2011 Periodic Review Report
Primoshield, Site ID No. 633027

June 21, 2012

New York State Department of Environmental Conservation
Division of Environmental Remediation

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2011 Periodic Review Report
Primoshield, Site ID No. 633027

Prepared by Will Welling, Engineering Geologist 2
June 21, 2012

Executive Summary

This periodic review report is based upon AMEC's December 2011 Trip Report, included as Appendix 1, and the site management work performed directly by DER staff. Additional photo reports documenting 2011 site management are included in Appendix 2.

In early 2011 the groundwater pumping remedy was not running. System upgrades were made during all of 2011. AMEC, the standby engineering consultant for site management at Primoshield, replaced the vault sump pump, changed the head on the water meter and purchased new probes and cables compatible with planned control system upgrades. DER staff re-wired the control panel and installed a newly-programmed logic controller (PLC). The remedy was operated intermittently during the year chiefly for testing. Total water pumped before 2011 was 6,083,400 gallons. The amount of water pumped in 2011 is an estimated 20,000 gallons.

Groundwater results indicate exceedance for 1,1,1-trichloroethane in two monitoring wells: P-103 (16.3 ug/l) and P-107S (9.3 ug/l) which is similar to what was seen in 2002. The site is fenced with a locked gate, is mowed several times a year, and during 2011, efforts were made to improve plant operation.

The site in 2011 lacked a site management plan (SMP). One will be drafted in 2012. Hands-on, operator attention by DEC staff at Primoshield has been utilized in lieu of certification of ICs and ECs. The intent of ICs and ECs are currently being met. Once the SMP is written, IC/EC certification will become a required element of the PRR.

Site Overview

The Primoshield Site consists of two property parcels situated between Conkling Avenue and St. Vincent Street in the City of Utica in Oneida County. It is designated as 1223 Conkling Avenue (tax map parcel number 41) and 1212 St. Vincent Street (tax map parcel number 33). The Primoshield site is located in a mixed commercial/ residential area of Utica. The site is now an empty, fenced-in lot which has been graded and seeded. The grass is maintained like a lawn. Map figures 1 and 2 in Appendix 1 show the site location and features. Appendix 2 shows the condition of the grounds.

Primoshield was a metal electroplating facility that was abandoned in August of 1985. A number of drums and open vats (some containing acids, cyanide solutions and spent plating solutions) were left scattered over the entire property when the facility was abandoned. In 1986 and 1987, EPA removed and disposed all of the containerized wastes at approved disposal locations. All of the structures on the property were demolished and also removed. Soil and groundwater contamination was confirmed.

NYSDEC negotiated a Title 3 Consent Order and a State Assistance contract with the City for a Remedial Investigation/ Feasibility Study (RI/FS). Field work for the RI was completed in October of 1993. The RI/FS was completed in 1995, and a Record of Decision (ROD) was signed on March 22, 1995. The ROD called for construction of a groundwater pump and treat (P&T) system where contaminated groundwater was treated by carbon filtration prior to being discharged to a POTW. The P&T system worked effectively, the groundwater contaminant levels dropped significantly over time, and the carbon filters were removed in the spring of 2001.

Continuing site management consists of five-quarter groundwater sampling and operation and maintenance of the pumping system. In the fall of 2011, a foreclosure notice was posted on the Primoshield gate. Ownership in late 2011 reverted to the City of Utica, making this a municipally-owned site again.

Evaluation of Remedy Performance, Effectiveness, and Protectiveness

The active remedy consists of groundwater pumping and direct discharge to the City of Utica sewer system. Operation during 2011 was intermittent due to repairs and upgrades to the pumping system.

Status of Institutional Controls and Engineering Controls

The site has an operation and maintenance (O&M) plan and a monitoring plan but no site management plan (SMP). The site is marginally within O&M compliance due to intermittent operation. The site is fully compliant with the monitoring plan with respect to 15-month groundwater monitoring. DEC and AMEC (in the next new work assignment) will write a site management plan which will include revised plans for monitoring and O&M.

Institutional Controls

The site is listed on the Registry as a Class 4 Inactive Hazardous Waste Disposal Site and that serves as an institutional control. Remediated under Title 3, the site was then sold by the City of Utica to a private party. In the fall of 2011, foreclosure brought ownership back to the City of

Utica. Public ownership partially serves as an institutional control to safeguard the public. The City Parks Department mows the site lawn frequently so there is a presence of municipal authority frequently on site. DEC staff visit the site approximately monthly to run the pump and inspect the site. Signage giving contact information should be added to the gate.

Engineering Controls

The 1995 ROD called for a shallow groundwater interceptor trench and collection system with periodic removal of collected groundwater to the Oneida County POTW. A 6-foot chain-link fence surrounds the property, a small groundwater pumping station in a small masonry building and a set of groundwater monitoring wells comprise the set of engineering controls. The fence gate and plant door are kept locked with combination locks. The fence gate was raised (jacked up and adjusted) by DEC staff in the summer of 2011. The fence is secure and in good condition. Monitoring wells were sampled in 2011 and are in good condition.

During the spring of 2011, DEC staff began to upgrade the electrical and plumbing systems. Labor and purchasing assistance was provided during the summer and fall by AMEC. AMEC purchased a new sump pump and installed it together with a new flexible hose and a rope to hoist the pump to the ground surface. This was an improvement over the rigid piping which had necessitated confined space entry when inspecting the pump. Appendix 2 contains six DEC photo reports which document work done at Primoshield in 2011. AMEC overhauled the water meter and mounted an electronic “head” capable of sending a digital signal to the control panel.

Staff removed the control panel and brought it to Central Office. Our summer engineering student intern, Frank Castigilione programmed and tested the DL-06 programmable logic controller (PLC). Carl Hoffman, Payson Long and Will Welling wired the control panel and together with the PLC installed the panel back in the Primoshield building. Persistent telephone problems prevented us from communicating remotely with the site in the fall and winter 2011 but the plant was run manually while DER staff were on site. The amount of water pumped in 2011 is estimated to be 20,000 gallons. The plant has a discharge permit with the City of Utica but the plant was not running when AMEC was on site to collect performance monitoring samples. None were taken.

Groundwater Monitoring

The site has a long-term monitoring plan dating to 2004. The site was placed on a 15-month groundwater sampling schedule in the year 2000. AMEC sampled the site in late December 2011. March 2013 will be the next sampling event. AMEC's complete report comprises Appendix 1. An excerpt follows in the next few paragraphs.

Monitoring well measurements, including depth to water, depth to bottom of well, and photoionization detector (PID) readings were collected from eleven monitoring wells. Monitoring well locations are shown on Figure 2 of AMEC’s report, Appendix 1. The

monitoring well measurement data is summarized in Table 1, Appendix 1. The calculated water elevation and flow direction data are approximate. Monitoring well P-101S was observed to be dry. Monitoring well P-102 was not located. Based on the lack of a well diagram and a note on the drilling log for P-102, that the boring was grouted to the ground surface, it appears that no well was installed at that location.

A round of groundwater samples were collected from ten monitoring wells. Monitoring well P-101S was observed to be dry; therefore no sample was collected. Groundwater samples were submitted for analysis of VOAs by USEPA 8260, and TAL metals by USEPA 6010/7470. The groundwater samples were collected using low flow groundwater sampling methods where possible; however the recharge rate observed in most of the monitoring wells did was too low to meet low flow criteria. Five wells were sampled even though water levels had not stabilized or had stabilized after excessive drawdown. Two wells were purged dry or to the top of screen and samples were collected once they had recharged adequately. The complete AMEC groundwater monitoring report is included as Appendix 1.

VOCs were detected in three monitoring wells; P-103, P-106S, and P-107S. Concentrations of 1,1,1-TCA (16.3 ug/L) in P-103 and TCE (9.3 ug/L) in P-107S exceeded the NYS GA groundwater criteria of 5 ug/L.

Inorganics were detected at concentrations above NYS GA criteria in eight of nine monitoring wells. The inorganics detected above criteria were primarily sodium and iron but magnesium and nickel were also detected above criteria. Figure 3, Appendix 1, presents the detected analytes as well as other site features.

Analytical results for groundwater quality in 2011 show no significant changes from the results of 2002. In the early years of operation, the plant knocked down the contaminant levels significantly. Since that time, groundwater quality has neither improved nor declined.

Evaluation of Costs

AMEC conducted groundwater sampling, performed field inspections, subcontracted the site mowing and purchased a pump and other upgrade parts which the DEC staff used in their plant upgrades. Cost for the AMEC work assignment during 2011 for Primoshield was approximately $26,583. The breakdown is as follows:

Scoping	$8,051.47
SMP	0
O&M	$12,839.52
LTM and Reporting	$5,691.74
PRR	0

Recommendations and Conclusions

The recommendations include the following:

- Produce a site management plan which includes a revised O&M plan and monitoring plan and
- Continue operation and maintenance of the pumping facility.
- Install signage which provides DEC contact information
- Plant operation should be turned over to AMEC in their new work assignment.
- Continue with 15-month groundwater monitoring and use EPA Method 524 which has lower detection limits.
- Prepare a new PRR which will be due in January 2013.

In conclusion, nothing unusual was detected in the groundwater monitoring. The plant was undergoing upgrades and repairs for most of the year. Routine monitoring and maintenance should continue. A SMP is needed and will be written in 2012. The next PRR will be due in January 2012.

Appendices

Appendix 1 –

AMEC December 2011 Trip Report

Appendix 2 –

AMEC July 14, 2011 Trip Report

Appendices

Appendix 1 –

AMEC December 2011 Trip Report

MACTEC

engineering and constructing a better tomorrow

March 6, 2012

NYS Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway - 12th Floor
Albany, New York 12233-7016

Attention: Mr. William Welling

Subject: December 2011 Trip Report
Primoshield Incorporated Site – Site No. 633027
MACTEC Project No. 3612112176

Dear Mr. Welling:

MACTEC Engineering and Consulting, P.C. (MACTEC) is submitting this Trip Report to describe and summarize the activities undertaken on December 20 and 21, 2011 at the Primoshield Incorporated Site in Utica, NY. The work was completed under Work Assignment (WA) D004434-38, in accordance with the Site Field Activities Plan (FAP) dated August 11, 2011.

BACKGROUND INFORMATION

The Primoshield Incorporated Site has a Classification Code of 4; under continued Site Management (SM). It is located at 1212 Saint Vincent Street within a mixed commercial / residential area within the City of Utica, Oneida County, New York. The Site location is shown on Figure 1. The site is bordered by Conkling Avenue on the northwest and St. Vincent Street on the south and east, and is approximately 1.5 acres.

The Site's Record of Decision (ROD) included a groundwater pump and treat system and contaminated groundwater was treated by carbon filtration prior to being discharged to the Publicly Owned Treatment Works (POTW).

The carbon filters have not been used since 2001; however, SM is underway and consists of five quarterly (every 15 months) groundwater monitoring, semi-annual POTW discharge monitoring, and quarterly site inspections.

SCOPE OF WORK

MACTEC has been scoped to implement the Monitoring Plan dated January 24, 2004 for one year. The SM activities addressed by MACTEC at the Primoshield Incorporated Site during the December 2011 Site visit included:

- Measuring depth to groundwater in monitoring wells located on and off site;
- Conducting the long term monitoring groundwater sampling event;
- Conducting a survey to provide x and y coordinates for the monitoring locations using a GPS; and
- Performing a Site inspection.

Semiannual discharge monitoring sample collection was also scheduled; however the pump was not working, therefore, the discharge sample was not collected.

Property Owners

Prior to conducting off-site activities, MACTEC contacted the property owners via the telephone on Thursday Dec. 15, 2011.

Groundwater Levels

Monitoring well measurements, including depth to water, depth to bottom of well, and photoionization detector (PID) readings were collected from eleven monitoring wells. Monitoring well locations are shown on Figure 2. No monitoring well measurement point elevation data is available at this time so approximate measuring point elevations were calculated using ground surface elevations presented on historic well drilling logs and field measurements of casing stickup and distance from the top of casing to the top of riser. The monitoring well measurement data is

summarized in Table 1. The calculated water elevation and flow direction data are approximate. Monitoring well P-101S was observed to be dry. Monitoring well P-102 was not located. Based on the lack of a well diagram and a note on the drilling log for P-102, that the boring was grouted to the ground surface, it appears that no well was installed at that location.

Groundwater Monitoring

A round of groundwater samples were collected from ten monitoring wells. Monitoring well P-101S was observed to be dry; therefore no sample was collected. Groundwater samples were submitted for analysis of VOAs by USEPA 8260, and TAL metals by USEPA 6010/7470. The groundwater samples were collected using low flow groundwater sampling methods where possible; however the recharge rate observed in most of the monitoring wells did was too low to meet low flow criteria. Five wells were sampled even though water levels had not stabilized or had stabilized after excessive drawdown. Two wells were purged dry or to the top of screen and samples were collected once they had recharged adequately. A summary of compounds detected is presented in Table 2. Complete laboratory analytical results are presented in Attachment 1. Field data records for the sampling event are presented in Attachment 2.

VOCs were detected in three monitoring wells; P-103, P-106S, and P-107S. Concentrations of 1,1,1-TCA (16.3 ug/L) in P-103 and TCE (9.3 ug/L) in P-107S exceeded the NYS GA groundwater criteria of 5 ug/L.

Inorganics were detected at concentrations above NYS GA criteria in eight of nine monitoring wells. The inorganics detected above criteria were primarily sodium and iron but magnesium and nickel were also detected above criteria. Figure 3 presents the detected analytes as well as other site features.

Discharge Monitoring

Semiannual monitoring of the groundwater being discharged to the Publicly Owned Treatment Works (POTW) (where site water from the treatment system enters the public sewer) was scheduled; however, the pumping system was not operating, and a discharge monitoring sample was not collected at this time.

