

QUARTERLY GROUNDWATER MONITORING REPORT

Prepared for
BLACK & DECKER (U.S.) INC.
Hampstead, Maryland

April 2003

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1. INTRODUCTION

This Groundwater Monitoring Report has been prepared to meet the requirements of Condition IV.G of the Administrative Consent Order between the State of Maryland Department of the Environment (MDE) and Black & Decker (U.S.) Inc. (April 1995) (Consent Order). Specifically, Condition IV.G calls for preparation of a Groundwater Monitoring Report containing the following information for each reporting period:

- The quantities of groundwater pumped, treated, and discharged.
- The calculation of quantities of contaminants removed from groundwater.
- A summary of all sampling analyses.
- An explanation of all operational or other problems encountered, and the manner in which each problem was resolved.
- Copies of all reports submitted to the Department of Natural Resources in conjunction with the Groundwater Appropriations Permit.
- Recommendations for changes to the Interim Groundwater Treatment System.

This document is one of several which are being prepared in response to the Consent Order. Each of these documents is to be submitted to the MDE in accordance with the schedule outlined in the Consent Order. This document will become part of the Administrative Record for the site which is maintained at the Hampstead Public Library.

2. SITE CHARACTERIZATION

2.1 HYDRAULIC PROPERTIES

In accordance with the Consent Order and the Water Appropriation Permit issued to the Black and Decker (U.S.) Inc. Hampstead, Maryland, facility, the following pumping and water level information is included for the period of January through March 2003.

Pumping records showing the total gallons pumped per month of treatment system operation are presented in Table 2-1. The complete groundwater treatment system pumping records are included in Appendix A.

Monthly water levels for wells included in the water level monitoring plan are presented in Table 2-2. At the time the water level measurements were collected, the extraction wells were pumping at an average combined rate of approximately 148 gallons per minute (gpm).

2.2 EFFLUENT CHARACTERISTICS

Effluent characteristics of the NPDES discharge points are recorded monthly on Discharge Monitoring Reports (DMRs) and are submitted to MDE, Water Management Administration, on a quarterly basis. A summary of the sample results from the DMRs is presented in Table 2-3. DMRs for the period of January through March 2003 are included in Appendix B

2.3 GROUNDWATER QUALITY DATA

For the reporting period of January through March 2003, approximately 47 pounds of total volatile organic compounds (VOCs) were removed from the groundwater by the extraction and treatment system. In general, the total VOCs removed from the groundwater were comprised primarily of trichloroethene (TCE) (80 %) and tetrachlorethene (PCE) (20 %). Analytical results of the groundwater collected at the inlet to the air stripper for the period of January through March 2003 are included in Appendix C.

Table 2-1
Treatment System Pumping Records - 1st Quarter 2003
Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
January 2003	5,864,310
February 2003	5,713,285
March 2003	6,429,103

