3/96	2.50	44.91
	2/2/95	5.00	49.90
	3/1/96	4.00	53.90
	4/4/96	5.00	58.90
	5/2/96	4.50	63.40
	6/5/96	4.00	67.40
	7/9/96	4.50	71.90
	8/8/96	4.00	75.90
	9/10/96	3.50	79.40
	10/1/96	4.00	83.40
	11/4/96	NM*	NM*
MW-9	8/8/96	0.10	0.10
	9/10/96	0.00	0.10
	10/1/96	0.00	0.10
	11/4/96	0.00	0.10
	Cumulative Total of Product Removed		**140.48**

* NM - Not measured. Product is currently being removed by vapor extraction from this well.

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-1	94.48	10/3/90	26.40	68.08	NM	--
		3/5/91	27.46	67.02	NM	--
		3/18/91	26.88	67.60	NM	--
		4/12/91	25.49	68.99	NM	--
		12/23/91	26.86	67.62	1.15	68.77
		12/26/91	26.08	68.40	0.22	68.63
		1/13/92	26.53	67.95	0.66	68.61
		2/28/92	27.75	66.73	0.42	67.15
		5/18/92	24.75	69.73	NM	--
		6/29/92	25.09	69.39	0.04	69.43
		7/29/92	25.46	69.02	0.15	69.17
		8/28/92	25.56	68.92	0.29	69.21
		10/28/92	26.44	68.04	0.52	68.56
		11/24/92	26.63	67.85	NM	--
		12/22/92	26.37	68.11	NM	--
		4/5/93	23.77	70.71	0.00	--
		7/20/93	24.51	69.97	0.60	70.57
		11/9/93	26.06	68.42	1.17	69.59
		8/30/95	21.73	72.75	0.23	72.98
		9/15/95	21.88	72.61	0.15	72.75
		10/2/95	22.42	72.06	0.42	72.48
		11/3/95	23.10	72.74	0.76	73.50
		11/30/95	23.38	72.54	0.70	73.24
		1/3/96	23.30	72.62	0.78	73.40
		2/2/96	22.96	72.28	0.84	74.12
		3/1/96	21.69	72.79	0.14	72.65
		4/4/96	21.11	73.67	0.00	--
		5/2/96	20.96	73.83	0.00	--
		6/5/96	20.98	73.81	0.04	73.85
		7/9/96	21.64	72.84	0.20	73.04
		8/8/96	22.43	72.05	0.33	72.38
		9/10/96	23.25	71.23	0.60	71.83
		10/1/96	23.58	70.90	0.60	71.50
		11/4/96	24.29	70.19	0.78	70.97

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-2	94.81	3/5/91	27.86	66.95	0.00	--
		3/18/91	27.46	67.35	0.00	--
		4/12/91	26.98	67.83	0.00	--
		5/18/92	26.50	68.31	0.00	--
		6/29/92	26.80	68.01	0.00	--
		7/29/92	27.08	67.73	0.00	--
		8/28/92	27.33	67.48	0.00	--
		10/28/92	27.65	67.16	0.00	--
		11/24/92	27.91	66.90	0.00	--
		12/22/92	27.74	67.07	--	--
		4/5/93	25.95	68.86	0.00	--
		7/20/93	25.59	69.22	0.00	--
		11/9/93	26.72	68.09	0.00	--
		8/30/95	25.75	69.06	0.00	--
		10/2/95	25.10	69.71	0.00	--
		11/3/95	25.73	69.02	0.00	--
		11/30/95	25.34	69.41	0.00	--
		1/3/96	25.32	69.43	0.00	--
		2/2/96	25.10	69.65	0.00	--
		3/1/96	24.05	70.76	0.00	--
		4/4/96	23.41	71.49	0.00	--
		5/2/96	23.37	71.53	0.00	--
		6/5/96	23.75	71.11	0.00	--
		7/9/96	23.79	71.02	0.00	--
		8/8/96	24.27	70.54	0.00	--
		9/10/96	24.87	69.94	0.00	--
		10/1/96	25.12	69.69	0.00	--
		11/4/96	25.54	69.27	0.00	--
MW-3	90.08	3/6/91	23.17	66.91	NM	--
		3/18/91	22.76	67.32	NM	--
		4/12/91	22.51	67.57	NM	--
		5/12/92	23.17	66.91	NM	--
		6/29/92	22.90	67.18	NM	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-3	90.08	7/29/92	22.17	67.91	NM	--
		8/28/92	22.28	67.80	NM	--
		10/28/92	22.67	67.41	0.00	--
		11/24/92	23.01	67.07	0.00	--
		12/22/92	22.91	67.17	--	--
		4/5/93	22.11	67.97	0.00	--
		7/20/93	23.93	66.15	0.00	--
		11/9/93	23.14	66.94	0.00	--
		8/29/95	20.61	69.47	0.00	--
		10/2/95	21.18	68.90	0.00	--
		11/3/95	20.74	69.60	0.00	--
		11/30/95	20.68	69.66	0.00	--
		1/3/96	20.58	69.76	0.00	--
		2/2/96	20.43	69.91	0.00	--
		3/1/96	20.24	69.84	0.00	--
		4/4/96	18.50	71.58	0.00	--
		5/2/96	18.43	71.65	0.00	--
		6/5/96	18.51	71.57	0.00	--
		7/9/96	18.97	71.11	0.00	--
		8/8/96	19.51	70.57	0.00	--
		9/10/96	19.86	70.22	0.00	--
		10/1/96	20.04	70.04	0.00	--
		11/4/96	20.25	69.83	0.00	--
MW-4	88.84	3/5/91	23.79	65.05	NM	--
		3/18/91	22.30	66.54	NM	--
		4/12/91	21.85	66.99	NM	--
		12/23/91	22.63	66.22	0.98	67.19
		12/26/91	22.52	66.32	0.96	67.28
		1/10/92	22.74	66.10	0.99	67.09
		2/28/92	22.00	66.84	0.67	67.51
		3/11/92	21.71	67.13	0.55	67.68
		3/13/92	21.56	67.28	0.49	67.77
		3/17/92	25.46	63.38	0.44	63.82

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-4	88.84	3/18/92	21.38	67.47	0.44	67.90
		3/19/92	21.33	67.51	0.48	67.99
		3/23/92	21.29	67.55	0.42	67.97
		3/24/92	21.31	67.53	0.38	67.90
		3/25/92	21.17	67.67	0.36	68.04
		3/26/92	21.08	67.76	0.35	68.11
		3/27/92	20.92	67.92	0.26	68.18
		3/31/92	21.15	67.69	0.44	68.13
		4/1/92	20.90	67.94	0.24	68.18
		4/2/92	20.90	67.94	0.17	68.11
		4/10/92	20.91	67.93	0.33	68.26
		4/13/92	21.04	67.80	0.42	68.22
		4/20/92	20.74	68.10	0.19	68.29
		5/4/92	20.83	68.01	0.33	68.34
		5/18/92	21.33	67.51	0.23	67.74
		5/26/92	20.83	68.01	0.17	68.18
		6/1/92	20.85	67.99	0.19	68.17
		6/29/92	21.38	67.46	0.53	67.99
		7/29/92	21.69	67.15	0.56	67.71
		8/28/92	21.35	67.49	0.63	68.12
		10/28/92	22.48	66.36	0.84	67.20
		11/24/92	22.60	66.24	NM	--
		12/22/92	22.47	66.37	NM	--
		4/3/93	20.11	68.73	0.51	69.24
		7/20/93	20.48	68.36	0.52	68.88
		11/9/93	21.71	67.13	0.63	67.76
		8/30/95	19.90	68.94	2.20	71.14
		9/15/95	18.76	70.08	0.57	70.65
		10/2/95	19.17	69.67	0.65	70.32
		11/3/95	19.45	69.39	0.44	69.83
		11/30/95	19.50	69.44	0.32	69.76
		1/3/96	19.31	69.53	0.20	69.73
		2/2/96	18.91	69.93	0.20	70.13
		3/1/96	18.25	70.59	0.19	70.78

