

**Quarterly Groundwater Monitoring Report**

Prepared for

**Black & Decker (U.S.) Inc.**

Hampstead, Maryland

April 2010

Prepared by

**WESTON SOLUTIONS, INC.**

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## TABLE OF CONTENTS

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Section	Page
1. INTRODUCTION .....	1-1
2. SITE CHARACTERISTICS .....	2-1
2.1 HYDRAULIC PROPERTIES .....	2-1
2.2 EFFLUENT CHARACTERISTICS .....	2-1
2.3 GROUNDWATER QUALITY DATA .....	2-1
3. OPERATION AND MAINTENANCE OF THE TREATMENT SYSTEM.....	3-1
4. RECOMMENDATIONS .....	4-1

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## LIST OF APPENDICES

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APPENDIX A - GROUNDWATER TREATMENT SYSTEM PUMPING RECORDS

APPENDIX B - DISCHARGE MONITORING REPORTS

APPENDIX C - GROUNDWATER TREATMENT SYSTEM ANALYTICAL RESULTS

APPENDIX D - GROUNDWATER ANALYTICAL DATA PACKAGE

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## LIST OF TABLES

---

<b>Table</b>	<b>Page</b>
Table 2-1 Treatment System Pumping Records – 1st Quarter 2010.....	2-2
Table 2-2 Groundwater Elevation Data – 1st Quarter 2010 .....	2-3
Table 2-3 Effluent Characteristics Summary – 1st Quarter 2010 .....	2-4
Table 2-4 Summary of Groundwater Analytical Results - February 2010.....	2-5
Table 3-1 Treatment System Maintenance Activities – 1st Quarter 2010.....	3-2

## 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 are 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 CHARACTERISTICS**

### **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 2010.

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. For the reporting period of January through March 2010, the extraction wells were pumping at an average combined rate of approximately 167 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 2010 are included in Appendix B.

### **2.3 GROUNDWATER QUALITY DATA**

For the reporting period of January through March 2010, approximately 18.6 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) (86.1%) and tetrachloroethene (PCE) (13.9%). Analytical results of the groundwater collected from the air stripper for the period of January through March 2010 are included in Appendix C.

A summary of the analytical results from the third quarter (February 2010) groundwater sampling round of the extraction and monitor wells is included in Table 2-4. The complete

**Table 2-1**  
**Treatment System Pumping Records - 1st Quarter 2010**  
**Black & Decker**  
**Hampstead, Maryland**

<b>Date</b>	<b>Water Pumped (gallons)</b>
January 2010	6,627,345
February 2010	6,213,673
March 2010	7,395,042

**Table 2-2**  
**Groundwater Elevation Data - 1st Quarter 2010**  
**Black & Decker**  
**Hampstead, Maryland**

WELL NO.	TOC ELEV.	TOTAL DEPTH	1/15/2010		2/18/2010*		3/11/2010	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	NC	DRY	NC	DRY	NC
EW-2	849.21	110	66.58	782.63	88.17	761.04	92.47	756.74
EW-3	846.64	118	82.50	764.14	79.40	767.24	79.81	766.83
EW-4	858.01	97.5	PC	NC	PC	NC	PC	NC
EW-5	864.17	98	78.40	785.77	86.72	777.45	89.32	774.85
EW-6	831.98	115	102.87	729.11	102.90	729.08	99.28	732.70
EW-7	818.38	78	50.94	767.44	45.41	772.97	40.68	777.70
EW-8	811.13	98	91.72	719.41	92.05	719.08	89.31	721.82
EW-9	811.35	141	101.90	709.45	102.61	708.74	101.61	709.74
EW-10	807.74	INA	47.85	759.89	52.17	755.57	47.72	760.02
RFW-1A	864.37	78	50.90	813.47	47.16	817.21	47.40	816.97
RFW-1B	864.23	200	50.91	813.32	47.22	817.01	47.46	816.77
RFW-2A	857.41	35	14.41	843.00	12.36	845.05	11.96	845.45
RFW-2B	857.73	75	15.06	842.67	12.98	844.75	12.34	845.39
RFW-3B	839.21	153	33.94	805.27	NA	NC	33.29	805.92
RFW-4A	830.37	62	34.56	795.81	35.00	795.37	33.91	796.46
RFW-4B	830.37	120	35.03	795.34	34.92	795.45	33.80	796.57
RFW-5A	817.50	30	DRY	NC	DRY	NC	DRY	NC
RFW-6	785.04	120	3.18	781.86	3.24	781.80	2.86	782.18
RFW-7	805.14	29	6.94	798.20	NA	NC	6.40	798.74
RFW-8	860.07	56	DRY	NC	DRY	NC	DRY	NC
RFW-9	862.02	49	24.22	837.80	24.36	837.66	23.78	838.24
RFW-10	852.06	58	DRY	NC	DRY	NC	DRY	NC
RFW-11A	849.32	72	Damaged	NC	Damaged	NC	Damaged	NC
RFW-11B	849.62	116	65.71	783.91	64.83	784.79	66.84	782.78
RFW-12B	844.87	264	50.48	794.39	48.83	796.04	48.86	796.01
RFW-13	849.11	150	59.89	789.22	NA	NC	65.67	783.44
RFW-14B	812.39	281	46.94	765.45	46.81	765.58	47.53	764.86
RFW-16	856.14	41	DRY	NC	DRY	NC	DRY	NC
RFW-17	834.66	60.5	27.37	807.29	24.56	810.10	24.61	810.05
RFW-20	842.49	142	34.17	808.32	31.82	810.67	31.62	810.87
RFW-21	832.65	102	22.16	810.49	20.08	812.57	19.83	812.82
PH-7	805.94	89	26.02	779.92	25.91	780.03	22.69	783.25
PH-9	814.94	98	54.16	760.78	55.94	759.00	54.47	760.47
PH-11	820.68	78	45.06	775.62	NA	NC	51.01	769.67
PH-12	828.35	87	47.78	780.57	NA	NC	52.78	775.57
B-3	803.02	83	8.67	794.35	NA	NC	9.63	793.39
Amoco	842.29	INA	NA	NC	NA	NC	NA	NC
Hamp. Town #22	804.96	INA	17.49	787.47	NA	NC	20.46	784.50
Pembroke #1	INA	INA	12.31	NC	NA	NC	11.31	NC
Pembroke #2	INA	INA	Damaged	NC	Damaged	NC	Damaged	NC
N. Houcks. Rd.	INA	INA	10.68	NC	NA	NC	9.85	NC
E. Century St.	INA	INA	19.39	NC	NA	NC	19.08	NC
Lwr. Beckleys. Rd.	INA	INA	55.08	NC	NA	NC	54.26	NC

NA - Not Available/Not Accessible

NC - Not Calculable

INA - Information not available

PC - Pump Cycles

\* - Due to heavy snow many wells were inaccessible

**Table 2-3**  
**Effluent Characteristics Summary - 1st Quarter 2010**  
**Black & Decker**  
**Hampstead, Maryland**

Discharge Number	Parameter	Units	Permit Limits	DMR DATE			
				January 2010	February 2010	March 2010	
001	FLOW	average	MGD	NA	0.191	0.232	0.279
		maximum	MGD	NA	0.846	0.389	0.655
	1,1,1-Trichloroethane		ug/l	5	< 1	< 1	< 1
	Tetrachloroethylene		ug/l	5	< 1	< 1	< 1
	Trichloroethylene		ug/l	5	< 1	< 1	< 1
	Total Residual Chlorine		mg/l	< 0.1	< 0.1	< 0.1	< 0.1
	Oil & Grease	maximum	mg/l	15	< 5	< 5	13.0
		quarterly average	mg/l	10	< 5	< 5	7.0
	pH	minimum	STD	6.0	6.00	6.20	6.30
		maximum	STD	8.5	6.20	7.20	6.60
	BOD		mg/l	15	0.0	0.0	0.0
TSS	maximum	mg/l	30	0.0	0.0	0.0	
	quarterly average	mg/l	20	0.0	0.0	0.0	
101 (Monitoring Point)	FLOW	average	MGD	NA	0.297	0.283	0.280
		maximum	MGD	NA	0.377	0.431	0.362
	Fecal Coliform		MPN/100ml	200	1.0	1.0	1.0
201 (Monitoring Point)	FLOW	average	MGD	NA	NR	NR	0.225
		maximum	MGD	NA	NR	NR	0.299
	1,1,1-Trichloroethane		ug/l	NA	NR	NR	< 1
	Tetrachloroethylene		ug/l	NA	NR	NR	< 1
	Trichloroethylene		ug/l	NA	NR	NR	< 1

DMR - Discharge Monitoring Report

NA - Not Applicable

NR - Not Reported



Table 2-4

Summary of Groundwater Analytical Results - February 2010  
 Black & Decker  
 Hampstead, Maryland

PARAMETER	Units	EW-1	EW-2	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8	EW-9	EW-9 (DUP)	EW-10
Chloromethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	NS	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
Acetone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Carbon Disulfide	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethene (total)	ug/L	NS	3.5	2.8	1 U	1 U	1 U	4.4	24	1 U	1 U	1 U
Chloroform	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Butanone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,1-Trichloroethane	ug/L	NS	1 U	1 U	1 U	1	1 U	1 U	1 U	1 U	1 U	1 U
Carbon Tetrachloride	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	ug/L	NS	410	130	1100	150	10	4	10	1.1	1 J	1 U
Dibromochloromethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Benzene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.5
Trans-1,3-Dichloropropene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
4-Methyl-2-pentanone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Hexanone	ug/L	NS	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
Tetrachloroethene	ug/L	NS	62	3.4	22	5.9	17	9.6	63	110	100	1 U
1,1,2,2-Tetrachloroethane	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Styrene	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	ug/L	NS	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U

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

J = Indicates an estimated value.

NS = Not Sampled

Table 2-4  
**Summary of Groundwater Analytical Results - February 2010**  
**Black & Decker**  
**Hampstead, Maryland**

PARAMETER	Units	RFW-1A	RFW-1B	RFW-2A	RFW-2B	RFW-3B	RFW-4A	RFW-4A (DUP)	RFW-4B	RFW-5A	RFW-6	RFW-7	RFW-8	RFW-9	RFW-10
Chloromethane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Bromomethane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Chloroethane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Methylene Chloride	ug/L	2 U	2 U	2 U	2 U	NS	2 U	2 U	2 U	NS	2 U	NS	NS	2 U	NS
Acetone	ug/L	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1.3	NS
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1.6	NS
1,2-Dichloroethene (total)	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	3.7	NS	1 U	NS	NS	25	NS
Chloroform	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
2-Butanone	ug/L	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1.6	NS
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Trichloroethene	ug/L	1 U	1 U	1 U	1 U	NS	30	28	50	NS	1 U	NS	NS	15	NS
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Benzene	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Bromoform	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
4-Methyl-2-pentanone	ug/L	5 U	5 U	5 U	1 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS
2-Hexanone	ug/L	5 U	5 U	5 U	5 U	NS	5 U	5 U	5 U	NS	5 U	NS	NS	5 U	NS
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	NS	17	16	69	NS	1.4	NS	NS	8.5	NS
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Toluene	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Styrene	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS
Xylene (total)	ug/L	1 U	1 U	1 U	1 U	NS	1 U	1 U	1 U	NS	1 U	NS	NS	1 U	NS

Notes: DUP = Duplicate sample  
NS = Not sampled

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

Table 2-4

**Summary of Groundwater Analytical Results - February 2010**  
**Black & Decker**  
**Hampstead, Maryland**

PARAMETER	Units	RFW-11A	RFW-11B	RFW-12B	RFW-13	RFW-16	RFW-17	Leister Dairy	Leister Res. #1	Leister Res. #2	Trip Blank	RFW-20	RFW-21	Town #22	Town #23	Trip Blank
		USEPA drinking water method 524.2														
Chloromethane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Bromomethane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	1 U	1 U	NS	NS	1 U
Vinyl Chloride	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Chloroethane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	1 U	1 U	NS	NS	1 U
Methylene Chloride	ug/L	NS	2 U	2 U	NS	NS	2 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Acetone	ug/L	NS	5 U	5 U	NS	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	NS	NS	10 U
Carbon Disulfide	ug/L	NS	5 U	5 U	NS	NS	5 U	ABD	ABD	ABD	5 U	NA	NA	NS	NS	NA
1,1-Dichloroethene	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
1,1-Dichloroethane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
1,2-Dichloroethene (total)	ug/L	NS	1 U	3	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Chloroform	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	9.8	0.5 U	0.5 U	NS	NS	0.5 U
1,2-Dichloroethane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
2-Butanone	ug/L	NS	5 U	5 U	NS	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	NS	NS	10 U
1,1,1-Trichloroethane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Carbon Tetrachloride	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Bromodichloromethane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	6.8	0.5 U	0.5 U	NS	NS	0.5 U
1,2-Dichloropropane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
cis-1,3-Dichloropropene	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Trichloroethene	ug/L	NS	7.9	280	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Dibromochloromethane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	2.8	0.5 U	0.5 U	NS	NS	0.5 U
1,1,2-Trichloroethane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Benzene	ug/L	NS	1 U	1 U	NS	NS	1.5	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Trans-1,3-Dichloropropene	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Bromoform	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1.7	0.5 U	0.5 U	NS	NS	0.5 U
4-Methyl-2-pentanone	ug/L	NS	5 U	5 U	NS	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	NS	NS	10 U
2-Hexanone	ug/L	NS	5 U	5 U	NS	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	NS	NS	10 U
Tetrachloroethene	ug/L	NS	1 U	25	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Toluene	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Chlorobenzene	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Ethylbenzene	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Styrene	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U
Xylene (total)	ug/L	NS	1 U	1 U	NS	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	NS	NS	0.5 U

Notes: Samples from wells RFW-20 & 21, Town-22&23 are analyzed with the USEPA drinking water method 524.2 at the request of the MDE Source Protection and Appropriation Division. Samples from all of the other wells are analyzed with USEPA Method 8260.

NS = Not sampled

U = Compound was analyzed but not detected.

ABD = Well has been abandoned

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 and EW-4 and the highest concentration of PCE was detected in the groundwater sample collected from wells RFW-4B and EW-9. The remainder of VOCs present were detected at levels below the Federal Maximum Contaminant Levels (MCL).

### 3. OPERATION AND MAINTENANCE OF THE TREATMENT SYSTEM

A summary of the maintenance activities which were undertaken with the extraction and treatment system during the reporting period (January through March 2010) 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 2010**  
**Black & Decker**  
**Hampstead, Maryland**

<b>Date</b>	<b>Event/Corrective Action</b>
<b>Jan-10</b>	Alarm at the stripper due to a power outage. Reset the system everything back online.
<b>Jan-10</b>	Alarm at the stripper due to wet well supply failure due to a frozen supply pipe. The pipe was thawed and the system is back online.
<b>Jan-10</b>	Alarm at stripper due to a high wet well. Reset the system and everything is back online.
<b>Jan-10</b>	Replace the heater in EW-5
<b>Feb-10</b>	Alarm at stripper. EW-5 tripped off. Heating elements in EW-5 heater are bad. The well is reset, a temporary heater is used until the heating elements are replaced. in the heater.
<b>Mar-10</b>	Alarm at stripper due to a power outage. Reset the system everything back online.
<b>Mar-10</b>	Alarm at the stripper due to a high column blower failure. The system was reset everything is okay.
<b>Mar-10</b>	EW-8 tripped off due to a bad control relay. Replaced the relay and the well is back online.

#### 4. RECOMMENDATIONS

For the reporting period of January through March 2010, 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.

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**APPENDIX A  
GROUNDWATER TREATMENT SYSTEM PUMPING RECORDS  
(JANUARY – MARCH 2010)**

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MARYLAND DEPARTMENT of the ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION, 1800 WASHINGTON BLVD, BALTIMORE, MD 21230

Operated By:  
Maryland Environmental Service  
259 Najoles Road, Millersville MD

Facility: BTR Capital Group  
Address: 626 Hanover Pike, Hampstead Maryland  
Additional Op's & cert # - Dorrance Jones 0763, Gary Dickerson 0782

Permit Number: 02-DP-0022  
Superintendent: Earle Villarreal

Certification # 1017

Month: January  
Year: 2010

Final Effluent outfall 001											Outfall 101					Outfall 201			Operator		
Date	Appearance	Discharge MGD	pH	Cl2 mg/l	Tetrachloroethylene ug/l	1,1,1-Trichloroethane ug/l	Trichloroethene ug/l	BOD <sub>5</sub> mg/l	TSS mg/l	O&G mg/l	Flow MGD	Fecal mpn	Basin inches	Alum Gpd	Hypochlorite Gpd	Post Cl <sub>2</sub> mg/l	Tetrachloroethylene ug/l	1,1,1-Trichloroethane ug/l		Trichloroethene ug/l	Discharge mgd
1	Clear	0.16000									0.267000		0.0	5.0	1.0	5.0				0.183305	gdickerson
2	Clear	0.13500									0.312000		0.0	5.0	1.0	5.0				0.211153	djones
3	Clear	0.11000									0.317000		0.0	5.0	1.0	5.0				0.227532	djones
4	Clear	0.09600									0.275000		0.0	5.0	1.0	5.0				0.221972	gdickerson
5	Clear	0.11300	6.15	0.00							0.289000		0.0	5.0	1.0	5.0				0.209149	gdickerson
6	Clear	0.14600			< 1.00	< 1.00	< 1.00	< 2.0	< 4.0	< 5.0	0.303000	< 1.8	0.0	10.0	1.0	5.0				0.219937	djones
7	Clear	0.13300	6.23	0.00							0.298000		0.0	10.0	1.0	5.0				0.220453	djones
8	Clear	0.14700									0.308000		0.0	10.0	1.0	5.0				0.216629	gdickerson
9	Clear	0.11900									0.270000		0.0	10.0	1.0	5.0				0.199657	gdickerson
10	Clear	0.12300									0.265000		0.0	5.0	1.0	5.0				0.220021	gdickerson
11	Clear	0.14000									0.303000		0.0	5.0	1.0	5.0				0.226791	djones
12	Clear	0.13700	6.11	0.00							0.296000		0.0	5.0	1.0	5.0				0.212351	djones
13	Clear	0.11500									0.313000	< 1.8	0.0	5.0	1.0	5.0				0.219525	djones
14	Clear	0.08700	6.07	0.00							0.280000		0.0	5.0	1.0	5.0				0.213232	djones
15	Clear	0.07200									0.222000		0.0	5.0	1.0	5.0				0.168193	djones
16	Clear	0.09300									0.279000		0.0	5.0	1.0	5.0				0.223326	djones
17	Clear	0.62900									0.323000		0.0	5.0	1.0	5.0				0.227788	djones
18	Clear	0.20700									0.289000		0.0	5.0	1.0	5.0				0.218506	gdickerson
19	Clear	0.17300	6.03	0.00							0.313000		0.0	5.0	1.0	5.0				0.207249	gdickerson
20	Clear	0.16600									0.299000		0.0	10.0	1.0	5.0	< 1.0	< 1.0	< 1.0	0.220468	djones
21	Clear	0.17900	6.10	0.00							0.377000	< 1.8	0.0	5.0	1.0	5.0				0.227615	djones
22	Clear	0.15100									0.308000		0.0	5.0	1.0	5.0				0.179822	djones
23	Clear	0.17500									0.354000		0.0	5.0	1.0	5.0				0.232339	djones
24	Clear	0.84600									0.328000		0.0	5.0	1.0	5.0				0.236200	gdickerson
25	Clear	0.45200									0.245000		0.0	5.0	1.0	5.0				0.196617	djones
26	Clear	0.20100	6.17	0.00							0.297000		0.0	5.0	1.0	5.0				0.231992	djones
27	Clear	0.14300									0.276000	< 1.8	0.0	10.0	1.0	5.0				0.208329	djones
28	Clear	0.16400	6.22	0.00							0.316000		0.0	5.0	1.0	5.0				0.213679	djones
29	Clear	0.16300									0.319000		0.0	5.0	1.0	5.0				0.223944	djones
30	Clear	0.16100									0.231000		0.0	5.0	1.0	5.0				0.169468	djones
31	Clear	0.18400									0.327000		0.0	5.0	1.0	5.0				0.240103	djones
Total		5.92000									9.199000									6.627345	
Average		0.19097	6.1	<0.10	0	0	0	0	0	0	0.296742	1	0.0	6.0	1.0	5.0	0	0	0	0.213785	
Minimum		0.07200	6.0	0.00	0	0	0	0	0	0	0.222000	1	0.0	5.0	1.0	5.0	0	0	0	0.168193	
Maximum		0.84600	6.2	<0.10	0	0	0	0	0	0	0.377000	1	0.0	10.0	1.0	5.0	0	0	0	0.240103	MOR 5-11-09

COMMENTS: