

Quarterly Groundwater Monitoring Report

Prepared for

Stanley Black & Decker Inc.

Hampstead, Maryland

January 2013

Prepared by

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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 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 October through December 2012.

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 October through December 2012, the extraction wells were pumping at an average combined rate of approximately 173 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 October through December 2012 are included in Appendix B.

2.3 GROUNDWATER QUALITY DATA

For the reporting period of October through December 2012, approximately 12.7 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) (83.1 %) and tetrachloroethene (PCE) (16.9 %). Analytical results of the groundwater collected from the air stripper for the period of October through December 2012 are included in Appendix C.

A summary of the analytical results from the fourth quarter (November 2012) groundwater sampling round of the extraction and monitor wells is included in Table 2-4. The complete

Table 2-1
Treatment System Pumping Records - 4th Quarter 2012
Stanley Black & Decker
Hampstead, Maryland

Date	Water Pumped (gallons)
October 2012	7,327,763
November 2012	7,047,445
December 2012	7,216,348

Table 2-2
Groundwater Elevation Data - 4th Quarter 2012
Stanley Black & Decker
Hampstead, Maryland

WELL NO.	TOC ELEV.	TOTAL DEPTH	10/10/2012		11/1/2012		12/28/2012	
			DTW	ELEV	DTW	ELEV	DTW	ELEV
EW-1	847.21	55	DRY	NC	DRY	NC	DRY	NC
EW-2	849.21	110	93.14	756.07	93.01	756.20	92.88	756.33
EW-3	846.64	118	83.60	763.04	85.95	760.69	85.06	761.58
EW-4	858.01	97.5	PC	NC	PC	NC	PC	NC
EW-5	864.17	98	90.19	773.98	90.22	773.95	89.77	774.40
EW-6	831.98	115	103.00	728.98	103.00	728.98	103.00	728.98
EW-7	818.38	78	73.00	745.38	73.00	745.38	73.00	745.38
EW-8	811.13	98	96.00	715.13	96.00	715.13	96.00	715.13
EW-9	811.35	141	103.50	707.85	103.00	708.35	103.00	708.35
EW-10	807.74	INA	56.11	751.63	55.88	751.86	55.14	752.60
RFW-1A	864.37	78	50.51	813.86	51.51	812.86	51.43	812.94
RFW-1B	864.23	200	50.55	813.68	51.62	812.61	51.44	812.79
RFW-2A	857.41	35	15.12	842.29	13.33	844.08	14.71	842.70
RFW-2B	857.73	75	15.49	842.24	13.45	844.28	15.02	842.71
RFW-3B	839.21	153	31.13	808.08	30.17	809.04	32.41	806.80
RFW-4A	830.37	62	37.44	792.93	37.01	793.36	37.12	793.25
RFW-4B	830.37	120	37.30	793.07	36.81	793.56	36.84	793.53
RFW-5A	817.50	30	DRY	NC	DRY	NC	DRY	NC
RFW-6	785.04	120	2.87	782.17	2.94	782.10	3.67	781.37
RFW-7	805.14	29	6.90	798.24	4.63	800.51	7.55	797.59
RFW-8	860.07	56	DRY	NC	DRY	NC	DRY	NC
RFW-9	862.02	49	26.17	835.85	25.85	836.17	27.11	834.91
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	63.28	786.34	63.41	786.21	63.06	786.56
RFW-12B	844.87	264	50.04	794.83	50.46	794.41	50.14	794.73
RFW-13	849.11	150	61.44	787.67	62.98	786.13	60.86	788.25
RFW-14B	812.39	281	52.03	760.36	52.09	760.30	51.89	760.50
RFW-16	856.14	41	DRY	NC	DRY	NC	DRY	NC
RFW-17	834.66	60.5	25.83	808.83	27.13	807.53	26.20	808.46
RFW-20	842.49	142	34.46	808.03	35.57	806.92	34.13	808.36
RFW-21	832.65	102	20.94	811.71	21.61	811.04	21.41	811.24
PH-7	805.94	89	32.40	773.54	29.53	776.41	29.41	776.53
PH-9	814.94	98	52.26	762.68	51.94	763.00	51.87	763.07
PH-11	820.68	78	49.53	771.15	48.26	772.42	48.73	771.95
PH-12	828.35	87	52.75	775.60	50.98	777.37	51.60	776.75
B-3	803.02	83	10.40	792.62	10.47	792.55	10.83	792.19
Amoco	842.29	INA	NA	NC	NA	NC	NA	NC
Hamp. Town #22	804.96	INA	1.58	803.38	2.19	802.77	0.79	804.17
Pembroke #1	INA	INA	11.43	NC	11.33	NC	11.12	NC
Pembroke #2	INA	INA	Damaged	NC	Damaged	NC	Damaged	NC
N. Houcks. Rd.	INA	INA	9.89	NC	9.53	NC	9.74	NC
E. Century St.	INA	INA	19.22	NC	19.19	NC	19.21	NC
Lwr. Beckleys. Rd.	INA	INA	56.44	NC	55.49	NC	55.77	NC

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

Table 2-3
Effluent Characteristics Summary - 4th Quarter 2012
Black & Decker
Hampstead, Maryland

Discharge Number	Parameter	Units	Permit Limits	DMR DATE			
				October 2012	November 2012	December 2012	
001	FLOW	average	MGD	NA	0.265	0.243	0.222
		maximum	MGD	NA	1.155	0.980	1.128
	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	6.7	7.0	6.7
		maximum	STD	8.5	7.5	7.8	7.9
	BOD		mg/l	15	5.0	0.0	5.0
TSS	maximum	mg/l	30	5.0	4.0	< 1	
	monthly average	mg/l	20	5.0	4.0	< 1	
101 (Monitoring Point)	FLOW	average	MGD	NA	0.220	0.219	0.199
		maximum	MGD	NA	0.265	0.271	0.277
	Fecal Coliform		MPN/100ml	200	5.0	5.0	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 - November 2012

Stanley Black & Decker

Hampstead, Maryland

PARAMETER	Units	EW-1	EW-2	EW-3	EW-4	EW-5	EW-6	EW-7	EW-8	EW-8 (DUP)	EW-9	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	0.5 J	0.8 J	0.8 J	1 U	1 U
1,2-Dichloroethene (total)	ug/L	NS	3.5	1.7	1 U	1 U	1 U	5.4	24	24	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	48	930	110	6.4	3.8	8	8.2	0.6	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	45	1.5	19	3.4	12	8.8	66	67	110	0.6 J
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 - November 2012
Stanley 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	2 U	2 U	2 U	NS	2 U	2 U	NS	2 U	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	0.7 J	0.8 J	0.8 J	4.1	NS	0.8 J	1 U	NS	7.1	NS
Chloroform	ug/L	1 U	1 U	1 U	1 U	1 U	0.7 J	0.8 J	1.1	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	0.7	0.6	1 U	29	29	34	NS	2	0.5	NS	5.5	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	0.2 J	1 U	1 U	1 U	1 U	NS	1 U	0.2 J	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	0.5 J	20	20	64	NS	2.3	1 U	NS	2.7	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 - November 2012
Stanley 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	USEPA drinking water method 524.2				
												RFW-20	RFW-21	Town #22	Town #23	Trip Blank
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	2 U	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	1.8	1 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	0.5 U	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	2.8	73	2.7	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	1.1	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	17	NS	1 U	ABD	ABD	ABD	1 U	0.5 U	0.5 U	0.34 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	0.1 J	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

analytical data package is included in Appendix D.

As found in earlier sampling events at the Stanley 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 (October through December 2012) 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 - 4th Quarter 2012
Stanley Black & Decker
Hampstead, Maryland

Date	Event/Corrective Action
Nov-12	Alarm at EW-7. Found that the heating elements were bad. Replaced heating elements, the well is back online.
Dec-12	New wet well probes were installed, system back online.
Dec-12	EW-6 tripped off. It was found that the pump motor was locked up.
Dec-12	EW-6 pump motor was replaced the pump is back online. The pump was off for less than 24 hours.

4. RECOMMENDATIONS

For the reporting period of October through December 2012, 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
(OCTOBER – DECEMBER 2012)

Superintendent: Earle Villarreal Certification # 1017

Black & Decker WTP

PWSID # 106 0004

County: Carroll

Month: October

Operated by

Address: BTR CAPITAL GROUP, Hampstead, MD 21073

Maryland Environmental Service

625 Hanover Pike, Hampstead, Carroll County, Maryland

Year: 2012

GENERAL			(DOMESTIC WATER)				CHEMICAL					MONITORING		DISTRIBUTION			RAW WATER		Comments	
Date	Day	Weather	Flow meter reading 0	MGD Total FQIR	pH P.O.E	Free Cl ₂	Na ₂ CO ₃ Level	Na ₂ CO ₃ (gpd)	NaOCl Level	NaOCl (gpd)	VOC'S (ppb)	Bacti Pos/Neg	pH su	TRC mg/l	DISTRIBUTION LOCATION	Operator Initials	pH su	TOTAL RAW WATER WELL (mgd)		
1	Mon	Clear	0	0.0025	7.6	1.42	33.00	1.00	53.00	0.00			7.24	1.23	Admin 1st FI	GD		0.250941		
2	Tue	Rain	0	0.0049	7.7	1.43	31.00	2.00	53.00	0.00						GD		0.225202		
3	Wed	Cloudy	0	0.0078	8.2	1.45	28.00	3.00	53.00	0.00			8.17	1.31	Loading Dock	DJ		0.260285		
4	Thur	Cloudy	0	0.0028	7.6	1.26	27.00	1.00	53.00	0.00						DJ	5.08	0.236611		
5	Fri	Clear	0	0.0051	8.0	1.15	25.00	2.00	53.00	0.00			7.7	1.01	Admin 2nd FI	GD		0.222772		
6	Sat	Cloudy	0	0.0025	7.4	1.20	25.00	1.00	53.00	0.00						AP		0.243717		
7	Sun	Rain	0	0.0028	7.3	1.10	24.00	1.00	53.00	0.00						AP		0.230763		
8	Mon	Cloudy	0	0.0027	7.6	1.12	22.00	2.00	53.00	0.00			7.4	1.05	Loading Dock	PP		0.251608		
9	Tue	Clear	0	0.0035	7.2	1.03	51.00	1.00	53.00	0.00						GD		0.225750		
10	Wed	Clear	0	0.0052	7.2	1.10	50.00	1.00	53.00	0.00			7.4	0.85	Loading Dock	JE		0.225961		
11	Thur	Clear	0	0.0057	7.3	1.19	48.00	2.00	53.00	0.00						PP		0.260892		
12	Fri	Clear	0	0.0034	7.6	1.12	47.00	1.00	53.00	0.00			7.5	1.08	Loading Dock	JE	6.56	0.214155		
13	Sat	Clear	0	0.0029	8.7	1.03	46.00	1.00	53.00	0.00						MW		0.253574		
14	Sun	Cloudy	0	0.0023	7.4	1.01	45.00	1.00	53.00	0.00						MW		0.222175		
15	Mon	Rain	0	0.0024	7.4	0.62	42.00	3.00	53.00	0.00						DJ		0.250698		
16	Tue	Clear	0	0.0059	8.8	1.81	39.00	3.00	53.00	0.00			8.3	1.22	Admin 1st FI	DJ		0.238241		
17	Wed	Clear	0	0.0050	8.0	1.28	37.00	2.00	53.00	0.00			8.1	1.26	Admin 2nd FI	DJ		0.230007		
18	Thur	Clear	0	0.0029	7.4	1.16	36.00	1.00	53.00	0.00						DJ	5.74	0.219760	Nitrate 4.20	
19	Fri	Cloudy	0	0.0055	8.0	1.33	34.00	2.00	53.00	0.00			7.9	1.06	Loading Dock	DJ		0.252101		
20	Sat	Clear	0	0.0026	8.1	1.23	33.00	1.00	53.00	0.00						DJ		0.231024		
21	Sun	Clear	0	0.0027	8.0	1.12	32.00	1.00	53.00	0.00						DJ		0.224256		
22	Mon	Clear	0	0.0025	7.6	1.01	31.00	1.00	53.00	0.00			7.3	0.96	Admin 1st FI	GD		0.235220		
23	Tue	Rain	0	0.0036	8.2	0.90	30.00	1.00	53.00	0.00						GD		0.218469		
24	Wed	Cloudy	0	0.0049	7.4	1.02	28.00	2.00	53.00	0.00						AP		0.243304		
25	Thur	Fog	0	0.0045	7.6	0.93	27.00	1.00	53.00	0.00			7.4	0.75	Loading Dock	DJ	5.72	0.234995		
26	Fri	Cloudy	0	0.0079	7.9	1.56	24.00	3.00	53.00	0.00			7.8	1.23	Admin 2nd FI	DJ		0.255816		
27	Sat	Cloudy	0	0.0025	7.6	1.34	23.00	1.00	53.00	0.00						AP		0.236780		
28	Sun	Cloudy	0	0.0023	7.2	1.22	22.00	1.00	53.00	0.00						AP		0.221526		
29	Mon	Rain	0	0.0019	8.7	1.28	21.00	1.00	53.00	0.00			7.1	1.14	Admin 1st FI	PP		0.217817		
30	Tue	Rain	0	0.0008	7.3	1.17	20.00	1.00	53.00	0.00						DJ		0.239216		
31	Wed	Rain	0	0.0053	7.6	1.53	37.00	3.00	53.00	0.00			7.4	1.17	Loading Dock	DJ	5.26	0.254127		
Total				0.1173	239.3	37.12	1018.0	48.00	1643.0	0.00	0.0	0.0	107	15					7.327763	
Average				0.0038	7.72	1.20	32.84	1.55	53.00	0.00	0.0	0.0	7.62	1.09					0.236379	
Minimum				0.0008	7.16	0.62	20.00	1.00	53.00	0.00	0.0	0.0	7.14	0.75					0.214155	Central MOR
Maximum				0.0079	8.76	1.81	51.00	3.00	53.00	0.00	0.0	0.0	8.27	1.31					0.260892	02/02/12