Table 2-2
Groundwater Elevation Data - 1st Quarter 2003
Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	01/08/03		2/24/03		3/31/03	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	--	DRY	--	DRY	--
EW-2	849.21	110	100.11	749.10	98.74	750.47	97.67	751.54
EW-3	846.64	118	97.57	749.07	91.90	754.74	93.42	753.22
EW-4	858.01	97.5	NA	--	NA	--	NA	--
EW-5	864.17	98	92.60	771.57	93.21	770.96	92.87	771.30
EW-6	831.98	115	88.21	743.77	88.22	743.76	85.32	746.66
EW-7	818.38	78	77.11	741.27	75.84	742.54	73.14	745.24
EW-8	811.13	98	94.12	717.01	92.86	718.27	91.91	719.22
EW-9	811.35	141	98.41	712.94	97.11	714.24	98.03	713.32
EW-10	807.74	NA	53.61	754.13	53.63	754.11	54.12	753.62
RFW-1A	864.37	78	63.58	800.79	56.67	807.70	56.21	808.16
RFW-1B	864.23	200	63.57	800.66	56.69	807.54	56.24	807.99
RFW-2A	857.41	35	19.10	838.31	17.84	839.57	17.76	839.65
RFW-2B	857.73	75	19.37	838.36	17.90	839.83	17.81	839.92
RFW-3B	839.21	153	39.74	799.47	NA	--	38.49	800.72
RFW-4A	830.37	62	41.61	788.76	37.86	792.51	39.62	790.75
RFW-4B	830.37	120	41.57	788.80	37.74	792.63	39.46	790.91
RFW-5A	817.50	30	DRY	--	DRY	--	DRY	--
RFW-6	785.04	120	3.84	781.20	3.21	781.83	2.96	782.08
RFW-7	805.14	29	7.19	797.95	NA	--	7.56	797.58
RFW-8	860.07	56	DRY	--	DRY	--	DRY	--
RFW-9	862.02	49	31.15	830.87	27.67	834.35	26.27	835.75
RFW-10	852.06	58	DRY	--	DRY	--	DRY	--
RFW-11A	849.32	72	NA	--	NA	--	NA	--
RFW-11B	849.62	116	72.86	776.76	73.41	776.21	74.03	775.59
RFW-12B	844.87	264	54.36	790.51	55.08	789.79	55.46	789.41
RFW-13	849.11	150	66.83	782.28	NA	849.11	65.88	783.23
RFW-14B	812.39	281	53.46	758.93	53.30	759.09	52.61	759.78
RFW-16	856.14	41	DRY	--	DRY	--	DRY	--
RFW-17	834.66	60.5	28.98	805.68	28.61	806.05	29.17	805.49
RFW-20	842.49	142	38.46	804.03	37.90	804.59	36.89	805.60
RFW-21	832.65	102	25.38	807.27	25.11	807.54	25.08	807.57
PH-7	805.94	89	35.87	770.07	35.47	770.47	35.36	770.58
PH-9	814.94	98	57.61	757.33	57.01	757.93	56.94	758.00
PH-11	820.68	78	44.90	775.78	43.80	776.88	41.63	779.05
PH-12	828.35	87	55.43	772.92	54.79	773.56	53.81	774.54
B-3	803.02	83	7.59	795.43	7.67	795.35	7.19	795.83
Amoco	842.29	NA	NA	--	NA	--	NA	--
Hamp. Town #22	804.96	NA	19.56	785.40	27.43	777.53	18.63	786.33
Pembroke #1	NA	NA	11.10	--	10.83	--	10.99	--
Pembroke #2	NA	NA	NA	--	NA	--	NA	--
N. Houcks. Rd.	NA	NA	8.96	--	10.04	--	9.87	--
E. Century St.	NA	NA	11.19	--	10.81	--	11.43	--
Lwr. Beckleys. Rd.	NA	NA	56.19	--	55.83	--	55.48	--

NA - Not Available/Not Accessible

Table 2-3
Effluent Characteristics Summary - 1st Quarter 2003
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter	Units	Permit Limits	DMR DATE		
				January 2003	February 2003	March 2003
001	FLOW	average	MGD	NA	0.209	0.127
		maximum	MGD	NA	0.542	0.355
	1,1,1-Trichloroethane	ug/l	5	< 5	< 5	< 5
	Tetrachloroethylene	ug/l	5	< 5	< 5	< 5
	Trichloroethylene	ug/l	5	< 5	< 5	< 5
	Total Residual Chlorine	mg/l	<0.1	<0.1	<0.1	<0.1
	Oil & Grease	maximum	mg/l	15	< 5	< 5
		quarterly average	mg/l	10	NR	NR
	pH	minimum	STD	6.0	6.26	6.79
		maximum	STD	8.5	6.69	7.46
101 (Monitoring Point)	BOD	mg/l	15	< 2	5.5	3.5
	TSS	maximum	mg/l	30	7.0	2.8
		quarterly average	mg/l	20	NR	NR
	FLOW	average	MGD	NA	0.419	0.421
		maximum	MGD	NA	0.556	0.464
201 (Monitoring Point)	Fecal Coliform	MPN/100ml	200	< 2	< 2	< 2
	FLOW	average	MGD	NA	0.174	0.204
		maximum	MGD	NA	0.225	0.251
	1,1,1-Trichloroethane	ug/l	NA	< 5	< 5	< 5
	Tetrachloroethylene	ug/l	NA	< 5	< 5	< 5
	Trichloroethylene	ug/l	NA	< 5	< 5	< 5

DMR - Discharge Monitoring Report

NA - Not Applicable

NR - Not Reported

A summary of the analytical results from the first quarter (February 2003) groundwater sampling round of the extraction and monitor wells is included in Table 2-4. The complete analytical data package is included in Appendix D. Wells RFW-3B, RFW-7 and RFW-13 were not accessible due to heavy snow falls. As found in earlier sampling events at the Black & Decker facility, TCE and PCE were the VOCs detected at the highest concentrations in the groundwater samples. The highest concentration of TCE was detected in the groundwater samples collected from wells RFW-12B, EW-2 and EW-4. The highest concentration of PCE was detected in the groundwater sample collected from extraction well EW-9. Lower concentrations of 1,2-dichloroethene were also detected. The remainder of VOCs present were detected at levels well below the federal Maximum Contaminant Levels (MCL).