GPS Survey

A Trimble GPS system was used to survey the coordinates of the eleven monitoring locations and other site features including three flush mount access points to the treatment system, the manhole where the on-site treatment system discharges to the public water treatment sewer, and the treatment building. The information was collected to generate a new site map (See Figure 2).

Site Inspection

Through visual observations the following was determined:

- The perimeter fence is upright and grass is mowed, gates are functioning, secure, and the lock is functioning.
- The treatment building is also in good condition; no leaks in the roof, doors and hinges work ok.
- Clean-outs (5 total on 3 drain lines) are in good condition (lids and concrete). 3 clean-outs are located within the fenced in area of the site and 2 are located just northeast of the site on private property. The drain lines evacuate shallow groundwater to the sump vault.
- Treatment plant piping and valves appear to be in good condition as there are no visible breaks or leaks. A new sump pump was installed in August 2011. During the Site Visit the treatment plant was not online as a result of pumping issues. These issues are being addressed for future enhancement(s).
- Currently, water from the sump vault is plumbed such that water flows through a basket strainer and then directly to the city sewer, bypassing the carbon units. Per the NYSDEC PM, the carbon units are offline due to little or no volatile organics detected in treatment system water samples.

Recommendations

Elevation data for monitoring well measurement points should be obtained if available or an elevation survey should be completed.

Monitoring of the discharge to the Publicly Owned Treatment Works (POTW) should be completed once the treatment/collection system has been repaired.

Due to the low recharge rate in most of the wells, in future sampling events, the low yield monitoring wells should be purged dry (overburden wells) or to the top of screen (bedrock wells) using a high capacity pump. Samples should be collected at a low rate once recharge has occurred.

Sincerely,

MACTEC Engineering and Consulting, P.C.

Jayme P. Connolly
Project Manager

Jeffrey S. Pickett
Principal Professional

Table 1
Summary of Monitoring Well Measurements
Primoshield Site 1212 St Vincent Street, Utica, NY.

Well ID	Ground Elevation (feet msl)	Estimated Measurement Point Elevation (feet msl)	Stickup on Casing (feet)	TOC to TOR (feet)	12/20/2011 Water Level (feet TOR)	12/20/2011 Water Elevation (feet msl)	12/20/2011 Depth to BOW (feet TOR)	Analysis			Comments
								VOC-8260	TAL Metals 6010/7470 Total	TAL Metals 6010/7470 Dissolved	
P-101-S	525.0	Unknown	NM	NM	>18.45 (DRY)		18.5				Well dry no sample collected.
P-101-D	525.0	527.2	2.6	0.39	28.18	499.03	86.9	1	1		Low recharge, purged dry and sampled recharge.
P-103	521.8	524.3	2.8	0.34	7.04	517.22	18.1	1	1		Low recharge, water level (WL) did not stabilize.
P-104	516.1	518.0	2.2	0.33	6.15	511.82	17.4	1	1		Low recharge, WL stabilized at 1.3 feet drawdown.
P-105	522.7	525.1	2.9	0.48	4.75	520.37	18.2	1	1		Low recharge, WL stabilized at 3 feet drawdown.
P-106-S	521.1	524.8	4.0	0.27	7.38	517.45	18.5	1	1		Low recharge, WL did not stabilize.
P-106-D	520.8	524.3	3.9	0.39	28.81	495.50	77.6	1	1		Low recharge can low flow at 70ml/min.
P-107-S	519.4	522.1	2.9	0.21	6.43	515.66	17.2	1	1		Low recharge, purged dry and sampled recharge.
P-107-D	519.3	522.0	3.2	0.50	29.28	492.72	77.7	1	1	1	OK recharge, very turbid, filtered sample collected
P-108	530.0	532.2	2.5	0.27	5.91	526.32	18.7	1	1		Low recharge, WL did not stabilize.

Notes:
Dissolved metals samples collected from wells with excessive turbidity (>50 NTU) were field filtered using 0.45um disposable barrel filter.
P-102 This is a boring only no monitoring well installed.
Ground Elevation from monitoring well logs included in Monitoring Plan for Primoshield Plating January 2004.
Measurement Point Elevation calculated using the ground elevation and field measurements of casing stickup and the distance from the top of riser to the top of casing casing. The resulting water elevations are approximate.
NM = Not measured

Table 2
Summary of Compounds Detected - December 2011

			Location	P-101D		P-103		P-104		P-104		P-105	
			Sample ID	633027MW101DXX		633027MW103XX		633027MW104XD		633027MW104XX		633027MW105XX	
			Sample Date	12/21/2011		12/20/2011		12/20/2011		12/20/2011		12/21/2011	
			Qc Code	FS		FS		FD		FS		FS	
Parameter	**GA**	**Units**		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
VOCs - 8260B													
1,1,1-Trichloroethane	5	µg/L		1	U	**16.3**		1	U	1	U	1	U
1,1-Dichloroethane	5	µg/L		1	U	1	U	1	U	1	U	1	U
Trichloroethene	5	µg/L		1	U	2		1	U	1	U	1	U
Metals (Total) 6010C													
Aluminum	NS	µg/L		200	U	200	U	200	U	200	U	200	U
Barium	1000	µg/L		501		58.6		50	U	50	U	50.2	
Calcium	NS	µg/L		34800		90200		62300		59700		72500	
Iron	300	µg/L		**806**		100	U	193		156		100	U
Lead	25	µg/L		5	U	5	U	5	U	5	U	5	U
Magnesium	35000	µg/L		11100		33900		**36100**		34400		**72500**	
Manganese	300	µg/L		56.1		15	U	15	U	15	U	15.4	
Nickel	100	µg/L		40	U	40	U	40	U	40	U	40	U
Potassium	NS	µg/L		10300		5000	U	5000	U	5000	U	5000	U
Sodium	20000	µg/L		**195000**		13700		**20800**		**20000**		16400	
Vanadium	NS	µg/L		10	U	10	U	10	U	10	U	10	U
Zinc	2000	µg/L		20	U	20	U	20	U	20	U	20	U
Metals (Dissolved) 6010C													
Aluminum	NS	µg/L											
Barium	1000	µg/L											
Calcium	NS	µg/L											
Iron	300	µg/L											
Lead	25	µg/L											
Magnesium	35000	µg/L											
Manganese	300	µg/L											
Nickel	100	µg/L											
Potassium	NS	µg/L											
Sodium	20000	µg/L											
Vanadium	NS	µg/L											
Zinc	2000	µg/L											

Notes:

GA = NYS Class GA groundwater quality standard, Part 703.
Shaded/Bold = Results exceeds GA standard.
NS = No standard available.
U = not detected
ug/L = micrograms per liter

Table 2
Summary of Compounds Detected - December 2011

			Location	P-106S		P-106D		P-107S		P-107D		P-108	
			Sample ID	633027MW106SXX		633027MW106DXX		633027MW107SXX		633027MW107DXX		633027MW108XX	
			Sample Date	12/20/2011		12/21/2011		12/21/2011		12/21/2011		12/20/2011	
			Qc Code	FS		FS		FS		FS		FS	
Parameter	**GA**	**Units**		Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier	Result	Qualifier
VOCs - 8260B													
1,1,1-Trichloroethane	5	µg/L		2.2		1	U	1.6		1	U	1	U
1,1-Dichloroethane	5	µg/L		1	U	1	U	2.9		1	U	1	U
Trichloroethene	5	µg/L		1	U	1	U	**9.3**		1	U	1	U
Metals (Total) 6010C													
Aluminum	NS	µg/L		200	U	334		200	U	5340		200	U
Barium	1000	µg/L		50	U	60.5		58.1		121		59.6	
Calcium	NS	µg/L		102000		20300		171000		17700		76700	
Iron	300	µg/L		100	U	**508**		**520**		**8980**		100	U
Lead	25	µg/L		5	U	5	U	5	U	5.7		5	U
Magnesium	35000	µg/L		24200		5000	U	28000		5000		**61500**	
Manganese	300	µg/L		15	U	15	U	249		150		62	
Nickel	100	µg/L		40	U	40	U	**306**		40	U	40	U
Potassium	NS	µg/L		5000	U	5000	U	5000	U	6100		5000	U
Sodium	20000	µg/L		8010		**44000**		6820		**114000**		12000	
Vanadium	NS	µg/L		10	U	10	U	10	U	10.1		10	U
Zinc	2000	µg/L		20	U	33.8		35.3		29.6		20	U
Metals (Dissolved) 6010C													
Aluminum	NS	µg/L								247			
Barium	1000	µg/L								82.8			
Calcium	NS	µg/L								6320			
Iron	300	µg/L								**380**			
Lead	25	µg/L								5	U		
Magnesium	35000	µg/L								5000	U		
Manganese	300	µg/L								15	U		
Nickel	100	µg/L								40	U		
Potassium	NS	µg/L								5000	U		
Sodium	20000	µg/L								**118000**			
Vanadium	NS	µg/L								10	U		
Zinc	2000	µg/L								20	U		

Notes:

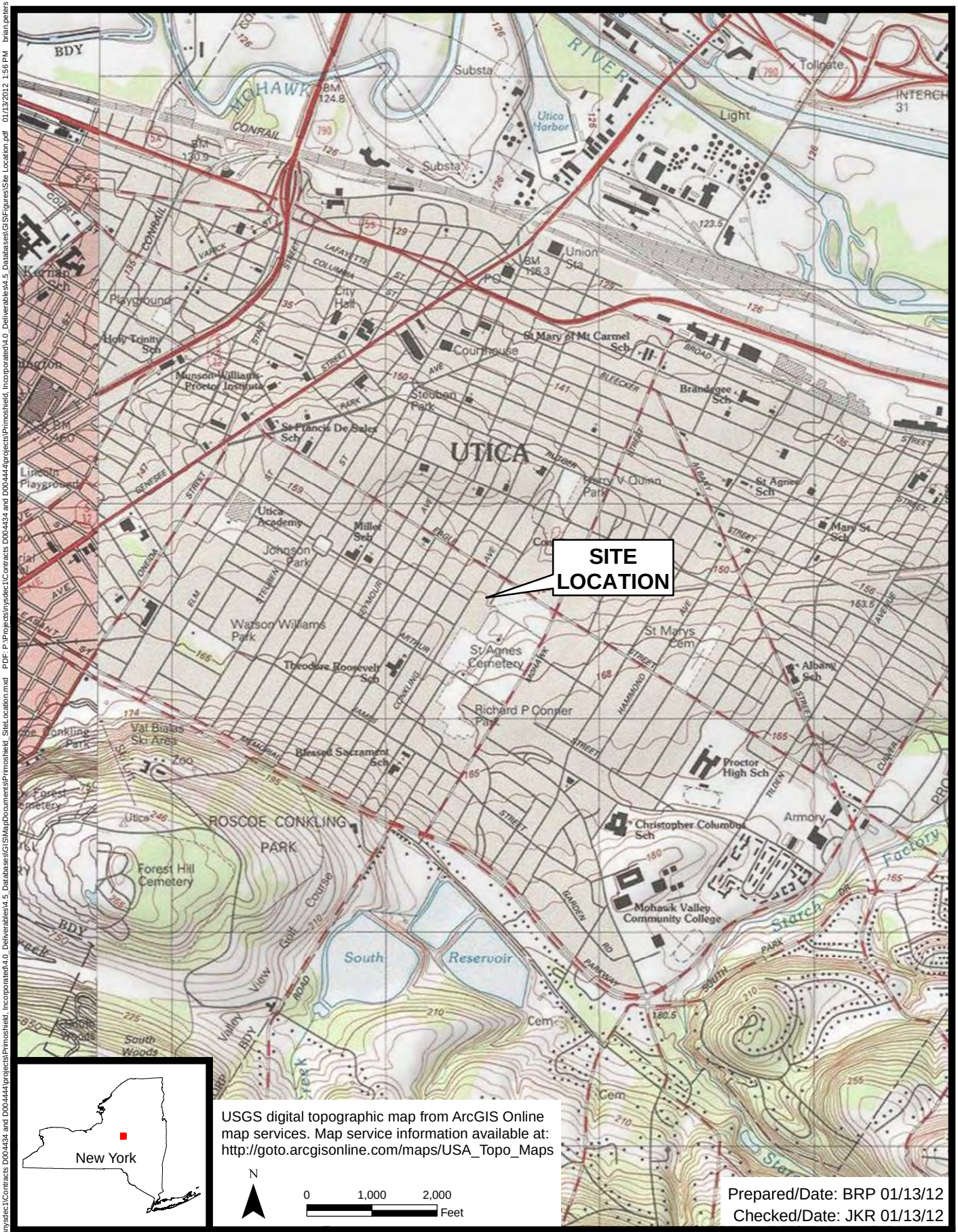
GA = NYS Class GA groundwater quali

Shaded/Bold = Results exceeds GA stan

NS = No standard available.

U = not detected

ug/L = micrograms per liter



PRIMOSHIELD INC.
UTICA, NEW YORK

MACTEC

SITE LOCATION

Project 3612-11-2176 Figure 1

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Oneida County color digital orthoimagery (2008) obtained from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

Prepared/Date: BJS 02/28/12
Checked/Date: JKR 02/28/12

PRIMOSHIELD INC.
UTICA, NEW YORK

MACTEC

SITE PLAN

Project 3612-11-2176 Figure 2

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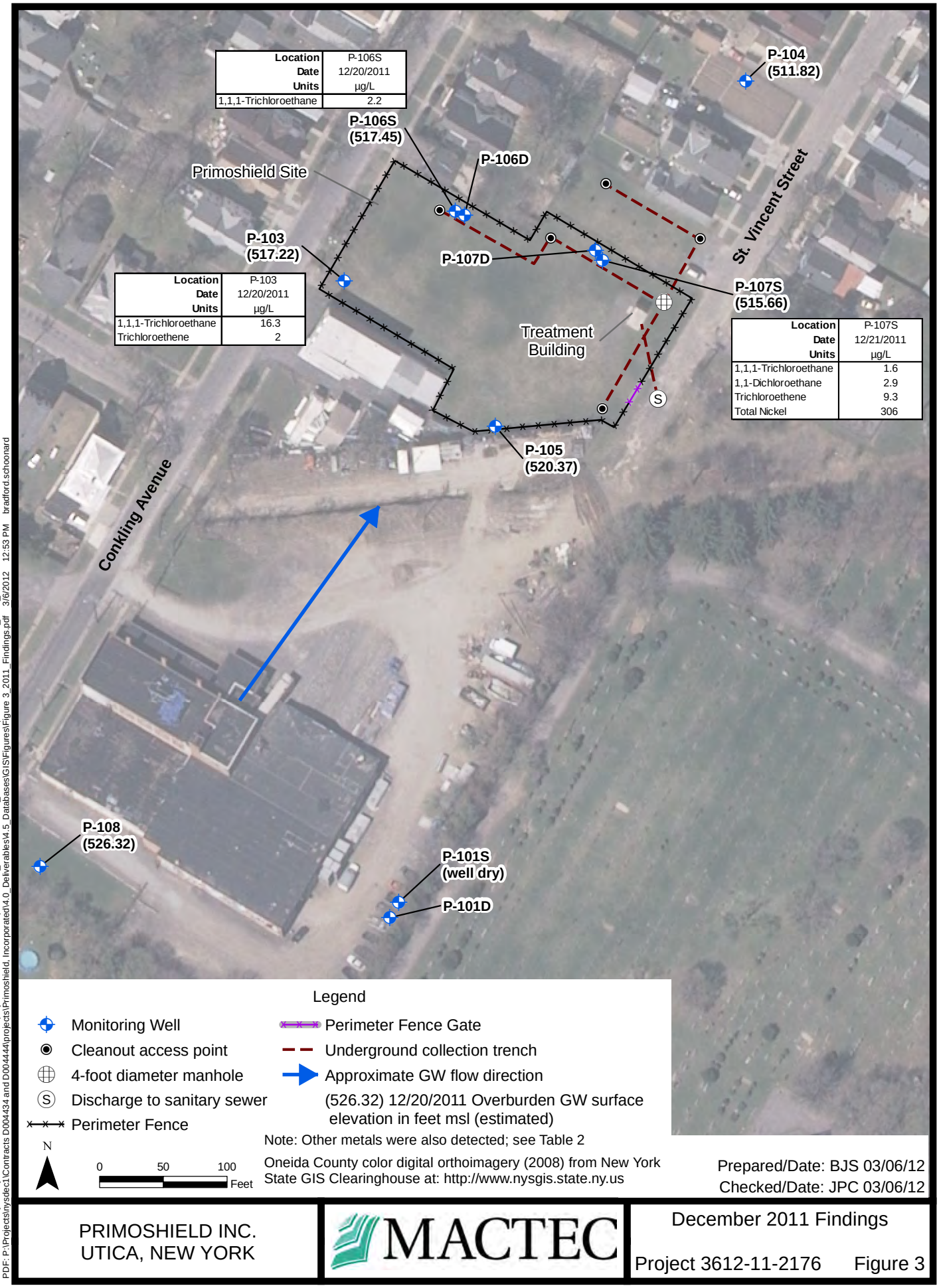

Note: Other metals were also detected; see Table 2

Oneida County color digital orthoimagery (2008) from New York State GIS Clearinghouse at: http://www.nysgis.state.ny.us

Prepared/Date: BJS 03/06/12
Checked/Date: JPC 03/06/12

PRIMOSHIELD INC.
UTICA, NEW YORK

MACTEC

December 2011 Findings

Project 3612-11-2176 Figure 3

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ATTACHMENT 1

GROUNDWATER ANALYTICAL RESULTS

CHEMIST REVIEW REPORT
DECEMBER 2011 GROUNDWATER SAMPLING
PRIMOSHIELD INCORPORATED SITE
UTICA, NEW YORK

1.0 INTRODUCTION

Groundwater samples were collected at the Primoshield Incorporated Site (Site) in Utica, New York on December 20 and 21, 2011 and submitted to Accutest Laboratories located in Marlborough, Massachusetts for analysis. Results were reported in the following Sample Delivery Group (SDG): MC6719.

A listing of samples included in this chemistry review is presented in Table 1. A summary of the analytical results is presented in Table 2. A summary of sample results qualified during this review is presented in Table 3 (Reason Code Table). Samples were analyzed by one or more of the following methods:

- VOCs by USEPA Method 8260B
- Total Metals by USEPA Method 6010C
- Dissolved Metals by USEPA Method 6010C
- Total Mercury by USEPA Method 7470A
- Dissolved Mercury by USEPA Method 7470A

Deliverables for the off-site laboratory analyses included a Category B deliverable as defined in the New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocols (NYSDEC, 2005).

A chemistry review was completed on SDG MC6719. USEPA Region 2 validation guideline QC limits were used during the data evaluation unless noted otherwise (USEPA, 2006a; USEPA, 2006b). The project chemist review included evaluations of sample collection, data package completeness, holding times, QC data (blanks, surrogate recovery, and spike recovery), electronic data reporting, and data qualification. Field samples for matrix spike analyses were not collected during the December program. The following laboratory or data validation qualifiers are used in the final data presentation.

U = target analyte is not detected at the reported detection limit
J = concentration is estimated
UJ = target analyte is not detected at the reported detection limit and is estimated

Results are interpreted to be usable as reported by the laboratory unless discussed in the following sections.

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD 8260B

2.0 VOLATILE ORGANIC COMPOUNDS (VOCs) – METHOD 8260B

Laboratory Control Spikes (LCS)

The EPA Region 2 percent recovery limits of 70-130 percent were used to evaluate LCS recoveries reported by laboratory. Qualified results are summarized in Table 3 with a validation reason code of LCS-L.

SDG MC6719

The field samples reported in SDG MC6719 were analyzed in three analytical batches. The percent recovery of acetone (64) was below the lower control limit in the LCS analyzed in batch MSM1490 on January 2, 2012. Acetone was not detected and the reporting limit of 5 µg/L was qualified as estimated (UJ) in the following associated samples: 633027MW103XX, 633027MW104XD, 633027MW104XX, 633027MW106SXX, and 633027MW108XX.

Tentatively Identified Compounds

SDG MC6719

Tentatively identified compounds (TICs) were analyzed for by the laboratory. TICs were not detected in samples reported in SDG MC6719.

3.0 METALS

No data quality issues were identified.

Reference:

New York State Department of Environmental Conservation (NYSDEC), 2005. "Analytical Services Protocols"; July 2005.

USEPA Region 2, 2006a. "Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B"; SOP # HW-24, Revision 2, Hazardous Waste Support Branch; October 2006.

USEPA Region 2, 2006b. "Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILM05.3 (SOP Revision 13)"; SOP # HW-2, Revision 3, Hazardous Waste Support Branch; September 2006.

Data Validator: Tige Cunningham, NRCC-EAC

Date: 2/2/2012
Reviewed by: Chris Ricardi, NRCC-EAC

Date: 2/14/2012

TABLE 1 - SUMMARY OF SAMPLES AND ANALYTICAL METHODS
CHEMIST REVIEW REPORT
DECEMBER 2011 GROUNDWATER SAMPLING
PRIMOSHIELD INCORPORATED SITE
UTICA, NEW YORK

					Class	VOC	Metals	Mercury	Metals	Mercury
					Analysis Method	SW8260B	SW6010C	SW7470A	SW6010C	SW7470A
					Group of Fraction	N	T	T	D	D
SDG	**Media**	**Location**	**Sample ID**	**Sample Date**	**QC Code**					
MC6719	GW	MW-101D	633027MW101DXX	12/21/2011 15:20	FS	48	22	1		
MC6719	GW	MW-103	633027MW103XX	12/20/2011 14:00	FS	48	22	1		
MC6719	GW	MW-104	633027MW104XD	12/20/2011 15:30	FD	48	22	1		
MC6719	GW	MW-104	633027MW104XX	12/20/2011 15:30	FS	48	22	1		
MC6719	GW	MW-105	633027MW105XX	12/21/2011 9:30	FS	48	22	1		
MC6719	GW	MW-106D	633027MW106DXX	12/21/2011 10:50	FS	48	22	1		
MC6719	GW	MW-106S	633027MW106SXX	12/20/2011 17:15	FS	48	22	1		
MC6719	GW	MW-107D	633027MW107DXX	12/21/2011 13:20	FS	48	22	1	22	1
MC6719	GW	MW-107S	633027MW107SXX	12/21/2011 10:45	FS	48	22	1		
MC6719	GW	MW-108	633027MW108XX	12/20/2011 11:20	FS	48	22	1		
MC6719	BW	QC	633027-TB-1	12/14/2011 16:00	TB	48				

FOOTNOTES:

QC CODE

FS = field sample, FD = field duplicate, TB = trip blank

Media

GW = groundwater, BW = blank water

Prepared by / Date: KJC 02/03/12

Checked by / Date: TLC 02/03/12

TABLE 2 - FINAL RESULTS SUMMARY
CHEMIST REVIEW REPORT
DECEMBER 2011 GROUNDWATER SAMPLING
PRIMOSHIELD INCORPORATED SITE
UTICA, NEW YORK

			Location	MW-101D		MW-103		MW-104		MW-104		MW-105		MW-106D		MW-106S	
			COC Sample	633027MW101DXX		633027MW103XX		633027MW104XD		633027MW104XX		633027MW105XX		633027MW106DXX		633027MW106SXX	
			Date Sampled	12/21/11		12/20/11		12/20/11		12/20/11		12/21/11		12/21/11		12/20/11	
			Sample Type	FS		FS		FD		FS		FS		FS		FS	
			Report Number	MC6719		MC6719		MC6719		MC6719		MC6719		MC6719		MC6719	
Fract	**Analysis Method**	**Parameter Name**	**Units**	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8468260B	1,1,1-Trichloroethane	ug/l	1	U	16.3		1	U	1	U	1	U	1	U	2.2	
N	SW8468260B	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	1,1,2-Trichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	1,1-Dichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	1,1-Dichloroethene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	1,2,4-Trichlorobenzene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	1,2-Dibromo-3-chloropropane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	1,2-Dibromoethane	ug/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U
N	SW8468260B	1,2-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	1,2-Dichloroethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	1,2-Dichloropropane	ug/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U
N	SW8468260B	1,3-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	1,4-Dichlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	2-Butanone	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	2-Hexanone	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	4-Methyl-2-pentanone	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	Acetic acid, methyl ester	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	Acetone	ug/l	5	U	5	UJ	5	UJ	5	UJ	5	U	5	U	5	UJ
N	SW8468260B	Benzene	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
N	SW8468260B	Bromodichloromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Bromoform	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Bromomethane	ug/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U
N	SW8468260B	Carbon disulfide	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	Carbon tetrachloride	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Chlorobenzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Chlorodibromomethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Chloroethane	ug/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U
N	SW8468260B	Chloroform	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Chloromethane	ug/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U
N	SW8468260B	Cis-1,2-Dichloroethene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	cis-1,3-Dichloropropene	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
N	SW8468260B	Cyclohexane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	Dichlorodifluoromethane	ug/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U
N	SW8468260B	Ethyl benzene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Isopropylbenzene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	Methyl cyclohexane	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	Methyl Tertbutyl Ether	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Methylene chloride	ug/l	2	U	2	U	2	U	2	U	2	U	2	U	2	U
N	SW8468260B	Styrene	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
N	SW8468260B	Tetrachloroethene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Toluene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	trans-1,2-Dichloroethene	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U

TABLE 2 - FINAL RESULTS SUMMARY
CHEMIST REVIEW REPORT
DECEMBER 2011 GROUNDWATER SAMPLING
PRIMOSHIELD INCORPORATED SITE
UTICA, NEW YORK

			Location	MW-101D		MW-103		MW-104		MW-104		MW-105		MW-106D		MW-106S	
			COC Sample	633027MW101DXX		633027MW103XX		633027MW104XD		633027MW104XX		633027MW105XX		633027MW106DXX		633027MW106SXX	
			Date Sampled	12/21/11		12/20/11		12/20/11		12/20/11		12/21/11		12/21/11		12/20/11	
			Sample Type	FS		FS		FD		FS		FS		FS		FS	
			Report Number	MC6719		MC6719		MC6719		MC6719		MC6719		MC6719		MC6719	
Fract	**Analysis Method**	**Parameter Name**	**Units**	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
N	SW8468260B	trans-1,3-Dichloropropene	ug/l	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
N	SW8468260B	Trichloroethene	ug/l	1	U	2		1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Trichlorofluoromethane	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Vinyl chloride	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N	SW8468260B	Xylenes, Total	ug/l	1	U	1	U	1	U	1	U	1	U	1	U	1	U
T	SW8466010C	Aluminum	ug/l	200	U	200	U	200	U	200	U	200	U	334		200	U
T	SW8466010C	Antimony	ug/l	6	U	6	U	6	U	6	U	6	U	6	U	6	U
T	SW8466010C	Arsenic	ug/l	4	U	4	U	4	U	4	U	4	U	4	U	4	U
T	SW8466010C	Barium	ug/l	501		58.6		50	U	50	U	50.2		60.5		50	U
T	SW8466010C	Beryllium	ug/l	4	U	4	U	4	U	4	U	4	U	4	U	4	U
T	SW8466010C	Cadmium	ug/l	4	U	4	U	4	U	4	U	4	U	4	U	4	U
T	SW8466010C	Calcium	ug/l	34800		90200		62300		59700		72500		20300		102000	
T	SW8466010C	Chromium	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U
T	SW8466010C	Cobalt	ug/l	50	U	50	U	50	U	50	U	50	U	50	U	50	U
T	SW8466010C	Copper	ug/l	25	U	25	U	25	U	25	U	25	U	25	U	25	U
T	SW8466010C	Iron	ug/l	806		100	U	193		156		100	U	508		100	U
T	SW8466010C	Lead	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
T	SW8466010C	Magnesium	ug/l	11100		33900		36100		34400		72500		5000	U	24200	
T	SW8466010C	Manganese	ug/l	56.1		15	U	15	U	15	U	15.4		15	U	15	U
T	SW8466010C	Nickel	ug/l	40	U	40	U	40	U	40	U	40	U	40	U	40	U
T	SW8466010C	Potassium	ug/l	10300		5000	U	5000	U	5000	U	5000	U	5000	U	5000	U
T	SW8466010C	Selenium	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U
T	SW8466010C	Silver	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
T	SW8466010C	Sodium	ug/l	195000		13700		20800		20000		16400		44000		8010	
T	SW8466010C	Thallium	ug/l	5	U	5	U	5	U	5	U	5	U	5	U	5	U
T	SW8466010C	Vanadium	ug/l	10	U	10	U	10	U	10	U	10	U	10	U	10	U
T	SW8466010C	Zinc	ug/l	20	U	20	U	20	U	20	U	20	U	33.8		20	U
T	SW8467470A	Mercury	ug/l	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
D	SW8466010C	Aluminum	ug/l														
D	SW8466010C	Antimony	ug/l														
D	SW8466010C	Arsenic	ug/l														
D	SW8466010C	Barium	ug/l														
D	SW8466010C	Beryllium	ug/l														
D	SW8466010C	Cadmium	ug/l														
D	SW8466010C	Calcium	ug/l														
D	SW8466010C	Chromium	ug/l														
D	SW8466010C	Cobalt	ug/l														
D	SW8466010C	Copper	ug/l														
D	SW8466010C	Iron	ug/l														
D	SW8466010C	Lead	ug/l														
D	SW8466010C	Magnesium	ug/l														
D	SW8466010C	Manganese	ug/l														
D	SW8466010C	Nickel	ug/l														

TABLE 2 - FINAL RESULTS SUMMARY
CHEMIST REVIEW REPORT
DECEMBER 2011 GROUNDWATER SAMPLING
PRIMOSHIELD INCORPORATED SITE
UTICA, NEW YORK

			Location	MW-101D		MW-103		MW-104		MW-104		MW-105		MW-106D		MW-106S	
			COC Sample	633027MW101DXX		633027MW103XX		633027MW104XD		633027MW104XX		633027MW105XX		633027MW106DXX		633027MW106SXX	
			Date Sampled	12/21/11		12/20/11		12/20/11		12/20/11		12/21/11		12/21/11		12/20/11	
			Sample Type	FS		FS		FD		FS		FS		FS		FS	
			Report Number	MC6719		MC6719		MC6719		MC6719		MC6719		MC6719		MC6719	
Fract	**Analysis Method**	**Parameter Name**	**Units**	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
D	SW8466010C	Potassium	ug/l														
D	SW8466010C	Selenium	ug/l														
D	SW8466010C	Silver	ug/l														
D	SW8466010C	Sodium	ug/l														
D	SW8466010C	Thallium	ug/l														
D	SW8466010C	Vanadium	ug/l														
D	SW8466010C	Zinc	ug/l														
D	SW8467470A	Mercury	ug/l														

Notes:
N = normal
T = total (unfiltered)
D = dissolved (filtered)
FS = field sample
FD = field duplicate
U = not detected, value is the detection limit
J = value is estimated
ug/L = microgram per liter

TABLE 2 - FINAL RESULTS SUMMARY
CHEMIST REVIEW REPORT
DECEMBER 2011 GROUNDWATER SAMPLING
PRIMOSHIELD INCORPORATED SITE
UTICA, NEW YORK

			Location	MW-107D		MW-107S		MW-108	
			COC Sample	633027MW107DXX		633027MW107SXX		633027MW108XX	
			Date Sampled	12/21/11		12/21/11		12/20/11	
			Sample Type	FS		FS		FS	
			Report Number	MC6719		MC6719		MC6719	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual
N	SW8468260B	1,1,1-Trichloroethane	ug/l	1	U	1.6		1	U
N	SW8468260B	1,1,2,2-Tetrachloroethane	ug/l	1	U	1	U	1	U
N	SW8468260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/l	5	U	5	U	5	U
N	SW8468260B	1,1,2-Trichloroethane	ug/l	1	U	1	U	1	U
N	SW8468260B	1,1-Dichloroethane	ug/l	1	U	2.9		1	U
N	SW8468260B	1,1-Dichloroethene	ug/l	1	U	1	U	1	U
N	SW8468260B	1,2,4-Trichlorobenzene	ug/l	5	U	5	U	5	U
N	SW8468260B	1,2-Dibromo-3-chloropropane	ug/l	5	U	5	U	5	U
N	SW8468260B	1,2-Dibromoethane	ug/l	2	U	2	U	2	U
N	SW8468260B	1,2-Dichlorobenzene	ug/l	1	U	1	U	1	U
N	SW8468260B	1,2-Dichloroethane	ug/l	1	U	1	U	1	U
N	SW8468260B	1,2-Dichloropropane	ug/l	2	U	2	U	2	U
N	SW8468260B	1,3-Dichlorobenzene	ug/l	1	U	1	U	1	U
N	SW8468260B	1,4-Dichlorobenzene	ug/l	1	U	1	U	1	U
N	SW8468260B	2-Butanone	ug/l	5	U	5	U	5	U
N	SW8468260B	2-Hexanone	ug/l	5	U	5	U	5	U
N	SW8468260B	4-Methyl-2-pentanone	ug/l	5	U	5	U	5	U
N	SW8468260B	Acetic acid, methyl ester	ug/l	5	U	5	U	5	U
N	SW8468260B	Acetone	ug/l	5	U	5	U	5	UJ
N	SW8468260B	Benzene	ug/l	0.5	U	0.5	U	0.5	U
N	SW8468260B	Bromodichloromethane	ug/l	1	U	1	U	1	U
N	SW8468260B	Bromoform	ug/l	1	U	1	U	1	U
N	SW8468260B	Bromomethane	ug/l	2	U	2	U	2	U
N	SW8468260B	Carbon disulfide	ug/l	5	U	5	U	5	U
N	SW8468260B	Carbon tetrachloride	ug/l	1	U	1	U	1	U
N	SW8468260B	Chlorobenzene	ug/l	1	U	1	U	1	U
N	SW8468260B	Chlorodibromomethane	ug/l	1	U	1	U	1	U
N	SW8468260B	Chloroethane	ug/l	2	U	2	U	2	U
N	SW8468260B	Chloroform	ug/l	1	U	1	U	1	U
N	SW8468260B	Chloromethane	ug/l	2	U	2	U	2	U
N	SW8468260B	Cis-1,2-Dichloroethene	ug/l	1	U	1	U	1	U
N	SW8468260B	cis-1,3-Dichloropropene	ug/l	0.5	U	0.5	U	0.5	U
N	SW8468260B	Cyclohexane	ug/l	5	U	5	U	5	U
N	SW8468260B	Dichlorodifluoromethane	ug/l	2	U	2	U	2	U
N	SW8468260B	Ethyl benzene	ug/l	1	U	1	U	1	U
N	SW8468260B	Isopropylbenzene	ug/l	5	U	5	U	5	U
N	SW8468260B	Methyl cyclohexane	ug/l	5	U	5	U	5	U
N	SW8468260B	Methyl Tertbutyl Ether	ug/l	1	U	1	U	1	U
N	SW8468260B	Methylene chloride	ug/l	2	U	2	U	2	U
N	SW8468260B	Styrene	ug/l	5	U	5	U	5	U
N	SW8468260B	Tetrachloroethene	ug/l	1	U	1	U	1	U
N	SW8468260B	Toluene	ug/l	1	U	1	U	1	U
N	SW8468260B	trans-1,2-Dichloroethene	ug/l	1	U	1	U	1	U

TABLE 2 - FINAL RESULTS SUMMARY
CHEMIST REVIEW REPORT
DECEMBER 2011 GROUNDWATER SAMPLING
PRIMOSHIELD INCORPORATED SITE
UTICA, NEW YORK

			Location	MW-107D		MW-107S		MW-108	
			COC Sample	633027MW107DXX		633027MW107SXX		633027MW108XX	
			Date Sampled	12/21/11		12/21/11		12/20/11	
			Sample Type	FS		FS		FS	
			Report Number	MC6719		MC6719		MC6719	
Fract	Analysis Method	Parameter Name	Units	Result	Qual	Result	Qual	Result	Qual
N	SW8468260B	trans-1,3-Dichloropropene	ug/l	0.5	U	0.5	U	0.5	U
N	SW8468260B	Trichloroethene	ug/l	1	U	9.3		1	U
N	SW8468260B	Trichlorofluoromethane	ug/l	1	U	1	U	1	U
N	SW8468260B	Vinyl chloride	ug/l	1	U	1	U	1	U
N	SW8468260B	Xylenes, Total	ug/l	1	U	1	U	1	U
T	SW8466010C	Aluminum	ug/l	5340		200	U	200	U
T	SW8466010C	Antimony	ug/l	6	U	6	U	6	U
T	SW8466010C	Arsenic	ug/l	4	U	4	U	4	U
T	SW8466010C	Barium	ug/l	121		58.1		59.6	
T	SW8466010C	Beryllium	ug/l	4	U	4	U	4	U
T	SW8466010C	Cadmium	ug/l	4	U	4	U	4	U
T	SW8466010C	Calcium	ug/l	17700		171000		76700	
T	SW8466010C	Chromium	ug/l	10	U	10	U	10	U
T	SW8466010C	Cobalt	ug/l	50	U	50	U	50	U
T	SW8466010C	Copper	ug/l	25	U	25	U	25	U
T	SW8466010C	Iron	ug/l	8980		520		100	U
T	SW8466010C	Lead	ug/l	5.7		5	U	5	U
T	SW8466010C	Magnesium	ug/l	5000		28000		61500	
T	SW8466010C	Manganese	ug/l	150		249		62	
T	SW8466010C	Nickel	ug/l	40	U	306		40	U
T	SW8466010C	Potassium	ug/l	6100		5000	U	5000	U
T	SW8466010C	Selenium	ug/l	10	U	10	U	10	U
T	SW8466010C	Silver	ug/l	5	U	5	U	5	U
T	SW8466010C	Sodium	ug/l	114000		6820		12000	
T	SW8466010C	Thallium	ug/l	5	U	5	U	5	U
T	SW8466010C	Vanadium	ug/l	10.1		10	U	10	U
T	SW8466010C	Zinc	ug/l	29.6		35.3		20	U
T	SW8467470A	Mercury	ug/l	0.2	U	0.2	U	0.2	U
D	SW8466010C	Aluminum	ug/l	247					
D	SW8466010C	Antimony	ug/l	6	U				
D	SW8466010C	Arsenic	ug/l	4	U				
D	SW8466010C	Barium	ug/l	82.8					
D	SW8466010C	Beryllium	ug/l	4	U				
D	SW8466010C	Cadmium	ug/l	4	U				
D	SW8466010C	Calcium	ug/l	6320					
D	SW8466010C	Chromium	ug/l	10	U				
D	SW8466010C	Cobalt	ug/l	50	U				
D	SW8466010C	Copper	ug/l	25	U				
D	SW8466010C	Iron	ug/l	380					
D	SW8466010C	Lead	ug/l	5	U				
D	SW8466010C	Magnesium	ug/l	5000	U				
D	SW8466010C	Manganese	ug/l	15	U				
D	SW8466010C	Nickel	ug/l	40	U				

TABLE 2 - FINAL RESULTS SUMMARY
CHEMIST REVIEW REPORT
DECEMBER 2011 GROUNDWATER SAMPLING
PRIMOSHIELD INCORPORATED SITE
UTICA, NEW YORK

			Location	MW-107D		MW-107S		MW-108	
			COC Sample	633027MW107DXX		633027MW107SXX		633027MW108XX	
			Date Sampled	12/21/11		12/21/11		12/20/11	
			Sample Type	FS		FS		FS	
			Report Number	MC6719		MC6719		MC6719	
Fract	**Analysis Method**	**Parameter Name**	**Units**	Result	Qual	Result	Qual	Result	Qual
D	SW8466010C	Potassium	ug/l	5000	U				
D	SW8466010C	Selenium	ug/l	10	U				
D	SW8466010C	Silver	ug/l	5	U				
D	SW8466010C	Sodium	ug/l	118000					
D	SW8466010C	Thallium	ug/l	5	U				
D	SW8466010C	Vanadium	ug/l	10	U				
D	SW8466010C	Zinc	ug/l	20	U				
D	SW8467470A	Mercury	ug/l	0.2	U				

Notes:

N = normal

T = total (unfiltered)

D = dissolved (filtered)

FS = field sample

FD = field duplicate

U = not detected, value is the detection limit

J = value is estimated

ug/L = microgram per liter

Prepared by / Date: KJC 02/03/12

Checked by / Date: TLC 02/03/12

TABLE 2 - FINAL RESULTS SUMMARY
CHEMIST REVIEW REPORT
DECEMBER 2011 GROUNDWATER SAMPLING
PRIMOSHIELD INCORPORATED SITE
UTICA, NEW YORK

			Location	QC	
			COC Sample	633027-TB-1	
			Date Sampled	12/14/11	
			Sample Type	TB	
			Report Number	MC6719	
Fract	Analysis Method	Parameter Name	Units	Result	Qual
N	SW8468260B	1,1,1-Trichloroethane	ug/L	1	U
N	SW8468260B	1,1,2,2-Tetrachloroethane	ug/L	1	U
N	SW8468260B	1,1,2-Trichloro-1,2,2-Trifluoroethane	ug/L	5	U
N	SW8468260B	1,1,2-Trichloroethane	ug/L	1	U
N	SW8468260B	1,1-Dichloroethane	ug/L	1	U
N	SW8468260B	1,1-Dichloroethene	ug/L	1	U
N	SW8468260B	1,2,4-Trichlorobenzene	ug/L	5	U
N	SW8468260B	1,2-Dibromo-3-chloropropane	ug/L	5	U
N	SW8468260B	1,2-Dibromoethane	ug/L	2	U
N	SW8468260B	1,2-Dichlorobenzene	ug/L	1	U
N	SW8468260B	1,2-Dichloroethane	ug/L	1	U
N	SW8468260B	1,2-Dichloropropane	ug/L	2	U
N	SW8468260B	1,3-Dichlorobenzene	ug/L	1	U
N	SW8468260B	1,4-Dichlorobenzene	ug/L	1	U
N	SW8468260B	2-Butanone	ug/L	5	U
N	SW8468260B	2-Hexanone	ug/L	5	U
N	SW8468260B	4-Methyl-2-pentanone	ug/L	5	U
N	SW8468260B	Acetic acid, methyl ester	ug/L	5	U
N	SW8468260B	Acetone	ug/L	5	U
N	SW8468260B	Benzene	ug/L	0.5	U
N	SW8468260B	Bromodichloromethane	ug/L	1	U
N	SW8468260B	Bromoform	ug/L	1	U
N	SW8468260B	Bromomethane	ug/L	2	U
N	SW8468260B	Carbon disulfide	ug/L	5	U
N	SW8468260B	Carbon tetrachloride	ug/L	1	U
N	SW8468260B	Chlorobenzene	ug/L	1	U
N	SW8468260B	Chlorodibromomethane	ug/L	1	U
N	SW8468260B	Chloroethane	ug/L	2	U
N	SW8468260B	Chloroform	ug/L	1	U
N	SW8468260B	Chloromethane	ug/L	2	U
N	SW8468260B	Cis-1,2-Dichloroethene	ug/L	1	U
N	SW8468260B	cis-1,3-Dichloropropene	ug/L	0.5	U
N	SW8468260B	Cyclohexane	ug/L	5	U
N	SW8468260B	Dichlorodifluoromethane	ug/L	2	U
N	SW8468260B	Ethyl benzene	ug/L	1	U
N	SW8468260B	Isopropylbenzene	ug/L	5	U
N	SW8468260B	Methyl cyclohexane	ug/L	5	U
N	SW8468260B	Methyl Tertbutyl Ether	ug/L	1	U
N	SW8468260B	Methylene chloride	ug/L	2	U
N	SW8468260B	Styrene	ug/L	5	U
N	SW8468260B	Tetrachloroethene	ug/L	1	U
N	SW8468260B	Toluene	ug/L	1	U
N	SW8468260B	trans-1,2-Dichloroethene	ug/L	1	U
N	SW8468260B	trans-1,3-Dichloropropene	ug/L	0.5	U
N	SW8468260B	Trichloroethene	ug/L	1	U
N	SW8468260B	Trichlorofluoromethane	ug/L	1	U
N	SW8468260B	Vinyl chloride	ug/L	1	U
N	SW8468260B	Xylenes, Total	ug/L	1	U

Notes:
N = normal
TB = trip blank
U = not detected, value is the detection limit
ug/L = microgram per liter

Prepared by / Date: KJC 02/03/12
Checked by / Date: TLC 02/03/12

TABLE 3 - VALIDATION QUALIFICATION ACTION SUMMARY
CHEMIST REVIEW REPORT
DECEMBER 2011 GROUNDWATER SAMPLING
PRIMOSHIELD INCORPORATED SITE
UTICA, NEW YORK

SDG	Lab Sample ID	Analytical Method	Field Sample ID	Parameter	Lab Result	Lab Qualifier	Final Result	Final Qualifier	Val Reason Code	Units
MC6719	MC6719-2	SW8468260B	633027MW108XX	Acetone	5	U	5	UJ	LCS-L	ug/L
MC6719	MC6719-3	SW8468260B	633027MW103XX	Acetone	5	U	5	UJ	LCS-L	ug/L
MC6719	MC6719-4	SW8468260B	633027MW104XX	Acetone	5	U	5	UJ	LCS-L	ug/L
MC6719	MC6719-5	SW8468260B	633027MW104XD	Acetone	5	U	5	UJ	LCS-L	ug/L
MC6719	MC6719-6	SW8468260B	633027MW106SXX	Acetone	5	U	5	UJ	LCS-L	ug/L

Units:

ug/L = microgram per liter

Validation Reason Codes:

LCS-L = LCS recovery low

Prepared by / Date: KJC 02/03/12

Checked by / Date: TLC 02/03/12

Validation Qualifier:

U = not detected, value is the detection limit

J = value is estimated

ATTACHMENT 2

FIELD DATA RECORDS

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield
FIELD SAMPLE NUMBER: 633027MW101DX2
SITE ID: 633027 MW-101D / P-101D
SITE TYPE: WELL
DATE: 12/20/11
ACTIVITY: START 0930 12/20/11 END 1530 12/21/11
SAMPLE TIME: 1520
END 12/21/11

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	28.24 FT	WELL DEPTH (TOR)	86.9' FT	PROTECTIVE CASING STICKUP (FROM GROUND)	2.6 FT
FINAL DEPTH TO WATER	69.1 FT	SCREEN LENGTH	10' FT	PID AMBIENT AIR	0 PPM
DRAWDOWN VOLUME	6.4 GAL	PID WELL MOUTH	0 PPM	CASING / WELL DIFFER.	0.39 FT
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})		PRESSURE TO PUMP	40 PSI	WELL DIAM.	2 IN
TOTAL VOL. PURGED	Total ≈ 10.5 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED	0.61	REFILL SETTING	11.5
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)				DISCHARGE SETTING	3.5

WELL INTERGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED COLLAR	X		
	X		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
1005	26.55	Start purge and set rate							
	Compressor not working								
1007	26.55	Start purge and set rate							
1015	28.55	140	7.0	0.766	8.0	3.5	32	150	
1020	29.32		7.3	0.763	8.0	0.8	47	45	
1025	30.03		7.2	0.761	8.0	0.6	30	28	2500
1030	30.58	120	7.4	0.761	8.1	0.5	32	-2	Speak with T. Crimaldi
1040	32.18		7.6	0.752	8.1	0.4	95	-74	1500
1045	33.05	130	7.7	0.748	8.1	0.3	95	-116	
1050	33.90		7.7	0.751	8.1	0.3	100	-145	
1055	34.73	160	7.9	0.756	8.1	0.3	110	-171	1950
1100	35.65	160	8.3	0.754	8.1	0.2	110	-187	
1110	36.33	~~Stop~~	8.2	0.760	8.1	0.2	—	-171	800
12/21/11	Compressor stopped working - Getting on new compressor								Set out
0730	28.77								
0732	Start purging								
0742	36.10	550							5500
0752	44.20	650							6500
0802	52.50	550							5500
0812	58.6	500							5000
0822	61.4	250							2500
0832	64.5	250							2500
0842	69.1	350							3500
		Have purged a total of ≈ 10 gallons from well, Drawdown volume = ≈ 6.4 gallon							
		See page 2 for final parameters							recharge ≈ = to 3.2 gallons

(07) recharge

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[X] ~~GEOPUMP (peristaltic)~~ (PP)	[X] ~~HIGH~~ LOW DENSITY POLYETHYLENE	[X] STAINLESS STEEL	[X] TEFLON
[X] QED BLADDER	[ ] OTHER	[ ] OTHER	[ ] OTHER

ANALYTICAL PARAMETERS

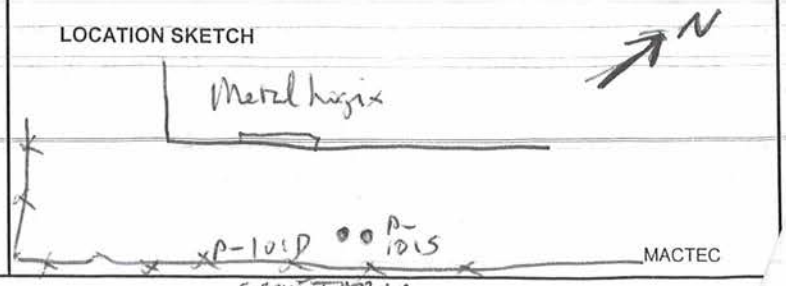
	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	500 ml poly	[X]
[ ] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[ ] Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]

NOTES: Due to extremely low recharge - purged well to near top of screen and sampled recharge. Left dedicated tubing in well.

Checked By: RCM 1/4/12

SIGNATURE: Jerry Kimball

LOCATION SKETCH



FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield

FIELD SAMPLE NUMBER: 633027MW101DXX

SITE ID: 633027 MW-101D/P-101D

SITE TYPE: WELL

DATE: 12/21/11 (Start 12/20/11)

ACTIVITY: START 0930 12/20/11 END 1530 12/21/11

SAMPLE TIME: 1520

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER: 28.24 12/20/11 FT

FINAL DEPTH TO WATER: 69.1 FT

DRAWDOWN VOLUME: ~~Total ≈ 10.5~~ 6.4 GAL
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

TOTAL VOL. PURGED: Total ≈ 10.5 GAL
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

WELL DEPTH (TOR): 86.9 FT

SCREEN LENGTH: 10' FT

RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.61

PROTECTIVE CASING STICKUP (FROM GROUND): 2.6 FT

PID AMBIENT AIR: 0 PPM

PID WELL MOUTH: 0 PPM

PRESSURE TO PUMP: 40 PSI

REFILL SETTING: 11.5

CASING / WELL DIFFER.: 0.39 FT

WELL DIAM.: 2 IN

WELL INTERGRITY:

	YES	NO	N/A
CAP	✓		
CASING	✓		
LOCKED	✓		
COLLAR	✓		

DISCHARGE SETTING: 3.5

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
1427	48.03	Resume Purging							
1438	48.68	60	5.6	0.810	8.0	2.1	37	24	540
1445	49.33	90	6.5	0.880	8.0	1.3	7.8	-22	1530
1450	49.63	↓	6.9	1.047	7.9	1.1	3.4	-91	
1455	50.26	↓	7.4	1.194	7.9	0.8	2.1	-148	
1500	50.43	80	7.3	1.230	7.9	0.6	1.7	-160	
1505	50.84	↓	7.1	1.243	7.9	0.5	2.1	-173	800
			7	1.24	7.9	0.5	2.1	-170	Rcm

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[ ] GEOPUMP (peristaltic)	[X] HIGH DENSITY POLYETHYLENE	[X] STAINLESS STEEL	[X] TEFLON
[X] QED BLADDER	[ ] OTHER	[ ] OTHER	[ ] OTHER

ANALYTICAL PARAMETERS

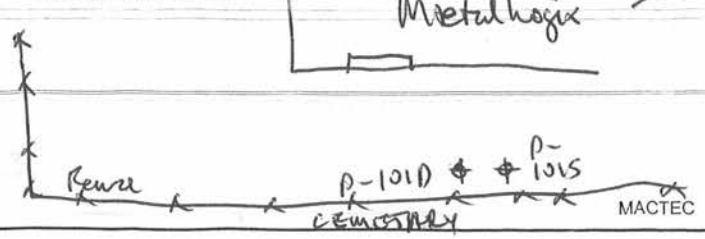
	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	250 ~~500~~ ml poly	[X]
[ ] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[ ] Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]

NOTES: Left tubing in well. Purged well to near top of screen and sampled recharge.

Checked By: Rcm 1/4/12

SIGNATURE: Jerry Ruffle

LOCATION SKETCH



FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield | FIELD SAMPLE NUMBER: 633027MW103XX

SITE ID: 633027 MW- 103 / P-103 | SITE TYPE: WELL | DATE: 12/20/11

ACTIVITY: START 1135 END 1400 | SAMPLE TIME: 1400

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	7.02 FT	WELL DEPTH (TOR)	18.1 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	2.80 FT
FINAL DEPTH TO WATER	9.72 FT	SCREEN LENGTH	10' FT	PID AMBIENT AIR	0 PPM
DRAWDOWN VOLUME	.43 GAL	PID WELL MOUTH	0 PPM	PRESSURE TO PUMP	NA PSI
TOTAL VOL. PURGED	2.59 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED	0.17	REFILL SETTING	NA

CASING / WELL DIFFER.: .34 FT

WELL DIAM.: 2 IN

WELL INTERGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED COLLAR	X		

(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

DISCHARGE SETTING: NA

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
1152	Began Purging								
1155	7.56	170	10.89	0.702	7.13	9.41	8.04	111.0	
1200	7.72	165	10.33	0.687	7.25	5.71	5.96	99.0	
1205	7.90	150	10.06	0.686	7.25	5.28	5.39	83.4	
1210	8.01	115	9.39	0.685	7.26	5.30	5.32	72.9	
1215	8.07	105	9.11	0.685	7.26	5.31	5.07	63.5	
1220	8.14	100	8.86	0.685	7.24	5.31	3.40	57.8	
1225	8.27	135	9.04	0.685	7.22	5.06	2.96	53.8	
1230	8.40	160	9.41	0.683	7.22	4.94	2.78	48.9	
1235	8.56	160	9.53	0.684	7.21	4.74	2.23	45.6	
1240	8.67	155	9.50	0.682	7.19	4.88	2.51	43.0	
1245	8.75	160	9.56	0.681	7.20	4.59	2.39	40.1	
1250	8.82	100	9.24	0.683	7.20	5.23	1.68	37.8	
1255	8.87	100	9.01	0.681	7.19	4.56	1.73	35.4	
1300	9.02	175	9.19	0.680	7.15	4.72	4.15	38.3	
1305	9.12	225	9.86	0.682	7.21	4.19	2.28	33.7	
1310	9.30	235	10.18	0.682	7.22	4.27	1.49	31.8	
1315	9.40	100	9.58	0.688	7.21	4.09	1.81	29.2	
1320	9.44	100	9.31	0.688	7.20	3.71	1.27	28.0	
1325	9.48	100	9.17	0.689	7.20	3.62	0.92	27.1	
1330	9.53	100	8.86	0.690	7.20	3.66	1.03	26.6	
1335	9.56	100	8.72	0.690	7.19	3.58	0.83	26.1	
1340	9.59	100	8.74	0.694	7.19	3.61	0.78	23.7	
1345	9.63	100	8.68	0.691	7.19	3.73	0.96	20.3	
1350	9.68	100	8.65	0.691	7.20	3.66	0.83	18.2	
1355	9.72	100	8.71	0.691	7.20	3.65	0.88	16.1	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] GEOPUMP (peristaltic) [ ] QED BLADDER

TYPE OF TUBING: [X] HIGH DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] STAINLESS STEEL [X] OTHER

TYPE OF BLADDER MATERIAL: [ ] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	500 ml poly	[X]
[ ] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[ ] Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]

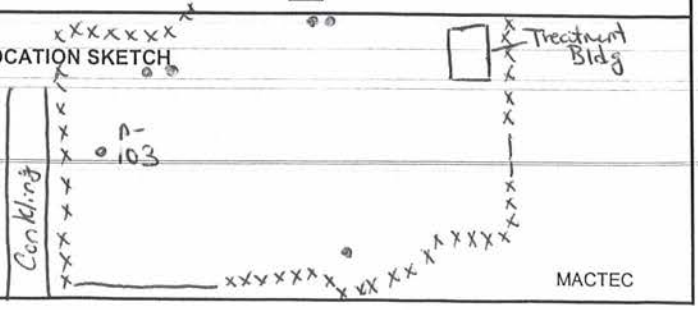
NOTES: Purged 2 hrs. - well is recharging but not to purge rate. Sampled after purging 2 hrs.

Purged ~ 6x drawdown volume - all parameters stable within criteria except for Waterlevel.

Checked by JR 1/6/12

SIGNATURE:

LOCATION SKETCH



FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield
FIELD SAMPLE NUMBER: 633027MW104XX
SITE ID: 633027 MW- 104 / P-104
SITE TYPE: WELL
DATE: 12/20/11
ACTIVITY: START 1405 END 1535
SAMPLE TIME: 1530

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	6.11 FT	WELL DEPTH (TOR)	17.4 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	2.2 FT
FINAL DEPTH TO WATER	7.40 FT	PID AMBIENT AIR	0 PPM	CASING / WELL DIFFER.	.33 FT
DRAWDOWN VOLUME (initial - final x 0.16 {2-inch} or x 0.65 {4-inch})	.21 GAL	SCREEN LENGTH	10' FT	PID WELL MOUTH	0 PPM
TOTAL VOL. PURGED (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)	2.1 (33) .64 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED	0.1	PRESSURE TO PUMP	NA PSI
				REFILL SETTING	NA
				WELL DIAM.	2 IN
				DISCHARGE SETTING	NA

WELL INTERGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
1415	Begin Purging								
1418	7.02	190	9.82	0.642	7.57	5.41	19.4	117.9	
1423	7.12	150	10.08	0.645	7.58	4.58	15.1	64.5	
1428	7.19	110	9.74	0.644	7.60	4.99	14.8	40.1	
1433	7.23	110	9.53	0.646	7.60	4.58	15.7	21.7	
1438	7.27	110	9.44	0.650	7.62	4.29	13.1	3.4	
1443	7.31	110	9.46	0.654	7.59	4.62	13.1	-10.6	
1458	7.34	110	9.52	0.651	7.62	3.73	11.6	-34.2	
1503	7.36	110	9.53	0.648	7.64	3.80	10.3	-29.5	
1508	7.38	110	9.48	0.647	7.61	3.90	11.2	-38.7	
1513	7.39	110	9.50	0.641	7.61	3.42	10.6	-52.4	
1518	7.40	110	9.53	0.641	7.62	3.40	9.98	-56.9	
1523	7.41	110	9.58	0.641	7.62	3.31	9.10	-58.7	
1528	7.40	110	9.60	0.637	7.59	3.34	6.59	-63.8	
			10	0.637	7.6	3.3	6.6	-64	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] GEOPUMP (peristaltic) [ ] QED BLADDER

TYPE OF TUBING: [X] ~~HIGH~~ LOW DENSITY POLYETHYLENE [ ] OTHER

TYPE OF PUMP MATERIAL: [ ] STAINLESS STEEL [ ] OTHER

TYPE OF BLADDER MATERIAL: [ ] TEFLON [ ] OTHER

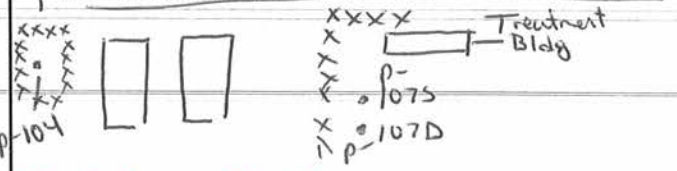
ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	500 ml poly	[X]
[ ] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[ ] Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]

NOTES: Duplicate Collected 633027MW104XD

SIGNATURE:

LOCATION SKETCH



Checked by: JR 1/6/12

MACTEC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield
FIELD SAMPLE NUMBER: 633027MW105XX
SITE ID: 633027 MW- 105 / P-105
SITE TYPE: WELL
DATE: 12/21/11
ACTIVITY: START 0745 END 0935
SAMPLE TIME: 0930

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING
PROTECTIVE CASING STICKUP (FROM GROUND): ~~2.97~~ 2.9 (NA) FT
CASING / WELL DIFFER.: .48 FT

INITIAL DEPTH TO WATER: 4.72 FT
WELL DEPTH (TOR): 18.2' FT
PID AMBIENT AIR: 0 PPM
WELL DIAM.: 2 IN

FINAL DEPTH TO WATER: 7.67 FT
SCREEN LENGTH: 10' FT
PID WELL MOUTH: 0 PPM

WELL INTERGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

DRAWDOWN VOLUME: .47 GAL
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})
RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED: 0.15
PRESSURE TO PUMP: NA PSI

TOTAL VOL. PURGED: 3.22 GAL
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)
REFILL SETTING: NA
DISCHARGE SETTING: NA

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
0759	Began Purging								
0802	5.59	140	9.85	0.874	7.40	6.47	6.07	236.0	
0807	5.95	125	9.90	0.868	7.47	4.85	5.83	196.0	
0812	~~5.36~~ 21	135	9.61	0.867	7.48	4.67	3.85	112.7	Unable to lower purge
0817	6.52	125	9.74	0.864	7.50	4.42	3.31	80.9	rate - pump shuts off.
0822	6.70	120	9.76	0.862	7.49	4.25	3.04	64.9	
0827	6.95	130	9.89	0.861	7.50	4.03	3.54	56.7	Pump stopped - needed to restart
0832	7.02	135	9.71	0.863	7.48	4.05	2.59	49.5	
0837	7.15	140	9.88	0.862	7.48	3.94	2.07	42.8	
0842	7.25	150	10.03	0.860	7.47	3.68	2.38	38.9	
0847	7.37	130	10.14	0.860	7.45	3.20	2.01	32.7	
0852	7.41	135	10.14	0.861	7.44	3.14	1.81	28.5	
0857	7.49	150	10.19	0.861	7.42	3.14	1.73	23.7	
0902	7.61	140	10.28	0.861	7.41	2.98	1.55	18.7	
0907	7.69	150	10.33	0.862	7.40	2.68	1.40	15.0	
0912	7.70	160	10.40	0.863	7.40	2.47	1.42	10.8	
0917	7.67	150	10.44	0.863	7.39	2.24	1.66	8.7	
0922	7.66	160	10.45	0.863	7.38	2.20	1.16	6.2	
0927	7.67	160	10.42	0.864	7.37	2.11	1.03	2.4	
			10	0.864	7.4	2.1	1.0	2.4	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP
[X] GEOPUMP (peristaltic)
[ ] QED BLADDER

TYPE OF TUBING
[X] ~~HIGH~~ LOW DENSITY POLYETHYLENE
[ ] OTHER

TYPE OF PUMP MATERIAL
[ ] STAINLESS STEEL
[X] OTHER

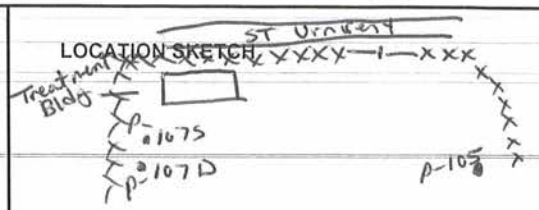
TYPE OF BLADDER MATERIAL
[ ] TEFLON
[ ] OTHER

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]	
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]	
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	500 ml poly	[X]	
[ ] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[ ]	Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]	
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]	

NOTES: ~3 ft. of drawdown and DTW stabilized.

LOCATION SKETCH



SIGNATURE:

Checked JR 1/4/12

MACTEC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield

FIELD SAMPLE NUMBER: 633027-MW1065-XX

SITE ID: 633027 MW- 1065 / P-1065

SITE TYPE: WELL

DATE: 12/20/11

ACTIVITY: START 1450 END 1720

SAMPLE TIME: 1715

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	7.35 FT	WELL DEPTH (TOR)	18.5' FT	PROTECTIVE CASING STICKUP (FROM GROUND)	4.0 FT
FINAL DEPTH TO WATER	10.51 FT	SCREEN LENGTH	10' FT	CASING / WELL DIFFER.	0.27 FT
DRAWDOWN VOLUME (initial - final x 0.16 {2-inch} or x 0.65 {4-inch})	.49 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED	0.11	PID AMBIENT AIR	0 PPM
TOTAL VOL. PURGED (purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)	4.47 GAL			PID WELL MOUTH	0 PPM
				PRESSURE TO PUMP	— PSI
				REFILL SETTING	—
				WELL DIAM.	2 IN
				DISCHARGE SETTING	—

WELL INTERGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
1455	7.35	Start pump and set rate.							
1500	7.74	160	10.4	0.644	7.2	7.8	22	81	lowest rate possible
	Calculate into drive								
1515	8.24	160	9.9	0.645	7.2	4.2	13	83	
1520	8.43	↓	9.7	0.644	7.1	4.1	1.8	84	
1525	8.62		9.7	0.643	7.1	3.8	1.6	85	
	Compressor on site switched to deep wells								
1555	Restarted Purge			DTW 8.36					
1557	8.43	150	7.67	0.632	7.11	8.80	1.89	-9.5	Cannot lower purge rate
1602	8.65	150	8.55	0.639	7.18	3.88	1.75	-51.9	
1607	8.79	150	9.34	0.636	7.16	3.72	0.98	-55.1	
1612	8.91	150	9.11	0.637	7.16	3.58	1.11	-55.3	
1617	9.03	150	9.09	0.639	7.15	3.37	1.23	-55.6	
1622	9.15	150	9.10	0.640	7.15	3.32	0.80	-57.2	
1627	9.32	150	8.97	0.641	7.15	3.09	0.69	-58.2	
1632	9.49	150	8.94	0.642	7.15	2.90	1.31	-60.4	
1637	9.60	150	8.85	0.642	7.15	2.64	0.76	-64.5	
1642	9.72	150	8.87	0.643	7.15	2.50	0.71	-66.8	
1647	9.84	150	8.86	0.646	7.15	2.34	0.58	-68.9	
1652	9.94	150	8.84	0.645	7.15	2.18	0.85	-70.8	
1657	10.12	150	8.88	0.648	7.15	1.91	0.77	-74.9	
1702	10.21	150	8.90	0.649	7.15	1.85	0.93	-77.0	
1707	10.29	150	8.91	0.648	7.16	1.75	0.59	-78.6	
1712	10.41	150	8.92	0.650	7.15	1.69	0.59	-79.5	
			9	0.650	7.2	1.7	0.6	-80	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[X] GEOPUMP (peristaltic)	[X] HIGH DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] TEFLON
[ ] QED BLADDER	[ ] OTHER	[X] OTHER	[ ] OTHER

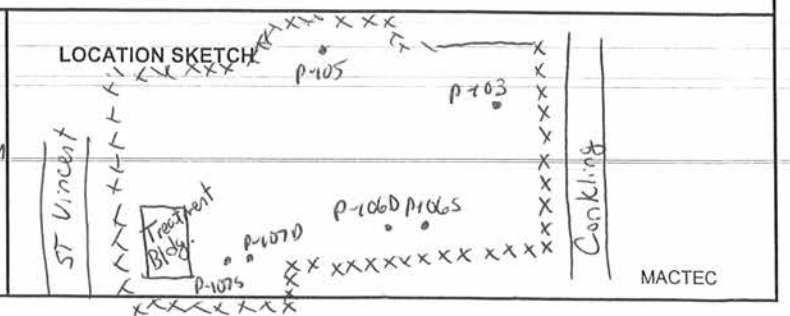
ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]	
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]	
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	500 ml poly	[X]	
[ ] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[ ]	Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]	
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]	

NOTES: Purged ~ 2 hrs. Purge rate is greater than draw down ~~but~~ and draw down is not keeping up. - All parameters stable within criteria except for water level - Have purged ~ 9x drawdown volume

SIGNATURE: Jerry Randolph for Teri Kibusz 1/6/12

LOCATION SKETCH



MACTEC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield
FIELD SAMPLE NUMBER: 633027MW106D xA
SITE ID: 633027 MW- 106D / P-106D
SITE TYPE: WELL
DATE: 12/21/11
ACTIVITY: START 0900 END 1105
SAMPLE TIME: 1050

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	28.63 FT	WELL DEPTH (TOR)	77.6 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	3.9' FT
FINAL DEPTH TO WATER	29.97 FT	SCREEN LENGTH	10' FT	PID AMBIENT AIR	0 PPM
DRAWDOWN VOLUME	0.21 GAL	PID WELL MOUTH	0 PPM	CASING / WELL DIFFER.	0.39 FT
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})		RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED		PRESSURE TO PUMP	40 PSI
TOTAL VOL. PURGED	2.0 GAL		.11	REFILL SETTING	12
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)				DISCHARGE SETTING	3

WELL DIAM.: 2 IN

WELL INTERGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
0912	28.63	Start pump cond set rate							
0923	29.44	75	4.7	0.478	10.6	9.8	46	144	
0930	29.58	↓	5.0	0.489	11.0	6.0	31	129	1350
0935	29.44	130	6.1	0.486	11.2	3.8	16	109	
0940	30.21	↓	6.7	0.488	11.3	3.2	11	96	
0945	30.40	↓	6.9	0.494	11.3	2.8	9.4	83	1450
0950	30.56	120	6.9	0.497	11.4	2.7	16	77	600
0955	30.36	70	6.1	0.501	11.4	2.9	11	73	
1000	30.22	↓	5.4	0.499	11.4	2.7	9.0	75	
1005	30.21	↓	4.9	0.494	11.3	2.5	8.5	78	
1010	30.14	70	5.0	0.488	11.3	2.1	7.8	72	
1015	30.08	↓	4.8	0.486	11.4	2.0	11	64	
1020	30.07	↓	4.8	0.481	11.4	2.1	12	52	2100
1025	29.96	60	4.7	0.476	11.4	2.1	10	33	
1030	29.91	↓	4.6	0.472	11.4	2.0	12	16	600
1035	30.04	110	4.5	0.463	11.3	1.9	15	11	550
1040	29.97	70	4.7	0.459	11.4	1.8	16	6	350
			5	0.459	11.4	1.8	16	6	Rem

JR

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] ~~GEOPUMP~~ (peristaltic) [X] QED BLADDER
TYPE OF TUBING: [X] ~~HIGH~~ LOW DENSITY POLYETHYLENE [ ] OTHER
TYPE OF PUMP MATERIAL: [X] STAINLESS STEEL [ ] OTHER
TYPE OF BLADDER MATERIAL: [X] TEFLON [ ] OTHER

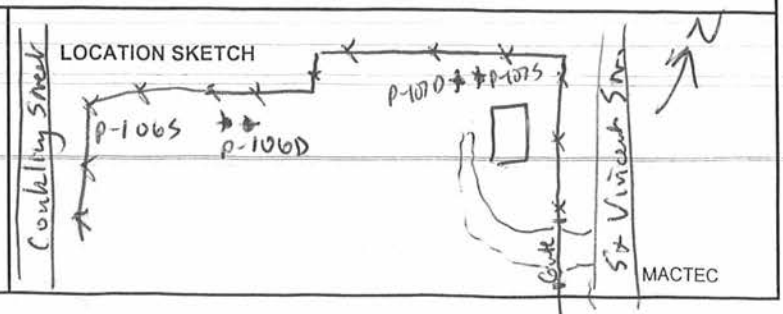
ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	250 ~~500~~ ml poly	[X]
[ ] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[ ] Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]

NOTES: checked By: RCM 1/4/11

SIGNATURE: Jerry Rudloff

LOCATION SKETCH



FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield
FIELD SAMPLE NUMBER: 633027MW1075xx
SITE ID: 633027 MW- 1075 / P-1075
SITE TYPE: WELL
DATE: 12/21/11 (20)
ACTIVITY: START 1230 END 12/21/11 1055
SAMPLE TIME: 12/21/11 1045

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	6.41 FT	WELL DEPTH (TOR)	17.1 (17.1) FT	PROTECTIVE CASING STICKUP (FROM GROUND)	2.9 FT
FINAL DEPTH TO WATER	17.1 FT	SCREEN LENGTH	10' FT	PID AMBIENT AIR	0 PPM
DRAWDOWN VOLUME	2 = 1.71 +0.3 (12/21/11) GAL			PID WELL MOUTH	0 PPM
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})		RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED		PRESSURE TO PUMP	NS PSI
TOTAL VOL. PURGED	7.7 (NS) 6.41 GAL	0.26		REFILL SETTING	NA
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)				DISCHARGE SETTING	NA

CASING / WELL DIFFER. 0.21 FT
WELL DIAM. 2 IN

WELL INTERGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED COLLAR	X		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
1242	6.41	Start pump and set rate,							750 1100 4500 750 1600 = 4200
1245	7.38	250	9.6	0.662	6.9	8.1	16	16	
1250	7.75	200	9.4	0.665	6.9	7.3	17	33	
1255	7.90	150	9.2	0.662	6.9	7.1	19	36	As low as I can get pump to go without shutting down.
1300	8.02	140	9.1	0.663	6.9	6.9	18	42	
1305	8.10	↓	8.8	0.664	6.9	6.7	15	49	
1310	8.19	150	8.9	0.667	6.9	6.6	12	53	
1315	8.26	↓	8.8	0.673	6.9	6.2	12	55	
1320	8.36	150	9.1	0.679	6.9	6.0	11	59	6550
1325	8.45	↓	9.1	0.693	6.8	5.8	9.6	63	
1332	8.64	↓	9.2	0.717	6.8	5.6	7.7	67	switching to run off of turbidity - Rate
1340	8.81	150	9.2	0.745	6.8	5.3	10	78	
1345	8.97	↓	9.2	0.762	6.8	5.0	13	77	still 150 at lowest setting
1350	9.24	↓	9.4	0.764	6.8	5.0	23	79	
1355	9.54	↓	9.6	0.772	6.8	4.9	42	80	
1400	9.78	150	9.7	0.774	6.7	4.6	72	82	7500
	Due to excessive drawdown and lack of stability, I am going to turn up rate								
	and try to purge well dry - Will sample recharge.								
1405	10.45	500+	—	—	—	—	90	—	
1415	12.55	—	—	—	—	—	490	—	
1425	15.20	660	—	—	—	—	—	—	
1431	17.1 (DRY)								
Cont. on pg. 2									

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [X] GEOPUMP (peristaltic) [ ] QED BLADDER
TYPE OF TUBING: [X] ~~HIGH~~ LDPE DENSITY POLYETHYLENE [ ] OTHER
TYPE OF PUMP MATERIAL: [ ] STAINLESS STEEL [ ] OTHER
TYPE OF BLADDER MATERIAL: [ ] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

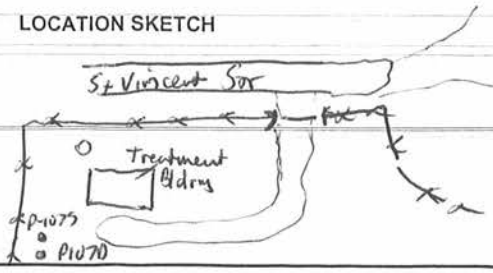
	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	500 ml poly	[X]
[ ] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[ ] Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]

NOTES: Purged dry on 12/20/11 JK to sample recharge (See Page 2) 12/21/11

JR 1/6/12

SIGNATURE: Jerry Rubbelke

LOCATION SKETCH



MACTEC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield
FIELD SAMPLE NUMBER: 633027MW1075XX
SITE ID: 633027 MW- 1075 / P-1075
SITE TYPE: WELL
DATE: 12/21/11
ACTIVITY: START 0950 END 1055
SAMPLE TIME: 1045

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	6.47 FT	WELL DEPTH (TOR)	17.1 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	2.9 FT
FINAL DEPTH TO WATER	8.38 FT	SCREEN LENGTH	10 FT	CASING / WELL DIFFER.	0.21 FT
DRAWDOWN VOLUME	12/20 - 1.7 } 2 GAL; 12/21 - 0.3 }	PID AMBIENT AIR	0 PPM	WELL DIAM.	2 IN
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})		PID WELL MOUTH	0 PPM		
TOTAL VOL. PURGED	Total 12/20+12/21/11 = 7.7 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED	0.26	PRESSURE TO PUMP	NA PSI
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)		REFILL SETTING	NA	DISCHARGE SETTING	NA

WELL INTERGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
1010	Began Purging								
1013	7.01	150	10.05	0.905	6.60	8.39	20.3	129.4	
1018	7.45	150	10.06	0.909	6.70	7.33	18.1	91.5	
1023	7.76	150	10.09	0.912	6.69	7.37	19.8	80.4	
1028	7.92	150	10.09	0.914	6.67	7.46	19.0	72.8	
1033	8.04	150	10.04	0.919	6.64	7.38	18.5	67.6	
1038	8.19	150	10.01	0.923	6.61	7.39	17.3	64.2	
1043	8.28	150	9.99	0.929	6.62	7.49	15.7	62.1	
1045	Collected Samples								
1048	Completed Sampling								
DTW	8.38								
			10	0.929	6.6	7.5	16	62	

EQUIPMENT DOCUMENTATION

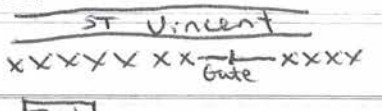
TYPE OF PUMP: [X] GEOPUMP (peristaltic) [ ] QED BLADDER
TYPE OF TUBING: [X] ~~HIGH~~ LOW DENSITY POLYETHYLENE [ ] OTHER
TYPE OF PUMP MATERIAL: [ ] STAINLESS STEEL [X] OTHER Peristaltic
TYPE OF BLADDER MATERIAL: [ ] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]	
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]	
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	500 ml poly	[X]	
[ ] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[ ]	Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]	
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]	

NOTES: 12/20/11 well purged dry
12/21/11 purging + sampling recharge
well recharged to full (6.47' TOR).

LOCATION SKETCH



SIGNATURE: [signature] Checked by JR 1/6/12

MACTEC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield
FIELD SAMPLE NUMBER: 633027MW107DX2
SITE ID: 633027 MW- 107D / P-107D
SITE TYPE: WELL
DATE: 12/20/11
ACTIVITY: START 1530 END 1650 12/21/11 1325
SAMPLE TIME: 12/21/11 1320

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING
PROTECTIVE CASING STICKUP (FROM GROUND): ~~3.3'~~ 3.25' (JR) 2/23/12 FT
CASING / WELL DIFFER.: ~~0.3'~~ 0.150 FT (JR) 2/23/12

INITIAL DEPTH TO WATER: 29.22 FT
WELL DEPTH (TOR): 77.7 FT
PID AMBIENT AIR: 0 PPM
WELL DIAM.: 2 IN

FINAL DEPTH TO WATER: 29.48 FT
SCREEN LENGTH: 10' FT
PID WELL MOUTH: 0 PPM

WELL INTERGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

DRAWDOWN VOLUME: 0.26 GAL
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})
RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED
PRESSURE TO PUMP: 40 PSI

TOTAL VOL. PURGED: 6.2 GAL
.04
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)
REFILL SETTING: 12
DISCHARGE SETTING: 3

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
1535	29.22	Start pump and set rate							
1540	29.78	200	8.2	0.352	11.1	7.3	250	18	
1550	29.97	↓	9.4	0.381	11.1	3.5	24	12	
1555	29.72	130	8.8	0.364	11.0	3.2	27	12	
1600	29.68	↓	8.1	0.350	11.0	3.1	45	13	
1605	29.72	↓	8.0	0.337	10.8	2.8	73	17	
1610	29.74	135	8.1	0.326	10.7	2.6	100	18	
1615	29.73	↓	7.9	0.320	10.6	2.4	140	19	
1620	29.76	140	8.1	0.313	10.4	2.1	230	23	
1625	29.72	115	7.9	0.313	10.3	2.0	320	26	
1630	29.76	↓	7.1	0.317	10.2	1.9	560	29	
1635	29.74	110	7.3	0.328	9.9	1.7	940	38	
1640	29.75	↓	7.1	0.362	9.7	1.5	980	41	
1645	29.77	↓	7.1	0.420	9.3	1.2	970	53	
1650	Compressor stopped working								
12/21/11									
1115	DTW Began	Purging							11/4 38 PSI
1118	29.55	95	7.61	0.382	11.10	4.83	58.1	7.3	
1123	29.29	100	6.71	0.381	11.16	4.26	45.9	3.3	
1128	29.30	100	5.86	0.371	11.14	3.91	41.5	14.0	
1133	29.30	100	5.64	0.353	10.84	3.29	73.1	~~26.89~~ 13.1	
1138	29.30	100	5.48	0.352	10.25	2.72	141	28.5	
1143	29.31	115	5.33	0.372	10.00	2.25	186	41.6	
1148	29.31	105	5.57	0.397	9.75	1.78	239	53.5	Cont. on pg 2

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [ ] GEOPUMP (peristaltic) [X] QED BLADDER
TYPE OF TUBING: [ ] ~~HIGH~~ LOW DENSITY POLYETHYLENE [ ] OTHER
TYPE OF PUMP MATERIAL: [X] STAINLESS STEEL [ ] OTHER
TYPE OF BLADDER MATERIAL: [X] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

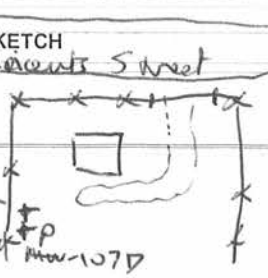
	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED	
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]	
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]	
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	500 ml poly	[X]	
[X] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[X]	Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]	
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]	

NOTES:

Checked JK 1/6/12

SIGNATURE: Jerry Randolph / Jim J. T

LOCATION SKETCH



MACTEC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield
FIELD SAMPLE NUMBER: 633027MW107DXX
SITE ID: 633027 MW- 107D / P-107D
SITE TYPE: WELL
DATE: 12/21/11
ACTIVITY: START 12/20/11 1100 END 1325
SAMPLE TIME: 12/21/11 1320

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	29.22 FT	WELL DEPTH (TOR)	77.7 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	2'3.25 FT (JR 2/23/12)
FINAL DEPTH TO WATER	29.48 FT	SCREEN LENGTH	10 FT	PID AMBIENT AIR	0 PPM
DRAWDOWN VOLUME	0.26 GAL	PID WELL MOUTH	0 PPM	CASING / WELL DIFFER.	~~WRK 0.03~~ 0.50 FT (JR 2/23/12)
(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})				WELL DIAM.	2 IN
TOTAL VOL. PURGED	6.2 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED	.04	PRESSURE TO PUMP	40 PSI
(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)				REFILL SETTING	12
				DISCHARGE SETTING	3

WELL INTERGRITY:

	YES	NO	N/A
CAP	A		
CASING	A		
LOCKED	A		
COLLAR	A		

PURGE DATA

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
1153	29.37	125	5.87	0.438	9.46	1.39	262	66.2	
1158	29.40	125	6.26	0.455	9.33	1.13	282	73.0	
1203	29.40	125	6.60	0.479	9.18	0.89	310	80.2	
1208	29.42	125	6.69	0.493	9.08	0.69	336	84.7	
1213	29.43	125	6.70	0.498	9.03	0.61	329	85.7	
1218	29.45	125	6.85	0.504	8.98	0.54	358	86.2	
1223	29.43	110	6.69	0.506	8.97	0.49	348	87.2	
1228	29.45	115	6.38	0.509	8.97	0.45	373	89.6	
1233	29.45	115	6.20	0.511	8.95	0.42	372	90.8	
1238	29.45	115	5.85	0.510	8.94	0.39	424	92.1	
1243	29.45	115	5.96	0.510	8.94	0.39	508	92.8	
1248	29.46	115	5.97	0.507	8.93	0.36	554	93.0	
1253	29.47	115	6.03	0.507	8.92	0.35	6079	92.9	
1258	29.48	110	6.18	0.512	8.90	0.34	650	92.7	
1303	29.48	110	6.23	0.529	8.83	0.32	568	91.2	
1308	29.48	110	6.15	0.543	8.78	0.31	537	90.6	
1313	29.48	110	6.11	0.550	8.75	0.30	521	89.0	
1318	29.48	110	6.01	0.556	8.71	0.29	555	88.6	
			6	0.556	8.7	0.3	550	89	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP: [ ] GEOPUMP (peristaltic) [X] QED BLADDER
TYPE OF TUBING: [X] ~~HIGH~~ low DENSITY POLYETHYLENE [ ] OTHER
TYPE OF PUMP MATERIAL: [X] STAINLESS STEEL [ ] OTHER
TYPE OF BLADDER MATERIAL: [X] TEFLON [ ] OTHER

ANALYTICAL PARAMETERS

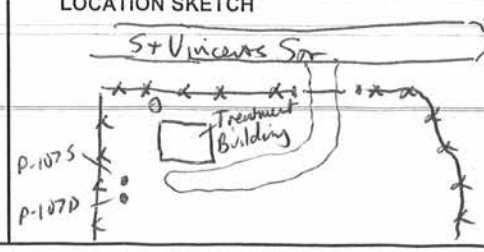
	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	500 ml poly	[X]
[X] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[X] Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]

NOTES:

Checked by JR 1/4/12

SIGNATURE: Jim J. M

LOCATION SKETCH



MACTEC

FIELD DATA RECORD - LOW FLOW GROUNDWATER SAMPLING

JOB NUMBER: 3612112176-04

PROJECT: NYSDEC A Primoshield | FIELD SAMPLE NUMBER: 633027MW108XX

SITE ID: 633027 MW- 108 / P-108 | SITE TYPE: WELL | DATE: 12/20/11

ACTIVITY: START ~~0931~~ JK 0915 END 1130 | SAMPLE TIME: 1120

WATER LEVEL / PUMP SETTINGS

MEASUREMENT POINT: [X] TOP OF WELL RISER [ ] TOP OF PROTECTIVE CASING

INITIAL DEPTH TO WATER	5.91 FT	WELL DEPTH (TOR)	18.7 FT	PROTECTIVE CASING STICKUP (FROM GROUND)	2.5 FT
FINAL DEPTH TO WATER	8.79 FT	SCREEN LENGTH	10' FT	PID AMBIENT AIR	0 PPM
DRAWDOWN VOLUME	.46 GAL	RATIO OF DRAWDOWN VOLUME TO TOTAL VOLUME PURGED	0.14	PID WELL MOUTH	0 PPM
TOTAL VOL. PURGED	3.21 GAL			PRESSURE TO PUMP	NA PSI
				REFILL SETTING	NA

(initial - final x 0.16 {2-inch} or x 0.65 {4-inch})

(purge volume (milliliters per minute) x time duration (minutes) x 0.00026 gal/milliliter)

CASING / WELL DIFFER.: .27 FT

WELL DIAM.: 2 IN

WELL INTERGRITY:

	YES	NO	N/A
CAP	X		
CASING	X		
LOCKED	X		
COLLAR	X		

DISCHARGE SETTING: NA

PURGE DATA

0931 Began Purging

TIME	DEPTH TO WATER (ft)	PURGE RATE (ml/m)	TEMP. (deg. c) +/- 3	SPECIFIC CONDUCTANCE (mS/cm) +/- 3%	pH (units) +/- 0.1	DISS. O2 (mg/L) 10%	TURBIDITY (ntu) +/- 10%	ORP (mv) +/- 10	COMMENTS
0935	6.63	135	8.77	0.835	6.96	4.53	10.2	180.0	
0940	7.03	115	8.51	0.832	7.08	2.63	10.1	121.9	
0945	7.19	95	8.51	0.842	7.10	2.69	10.2	91.0	
0950	7.45	100	8.58	0.833	7.10	2.60	9.79	72.0	
0955	7.71	100	7.73	0.832	7.11	2.39	9.21	57.3	Inc. Purge Rate to try + stabilize DTW.
1000	7.98	150	8.36	0.831	7.13	2.52	9.54	86.8	
1005	8.01	160	8.53	0.834	7.15	2.43	9.37	83.0	
1010	8.04	160	8.79	0.837	7.19	2.61	7.61	78.7	
1015	8.16	160	8.90	0.836	7.21	2.19	7.22	48.4	
1020	8.28	170	8.89	0.839	7.21	2.15	6.04	37.3	Reduced Purge Rate
1025	8.36	125	8.67	0.839	7.22	2.15	5.83	28.4	
1030	8.42	125	8.28	0.840	7.23	2.12	6.12	22.1	
1035	8.45	100	8.34	0.834	7.22	2.05	6.01	18.1	
1040	8.49	100	8.19	0.832	7.25	1.92	3.51	15.9	
1045	8.54	100	8.17	0.831	7.25	1.92	3.11	14.5	
1050	8.59	100	7.96	0.830	7.25	1.93	3.82	15.8	
1055	8.63	100	8.06	0.830	7.26	1.82	3.49	12.0	
1100	8.67	100	8.10	0.825	7.27	1.79	2.90	7.4	
1105	8.71	100	8.15	0.825	7.27	1.74	2.53	6.8	
1110	8.75	100	8.17	0.826	7.26	1.71	2.27	6.2	
1115	8.79	100	8.19	0.826	7.26	1.64	2.45	7.7	
			8	0.826	7.3	1.6	2.5	8	

EQUIPMENT DOCUMENTATION

TYPE OF PUMP	TYPE OF TUBING	TYPE OF PUMP MATERIAL	TYPE OF BLADDER MATERIAL
[X] GEOPUMP (peristaltic)	[X] ~~HIGH~~ LOW DENSITY POLYETHYLENE	[ ] STAINLESS STEEL	[ ] TEFLON
[ ] QED BLADDER	[ ] OTHER	[X] OTHER	[ ] OTHER

ANALYTICAL PARAMETERS

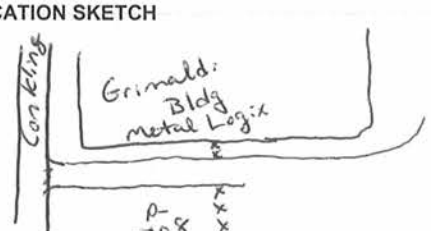
	METHOD NUMBER	PRESERVATION METHOD	VOLUME REQUIRED	SAMPLE COLLECTED
[X] VOCs	USEPA - 8260	HCl to pH <2	2 X 40 ml vial	[X]
[ ] VOCs	USEPA - 624	HCl to pH <2	2 X 40 ml vial	[ ]
[X] TAL METALS	USEPA 6010/7470	HNO3 to pH <2	500 ml poly	[X]
[ ] TAL METALS Diss. Monitoring	USEPA 200.7	HNO3 to pH <2	500 ml poly	[ ] Field Filtered
[ ] Cyanide	USEPA -9010	NaOH/ASC	250 ml poly	[ ]
[ ] Hex Chrome (Cr+6)	USEPA 218.5	4 DEG. C	w/Fluor.- Sulfate	[ ]

NOTES: Slow recharge - Still getting drawdown at 100ml/min - lowest rate sustainable with pump. Have purged x 7x drawdown volume - all parameters stable except water level - collecting sample.

Checked by: JK 1/6/12

SIGNATURE: Jim J. T

LOCATION SKETCH



MACTEC

Appendices

Appendix 2 –

AMEC July 14, 2011 Trip Report

Site Visit: Primoshield Site #633027
Utica, NY 13501
3612072076 (01.01)

Date of Visit: 07/14/2011

Attendees: Will Welling (NYSDEC PM)
Karl Ladner (MACTEC)
Jeri Kiburz (MACTEC)

Objective of visit: To determine the best course of action of arranging the sump pump such that it could be maintained without confined space.
Check general site conditions.
Locate monitoring wells.

Photo Log: Taken by Will Welling on a previous visit 07/01/2011.

GENERAL OVERVIEW

Through visual observations the following was determined:

- The site in general is in good condition.
- Fence is upright and grass is mowed.
- Treatment building is also in good condition. No leaks in the roof, doors and hinges work ok.
- Clean-outs (5 total on 3 drain lines) are in good condition (lids and concrete). 3 clean-outs are located within the fenced in area of the site and 2 are located just northeast of the site on property owned by Ms. Gail Rodriguez. The drain lines evacuate shallow groundwater to the sump vault.
- All breakers and controls in the panel inside the treatment building appear to be in good condition. (no rusting or corrosion)
- Sensaphone 1104 (alarm call out devise) works ok but there is currently no phone service at the site so it is unable to call out if there is an alarm.
- All treatment plant piping and valves appear to be in good condition as there are no visible breaks or leaks. Currently, water from the sump vault is pumped through a basket strainer and then directly to the city sewer, bypassing the carbon units. Carbon units are offline due to little or no volatile organics detected in treatment system water samples per Will Welling.

SUMP PUMP

Will Welling would like MACTEC to arrange the sump pump such that in the future if maintenance were needed it could be performed by one person. Currently the sump pump:

- Requires two people and confined space entry equipment to perform maintenance.
- Is hard piped to the influent piping leading to the treatment building.
- Is tripping the breaker.

- Vault is filled with approximately 7ft. of water. The vault is approximately 5ft wide and 12ft deep.
- Unsure of the condition of the drain tile and whether there are shut offs associated with them inside the vault. Currently the drain tile inlets are inside the vault under water.

Recommend using a portable sump pump to evacuate the water from the vault and pump it through the treatment system and into the city sewer. Once the vault is emptied we can determine the existence of any shut offs on the drain tile inlets. After drain lines have been shut off (whether by pre-existing valves or installed caps), remove the existing sump pump by cutting the hard pipe and lifting it out either by hand or a small winch.

Re-install existing sump pump (if operating ok; determined by cleaning the impellers; taking amp readings on the pump) or install a new sump pump with flexible pipe to a camlock on the influent piping leading to the treatment building. The sump pump will then be attached to a chain or rope for lifting in and out of the vault for maintenance purposes.

PHONE SERVICE

No phone service at this time. Will Welling would like MACTEC to re-establish service.

WELLS

Onsite wells appear to be in good condition from the outside. Locks are rusted and will need to be replaced. Will Welling recommended that MACTEC purchase keyed alike locks #0344 from Grainger's. There are no concrete pads visible and all wells are stick-ups.

Offsite Wells:

P104 appears ok and locked. It is located in a vegetable garden northeast of the site. The property owner is Mr. Emir Arnautovic.

P101S has been hit by something but is still usable. Concrete pad is pushed up and there are no protective posts.

P101D appears ok. No protective posts.

P108 appears ok. No protective posts.

P102 does not exist.

Wells 101S, 101D, 108 are on Metal Logix (Mr. Joel Grimaldi) property.

PROPERTY OWNERS

Ms. Gail Rodriguez
1208 St. Vincent Street
Utica, NY 13501

Mr. Emir Arnautovic
1206 St. Vincent Street
Utica, NY 13501

Metal Logix
Mr. Joel Grimaldi
1305 Conkling Avenue
Utica, NY 13501

Prior to any work, more specifically well sampling, Will Welling asked MACTEC to send the NYSDEC a 10-day notice to the property owners so that they would be aware of upcoming work and our presence at the site.