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-4	88.84	4/4/96	17.53	71.31	0.18	71.47
		5/2/96	17.50	71.34	0.25	71.59
		6/5/96	17.67	71.17	0.39	71.56
		7/9/96	18.29	70.55	0.50	71.05
		8/8/96	18.84	70.00	0.00	--
		9/10/96	19.31	69.53	0.34	69.87
		10/1/96	19.51	69.33	0.29	69.62
		11/4/96	20.13	68.71	0.35	69.06
MW-5	84.84	3/18/91	26.31	58.53	NM	--
		3/12/91	26.41	58.43	NM	--
		5/18/92	26.75	58.09	NM	--
		6/29/92	26.73	58.11	NM	--
		7/29/92	26.66	58.18	NM	--
		8/28/92	26.90	57.94	NM	--
		10/28/92	26.39	58.45	0.00	--
		11/24/92	26.83	58.01	0.00	--
		12/22/92	27.33	57.51	--	--
		4/3/93	26.62	58.22	0.00	--
		7/20/93	26.60	58.24	0.00	--
		11/9/93	27.24	57.60	0.00	--
		8/30/95	27.46	57.38	0.00	--
		10/2/95	26.85	57.99	0.00	--
		11/3/95	26.67	58.87	0.00	--
		11/30/95	27.05	58.49	0.00	--
		1/3/96	26.60	59.04	0.00	--
		2/2/96	26.70	59.14	0.00	--
		3/1/96	26.00	58.84	0.00	--
		4/4/96	26.20	58.64	0.00	--
		5/2/96	26.02	58.82	0.00	--
		6/5/96	25.91	58.93	0.00	--
		7/9/96	26.20	58.64	0.00	--
		8/8/96	26.38	58.46	0.00	--
		9/10/96	26.42	58.42	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-5	84.84	10/1/96	26.52	58.32	0.00	--
		11/4/96	26.69	58.15	0.00	--
MW-6	85.62	3/18/91	25.82	59.80	NM	--
		4/12/91	27.23	58.39	NM	--
		12/23/91	28.40	57.22	3.21	60.44
		12/26/91	27.25	58.37	1.67	60.04
		1/10/92	27.23	58.39	0.90	59.29
		2/4/92	27.71	57.91	2.04	59.95
		2/28/92	27.92	57.70	3.00	60.70
		3/10/92	27.16	58.46	2.06	60.53
		3/12/92	25.96	59.66	0.52	60.18
		3/13/92	25.70	59.92	0.21	60.13
		3/23/92	26.34	59.28	1.09	60.37
		3/30/92	25.73	59.89	0.35	60.25
		4/10/92	25.29	60.33	0.05	60.38
		4/13/92	25.52	60.10	0.21	60.31
		4/20/92	25.38	60.25	0.10	60.35
		5/4/92	25.40	60.22	NM	--
		5/18/92	25.50	60.12	0.17	60.29
		5/26/92	25.46	60.16	0.13	60.29
		6/1/92	25.46	60.16	0.09	60.26
		6/29/92	25.59	60.03	0.14	60.17
		7/29/92	26.90	58.72	1.71	60.43
		8/28/92	25.09	60.53	2.62	63.15
		10/28/92	25.02	60.60	3.94	64.54
		11/24/92	28.87	56.75	NM	--
		4/3/93	26.96	58.66	2.86	61.52
		7/20/93	26.17	59.45	2.60	62.05
		11/9/93	27.51	58.11	3.06	61.17
		8/30/95	28.00	57.62	7.96	65.58
		9/15/95	28.24	57.38	6.14	63.52
		10/2/95	28.39	57.23	6.13	63.36
		11/3/95	26.91	58.71	3.44	62.15

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-6	85.62	11/30/95	27.58	58.04	4.41	62.45
		1/3/96	27.58	58.04	4.37	62.41
		2/2/96	27.96	57.68	5.15	62.83
		3/1/96	27.96	57.68	5.41	63.09
		4/4/96	27.69	57.93	5.69	63.62
		5/2/96	26.83	58.79	4.66	63.45
		6/5/96	27.15	58.47	5.17	63.64
		7/9/96	27.08	58.54	4.86	63.40
		8/8/96	26.71	58.91	4.05	62.96
		9/10/96	26.83	58.79	3.82	62.61
		10/1/96	26.96	58.66	3.77	62.43
		11/4/96	NM	NM	NM	NM
MW-7	85.41	3/18/91	21.63	63.78	NM	--
		4/12/91	22.13	63.28	NM	--
		5/18/92	21.67	63.74	NM	--
		6/29/92	20.75	64.66	NM	--
		7/29/92	21.07	64.34	NM	--
		8/28/92	21.35	64.06	NM	--
		10/28/92	21.81	63.60	0.00	--
		11/24/92	21.52	63.89	0.00	--
		12/22/92	obstructed	--	0.00	--
		4/3/93	20.08	65.33	0.00	--
		7/20/93	19.59	65.82	0.00	--
		11/9/93	20.65	64.76	0.00	--
		8/30/95	18.78	66.63	0.00	--
		10/2/95	18.73	66.68	0.00	--
		11/3/95	19.23	66.18	0.00	--
		11/30/95	19.47	65.94	0.00	--
		1/3/96	18.52	66.89	0.00	--
		2/2/96	17.83	67.58	0.00	--
		3/1/96	17.61	67.80	0.00	--
		4/4/96	17.28	68.13	0.00	--
		5/2/96	17.15	68.26	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-7	85.41	6/5/96	17.47	67.94	0.00	--
		7/9/96	18.06	67.35	0.00	--
		8/8/96	18.48	66.93	0.00	--
		9/10/96	18.79	66.62	0.00	--
		10/1/96	18.90	66.51	0.00	--
		11/4/96	18.69	66.72	0.00	--
MW-8	85.50	10/28/92	27.70	57.80	0.00	--
		11/24/92	27.62	57.88	0.00	--
		12/22/92	27.40	58.10	--	--
		4/3/93	26.64	58.86	0.00	--
		7/20/93	26.60	58.90	0.00	--
		11/9/93	27.18	58.32	0.00	--
		8/30/95	26.35	59.15	0.00	--
		10/2/95	26.60	58.90	0.00	--
		11/3/95	26.62	58.88	0.00	--
		11/30/95	26.72	58.78	0.00	--
		1/3/96	26.64	58.86	0.00	--
		2/2/96	26.28	59.22	0.00	--
		3/1/96	25.81	59.69	0.00	--
		4/4/96	25.81	59.69	0.00	--
		5/2/96	26.15	60.03	0.00	--
		6/5/96	26.17	60.01	0.00	--
		7/9/96	26.32	59.18	0.00	--
		8/8/96	26.41	59.09	0.00	--
		9/10/96	26.66	58.84	0.00	--
		10/1/96	26.65	58.85	0.00	--
		11/4/96	26.77	58.73	0.00	--
MW-9	90.37	10/28/92	23.37	67.00	0.00	--
		11/24/92	23.51	66.86	0.00	--
		12/22/92	23.31	67.06	--	--
		4/3/93	21.14	69.23	0.00	--
		7/20/93	21.54	68.83	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-9	90.37	11/9/93	27.53	62.84	0.00	--
		8/30/95	19.59	70.78	0.00	--
		10/2/95	20.05	70.32	0.00	--
		11/3/95	20.40	69.97	0.00	--
		11/30/95	20.65	69.72	0.00	--
		1/3/96	20.73	69.64	0.00	--
		2/2/96	20.19	70.18	0.00	--
		3/1/96	19.53	70.84	0.00	--
		4/4/96	18.74	71.63	0.00	--
		5/2/96	18.63	71.74	0.00	--
		7/9/96	19.15	71.22	0.00	--
		8/8/96	19.89	70.48	0.35	70.83
		9/10/96	20.11	70.26	0.00	--
		10/1/96	20.37	70.00	0.00	--
		11/4/96	20.69	69.68	0.00	--
MW-10	88.60	10/28/92	21.55	67.05	0.00	--
		11/24/92	21.86	66.74	0.00	--
		12/22/92	21.68	66.92	--	--
		4/3/93	19.14	69.46	0.00	--
		7/20/93	19.79	68.81	0.00	--
		11/9/93	20.83	67.77	0.00	--
		8/30/95	17.99	70.61	0.00	--
		10/2/95	18.42	70.18	0.00	--
		11/3/95	18.82	69.78	0.00	--
		11/30/95	19.03	69.57	0.00	--
		1/3/96	18.96	69.64	0.00	--
		2/2/96	18.55	70.05	0.00	--
		3/1/96	17.81	70.79	0.00	--
		4/4/96	17.11	71.49	0.00	--
		5/2/96	17.04	71.56	0.00	--
		6/5/96	17.11	71.49	0.00	--
		7/9/96	17.64	70.96	0.00	--
		8/8/96	18.24	70.36	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-10	88.60	9/10/96	18.82	69.78	0.00	--
		10/1/96	19.02	69.58	0.00	--
		11/4/96	19.59	69.01	0.00	--
MW-11	102.06	11/24/92	33.65	68.41	0.00	--
		12/22/92	33.37	68.69	--	--
		4/5/93	31.03	71.03	0.00	--
		7/20/93	31.90	70.16	0.00	--
		11/9/93	32.60	69.46	0.00	--
		8/29/95	28.92	73.14		
		10/2/95	29.48	72.58	0.00	--
		11/3/95	29.73	72.33	0.00	--
		11/30/95	30.26	71.80	0.00	--
		1/3/96	30.06	72.00	0.00	--
		2/2/96	29.67	72.39	0.00	--
		3/1/96	28.74	73.32	0.00	--
		4/4/96	28.13	73.93	0.00	--
		5/2/96	28.26	74.06	0.00	--
		6/5/96	28.30	74.02	0.00	--
		7/9/96	28.92	73.14	0.00	--
		8/8/96	29.64	72.42	0.00	--
		9/10/96	30.66	71.40	0.00	--
		10/1/96	30.58	71.48	0.00	--
		11/4/96	31.14	70.92	0.00	--
MW-13	84.06	11/24/92	26.05	58.01	0.00	--
		12/22/92	25.08	58.98	--	--
		4/5/93	24.64	59.42	0.00	--
		7/20/93	24.29	59.77	0.00	--
		11/9/93	24.23	59.83	0.00	--
		8/29/95	23.30	60.76	NM	--
		10/2/95	23.78	60.28	0.00	--
		11/3/95	23.73	60.33	0.00	--
		11/30/95	23.80	60.26	0.00	--

TABLE 2
GROUNDWATER AND FREE PRODUCT ELEVATION DATA
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	TOC Elevation (feet)	Date	Groundwater Depth (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	Product Elevation (feet)
MW-13	84.06	1/3/96	23.95	60.11	0.00	--
		2/2/96	23.70	60.36	0.00	--
		3/1/96	23.36	60.70	0.00	--
		4/4/96	23.27	60.79	0.00	--
		5/2/96	23.35	60.87	0.00	--
		6/5/96	23.07	60.99	0.00	--
		7/9/96	23.31	60.75	0.00	--
		8/8/96	23.44	60.62	0.00	--
		9/10/96	23.66	60.40	0.00	--
		10/1/96	23.80	60.26	0.00	--
		11/4/96	24.04	60.02	0.00	--

Reference datum: arbitrary benchmark established by Levine Fricke.
TOC = Top of casing
Groundwater depths are measured below TOC.
NM = Not measured

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TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH ug/l	TEH ug/l	B ug/l	T ug/l	E ug/l	X ug/l	1,2-DCA ug/l	Other Purgeable Halocarbons ug/l	Oil & Grease mg/l	Semi-volatile Compounds ug/l	MTBE ug/l
MW-1	10/1/90	620,000	<500	33,000	50,000	7,900	41,000	2,900	ND	--	--	--
	10/1/92	490,000	--	51,000	59,000	5,000	27,000	1,300	--	--	--	--
	11/1/92	320,000	4,600	35,000	43,000	4,200	22,000	1,600	ND	--	--	--
	4/1/93	270,000	25,000	50,000	58,000	4,600	25,000	1,800	ND	--	--	--
	7/1/93	FP	--	--	--	--	--	--	--	--	--	--
	11/1/93	FP	--	--	--	--	--	--	--	--	--	--
	8/1/95	FP	--	--	--	--	--	--	--	10	--	--
	12/1/95	FP	--	--	--	--	--	--	--	--	**	--
	5/1/96	340,000	32,000	57,000	73,000	7,200	38,000	1,200	--	<5	**	--
	11/5/96	270,000	--	43,000	56,000	4,500	34,000	--	--	9.8	--	--
MW-2	3/1/91	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/92	<50	<50	<0.5	1.1	<0.5	1.5	<1	ND	--	--	--
	4/1/93	<50	870	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	<50	240	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/95	<50	150*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
MW-3	3/1/91	<50	<50	<50	0.6	<0.5	<0.5	<1	ND	--	--	--
	11/1/92	50	160	<0.5	0.9	<0.5	2	<1	ND	--	--	--
	4/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/95	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--

TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH ug/l	TEH ug/l	B ug/l	T ug/l	E ug/l	X ug/l	1,2-DCA ug/l	Other Purgeable Halocarbons ug/l	Oil & Grease mg/l	Semi-volatile Compounds ug/l	MTBE ug/l
MW-4	3/1/91	150,000	<500	20,000	38,000	2,800	14,000	610	ND	--	--	--
	10/1/92	230,000	--	15,000	32,000	2,500	14,000	430	--	--	--	--
	11/1/92	210,000	1,600	14,000	31,000	2,500	14,000	500	ND	--	--	--
	4/1/93	FP	--	--	--	--	--	--	--	--	--	--
	7/1/93	FP	--	--	--	--	--	--	--	--	--	--
	11/1/93	FP	--	--	--	--	--	--	--	--	--	--
	8/1/95	FP	--	--	--	--	--	--	--	--	--	--
	12/1/95	FP	--	--	--	--	--	--	--	--	--	--
	5/1/96	140,000	9,200	24,000	50,000	3,000	15,100	420	ND	--	--	--
	11/4/96	160,000	4,700 [12]	16,000	38,000	2,700	14,000	380	ND	--	--	--
MW-5	3/1/91	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/92	<50	50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	4/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	<50	190	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	<50	170	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/95	<50	180*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--

TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH ug/l	TEH ug/l	B ug/l	T ug/l	E ug/l	X ug/l	1,2-DCA ug/l	Other Purgeable Halocarbons ug/l	Oil & Grease mg/l	Semi-volatile Compounds ug/l	MTBE ug/l
MW-6	3/1/91	80,000	<50	12,000	13,000	1,100	5,400	1,400	Dibromochloro-	--	--	--
	10/1/92	19,000	--	3,200	1,400	200	560	840	--	--	--	--
	12/1/92	FP	--	--	--	--	--	--	--	--	--	--
	4/1/93	FP	--	--	--	--	--	--	--	--	--	--
	7/1/93	FP	--	--	--	--	--	--	--	--	--	--
	11/1/93	FP	--	--	--	--	--	--	--	--	--	--
	8/1/95	FP	--	--	--	--	--	--	--	--	--	--
	5/1/96	130,000	9,000	37,000	50,000	3,200	14,200	2,400	ND	--	--	--
MW-7	3/1/91	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/92	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	4/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	<50	150	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	<50	200	<0.5	1	<0.5	1.7	<1	ND	--	--	--
	8/1/95	<50	170*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
	12/1/95	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	<2.0
	11/4/96	<50	<50	<1	<1	<1	<1	<1	ND	--	--	--
MW-8	10/1/92	70	--	20	1	1	3	210	--	--	--	--
	11/1/92	<50	170	<0.5	<0.5	<0.5	<0.5	200	ND	--	--	--
	4/1/93	490	100	15	45	5.1	73	210	ND	--	--	--
	7/1/93	180	90	2.5	3	<0.5	1.9	350	ND	--	--	--
	11/1/93	310	170	23	<0.5	<0.5	<0.5	240	ND	--	--	--
	8/1/95	660	240*	360	6.8	13	2.8	130	--	--	--	--
	12/1/95	250	<50	46	0.9	4.9	<0.5	94	ND	--	--	--

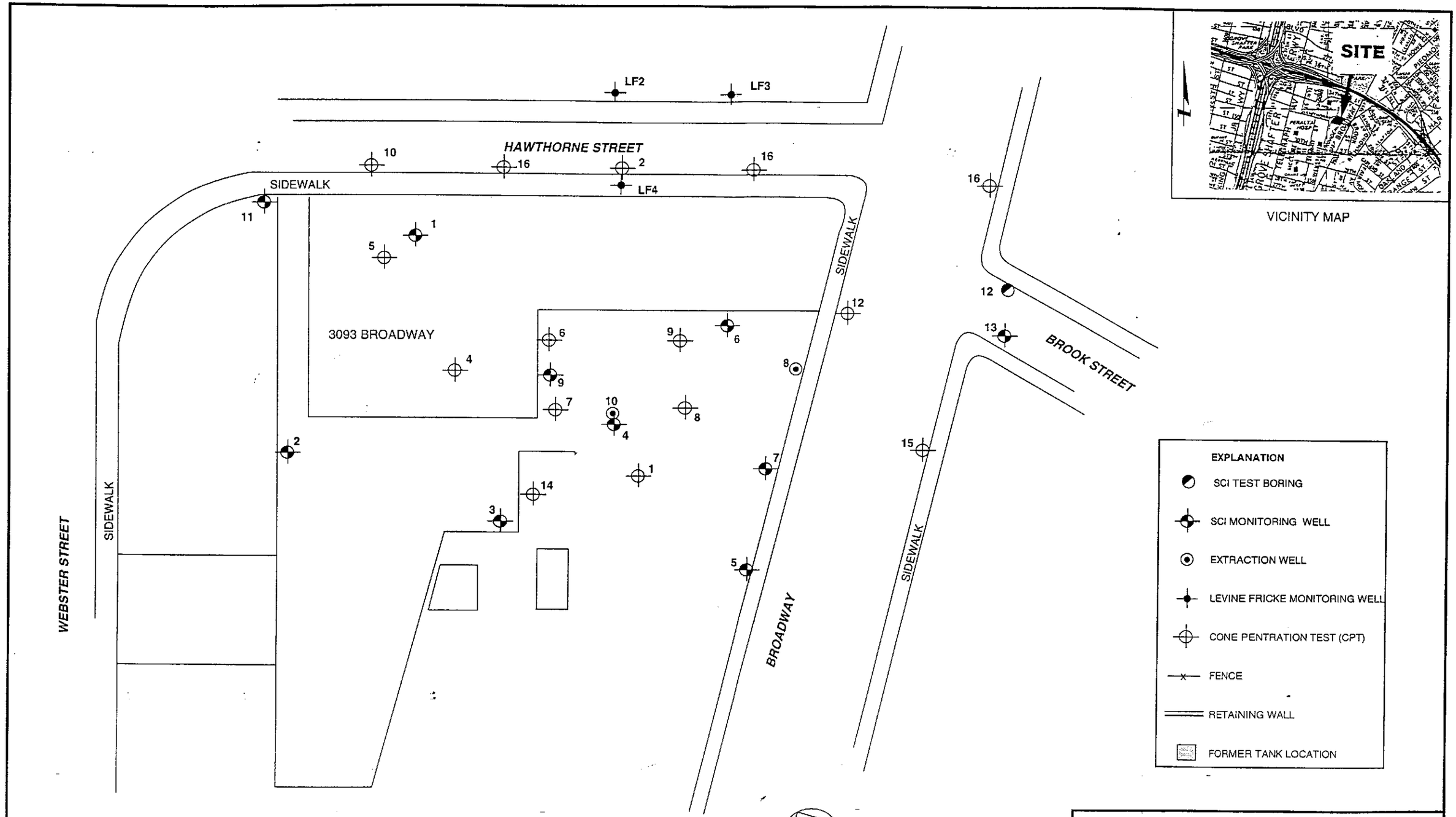
TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH ug/l	TEH ug/l	B ug/l	T ug/l	E ug/l	X ug/l	1,2-DCA ug/l	Other Purgeable Halocarbons ug/l	Oil & Grease mg/l	Semi-volatile Compounds ug/l	MTBE ug/l
MW-8	5/1/96	69	94	110	<0.5	<0.5	1.5	100	ND	--	--	--
	8/1/96	120	250 [1,2]	11	<0.5	<0.5	<0.5	93	ND	--	--	<2.0
	11/5/96	110	<50	20	<1	1	<1	98	ND	--	--	--
MW-9	11/1/92	19,000	320	180	590	23	2000	340	Chloroform (15)	--	--	--
	4/1/93	2,300	920	48	4	0.6	13	600	Chloroform (2)	--	--	--
	7/1/93	2,300	450	170	8.1	15	<0.5	1100	ND	--	--	--
	11/1/93	4,400	450	69	7.3	21	9.7	900	ND	--	--	--
	8/1/95	3,200	680	3,900	49	80	22.8	960	--	--	--	--
	5/1/96	<1300	710	2,600	<13	200	<13	550	ND	--	--	--
	11/5/96	1,800	420	280	<5	65	<5	770	ND	--	--	--
MW-10	10/1/92	28,000	--	2,700	3,800	210	1,300	150	--	--	--	--
	11/1/92	130,000	1,300	9,700	19,000	1,400	8,400	370	ND	--	--	--
	4/1/93	63,000	5,000	6,300	14,000	1,100	7,500	70	ND	--	--	--
	7/1/93	140,000	20,000	16,000	31,000	2,200	13,000	700	ND	--	--	--
	8/1/95	92,000	5,900	13,000	24,000	1,800	9,100	300	--	--	--	--
	5/1/96	81,000	5,600	17,000	29,000	2,100	8,500	320	ND	--	--	--
MW-11	11/1/92	<50	220	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	12/1/92	<50	140	<0.1	<0.1	<0.1	<0.1	--	--	--	--	--
	12/1/92	<50	120	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
	4/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	160	150	<0.5	1.8	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	80	60	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/95	<50	240*	<0.5	<0.5	<0.5	<0.5	<1	--	--	--	--
	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--