Table 2-4
Summary of Groundwater Analytical Results - February 2003
Black & Decker
Hampstead, Maryland

PARAMETER	UNITS	EW-1 (1)	EW-2 (1)	EW-3 (2)	EW-4 (10)	EW-5 (10)	EW-6 (5)	EW-7 (5)	EW-8 (2)	EW-9 (DUP) (2)	EW-10 (2)	RFW-1A	RFW-1B
Chloromethane	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	20 U	20 U	20 U	10 U	10 U
Bromomethane	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	20 U	20 U	20 U	10 U	10 U
Vinyl Chloride	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	20 U	20 U	20 U	10 U	10 U
Chloroethane	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	20 U	20 U	20 U	10 U	10 U
Methylene Chloride	ug/L	NS	51	11	49 J	10 J	5 U	1 J	5 U	9 J	2 J	5 U	5 U
Acetone	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	20 U	20 U	20 U	10 U	10 U
Carbon Disulfide	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
1,1-Dichloroethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	1 J	1 J	10 U	10 U	5 U	5 U
1,2-Dichloroethene (total)	ug/L	NS	50 U	2 J	50 U	25 U	5 U	9	32	10 U	10 U	5 U	5 U
Chloroform	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
1,2-Dichloroethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
2-Butanone	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	10 U	20 U	20 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	50 U	10 U	50 U	7 J	5 U	5 U	5 U	10 U	10 U	5 U	5 U
Carbon Tetrachloride	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
Bromodichloromethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
1,2-Dichloropropane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
cis-1,3-Dichloropropene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
Trichloroethene	ug/L	NS	1300	390	950	630	16	11	20	2 J	3 J	5 U	5 U
Dibromochloromethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
1,1,2-Trichloroethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
Benzene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
Trans-1,3-Dichloropropene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
Bromoform	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	5 U	10 U	10 U	5 U	5 U
4-Methyl-2-pentanone	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	20 U	20 U	20 U	10 U	10 U
2-Hexanone	ug/L	NS	100 U	20 U	100 U	50 U	10 U	10 U	20 U	20 U	20 U	10 U	10 U
Tetrachloroethene	ug/L	NS	89	9 J	19 J	24 J	29	25	110	190	210	4 J	5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	10 U	10 U	10 U	5 U	5 U
Toluene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	10 U	10 U	10 U	5 U	5 U
Chlorobenzene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	10 U	10 U	10 U	5 U	5 U
Ethylbenzene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	10 U	10 U	10 U	5 U	5 U
Styrene	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	10 U	10 U	10 U	5 U	5 U
Xylene (total)	ug/L	NS	50 U	10 U	50 U	25 U	5 U	5 U	10 U	10 U	10 U	5 U	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification DUP = Duplicate sample
J = Indicates an estimated value.
NS = Not sampled

Table 2-4
Summary of Groundwater Analytical Results - February 2003
Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-2A	RFW-2B	RFW-3B	RFW-4A	RFW-4B	RFW-4B (DUP)	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10	RFW-11A	RFW-11B
Chloromethane	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	10 U	NS	NS	NS	10 U
Bromomethane	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	10 U	NS	NS	NS	10 U
Vinyl Chloride	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	10 U	NS	NS	NS	10 U
Chloroethane	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	10 U	NS	NS	NS	10 U
Methylene Chloride	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	NS	NS	5 U
Acetone	ug/L	10 U	13	NS	10 U	7 J	10 U	NS	10 U	NS	10 U	NS	NS	NS	10 U
Carbon Disulfide	ug/L	5 U	5 U	NS	5 U	2 J	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
1,1-Dichloroethene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	1 J	NS	5 U
1,1-Dichloroethane	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	2 J	NS	5 U
1,2-Dichloroethene (total)	ug/L	5 U	5 U	NS	2 J	6	7	NS	1 J	NS	NS	20	NS	NS	5 U
Chloroform	ug/L	5 U	5 U	NS	1 J	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
1,2-Dichloroethane	ug/L	5 U	1 J	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
2-Butanone	ug/L	10 U	10 U	NS	10 U	10 U	10 U	NS	10 U	NS	10 U	NS	10 U	NS	10 U
1,1,1-Trichloroethane	ug/L	1 J	1 J	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	2 J	NS	5 U
Carbon Tetrachloride	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
Bromodichloromethane	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
1,2-Dichloropropane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
cis-1,3-Dichloropropene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
Trichloroethene	ug/L	5	8	NS	64	5 U	5 U	NS	9	NS	NS	32	NS	NS	85
Dibromochloromethane	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
1,1,2-Trichloroethane	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
Benzene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
Bromoform	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	5 U	NS	5 U
4-Methyl-2-pentanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	NS	10 U	NS	10 U	NS	NS	NS	10 U
2-Hexanone	ug/L	10 U	NS	10 U	10 U	10 U	10 U	NS	10 U	NS	10 U	NS	NS	NS	10 U
Tetrachloroethene	ug/L	5 U	NS	58	19	25	NS	8	NS	NS	15	NS	NS	2 J	
1,1,2,2-Tetrachloroethane	ug/L	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	NS	5 U	NS	5 U
Toluene	ug/L	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	NS	NS	5 U
Chlorobenzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	NS	NS	5 U
Ethylbenzene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	NS	NS	5 U
Styrene	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	NS	NS	5 U
Xylene (total)	ug/L	5 U	NS	5 U	5 U	5 U	5 U	NS	5 U	NS	5 U	NS	NS	NS	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantification.
J = Indicates an estimated value.

