Quarterly Groundwater Monitoring Report

Prepared for

Black & Decker (U.S.) Inc.

Hampstead, Maryland

October 2013

Prepared by

WESTON SOLUTIONS, INC.

West Chester, Pennsylvania 19380-1499

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF TABLES

Table **Page**

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 July through September 2013.

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 July through September 2013, the extraction wells were pumping at an average combined rate of approximately 180 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 July through September 2013 are included in Appendix B.

2.3 GROUNDWATER QUALITY DATA

For the reporting period of July through September 2013, approximately 11.93 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) (83 %) and tetrachloroethene (PCE) (17 %). Analytical results of the groundwater collected from the air stripper for the period of July through September 2013 are included in Appendix C.

A summary of the analytical results from the third quarter (August 2013) groundwater sampling round of the extraction and monitor wells is included in Table 2-4. The complete

Table 2-1
Treatment System Pumping Records - 3rd Quarter 2013
Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
July 2013	7,319,915
August 2013	7,251,212
September 2013	7,037,943

Table 2-2
Groundwater Elevation Data - 3rd Quarter 2013
Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	7/19/2013		8/1/2013		9/12/2013	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	NC	DRY	NC	DRY	NC
EW-2	849.21	110	93.47	755.74	93.52	755.69	92.70	756.51
EW-3	846.64	118	85.11	761.53	85.83	760.81	85.73	760.91
EW-4	858.01	97.5	PC	NC	PC	NC	PC	NC
EW-5	864.17	98	89.91	774.26	89.94	774.23	89.41	774.76
EW-6	831.98	115	103.00	728.98	103.00	728.98	103.00	728.98
EW-7	818.38	78	74.50	743.88	74.50	743.88	75.50	742.88
EW-8	811.13	98	95.00	716.13	95.00	716.13	96.00	715.13
EW-9	811.35	141	103.00	708.35	103.00	708.35	103.00	708.35
EW-10	807.74	INA	50.11	757.63	51.82	755.92	52.33	755.41
RFW-1A	864.37	78	49.57	814.80	50.37	814.00	50.41	813.96
RFW-1B	864.23	200	49.61	814.62	50.45	813.78	50.49	813.74
RFW-2A	857.41	35	13.63	843.78	15.03	842.38	15.17	842.24
RFW-2B	857.73	75	13.90	843.83	15.67	842.06	15.19	842.54
RFW-3B	839.21	153	30.18	809.03	32.18	807.03	32.21	807.00
RFW-4A	830.37	62	36.84	793.53	36.81	793.56	37.01	793.36
RFW-4B	830.37	120	36.98	793.39	36.72	793.65	36.89	793.48
RFW-5A	817.50	30	DRY	NC	DRY	NC	DRY	NC
RFW-6	785.04	120	2.41	782.63	3.06	781.98	4.11	780.93
RFW-7	805.14	29	6.11	799.03	6.07	799.07	6.82	798.32
RFW-8	860.07	56	DRY	NC	DRY	NC	DRY	NC
RFW-9	862.02	49	25.37	836.65	20.02	842.00	20.10	841.92
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	61.89	787.73	62.76	786.86	62.72	786.90
RFW-12B	844.87	264	49.64	795.23	49.81	795.06	50.01	794.86
RFW-13	849.11	150	59.87	789.24	60.31	788.80	60.43	788.68
RFW-14B	812.39	281	54.01	758.38	53.87	758.52	51.89	760.50
RFW-16	856.14	41	DRY	NC	DRY	NC	DRY	NC
RFW-17	834.66	60.5	25.91	808.75	26.19	808.47	26.30	808.36
RFW-20	842.49	142	32.93	809.56	33.58	808.91	23.65	818.84
RFW-21	832.65	102	19.50	813.15	21.25	811.40	21.31	811.34
PH-7	805.94	89	25.16	780.78	26.24	779.70	26.32	779.62
PH-9	814.94	98	50.57	764.37	51.63	763.31	50.88	764.06
PH-11	820.68	78	51.04	769.64	51.21	769.47	51.26	769.42
PH-12	828.35	87	51.82	776.53	52.06	776.29	51.99	776.36
B-3	803.02	83	10.59	792.43	10.62	792.40	10.70	792.32
Amoco	842.29	INA	NA	NC	NA	NC	NA	NC
Hamp. Town #22	804.96	INA	0.83	804.13	0.59	804.37	1.87	803.09
Pembroke #1	INA	INA	11.22	NC	11.07	NC	11.89	NC
Pembroke #2	INA	INA	Damaged	NC	Damaged	NC	Damaged	NC
N. Houcks. Rd.	INA	INA	10.60	NC	10.84	NC	10.11	NC
E. Century St.	INA	INA	19.22	NC	19.19	NC	19.18	NC
Lwr. Beckleys. Rd.	INA	INA	56.43	NC	56.49	NC	56.24	NC

NA - Not Available/Not Accessible
NC - Not Calculable
INA - Information not available
PC - Pump Cycles

Table 2-3
Effluent Characteristics Summary - 3rd Quarter 2013
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter		Units	Permit Limits	DMR DATE		
					July 2013	August 2013	September 2013
001	FLOW	average	MGD	NA	0.210	0.217	0.138
		maximum	MGD	NA	0.836	0.693	0.217
	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	< 5
		monthly average	mg/l	10	< 5	< 5	< 5
	pH	minimum	STD	6.0	7.1	7.1	7.2
		maximum	STD	8.5	8.3	8.2	7.7
	BOD		mg/l	15	7.0	4.0	5.0
	TSS	maximum	mg/l	30	11.0	11.0	10.0
		monthly average	mg/l	20	11.0	11.0	10.0
101 (Monitoring Point)	FLOW	average	MGD	NA	0.125	0.154	0.175
		maximum	MGD	NA	0.184	0.190	0.205
	Fecal Coliform		MPN/100ml	200	33.0	2.0	1.0
201 (Monitoring Point)	FLOW	average	MGD	NA	NR	NR	0.235
		maximum	MGD	NA	NR	NR	0.284
	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 - August 2013
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	3.9	1 U	1 U	1 U	1 U	4.1	30	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 U	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	200	30	530	110	6.1	3.1	10	1 U	0.7	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 U
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	43	1.1	12	3.1	11	6	77	110	100	1.2
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 - August 2013
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	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Bromomethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Vinyl Chloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Chloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Methylene Chloride	ug/L	2 U	2 U	2 U	2 U	2 U	5.1	5.3	6.3	NS	6.3	7	NS	7.1	NS
Acetone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
Carbon Disulfide	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
1,1-Dichloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
1,1-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
1,2-Dichloroethene (total)	ug/L	1 U	1 U	1 U	1 U	1.6	1 U	1 U	1.4	NS	1 U	1 U	NS	12	NS
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
1,2-Dichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
2-Butanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
1,1,1-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Carbon Tetrachloride	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Bromodichloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
1,2-Dichloropropane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
cis-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Trichloroethene	ug/L	1 U	1 U	0.6	0.4 J	1 U	28	28	0.7	NS	0.8	0.9	NS	7.6	NS
Dibromochloromethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
1,1,2-Trichloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Benzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Trans-1,3-Dichloropropene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Bromoform	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
4-Methyl-2-pentanone	ug/L	5 U	5 U	5 U	1 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
2-Hexanone	ug/L	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	NS	5 U	5 U	NS	5 U	NS
Tetrachloroethene	ug/L	1 U	1 U	1 U	1 U	1 U	19	17	2.9	NS	1.1	1 U	NS	1 U	NS
1,1,2,2-Tetrachloroethane	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Toluene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Chlorobenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Ethylbenzene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Styrene	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	NS	1 U	NS
Xylene (total)	ug/L	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NS	1 U	1 U	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 - August 2013
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	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromomethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	1 U	1 U	1 U	1 U	1 U
Vinyl Chloride	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	1 U	1 U	1 U	1 U	1 U
Methylene Chloride	ug/L	NS	8.5	2 U	2 U	NS	2 U	ABD	ABD	ABD	2 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Acetone	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	10 U	10 U	10 U
Carbon Disulfide	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	NA	NA	NA	NA	NA
1,1-Dichloroethene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloroethene (total)	ug/L	NS	1 U	2	0.8 J	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chloroform	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U
1,2-Dichloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Butanone	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	10 U	10 U	10 U
1,1,1-Trichloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Carbon Tetrachloride	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromodichloromethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-Dichloropropene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	ug/L	NS	2.6	76	2.4	NS	1 U	ABD	ABD	ABD	1 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-Trichloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Benzene	ug/L	NS	1 U	1 U	1 U	NS	0.7	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trans-1,3-Dichloropropene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-pentanone	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	10 U	10 U	10 U
2-Hexanone	ug/L	NS	5 U	5 U	5 U	NS	5 U	ABD	ABD	ABD	5 U	10 U	10 U	10 U	10 U	10 U
Tetrachloroethene	ug/L	NS	1 U	5.5	13	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Toluene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Xylene (total)	ug/L	NS	1 U	1 U	1 U	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.5 U	0.5 U	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

RFW -20 was not sampled because it was damaged. The well is now repaired and will be sampled during the 4th quarter.

analytical data package is included in Appendix D.

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 EW-2 and EW-4 and the highest concentration of PCE was detected in the groundwater sample collected from well 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 (July through September 2013) 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 - 3rd Quarter 2013
Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
Jul-13	Alarm at the air stripper due to a power outage caused by a thunderstorm. After replacing a control relay at EW-9, the system is back online.
Jul-13	Alarm at the stripper. Found that the pump motor in EW-10 locked up. The motor was replaced and the system is back online.
Jul-12	Alarm at the air stripper due to a power outage. The system is back online.

4. RECOMMENDATIONS

For the reporting period of July through September 2013, 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.

APPENDIX A
GROUNDWATER TREATMENT SYSTEM PUMPING RECORDS
(JULY – SEPTEMBER 2013)

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, Anthony Phillips 3001, Martin Whitt 0666, James Elliott 3738

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

Certification # 1017

Month: July
Year: 2013

Final Effluent outfall 001											Outfall 101						Outfall 201				Operator
Date	Appearance	Discharge MGD	pH su	Cl2 mg/l	Tetrachloroethylene ug/l	1,1,1-Trichloroethane ug/l	Trichloroethene ug/l	BOD_5 mg/l	TSS mg/l	O&G mg/l	Flow MGD	Fecal mpn	Basin Inches	Alum Gpd	Hypochlorite Gpd	Post Cl2 mg/l	Tetrachloroethylene ug/l	1,1,1-Trichloroethane ug/l	Trichloroethene ug/l	Discharge mgd	
1	Clear	0.29200									0.129000		0.0	1.0	5.0					0.241656	Aphillips
2	Clear	0.22000	7.35	0.00	< 0.31	< 0.26	< 0.34	7.0	10.6	< 5.0	0.171000	33.0	0.0	1.0	5.0					0.260695	Djones
3	Clear	0.27800									0.142000		0.0	1.0	5.0					0.229985	Aphillips
4	Clear	0.31700	8.09	0.00							0.167000		0.0	1.0	5.0					0.202856	Aphillips
5	Clear	0.14500									0.173000		0.0	1.0	5.0					0.070246	Aphillips
6	Clear	0.05000									0.149000		0.0	1.0	5.0					0.068368	Aphillips