TABLE 3
SUMMARY OF CONTAMINANT CONCENTRATIONS IN GROUNDWATER
FROM MONITORING WELLS
3093 BROADWAY
OAKLAND, CALIFORNIA

Well	Event Date	TVH ug/l	TEH ug/l	B ug/l	T ug/l	E ug/l	X ug/l	1,2-DCA ug/l	Other Purgeable Halocarbons ug/l	Oil & Grease mg/l	Semi-volatile Compounds ug/l	MTBE ug/l
MW-13	11/1/92	<50	3,600	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	12/1/92	<50	210	<0.1	<0.1	<0.1	<0.1	--	--	--	--	--
	12/1/92	<50	100	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--
	4/1/93	<50	<50	<0.5	0.9	<0.5	<0.5	<1	ND	--	--	--
	7/1/93	<50	<50	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	11/1/93	<50	160	<0.5	<0.5	<0.5	<0.5	<1	ND	--	--	--
	8/1/95	<50	<50	49	<0.5	<0.5	<0.5	3.6	--	--	--	--
	12/1/95	<50	<50	<0.5	<0.5	<0.5	<0.5	4.1	ND	--	--	--
MW-13	5/1/96	<50	<50	<0.5	<0.5	<0.5	<0.5	4	ND	--	--	--
	8/1/96	<50	<50	32	<0.5	<0.5	<0.5	6.4	ND	--	--	<2.0
	11/5/96	<50	<50	<1	<1	<1	<1	5.7	ND	--	--	--

ug/l = micrograms per liter = parts per billion = ppb
TVH = Total Volatile Hydrocarbons
TEH = Total Extractable Hydrocarbons
BTEX = Benzene, Toluene, Ethylbenzene, Xylenes
1,2-DCA = 1,2-Dichloroethane
<0.5 = Chemical not present at a concentration in excess of detection limit shown
ND = None detected, chemicals not present at concentrations above detection limits reported on laboratory test reports
MW-1 was initially referred to as Sample 5
-- = Test not requested
FP = Free product encountered in well
* = Suspect laboratory contamination contributing to test result.
** = 2,4-dichlorophenol (1,700), naphthalene (1,200), 2-methylnapthalene (630), bis (2-ethylhexyl) phthalate (240) detected during August 1995 event, naphthalene (640), 2-methylnapthalene (250) during the May 1996 event
[1] = Sample exibits fuel pattern which does not resemble standard
[2] = Lighter hydrocarbons tha indicated standard



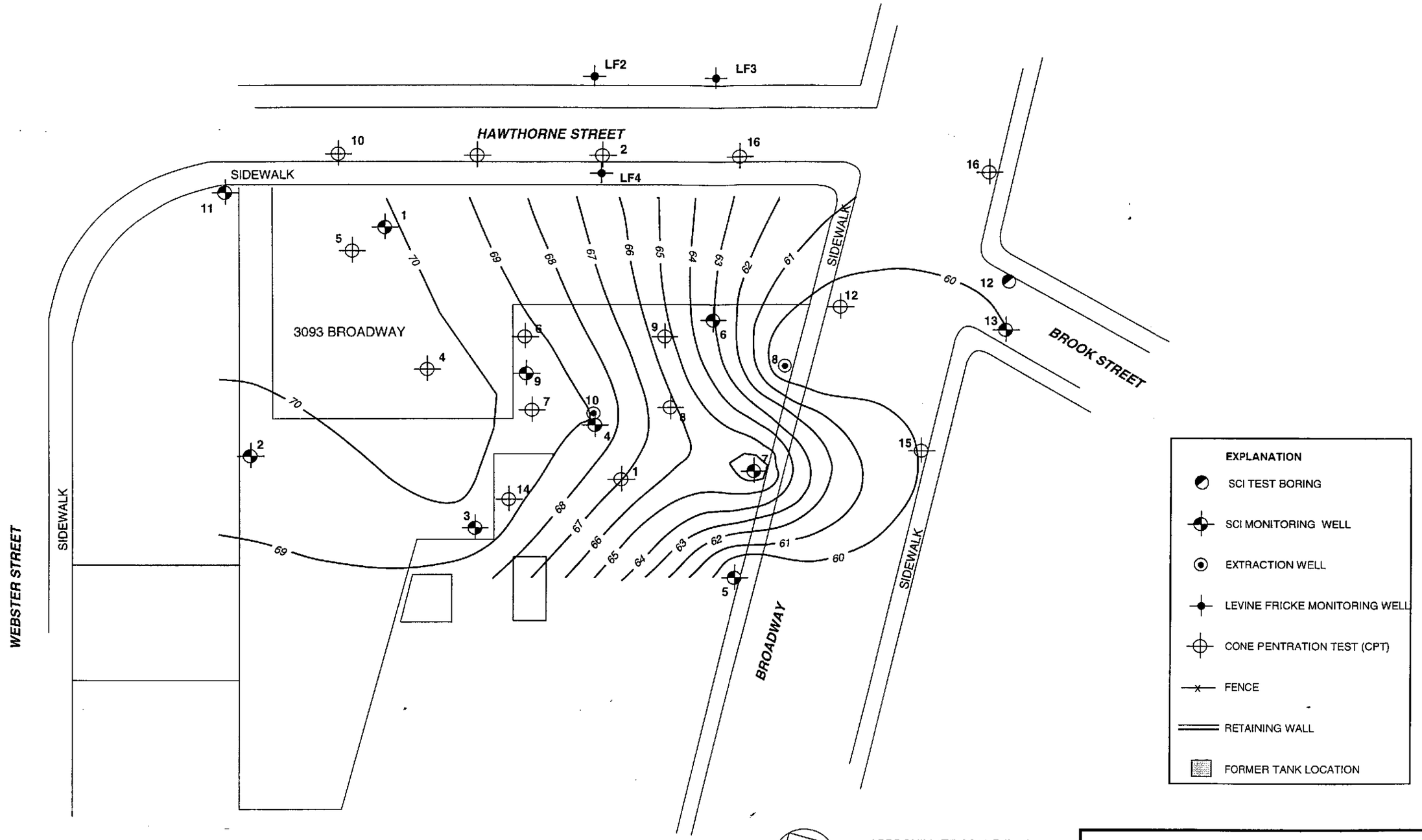
SITE PLAN

Subsurface Consultants

CONNELL OLDSMOBILE - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
447.055	11/4//96	SW

PLATE 1



GROUNDWATER ELEVATION CONTOURS

Subsurface Consultants

CONNELL OLDSMOBILE - OAKLAND, CA

JOB NUMBER	DATE	APPROVED
447.055	11/4/96	SW

PLATE 2

GROUNDWATER DEPTHS

Project Name: Connell Olds

Job No.: 447.055

Measured by: DWA

Well	Date	Time	Groundwater Depth (feet)	Comments
MW-1	11/4/96	0940	24' 3½"	Top of Product = 23'5⅞" Product thickness = 9⅜" " Bailed = ½ lite
MW-2	↓	0845	25.54	
MW-3		0850	20.25	
MW-4		0915	20' 1½"	Top of Product = 19'9¼" Product thickness = 4¼" " Bailed = 2 VOAs
MW-5		0920	26.69	
MW-6				No ▼level/sample due to remediation system up.
MW-7		0900	18.69	
MW-8		0905	26.77	
MW-9		0930	20.69	
MW-10		0855	19.59	
MW-11		0840	31.14	
MW-13	↓	0715	24.04	
				*Note: 2 Drums on site (both full)

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-1
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 11/5/96
TOC Elevation:
Weather: Sunny

Depth to Casing Bottom (below TOC) 35.00 feet
Depth to Groundwater (below TOC) 24.34 feet
Feet of Water in Well 10.66 feet
Depth to Groundwater When 80% Recovered 26.47 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 1.8 gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product 9 3/8" thick
Purge Method disposable bailer moderate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°c)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	7.62	57.5	593		clear/w sheen + strong odor
4	7.67	60.1	621		↓
6	7.59	60.9	597		semi-clear
8	7.52	61.8	587		murky

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 26.41 feet
Sampling Method disposable bailer
Containers Used 3 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

WELL SAMPLING FORM

Project Name: Connell olds
Well Number: MW-4
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 11/4/96
TOC Elevation:
Weather: cloudy

Depth to Casing Bottom (below TOC) 24.50 feet
Depth to Groundwater (below TOC) 20.12 feet
Feet of Water in Well 4.38 feet
Depth to Groundwater When 80% Recovered 21.00 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) gallons
Depth Measurement Method Tape & Paste / Electronic Sounder / Other
Free Product ~~None~~ 4¼" thick
Purge Method disposable bailer
immediate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (F)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	8.00	66.2	360		clear w/sheen/ very strong odor
4	7.84	66.9	346		
6	7.71	66.1	309		
8	7.59	66.3	333		

Total Gallons Purged gallons
Depth to Groundwater Before Sampling (below TOC) 20.12 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-7
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 11/4/96
TOC Elevation:
Weather: partly cloudy

Depth to Casing Bottom (below TOC) 30.50 feet
Depth to Groundwater (below TOC) 18.69 feet
Feet of Water in Well 11.81 feet
Depth to Groundwater When 80% Recovered 21.05 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 2.0 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

moderate Recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
0	8.42	63.6	385		clear/no odor
2	8.46	66.3	405		semi-clear
4	7.42	67.0	487		↓
6	7.03	66.6	503		murky
8	7.84	67.1	489		

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 21.00 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

WELL SAMPLING FORM

Project Name: Connell olds
Well Number: MW-8
Job No.: 447.055
Well Casing Diameter: 6 inch
Sampled By: DWA
Date: 11/5/96
TOC Elevation:
Weather: sunny

Depth to Casing Bottom (below TOC) 40.00 feet
Depth to Groundwater (below TOC) 26.77 feet
Feet of Water in Well 13.23 feet
Depth to Groundwater When 80% Recovered 29.42 feet
Casing Volume (feet of water x Casing DIA ^{2} x 0.0408) 19.0 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
moderate recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
20	7.82	66.3	585		clear/moderate odor
30	7.62	66.7	583		
40	7.01	67.0	567		
50	7.54	68.7	590		
60	7.81	69.1	567		

Total Gallons Purged 60 gallons
Depth to Groundwater Before Sampling (below TOC) 29.42 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) | | (liter) | | (pint)

Subsurface Consultants

JOB NUMBER | DATE | APPROVED | PLATE

WELL SAMPLING FORM

Project Name: Connell olds
Well Number: MW-9
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 11/4/96
TOC Elevation:
Weather: partly cloudy

Depth to Casing Bottom (below TOC) 30.50 feet
Depth to Groundwater (below TOC) 20.69 feet
Feet of Water in Well 9.81 feet
Depth to Groundwater When 80% Recovered 22.65 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 1.6 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer

Slow Recharge (overnight)

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
1	7.89	68.0	533		clear/strong odor
2	7.58	67.6	539		semi-clear
3	7.56	67.2	502		murky/ Dry @ 3 gals.
4	7.82	66.7	432		↓
5	8.06	68.1	549		Dry @ 5 gals.

Total Gallons Purged 5 gallons
Depth to Groundwater Before Sampling (below TOC) 21.30 on 11/5/96 @ 0745 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

WELL SAMPLING FORM

Project Name: Connell Olds
Well Number: MW-13
Job No.: 447.055
Well Casing Diameter: 2 inch
Sampled By: DWA
Date: 11/5/96
TOC Elevation:
Weather: partly cloudy

Depth to Casing Bottom (below TOC) 40.00 feet
Depth to Groundwater (below TOC) 24.04 feet
Feet of Water in Well 15.96 feet
Depth to Groundwater When 80% Recovered 27.23 feet
Casing Volume (feet of water x Casing DIA ² x 0.0408) 2.5 gallons
Depth Measurement Method Tape & Paste / (Electronic Sounder) / Other
Free Product none
Purge Method disposable bailer
fast recharge

FIELD MEASUREMENTS

Gallons Removed	pH	Temp (°F)	Conductivity (micromhos/cm)	Salinity S%	Comments
2	8.08	55.5	411		clear/no odor
4	7.86	57.7	412		↓
6	7.71	59.2	408		semi-clear
8	7.61	58.4	416		↓

Total Gallons Purged 8 gallons
Depth to Groundwater Before Sampling (below TOC) 27.23 feet
Sampling Method disposable bailer
Containers Used 6 (40 ml) 1 (liter) (pint)

Subsurface Consultants

JOB NUMBER DATE APPROVED PLATE

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

A N A L Y T I C A L R E P O R T

Prepared for:

Subsurface Consultants
3736 Mt. Diablo Blvd.
Suite 200
Lafayette, CA 94549

Date: 13-NOV-96
Lab Job Number: 127346
Project ID: 447.055
Location: Connell Olds

Reviewed by: _____

Reviewed by: _____

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
127346-004	MW-4	30886	11/04/96	11/12/96	11/13/96	
127346-005	MW-7	30886	11/04/96	11/12/96	11/13/96	
127346-006	MW-8	30886	11/05/96	11/12/96	11/13/96	
127346-007	MW-9	30886	11/05/96	11/12/96	11/13/96	

Matrix: Water

Analyte Diln Fac:	Units	127346-004 3	127346-005 1	127346-006 1	127346-007 1
Diesel C12-C22	ug/L	4700 YL	<50	<50	420
Surrogate					
Hexacosane	%REC	93	101	99	95

Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

TEH-Tot Ext Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
127346-008	MW-13	30886	11/05/96	11/12/96	11/13/96	

Matrix: Water

Analyte	Units	127346-008
Diln Fac:		1
Diesel C12-C22	ug/L	<50
Surrogate		
Hexacosane	%REC	105

TVH by GC (as Gasoline)

Curtis & Tompkins, Ltd.

Lab SDG #: 127346
Client Project #: 447.055
Project Location: Connell Olds

Matrix: Water
Method: EPA 8015M
Extraction Method: EPA 5030 Purge & Trap
Instrument I.D.: HP GC #286

Lab ID	Client ID	Report Value (ug/L)	Q	PQL	MDL	Date Sampled	Date Extracted	Date Analyzed	Surrogate % Rec.	QC Batch ID
127346-003	MW-1	270000	P	25000	10000	11/05/96	11/11/96	11/11/96	106	14224k6a
127346-004	MW-4	160000	P	5000	2100	11/04/96	11/11/96	11/11/96	107	14224k6a
127346-005	MW-7	ND		50	21	11/04/96	11/08/96	11/08/96	108	14224k68
127346-006	MW-8	110	P	50	21	11/05/96	11/09/96	11/09/96	110	14224k68
127346-007	MW-9	1800	P	50	21	11/05/96	11/09/96	11/09/96	102	14224k68
127346-008	MW-13	ND		50	21	11/05/96	11/11/96	11/11/96	106	14224k6a
QC67264	MTHDBLANK	ND		50	21	N/A	11/08/96	11/08/96	102	14224k68
QC67303	MTHDBLANK	ND		50	21	N/A	11/11/96	11/11/96	105	14224k6a

Surrogate	Surrogate Amount	Surrogate QC Limits
a,a,a-Trifluorotoluene	50	40-162

Laboratory Control Sample, Blank Spike/Blank Spike Duplicate, Matrix Spike/Matrix Spike Duplicate QC Summary

QC Batch ID	Client ID	Date Analyzed	Spike Amount ug/L	LCS % Rec.	QC Limits	Date Analyzed	MS % Rec.	MSD % Rec.	QC Limits	MS/MSD RPD	QC Limits
14224k68	BS/BSD		500		80-120	11/08/96	81	85	68-118	5	12
14224k6a	BS/BSD		500		80-120	11/08/96	81	85	68-118	5	12

BTEX by GC

Client Sample ID:	MW-1	Matrix:	Water
Client Project #:	447.055	Method:	EPA 8020
Project Location:	Connell Olds	Extraction Method:	EPA 5030 Purge & Trap
Lab Sample ID:	127346-003	Instrument ID:	HP GC #286
Lab SDG #:	127346		

Curtis & Tompkins, Ltd.

Date Sampled:	11/05/96
Date Received:	11/05/96
Date Extracted:	11/11/96
Date Analyzed:	11/11/96
QC Batch ID:	14224k6a

Compound	Report Value ug/L	Q	PQL	MDL	Blank Value ug/L	Q	PQL	MDL
Benzene	43,000		500	100	ND		1.0	0.2
Toluene	56,000		500	150	ND		1.0	0.3
Ethylbenzene	4,500		500	150	ND		1.0	0.3
m,p-Xylenes	17,000		500	200	ND		1.0	0.4
o-Xylene	7,300		500	150	ND		1.0	0.3

Surrogate QC Information

Compound	Amt. ug/L	Sample %Rec.	Blank %Rec	Limits
a,a,a-Trifluorotoluene	50	102	101	40-162

LCS and MS/MSD QC Information

Client Sample ID used for MS/MSD: BS/BSD

Compound	Amt. ug/L	BS %Rec.	BSD %Rec.	BS/BSD Limits	RPD	RPD Limit
Benzene	10	80	86	50-150	7	25
Toluene	10	81	84	50-150	4	25
Ethylbenzene	10	85	91	50-150	7	25
m,p-Xylenes	10	87	88	50-150	1	25
o-Xylene	10	89	92	50-150	3	25

BTEX by GC

Client Sample ID:	MW-4	Matrix:	Water
Client Project #:	447.055	Method:	EPA 8020
Project Location:	Connell Olds	Extraction Method:	EPA 5030 Purge & Trap
Lab Sample ID:	127346-004	Instrument ID:	HP GC #286
Lab SDG #:	127346		

Curtis & Tompkins, Ltd.

Date Sampled:	11/04/96
Date Received:	11/05/96
Date Extracted:	11/11/96
Date Analyzed:	11/11/96
QC Batch ID:	14224k6a

Compound	Report Value ug/L	Q	PQL	MDL	Blank Value ug/L	Q	PQL	MDL
Benzene	16,000		100	20	ND		1.0	0.2
Toluene	38,000		200	60	ND		1.0	0.3
Ethylbenzene	2,700		100	30	ND		1.0	0.3
m,p-Xylenes	10,000		100	40	ND		1.0	0.4
o-Xylene	4,500		100	30	ND		1.0	0.3

Surrogate QC Information

Compound	Amt. ug/L	Sample %Rec.	Blank %Rec	Limits
a,a,a-Trifluorotoluene	50	100	101	40-162

LCS and MS/MSD QC Information

Client Sample ID used for MS/MSD: BS/BSD

Compound	Amt. ug/L	BS %Rec.	BSD %Rec.	BS/BSD Limits	RPD	RPD Limit
Benzene	10	80	86	50-150	7	25
Toluene	10	81	84	50-150	4	25
Ethylbenzene	10	85	91	50-150	7	25
m,p-Xylenes	10	87	88	50-150	1	25
o-Xylene	10	89	92	50-150	3	25

BTEX by GC

Curtis & Tompkins, Ltd.

Client Sample ID:	MW-7	Matrix:	Water	Date Sampled:	11/04/96
Client Project #:	447.055	Method:	EPA 8020	Date Received:	11/05/96
Project Location:	Connell Olds	Extraction Method:	EPA 5030 Purge & Trap	Date Extracted:	11/08/96
Lab Sample ID:	127346-005	Instrument ID:	HP GC #286	Date Analyzed:	11/08/96
Lab SDG #:	127346			QC Batch ID:	14224k68

Compound	Report Value ug/L	Q	PQL	MDL	Blank Value ug/L	Q	PQL	MDL
Benzene	ND		1.0	0.2	ND		1.0	0.2
Toluene	ND		1.0	0.3	ND		1.0	0.3
Ethylbenzene	ND		1.0	0.3	ND		1.0	0.3
m,p-Xylenes	ND		1.0	0.4	ND		1.0	0.4
o-Xylene	ND		1.0	0.3	ND		1.0	0.3

Surrogate QC Information

Compound	Amt. ug/L	Sample %Rec.	Blank %Rec	Limits
a,a,a-Trifluorotoluene	50	103	98	40-162

LCS and MS/MSD QC Information

Client Sample ID used for MS/MSD: BS/BSD

Compound	Amt. ug/L	BS %Rec.	BSD %Rec.	BS/BSD Limits	RPD	RPD Limit
Benzene	10	80	86	50-150	7	25
Toluene	10	81	84	50-150	4	25
Ethylbenzene	10	85	91	50-150	7	25
m,p-Xylenes	10	87	88	50-150	1	25
o-Xylene	10	89	92	50-150	3	25

BTEX by GC

Curtis & Tompkins, Ltd.

Client Sample ID:	MW-8	Matrix:	Water
Client Project #:	447.055	Method:	EPA 8020
Project Location:	Connell Olds	Extraction Method:	EPA 5030 Purge & Trap
Lab Sample ID:	127346-006	Instrument ID:	HP GC #286
Lab SDG #:	127346		

Date Sampled:	11/05/96
Date Received:	11/05/96
Date Extracted:	11/09/96
Date Analyzed:	11/09/96
QC Batch ID:	14224k68

Compound	Report Value ug/L	Q	PQL	MDL	Blank Value ug/L	Q	PQL	MDL
Benzene	20		1.0	0.2	ND		1.0	0.2
Toluene	ND		1.0	0.3	ND		1.0	0.3
Ethylbenzene	1.0		1.0	0.3	ND		1.0	0.3
m,p-Xylenes	ND		1.0	0.4	ND		1.0	0.4
o-Xylene	ND		1.0	0.3	ND		1.0	0.3

Surrogate QC Information

Compound	Amt. ug/L	Sample %Rec.	Blank %Rec	Limits
a,a,a-Trifluorotoluene	50	103	98	40-162

LCS and MS/MSD QC Information

Client Sample ID used for MS/MSD: BS/BSD

Compound	Amt. ug/L	BS %Rec.	BSD %Rec.	BS/BSD Limits	RPD	RPD Limit
Benzene	10	80	86	50-150	7	25
Toluene	10	81	84	50-150	4	25
Ethylbenzene	10	85	91	50-150	7	25
m,p-Xylenes	10	87	88	50-150	1	25
o-Xylene	10	89	92	50-150	3	25

BTEX by GC

Curtis & Tompkins, Ltd.

Client Sample ID:	MW-9	Matrix:	Water
Client Project #:	447.055	Method:	EPA 8020
Project Location:	Connell Olds	Extraction Method:	EPA 5030 Purge & Trap
Lab Sample ID:	127346-007	Instrument ID:	HP GC #286
Lab SDG #:	127346		

Date Sampled:	11/05/96
Date Received:	11/05/96
Date Extracted:	11/09/96
Date Analyzed:	11/09/96
QC Batch ID:	14224k68

Compound	Report Value ug/L	Q	PQL	MDL	Blank Value ug/L	Q	PQL	MDL
Benzene	280		5.0	1.0	ND		1.0	0.2
Toluene	ND		5.0	1.5	ND		1.0	0.3
Ethylbenzene	65		1.0	0.3	ND		1.0	0.3
m,p-Xylenes	ND		5.0	2.0	ND		1.0	0.4
o-Xylene	ND		5.0	1.5	ND		1.0	0.3

Surrogate QC Information

Compound	Amt. ug/L	Sample %Rec.	Blank %Rec	Limits
a,a,a-Trifluorotoluene	50	101	98	40-162

LCS and MS/MSD QC Information

Client Sample ID used for MS/MSD: BS/BSD

Compound	Amt. ug/L	BS %Rec.	BSD %Rec.	BS/BSD Limits	RPD	RPD Limit
Benzene	10	80	86	50-150	7	25
Toluene	10	81	84	50-150	4	25
Ethylbenzene	10	85	91	50-150	7	25
m,p-Xylenes	10	87	88	50-150	1	25
o-Xylene	10	89	92	50-150	3	25

BTEX by GC

Curtis & Tompkins, Ltd.

Client Sample ID:	MW-13	Matrix:	Water	Date Sampled:	11/05/96
Client Project #:	447.056	Method:	EPA 8020	Date Received:	11/05/96
Project Location:	Connell Olds	Extraction Method:	EPA 5030 Purge & Trap	Date Extracted:	11/11/96
Lab Sample ID:	127346-008	Instrument ID:	HP GC #286	Date Analyzed:	11/11/96
Lab SDG #:	127346			QC Batch ID:	14224k6a

Compound	Report Value ug/L	Q	PQL	MDL	Blank Value ug/L	Q	PQL	MDL
Benzene	ND		1.0	0.2	ND		1.0	0.2
Toluene	ND		1.0	0.3	ND		1.0	0.3
Ethylbenzene	ND		1.0	0.3	ND		1.0	0.3
m,p-Xylenes	ND		1.0	0.4	ND		1.0	0.4
o-Xylene	ND		1.0	0.3	ND		1.0	0.3

Surrogate QC Information

Compound	Amt. ug/L	Sample %Rec.	Blank %Rec	Limits
a,a,a-Trifluorotoluene	50	102	101	40-162

LCS and MS/MSD QC Information

Client Sample ID used for MS/MSD: BS/BSD

Compound	Amt. ug/L	BS %Rec.	BSD %Rec.	BS/BSD Limits	RPD	RPD Limit
Benzene	10	80	86	50-150	7	25
Toluene	10	81	84	50-150	4	25
Ethylbenzene	10	85	91	50-150	7	25
m,p-Xylenes	10	87	88	50-150	1	25
o-Xylene	10	89	92	50-150	3	25

Curtis & Tompkins, Ltd.

Client: Subsurface Consultants

Laboratory Login Number: 127346

Project Name: Connell Olds
Project Number: 447.055

Report Date: 13 November 96

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **METHOD: SMWW 17:5520BF**

Lab ID	Sample ID	Matrix	Sampled	Received	Analyzed	Result	Units	RL	Analyst	QC Batch
127346-003	MW-1	Water	05-NOV-96	05-NOV-96	11-NOV-96	9.8	mg/L	5	DLP	30849

ND = Not Detected at or above Reporting Limit (RL).

Halogenated Volatile Organics
EPA 8010 Analyte List

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: MW-4
Lab ID: 127346-004
Matrix: Water
Batch#: 30786
Units: ug/L
Diln Fac: 100

Sampled: 11/04/96
Received: 11/05/96
Extracted: 11/08/96
Analyzed: 11/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	200
Bromomethane	ND	200
Vinyl Chloride	ND	200
Chloroethane	ND	200
Methylene Chloride	ND	2000
Trichlorofluoromethane	ND	100
1,1-Dichloroethene	ND	100
1,1-Dichloroethane	ND	100
cis-1,2-Dichloroethene	ND	100
trans-1,2-Dichloroethene	ND	100
Chloroform	ND	100
Freon 113	ND	100
1,2-Dichloroethane	380	100
1,1,1-Trichloroethane	ND	100
Carbon Tetrachloride	ND	100
Bromodichloromethane	ND	100
1,2-Dichloropropane	ND	100
cis-1,3-Dichloropropene	ND	100
Trichloroethene	ND	100
1,1,2-Trichloroethane	ND	100
trans-1,3-Dichloropropene	ND	100
Dibromochloromethane	ND	100
Bromoform	ND	200
Tetrachloroethene	ND	100
1,1,2,2-Tetrachloroethane	ND	100
Chlorobenzene	ND	100
1,3-Dichlorobenzene	ND	100
1,4-Dichlorobenzene	ND	100
1,2-Dichlorobenzene	ND	100

Surrogate	%Recovery	Recovery Limits
Toluene-d8	101	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	100	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: MW-7
Lab ID: 127346-005
Matrix: Water
Batch#: 30786
Units: ug/L
Diln Fac: 1

Sampled: 11/04/96
Received: 11/05/96
Extracted: 11/08/96
Analyzed: 11/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	101	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	103	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: MW-8
Lab ID: 127346-006
Matrix: Water
Batch#: 30752
Units: ug/L
Diln Fac: 1

Sampled: 11/05/96
Received: 11/05/96
Extracted: 11/06/96
Analyzed: 11/06/96

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	98	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	102	87-125
Bromofluorobenzene	119	79-122
1,2-Dichloroethane-d4	110	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

Field ID: MW-9
Lab ID: 127346-007
Matrix: Water
Batch#: 30786
Units: ug/L
Diln Fac: 5

Sampled: 11/05/96
Received: 11/05/96
Extracted: 11/08/96
Analyzed: 11/08/96

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	100
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	770	5.0
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Dibromochloromethane	ND	5.0
Bromoform	ND	10
Tetrachloroethene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
Chlorobenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	102	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	100	68-126

Halogenated Volatile Organics
EPA 8010 Analyte List

Client:	Subsurface Consultants	Analysis Method:	EPA 8260
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

Field ID:	MW-13	Sampled:	11/05/96
Lab ID:	127346-008	Received:	11/05/96
Matrix:	Water	Extracted:	11/06/96
Batch#:	30752	Analyzed:	11/06/96
Units:	ug/L		
Diln Fac:	1		

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	5.7	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	100	87-125
Bromofluorobenzene	117	79-122
1,2-Dichloroethane-d4	108	68-126

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
127346-001	INFLUENT	30701	11/05/96	11/05/96	11/05/96	
127346-002	EFFLUENT	30701	11/05/96	11/05/96	11/05/96	

Matrix: Air

Analyte	Units	127346-001	127346-002
Diln Fac:		20	1
Gasoline	mg/M3	16000	<50
Surrogate			
Trifluorotoluene	%REC	92	95
Bromobenzene	%REC	96	90

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
127346-001	INFLUENT	30701	11/05/96	11/05/96	11/05/96	
127346-002	EFFLUENT	30701	11/05/96	11/05/96	11/05/96	

Matrix: Air

Analyte	Units	127346-001	127346-002
Diln Fac:		20	1
Benzene	mg/M3	1300	14
Toluene	mg/M3	2000	11
Ethylbenzene	mg/M3	280	2.9C
m,p-Xylenes	mg/M3	840	3.8
o-Xylene	mg/M3	300	3.3C
Surrogate			
Trifluorotoluene	%REC	90	86
Bromobenzene	%REC	99	97

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

CHAIN OF CUSTODY FORM

12736

PAGE 1 OF 1

PROJECT NAME: Connell Olds

JOB NUMBER: 447.055 LAB: Curtis & Tompkins

PROJECT CONTACT: Samuel Won TURNAROUND: Normal

SAMPLED BY: Jim Helge / Dennis Alexander REQUESTED BY: Jim Helge / Samuel Won

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX						CONTAINERS						METHOD PRESERVED					SAMPLING DATE				NOTES	ANALYSIS REQUESTED										
		WATER	SOIL	WASTE	AIR			VOA	LITER	PINT	TUBE	TEDLAR BAG		HCL	H_2SO_4	HNO_3	ICE	NONE	MONTH	DAY	YEAR	TIME		TVH/BTXE	8260	TEH	DO						
-1	Influent				X							X					X		11	05	96	1025		X									
-2	Effluent				X							X					X		11	05	96	1030		X									
-3	MW-1	X						3	1					X			X		11	05	96	0900	*	X	X								
-4	MW-4	X						6	1					X			X		11	04	96	1315	*	X		X	X						
-5	MW-7	X						6	1					X			X		11	04	96	1030		X		X	X						
-6	MW-8	X						6	1					X			X		11	05	96	1130		X		X	X						
-7	MW-9	X						6	1					X			X		11	05	96	0800		X		X	X						
-8	MW-13	X						6	1					X			X		11	05	96	0730		X		X	X						

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	11/5/96 3:35 p.m.		11/5/96 3:40 PM
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES: * - These samples taken from wells with free product in them - BEWARE high concentrations!!

Subsurface Consultants, Inc.

171 12TH STREET, SUITE 201, OAKLAND, CALIFORNIA 94607

(510) 268-0461 • FAX: 510-268-0137

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 447.055	Prep Method: EPA 3520
Location: Connell Olds	

METHOD BLANK	
Matrix: Water	Prep Date: 11/12/96
Batch#: 30886	Analysis Date: 11/13/96
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC34477

Analyte	Result	
Diesel C12-C22	<50	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	99	60-140

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

TEH-Tot Ext Hydrocarbons	
Client: Subsurface Consultants	Analysis Method: CA LUFT (EPA 8015M)
Project#: 447.055	Prep Method: EPA 3520
Location: Connell Olds	
BLANK SPIKE/BLANK SPIKE DUPLICATE	
Matrix: Water	Prep Date: 11/12/96
Batch#: 30886	Analysis Date: 11/13/96
Units: ug/L	
Diln Fac: 1	

BS Lab ID: QC34478

Analyte	Spike Added	BS	%Rec #	Limits
Diesel C12-C22	2475	1851	75	60-140
Surrogate	%Rec	Limits		
Hexacosane	108	60-140		

BSD Lab ID: QC34479

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel C12-C22	2475	1920	78	60-140	4	35
Surrogate	%Rec	Limits				
Hexacosane	108	60-140				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Curtis & Tompkins, Ltd.

Q C B a t c h R e p o r t

Client: Subsurface Consultants
Project Name: Connell Olds
Project Number: 447.055

Laboratory Login Number: 127346
Report Date: 13 November 96

ANALYSIS: Hydrocarbon Oil & Grease (Gravimetric) **QC Batch Number: 30849**

Blank Results

Sample ID	Result	MDL	Units	Method	Date Analyzed
MB	ND	5	mg/L	SMWW 17:5520BF	11-NOV-96

Spike/Duplicate Results

Sample ID	Recovery	Method	Date Analyzed
BS	96%	SMWW 17:5520BF	11-NOV-96
BSD	93%	SMWW 17:5520BF	11-NOV-96

		Control Limits
Average Spike Recovery	95%	80% - 120%
Relative Percent Difference	3.6%	< 20%

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

Halogenated Volatile Organics
EPA 8010 Analyte List

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 30752
Units: ug/L
Diln Fac: 1

Prep Date: 11/06/96
Analysis Date: 11/06/96

MB Lab ID: QC34002

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Rec	Recovery Limits
Toluene-d8	97	87-125
Bromofluorobenzene	110	79-122
1,2-Dichloroethane-d4	95	68-126

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

Halogenated Volatile Organics
EPA 8010 Analyte List

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 30786
Units: ug/L
Diln Fac: 1

Prep Date: 11/07/96
Analysis Date: 11/07/96

MB Lab ID: QC34122

Analyte	Result	Reporting Limit
Chloromethane	ND	2.0
Bromomethane	ND	2.0
Vinyl Chloride	ND	2.0
Chloroethane	ND	2.0
Methylene Chloride	ND	20
Trichlorofluoromethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloroethane	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
Chloroform	ND	1.0
Freon 113	ND	1.0
1,2-Dichloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
Carbon Tetrachloride	ND	1.0
Bromodichloromethane	ND	1.0
1,2-Dichloropropane	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
Trichloroethene	ND	1.0
1,1,2-Trichloroethane	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
Dibromochloromethane	ND	1.0
Bromoform	ND	2.0
Tetrachloroethene	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
Chlorobenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,4-Dichlorobenzene	ND	1.0
1,2-Dichlorobenzene	ND	1.0

Surrogate	%Rec	Recovery Limits
Toluene-d8	100	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	99	68-126

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

Halogenated Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 30752
Units: ug/L
Diln Fac: 1

Prep Date: 11/06/96
Analysis Date: 11/06/96

LCS Lab ID: QC34001

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	52.59	50	105	51-180
Trichloroethene	47.52	50	95	73-141
Chlorobenzene	51.13	50	102	83-129

Surrogate	%Rec	Limits
Toluene-d8	103	87-125
Bromofluorobenzene	111	79-122
1,2-Dichloroethane-d4	104	68-126

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 3 outside limits

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

Halogenated Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 30786
Units: ug/L
Diln Fac: 1

Prep Date: 11/07/96
Analysis Date: 11/07/96

LCS Lab ID: QC34120

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	49.62	50	99	51-180
Trichloroethene	48.4	50	97	73-141
Chlorobenzene	49.1	50	98	83-129

Surrogate	%Rec	Limits
Toluene-d8	99	87-125
Bromofluorobenzene	101	79-122
1,2-Dichloroethane-d4	97	68-126

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 3 outside limits

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

Halogenated Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127337-001
Matrix: Water
Batch#: 30752
Units: ug/L
Diln Fac: 125

Sample Date: 11/04/96
Received Date: 11/05/96
Prep Date: 11/06/96
Analysis Date: 11/06/96

MS Lab ID: QC34013

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	6250	33.83	7378	118	51-180
Trichloroethene	6250	18250	23620	86	73-141
Chlorobenzene	6250	0	6386	102	83-129

Surrogate	%Rec	Limits
Toluene-d8	101	87-125
Bromofluorobenzene	114	79-122
1,2-Dichloroethane-d4	100	68-126

MSD Lab ID: QC34014

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	6250	7873	125	51-180	7	22
Trichloroethene	6250	24530	100	73-141	4	24
Chlorobenzene	6250	6610	106	83-129	3	21

Surrogate	%Rec	Limits
Toluene-d8	100	87-125
Bromofluorobenzene	114	79-122
1,2-Dichloroethane-d4	102	68-126

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

Halogenated Volatile Organics

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8260
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127364-001
Matrix: Water
Batch#: 30786
Units: ug/L
Diln Fac: 1

Sample Date: 11/05/96
Received Date: 11/06/96
Prep Date: 11/07/96
Analysis Date: 11/07/96

MS Lab ID: QC34136

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<1	42.71	85	51-180
Trichloroethene	50	<1	43.39	87	73-141
Chlorobenzene	50	<1	46.27	93	83-129

Surrogate	%Rec	Limits
Toluene-d8	101	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	101	68-126

MSD Lab ID: QC34137

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	42.04	84	51-180	2	22
Trichloroethene	50	43.26	87	73-141	0	24
Chlorobenzene	50	45.79	92	83-129	1	21

Surrogate	%Rec	Limits
Toluene-d8	101	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	103	68-126

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons			
Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		
METHOD BLANK			
Matrix:	Water	Prep Date:	11/05/96
Batch#:	30701	Analysis Date:	11/05/96
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC33835

Analyte	Result	
Gasoline	<50	
Surrogate	**%Rec**	**Recovery Limits**
Trifluorotoluene	100	69-120
Bromobenzene	77	70-122

Curtis & Tompkins, Ltd.

BTXE

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: EPA 8020
Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
Batch#: 30701
Units: ug/L
Diln Fac: 1

Prep Date: 11/05/96
Analysis Date: 11/05/96

MB Lab ID: QC33835

Analyte	Result
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	91	58-130
Bromobenzene	88	62-131

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons			
Client:	Subsurface Consultants	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	447.055	Prep Method:	EPA 5030
Location:	Connell Olds		

LABORATORY CONTROL SAMPLE			
Matrix:	Water	Prep Date:	11/05/96
Batch#:	30701	Analysis Date:	11/05/96
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC33836

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	1834	2000	92	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	100	69-120
Bromobenzene	100	70-122

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

BTXE	
Client: Subsurface Consultants	Analysis Method: EPA 8020
Project#: 447.055	Prep Method: EPA 5030
Location: Connell Olds	
LABORATORY CONTROL SAMPLE	
Matrix: Water	Prep Date: 11/05/96
Batch#: 30701	Analysis Date: 11/05/96
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC33837

Analyte	Result	Spike Added	%Rec #	Limits
Benzene	16.8	20	84	80-120
Toluene	18.8	20	94	80-120
Ethylbenzene	18.3	20	92	80-120
m,p-Xylenes	37.3	40	93	80-120
o-Xylene	18.9	20	95	80-120

Surrogate	%Rec	Limits
Trifluorotoluene	93	58-130
Bromobenzene	88	62-131

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 5 outside limits

Curtis & Tompkins, Ltd.

Lab #: 127346 BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Subsurface Consultants
Project#: 447.055
Location: Connell Olds

Analysis Method: CA LUFT (EPA 8015M)
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 127311-002
Matrix: Water
Batch#: 30701
Units: ug/L
Diln Fac: 1

Sample Date: 10/31/96
Received Date: 10/31/96
Prep Date: 11/05/96
Analysis Date: 11/05/96

MS Lab ID: QC33893

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2000	<50	1887	94	75-125
Surrogate	**%Rec**	**Limits**			
Trifluorotoluene	102	69-120			
Bromobenzene	103	70-122			

MSD Lab ID: QC33894

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2000	1845	92	75-125	2	20
Surrogate	**%Rec**	**Limits**				
Trifluorotoluene	102	69-120				
Bromobenzene	103	70-122				

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

CHAIN OF CUSTODY FORM

12734b

PAGE 1 OF 1

PROJECT NAME: Connell Olds

JOB NUMBER: 447.055

PROJECT CONTACT: Samuel Won

SAMPLED BY: Jim Helge / Dennis Alexander

LAB: Curtis & Tompkins

TURNAROUND: Normal

REQUESTED BY: Jim Helge / Samuel Won

LABORATORY I.D. NUMBER	SCI SAMPLE NUMBER	MATRIX: WATER	SOIL	WASTE	AIR			CONTAINERS: VOA	LITER	PINT	TUBE	TEDLAR BAG		METHOD PRESERVED: HCL	H_2SO_4	HNO_3	ICE	NONE	SAMPLING DATE: MONTH	DAY	YEAR	TIME	NOTES	ANALYSIS REQUESTED: TVH/BTXE	OGG	TEH	DO
-1	Influent				X							X					X		11	05	96	1025	*	X			
-2	Effluent				X							X					X		11	05	96	1030		X			
-3	MW-1	X						3	1					X			X		11	05	96	0900	*	X	X		
-4	MW-4	X						6	1					X			X		11	04	96	1315	*	X		X	X
-5	MW-7	X						6	1					X			X		11	04	96	1030		X		X	X
-6	MW-8	X						6	1					X			X		11	05	96	1130		X		X	X
-7	MW-9	X						6	1					X			X		11	05	96	0800		X		X	X
-8	MW-13	X						6	1					X			X		11	05	96	0730		X		X	X

CHAIN OF CUSTODY RECORD

RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
Dennis Alexander	11/5/96 5:35 p.m.		11/5/96 3:40 pm
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME
RELEASED BY: (Signature)	DATE / TIME	RECEIVED BY: (Signature)	DATE / TIME

COMMENTS & NOTES: * These samples taken from wells with free product in them - BEWARE high concentrations!

Subsurface Consultants, Inc.

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