DUP = Duplicate sample
NS = Not sampled

Table 2-4
Summary of Groundwater Analytical Results - February 2003
Black & Decker
Hampstead, Maryland

PARAMETER	Units	RFW-12B	RFW-13	RFW-16	RFW-17	RFW-20	RFW-21	Town #22	Town #23	Lester Dairy	Lester Res. #1	Lester Res. #2	Trip Blank
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloromethane	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Bromomethane	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Vinyl Chloride	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Chloroethane	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Methylene Chloride	ug/L	2 J	NS	NS	4 J	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Acetone	ug/L	6 J	NS	NS	3 J	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Carbon Disulfide	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1-Dichloroethene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1-Dichloroethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloroethene (total)	ug/L	12	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Chloroform	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloroethane	ug/L	5 U	NS	NS	1 J	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
2-Butanone	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
1,1,1-Trichloroethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Carbon Tetrachloride	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Bromodichloromethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,2-Dichloropropane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
cis-1,3-Dichloropropene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Trichloroethene	ug/L	330	NS	NS	5 U	3 J	5 U	5 U	5 U	5 U	5 U	NS	5 U
Dibromochloromethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
1,1,2-Trichloroethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Benzene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Trans-1,3-Dichloropropene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Bromoform	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
4-Methyl-2-pentanone	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
2-Hexanone	ug/L	10 U	NS	NS	10 U	10 U	10 U	10 U	10 U	10 U	10 U	NS	10 U
Tetrachloroethene	ug/L	20	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	2 J	NS	5 U
1,1,2,2-Tetrachloroethane	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Toluene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Chlorobenzene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Ethylbenzene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Styrene	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U
Xylene (total)	ug/L	5 U	NS	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U

Notes: U = Compound was analyzed for but not detected. Value shown is the method detection limit for quantifi

J = Indicates an estimated value.

DUP = Duplicate sample

NS = Not sampled

3. OPERATION AND MAINTENANCE OF THE TREATMENT SYSTEM

A summary of the maintenance activities that were undertaken with the extraction and treatment system during the reporting period (January through March 2003) is provided in Table 3-1. This table is comprehensive in summarizing significant maintenance events or activities, while not including those activities considered unworthy of note (such as replacement of light bulbs, lubrication of moving parts, as appropriate, or other routine activities).

Table 3-1
Treatment System Maintenance Activities - 1st Quarter 2003
Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
Jan-03	EW's 1 through 5 taken out of service. Electrician is replacing power feed and control wire from pull box at NW corner to EW's. Water valve closed and system drained on east side.
Jan-03	Electrician has replaced the power feed and control wire. The well are back online after being off for one week.
Jan-03	EW - 3 down for one day to repair a cracked fitting. Fitting repaired well back on line.

4. RECOMMENDATIONS

For the reporting period of January through March 2003, the treatment system continued to create a hydraulic boundary preventing off-site migration of groundwater. The extraction system will continue to operate as currently configured to pump and treat contaminated groundwater. Depth-to-water measurements will continue to be collected on a monthly basis in all site monitor wells to construct a groundwater elevation contour map for the site. The groundwater elevation contour map will be used to verify that the required area of groundwater capture is being maintained. If necessary, pumping rates will be adjusted to maintain groundwater capture due to seasonal fluctuations in groundwater elevations. The treatment system will also continue to operate as currently configured, as data collected have proven that the treatment system is fully effective in removing VOCs from the extracted groundwater.