7	Clear	0.03900									0.144000		0.0	1.0	5.0					0.258258	Aphillips
8	Clear	0.11100									0.171000		0.0	1.0	5.0					0.284103	Djones
9	Clear	0.16600									0.140000	13.0	0.0	1.0	5.0		< 0.3	< 0.3	< 0.3	0.267865	Djones
10	Clear	0.14300	7.45	0.00							0.158000		0.0	1.0	5.0					0.248106	Djones
11	Clear	0.21300	8.12	0.00							0.148000		0.0	1.0	5.0					0.248716	Djones
12	Clear	0.17300									0.184000		0.0	1.0	5.0					0.229126	Aphillips
13	Clear	0.53800									0.158000		0.0	1.0	5.0					0.273399	Mwhitt
14	Clear	0.22800									0.127000		0.0	1.0	5.0					0.242406	Mwhitt
15	Clear	0.15700									0.128000		0.0	1.0	5.0					0.254619	Djones
16	Clear	0.14500	7.98	0.00							0.152000	33.0	0.0	1.0	5.0					0.255128	Djones
17	Clear	0.11600									0.131000		0.0	1.0	5.0					0.246597	Djones
18	Clear	0.09300									0.143000		0.0	1.0	5.0					0.240874	Djones
19	Clear	0.08700	8.25	0.00							0.132000		0.0	1.0	5.0					0.251029	Djones
20	Clear	0.10300									0.097000		0.0	1.0	5.0					0.237975	Jelliuott
21	Clear	0.10300									0.078000		0.0	1.0	5.0					0.240789	Jelliuott
22	Clear	0.09500									0.071000		0.0	1.0	5.0					0.241667	Aphillips
23	Clear	0.38500	7.12	0.00							0.065000	< 1.8	0.0	1.0	5.0					0.254575	Aphillips
24	Clear	0.15100									0.097000		0.0	1.0	5.0					0.241685	Aphillips
25	Clear	0.11700	7.88	0.00							0.083000		0.0	1.0	5.0					0.239306	Mwhitt
26	Clear	0.05600									0.050000		0.0	1.0	5.0					0.246274	Aphillips
27	Clear	0.08900									0.000000		0.0	1.0	5.0					0.250405	Aphillips
28	Clear	0.38800									0.098000		0.0	1.0	5.0					0.237894	Aphillips
29	Clear	0.83600									0.124000		0.0	1.0	5.0					0.267850	Djones
30	Clear	0.43600									0.138000	11.0	0.0	1.0	5.0					0.246539	Djones
31	Clear	0.25200	7.80	0.00							0.128000		0.0	1.0	5.0					0.240924	Djones
Total		6.52200									3.876000									7.319915	
Average		0.21039	7.8	<0.10	0	0	0	7	11	0	0.125032	18	0.0	1.0	5.0	######	0	0	0	0.236126	
Minimum		0.03900	7.1	0.00	0	0	0	7	11	0	0.000000	1	0.0	1.0	5.0	0.0	0	0	0	0.068368	
Maximum		0.83600	8.3	<0.10	0	0	0	7	11	0	0.184000	33	0.0	1.0	5.0	0.0	0	0	0	0.284103	MOR 5-11-09

COMMENTS:

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, Martin Whitt 0666, Anthony Phillips 3001, James Elliott 3738

Permit Number: 02-DP-0022
Superintendent: Earle Villarreal
Certification # 1017

Month: August
Year: 2013

Final Effluent outfall 001												Outfall 101						Outfall 201				
Date	Appearance	Discharge MGD	pH su	Cl2 mg/l	Tetrachloroethylene ug/l	1,1,1-Trichloroethane ug/l	Trichloroethene ug/l	BOD_5 mg/l	TSS mg/l	O&G mg/l	Flow MGD	Fecal mpn	Basin Inches	Alum Gpd	Hypochlorite Gpd	Post Cl2 mg/l	Tetrachloroethylene ug/l	1,1,1-Trichloroethane ug/l	Trichloroethene ug/l	Discharge mgd	Operator
1	Clear	0.25400									0.137000		0.0	1.0	1.0	5.0				0.216862	Aphillips
2	Clear	0.24000	7.27	0.00							0.140000		0.0	1.0	1.0	5.0				0.268748	Djones
3	Clear	0.20500									0.127000		0.0	1.0	1.0	5.0				0.240687	Mwhitt
4	Clear	0.18100									0.117000		0.0	1.0	1.0	5.0				0.241644	Mwhitt
5	Clear	0.13700	7.63	0.00							0.133000		0.0	1.0	1.0	5.0				0.247877	Djones
6	Clear	0.09500			< 0.17	< 0.17	< 0.12	4.0	10.8	< 5.0	0.180000	2.0	0.0	1.0	1.0	5.0				0.209944	Djones
7	Clear	0.19900	7.40	0.00							0.159000		0.0	1.0	1.0	5.0				0.203890	Djones
8	Clear	0.59200									0.164000		0.0	1.0	1.0	5.0				0.203749	Djones
9	Clear	0.26000									0.155000		0.0	1.0	1.0	5.0				0.207452	Djones
10	Clear	0.28700									0.173000		0.0	1.0	1.0	5.0				0.210509	Djones
11	Clear	0.21500									0.164000		0.0	1.0	1.0	5.0				0.253265	Djones
12	Clear	0.19500									0.122000		0.0	1.0	1.0	5.0				0.253696	Jelliott
13	Clear	0.69300	7.64	0.00							0.190000	< 1.8	0.0	1.0	1.0	5.0				0.246492	Mwhitt
14	Clear	0.41800									0.158000		0.0	1.0	1.0	5.0				0.245624	Djones
15	Clear	0.29900	7.23	0.00							0.142000		0.0	1.0	1.0	5.0				0.247048	Djones
16	Clear	0.25600									0.159000		0.0	1.0	1.0	5.0				0.228937	Djones
17	Clear	0.26900									0.152000		0.0	1.0	1.0	5.0				0.222915	Jelliott
18	Clear	0.23300									0.151000		0.0	1.0	1.0	5.0				0.239849	Jelliott
19	Clear	0.20000									0.160000		0.0	1.0	1.0	5.0				0.255030	Djones
20	Clear	0.20200	8.21	0.00							0.150000	< 1.8	0.0	1.0	1.0	5.0				0.246750	Djones
21	Clear	0.16300									0.135000		0.0	1.0	1.0	5.0				0.234197	Djones
22	Clear	0.11800									0.165000		0.0	1.0	1.0	5.0				0.239490	Djones
23	Clear	0.14000	7.60	0.00							0.172000		0.0	1.0	1.0	5.0				0.237506	Djones
24	Clear	0.16400									0.141000		0.0	1.0	1.0	5.0				0.233007	Gdickerson
25	Clear	0.08200									0.146000		0.0	1.0	1.0	5.0				0.220055	Gdickerson
26	Clear	0.10400	7.25	0.00							0.156000		0.0	1.0	1.0	5.0				0.259253	Djones
27	Clear	0.11000									0.177000	< 1.8	3.0	1.0	1.0	5.0				0.242489	Djones
28	Clear	0.10400	7.10	0.00							0.157000		3.0	1.0	1.0	5.0				0.234957	Djones
29	Clear	0.12600									0.166000		3.0	1.0	1.0	5.0				0.215536	Djones
30	Clear	0.09900									0.134000		3.0	1.0	1.0	5.0				0.260202	Djones
31	Clear	0.08900									0.184000		3.0	1.0	1.0	5.0				0.183552	Djones
Total		6.72900									4.766000									7.251212	
Average		0.21706	7.5	<0.10	0	0	0	4	11	0	0.153742	1	0.5	1.0	1.0	5.0	#DIV/0!	#DIV/0!	######	0.233910	
Minimum		0.08200	7.1	0.00	0	0	0	4	11	0	0.117000	1	0.0	1.0	1.0	5.0	0	0	0	0.183552	
Maximum		0.69300	8.2	<0.10	0	0	0	4	11	0	0.190000	2	3.0	1.0	1.0	5.0	0	0	0	0.268748	MOR 5-11-09

COMMENTS: