FIFTH FIVE-YEAR REVIEW REPORT FOR NATIONAL PRESTO INDUSTRIES SUPERFUND SITE CHIPPEWA COUNTY, WISCONSIN

Prepared by

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Region 5
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Date

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ATTACHMENTS

LIST OF ABBREVIATIONS & ACRONYMS

AOC	Administrative Order on Consent
ARAR	Applicable or Relevant and Appropriate Requirement
AWS	Alternate Water Supply
Cd	Cadmium
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
DOA	Department of Army
DCE	Dichloroethene
ECMWF	Eau Claire Municipal Well Field
EDS	East Disposal Site
EPA	United States Environmental Protection Agency
ES	(Wisconsin Administrative Code Ch. NR140) Enforcement Standard
ESD	Explanation of Significant Differences
FID	Flame Ionization Detector
FS	Feasibility Study
FYR	Five-Year Review
ICs	Institutional Controls
IRM	Interim Remedial Measure
MNA	Monitored Natural Attenuation
MCL	Maximum Contaminant Level
MRDS	Melby Road Disposal System
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operation and Maintenance
QAPP	Quality Assurance Project Plan
PAL	(Wisconsin Administrative Code Ch. NR140) Preventative Action Limit
PCE	Perchloroethylene or Perchloroethene or Tetrachloroethene
RAO	Remedial Action Objectives
RI	Remedial Investigation
ROD	Record of Decision
RPM	Remedial Project Manager
SDWA	Safe Drinking Water Act
Site	National Presto Industries Superfund Site
SVE	Soil Vapor Extraction
TBC	To be considereds
TCA	Trichloroethane
TCE	Trichloroethene
UU/UE	Unlimited Use and Unrestricted Exposure
VOC	Volatile Organic Compound
WAC	Wisconsin Administrative Code
WDNR	Wisconsin Department of Natural Resources

I. INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy is and will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports such as this one. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The United States Environmental Protection Agency (EPA) is preparing this FYR report pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121, consistent with the National Contingency Plan (NCP)(40 CFR Section 300.430(f)(4)(ii)), and considering EPA policy.

This is the fifth FYR for the National Presto Industries (NPI) Superfund Site (Site). The triggering action for this statutory review is the completion of the previous FYR report dated September 4, 2012. EPA conducted the FYR because hazardous substances, pollutants, or contaminants remain at the site above levels that allow for unlimited use and unrestricted exposure (UU/UE).

The NPI site consists of three operable units (OUs) and all are reviewed in this FYR. OU1 consists of an interim action of groundwater pump and treat systems at NPI; OU2 of constructing an Alternate Water System (AWS) to address the contaminated drinking water north of the NPI site; and OU3 is the final site-wide remedy which addresses the Melby Road Disposal Site (MRDS) and includes the selection of a cap and a soil vapor extraction (SVE) system.

The NPI Superfund Site FYR was led by EPA Remedial Project Manager (RPM) Howard Caine. Participants included:

Mae Willkom, Wisconsin Department of Natural Resources (WDNR)
Jeff Pippenger, Eau Claire Municipal Well Field
Derek Schad, Village of Lake Hallie
Derrick Paul, NPI
Dave Olig, Gannett Fleming (contractor for NPI)
Cliff Wright, Gannett Fleming (contractor for NPI)

EPA notified WDNR and NPI by letter that it was initiating the FYR. The review began on August 29, 2016.

Site Background

The NPI site is located at 3925 North Hastings Way in Eau Claire, Wisconsin. The property lies within the city of Eau Claire, with the exception of a 9-acre parcel on the eastern part of the site that is located in the village of Lake Hallie and a 4-acre parcel in the southern part of the property that is located in the town of Seymour. Most of the 320-acre NPI property is situated in Chippewa County with a small portion located along the northern border of Eau Claire County. The village of Lake Hallie (formerly the unincorporated town of Hallie) (Lake Hallie) is located north and east of the NPI property, while the city of Eau Claire (Eau Claire) is located south and west of the site.

Prior to its purchase by the United States Government (War Department) in 1942, the NPI site was owned by nine individuals and was predominantly farmland with isolated areas of woodlands. The property's history is below:

- 1942 to 1945, the site was a government-owned, contractor-operated producer of ordnance chemicals and radar tubes.
- 1947, NPI purchased the property from the U.S. Government. The company initially manufactured household appliances and outboard motors at the facility.
- 1951, artillery shell fuses and aircraft parts were produced by NPI under military contracts.
- 1954, NPI had dedicated the site entirely to defense-related manufacturing, primarily the production of metal parts for 105-MM and 8-inch artillery shells, under contract with the Department of the Army (DOA).
- 1959 to 1965, NPI engaged in little to no active production at the site.
- 1966, the site was again activated and multi-shift production continued until the mid-1970s.
- 1983 to 1984, there was a six-month research and development contract.
- 1971, production of the 8-inch shells ceased.
- 1980, production of the 105-MM projectiles ceased.
- 1981 and 1992, National Defense Corporation, a wholly owned subsidiary of NPI, entered into annual standby contracts with the DOA to maintain the site in a high state of readiness.
- 1996, Jettar, LTD, entered into a lease agreement with NPI, and a portion of the facility was used for producing baby diapers. RMED International, Inc. (RMED) later acquired the assets of Jettar, LTD.
- 2001, Presto Absorbent Products, Inc., (PAPI) a wholly owned subsidiary of NPI, purchased the assets of RMED.
- 2004, PAPI began producing adult incontinence products at the facility.
- 2011, the warehouse used by PAPI was expanded by 66,000 square feet.
- 2017, NPI sold the assets of PAPI to Drylock Technologies, LTD. (Drylock), a Belgium based company. Drylock has entered into a long-term lease for a portion of the facility and will continue production of adult incontinence products at the location.

FIVE-YEAR REVIEW SUMMARY FORM

SITE IDENTIFICATION		
Site Name: National Presto Industries Superfund Site		
EPA ID: WID 006 196 174		
Region: 5	**State:** WI	**City/County:** Eau Claire/Chippewa

SITE STATUS	
NPL Status: Final	
Multiple OUs? Yes	**Has the site achieved construction completion?** Yes

REVIEW STATUS
Lead agency: EPA *[If "Other Federal Agency", enter Agency name]:*
Author name (Federal or State Project Manager): Howard Caine
Author affiliation: EPA
Review period: 8/29/2016 - 5/19/2017
Date of site inspection: 10/19/2016
Type of review: Statutory
Review number: 5
Triggering action date: 9/4/2012
Due date *(five years after triggering action date)*: 9/4/2017

II. RESPONSE ACTION SUMMARY

Basis for Taking Action

In 1981, during routine water supply sampling, the Eau Claire Municipal Well Field (ECMWF) was found to have volatile organic compound (VOC) contamination in some of the production wells in the north part of the well field. During the Remedial Investigation (RI) at the NPI site it was determined that NPI was the source of the contamination at the ECMWF site.

Waste forge compound, soil/forge compound mix, other wastes, and soil containing contaminants of concern were found at the following source areas on the NPI property: Lagoon No. 1, the MRDS, the East Disposal Site (EDS), Drainage Ditch 3, and Dry Wells 2 and 5. The RI identified VOCs, including trichloroethane (TCA), trichloroethene (TCE), and perchloroethylene (PCE) and their degradation products, 1,1-dichlorethane (1,1-DCA), 1,1-dichloroethylene (1,1-DCE), and 1,2-dichloroethylene (1,2-DCE) in groundwater. Semi-volatile organic compounds (SVOCs) were observed in waste forge compound in Lagoon No. 1, but not in any groundwater samples. Inorganic compounds, including cadmium (Cd), were identified in waste, soil, and water.

The primary risks at the NPI site relate to the potential for the continued contamination of groundwater. In order to provide for the long-term protection and cleanup of the groundwater, EPA stated in the 1996 Record of Decision (ROD) that source areas at the site must be contained or eliminated in order to facilitate the long-term cleanup of the aquifer.

Response Actions

NPI and Eau Claire Municipal Well Field

Pursuant to CERCLA, EPA first placed the nearby and downgradient ECMWF site on the National Priorities List (NPL) in September 1984. Also in 1984, EPA conducted a focused RI to determine the extent and source of the groundwater contamination at the ECMWF site. Based on groundwater monitoring data from private wells and from monitoring wells installed as part of this RI, two distinct plumes, separated by 1,700 feet, were detected. Although EPA investigated several potential sources during the ECMWF site RI, the Agency was unable to confirm the source of the plumes at that time. The NPI site was not initially investigated as a potential source for the groundwater contamination in the ECMWF site RI, but it was identified as a site requiring additional study.

On June 10, 1985, EPA issued a ROD for the ECMWF Superfund site which selected a packed column air stripper as an Interim Remedial Measure (IRM) to address the groundwater contamination at the ECMWF site. The United States Army Corps of Engineers began construction of the air stripper in 1986 and completed construction in June 1987. The system became operational in August 1987. Treated groundwater from the air stripper was discharged into the municipal water treatment plant where it was combined with water from uncontaminated wells for distribution to consumers.

Following the completion of the RI and Feasibility Study (FS), EPA issued the final ROD for the ECMWF site on March 31, 1988. The major components of the selected remedy were:

- continued treatment of contaminated municipal water with the air stripper constructed as the IRM;
- provision of municipal water from the city of Eau Claire to private well users within or near the two plumes (Plumes 1-2) of groundwater contamination identified and mapped during the RI;
- installation of groundwater extraction wells in one of the two plumes of contamination (Plume 2); and
- discharge of untreated groundwater from extraction wells to the Chippewa River.

The September 28, 1992 Close Out Report for the ECMWF stated that an Explanation of Significant Differences (ESD) was being written concurrently with it. It was determined that installation of extraction wells into Plume 2 and discharging this untreated groundwater did not meet the requirements of Wisconsin Code. EPA recognized that, because these items selected in the ECMWF ROD were not being implemented, an ESD was required. However, a search through EPA databases and files indicated that the ESD was never issued. Later, the NPI RODs were also silent on requiring the installation of extraction wells and discharging the untreated groundwater into the Chippewa River. EPA issued an ESD on May 29, 2008 to address this issue. WDNR concurred with the ESD.

In accordance with the ECMWF ROD, the groundwater cleanup goals for the contaminants of concern were the Target Cleanup Levels (TCLs) which were more stringent than the state enforcement standards (ESs). An ESD was signed on December 23, 2009, which changed the cleanup goals to general compliance with Chapter NR 140 of the Wisconsin Administrative Code (WAC).

NPI Pre-ROD

The NPI site was proposed as an NPL site on October 15, 1984, and formally listed on June 10, 1986. Also in 1986, NPI entered into an Administrative Order by on Consent (AOC) with EPA and WDNR to conduct the RI/FS at the NPI site. The AOC became effective on July 8, 1986. The purpose of the RI was to identify sources of contamination and to characterize the contamination at the site. NPI began the RI in 1987 and finalized it on September 12, 1994. Work conducted during the RI included sampling and analysis of groundwater, soils, soil vapor and waste materials, and the conduct of geologic and hydrogeologic studies.

EPA also continued its investigation of the groundwater contamination (Plumes 1-2) at the ECMWF site and found that it was originating from the former manufacturing area at the NPI site. Plumes 3-4 and 5 were later discovered at the NPI site. Plumes 3-4 originated at the MRDS and Plume 5 originated at the EDS.

OU1—Interim Action, Plume Containment at MRDS & SW Corner

In September 1991, EPA issued a ROD for OU1 for contaminated groundwater on the NPI site that selected an interim action consisting of groundwater pump and treat. The objectives of this interim action were plume containment at the Southwest Corner/Lagoon. The selected remedy included installation of groundwater extraction wells (two each in the Southwest Corner and the MRDS) and treatment of the extracted water by two independent cascade aeration units, with discharge of the treated groundwater via the Eau Claire storm sewer system to the Chippewa River. WDNR concurred with the selected remedy.

The design of the OU1 remedy, intended to prevent movement of contaminated groundwater from the MRDS and southwest portion of the NPI property, was prepared by NPI and consisted of two extraction wells and a cascade aerator downgradient of the MRDS, and two extraction wells and a cascade aerator in the southwest corner of the property. The design was approved by EPA with modifications in June 1992. WDNR issued a WAC Chapter 30 permit to extend Eau Claire's sewer outfall into the main channel of the Chippewa River. WDNR issued concentration limits for the discharge, and construction of the interim action for groundwater began in late 1993 and was completed in March 1994. Pumping of the groundwater extraction wells began in March 1994. The two wells at the MRDS pumped at rates of 100 gallons per minute (gpm) and 80 gpm. The extraction wells at the MRDS have since been shut down as part of an 18-month trial shutdown. (See the Progress Since Last Review section for information on this trial shutdown.) At the southwest portion of the NPI property the wells pumped 70 gpm and 130 gpm. Initially, the groundwater extraction wells at the Southwest Corner and the MRDS and the two corresponding cascade aerators ran continuously, except for a short period of down time during the 1998 remedial activities described below. Effluent monitoring showed that the treated groundwater discharge limits were being met.

OU2 – Public Water Supply & Annexation/Hook-up to Eau Claire Municipal Water Supply

On August 1, 1990, EPA issued a ROD for OU2 that provided for an AWS to residents in the town of Hallie and Eau Claire that had private wells that were impacted or potentially impacted by contaminated groundwater from the NPI site. The ROD also called for construction of a community water supply for the impacted area in the town of Hallie and for the extension of the Eau Claire municipal water supply to properties that annexed to the city. The ROD required the abandonment of all private wells within the affected area that are finished in the contaminated aquifer and for annual monitoring of these private wells.

Design of the OU2 remedy was begun in September 1990 and approved by EPA on February 27, 1991. Extension of city water supplies was initiated in July 1991. Eau Claire's portion of the AWS became operational in November 1991. Construction of the Hallie Sanitary District system began in April 1991, and in 1992, the Hallie Sanitary District was formed to operate the new water supply system.

Source Control Measures Selected Prior to Issuance of OU3 ROD

On October 14, 1993, EPA, NPI, and NDC entered into an AOC for the performance of time-critical, on-site removal activities. This AOC, subsequently modified on November 4, 1994, provided for (1) time-critical excavation of the waste forge compound from Lagoon No. 1 and the EDS, and (2) use of waste material as a supplemental fuel at a cement kiln approved under CERCLA. Non-time-critical components of the removal action included characterization, evaluation, design, and remediation of soils and soil gas, if any, remaining in Lagoon No. 1 after the excavation was complete. The estimated cost of the work to be completed pursuant to the removal action was $4.4 million. Removal of the wastes began in 1993, and almost all of the waste forge compound materials had been excavated from Lagoon No. 1 and the EDS by the end of 1995.

OU3 – Waste Removal from Source Areas, SVE & Cap at MRDS, and Long-term Groundwater Monitoring

The final site-wide remedy was identified in the May 15, 1996, ROD for OU3. In addition to those response actions previously completed and currently underway at the NPI site, EPA determined that the following additional measures should be implemented in order to fully address all threats to human health and the environment posed by contamination at the site:

- MRDS and EDS: Installation of an SVE system at the MRDS. Removal of identified concentrated wastes, if any, at the MRDS. Excavation and consolidation of EDS wastes with MRDS wastes and installation of a multi-layer cap compliant with Wisconsin Administrative Code (WAC) Chapter NR 660 (now NR 664, Subchapter N) over the combined wastes at the MRDS. The ROD also stated that EPA would seek deed restrictions limiting land use in the future development of the capped area.

- Drainage Ditch #3: Removal of soils contaminated with waste forge compound and their consolidation with wastes at the MRDS.

- Dry Wells #2 and #5: Removal of contaminated soils with off-site disposal.

- Plume 1/2: Continued operation of the two-column air stripper at the leading edge of the groundwater contaminant plume (at the ECMWF site), continued operation of the NPI site

(Southwest Corner) pump-and-treat system to prevent the off-site migration of contaminated groundwater, and long-term groundwater monitoring of Plumes 1/2.

- Plume 3/4: Continued operation of the MRDS groundwater pump-and-treat system to prevent the off-site migration of contaminated groundwater, long-term groundwater monitoring of Plumes 3-4, and surface water sampling in Lake Hallie.

- Plume 5: Long-term groundwater monitoring of Plume 5 and surface water sampling in Lake Hallie.

The final ROD for the NPI site further addressed contamination in the groundwater contaminant plumes (1-2) traveling from the NPI site to the ECMWF site and serves as EPA's final remedy with regard to these plumes. It also provided for long-term operation, maintenance, and repair of the ECMWF air stripper and the installation and operation of on-site groundwater extraction wells at the MRDS and Southwest Corner downgradient of Lagoon No. 1 and Drainage Ditch #3.

NPI removed both pumpable (about 1.1 million gallons) and non-pumpable (about 5,000 cubic yards) waste forge compounds from Lagoon No. 1 between late 1993 and late 1995 and sent the wastes to a CERCLA-approved cement kiln for use as secondary fuel. Approximately 9,800 cubic yards of soil and forge compound were incorporated under the cap at the MRDS. The SVE system was subsequently installed in Lagoon No. 1 prior to backfilling, and operated from September 1997 to August 1998. In September 1998, EPA approved the abandonment of the SVE wells and the backfilling of Lagoon No. 1. Waste forge compound and contaminated soils at the EDS and in Drainage Ditch #3 have been excavated and incorporated, along with the Lagoon No. 1 waste described above, under the cap at the MRDS. Contaminated soils from Dry Wells #2 and #5 have been excavated and disposed of at a licensed sanitary landfill. The Lagoon No. 1 activities were completed by June 1998. All these activities, with the exception of the Lagoon No. 1 excavation and SVE activities occurred during the summer of 1998. In addition, the SVE system was installed beneath the cap at the MRDS to remove contaminated soil gas. Routine sampling of the SVE exhaust gas is done to monitor the performance of the system.

NPI also conducted several other removal actions of material contaminated with waste forge compound, although they were not specifically required by the 1996 ROD. Excavated areas include the east extension of former Lagoon No. 1, about 7,000 square feet from an area west of former Lagoon No. 1 in the southwest property corner, a swale between former Lagoon #3 and #4 in 1998, the southwest corner of former Lagoon #2 in 2000, and in 2001 the loading dock area at the south end of NPI's main building. All the material from the southwest property corner and most of the material from the east extension of former Lagoon No. 1 were consolidated at the MRDS in 1998. Approximately 350 cubic yards (yd^3) of material from the east extension of Lagoon No. 1, 60 yd^3 of stockpiled material from the MRDS, 60 yd^3 from the former Lagoon #3/#4 swale area, 3,000 yd^3 from the southwest corner of former Lagoon #2, and 1,900 yd^3 from the loading dock area were disposed of off-site at licensed sanitary landfills.

The MRDS cap was constructed as designed in accordance with WAC Ch. NR 660 (now NR 664 Subchapter N) in 1998. The amount of waste that was consolidated at the MRDS was more than anticipated and the extent of the capped area was expanded to the east by approximately 20 percent. The finished capped area was 9.92 acres. Institutional controls (ICs) were required at the MRDS.

The cleanup goal for the groundwater contaminants are the WAC Ch. NR 140.

Status of Implementation

OU1: the remedy for OU1 has been implemented. Remedial actions are ongoing as groundwater cleanup goals have not been met for cadmium. Groundwater cleanup goals have been met for VOCs.

OU2: the remedy for OU2 has been implemented. The alternative water supply for portions of the City of Eau Claire and the Town of Lake Hallie was completed in the early 1990s. This remedial action is completed.

OU3: the remedy for OU3 has been implemented. Remedial actions are ongoing as groundwater cleanup goals have not been met for Cd. Groundwater cleanup goals have been met for VOCs. The IC for MRDS is in place.

Institutional Controls

ICs are required to ensure the protectiveness of the remedy. ICs are non-engineered instruments, such as administrative and/or legal controls, that help minimize the potential for exposure to contamination and protect the integrity of the remedy. Compliance with ICs is required to assure long-term protectiveness for any areas which do not allow for UU/UE. A summary of the implemented and planned ICs for the Site is listed in Table 1 and are further discussed below.

Table 1: Summary of Planned and/or Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
NPI Company Property-MRDS	Yes	Yes	MRDS	To prevent activity that would compromise integrity of the remedy. Prevent residential use of the property. Prohibit use of groundwater.	Restrictive Covenant recorded at Chippewa County Recorder's Office on October 25, 2011.
Non-NPI Company Property-Remedy Components: Air Stripper on ECMWF	Yes	No	ECMWF	To prevent activity that would compromise integrity of the remedy.	Eau Claire Ordinances in place and effective in 1984 and 2008.
Groundwater under NPI Property	Yes	No	NPI Ground-water Plumes	To prevent human consumption of contaminated groundwater until groundwater cleanup goals are achieved	Lake Hallie ordinances restricting private wells and cross connections are in place and effective in 1992 with revisions in 1997. Placement of future public supply wells

					by the village subject to WAC Ch. NR811 that prohibits wells in proximity to contaminated groundwater. Eau Claire ordinance on cross connections is in place. Eau Claire ordinance on abandonment of private wells where municipal water is available is in place and effective.
Groundwater-Plumes 1-2	Yes	No	Plumes 1-2	To prevent human consumption of contaminated groundwater until groundwater cleanup goals are achieved	Placement of future public supply wells by the city is subject to WAC Ch. NR811 that prohibits wells in proximity to contaminated groundwater. Eau Claire ordinance is in place. Eau Claire ordinance on abandonment of private wells where municipal water is available is in place and effective.
Groundwater-Plumes 3, 4 and 5	Yes	No	Plumes 3, 4 and 5	To prevent human consumption of contaminated groundwater until groundwater cleanup goals are achieved	Lake Hallie ordinances restricting private wells and cross connections are in place and effective in 1992 with revisions in 1997. Placement of future public supply wells by the village

					subject to WAC Ch. NR811 that prohibits wells in proximity to contaminated groundwater. Eau Claire ordinance on cross connections is in place. Eau Claire ordinance on abandonment of private wells where municipal water is available is in place and effective.
Other areas potentially requiring ICs on the NPI Site property will be determined, such as locations where waste was left in place or remedy components are housed.	Yes	No	TBD	To prevent activity that would compromise integrity of the remedy. Prevent residential use of the property.	Wisconsin Continuing Obligations, enforceable under section 292.12 of the Wisconsin Statutes, completed, and to list them in the WDNR Database. (planned)

A map showing the area in which the ICs apply is included in Attachment A.

The RODs for OU1 and OU2 do not explicitly call for administrative controls or ICs. The OU3 ROD states that EPA will pursue a deed restriction on the MRDS cap area to prevent activities damaging to the cap. An Environmental Protection Access Agreement and Declaration of Restrictive Covenants document was made on September 29, 2011 and recorded at the Chippewa County Register of Deeds on October 25, 2011.

Other ICs to prevent exposure to contaminated groundwater or interference with the groundwater remedies have been developed and implemented. The Town of Hallie has an ordinance in place that prohibits the installation of new private wells and has a permit program for those residents who had wells prior to the creation of the water utility and seek to use such wells for non-potable purposes. The city of Eau Claire has an ordinance in place that prevents cross connections between private wells and the municipal water supply and also allows a five-year timeframe for the use of a supply well once the residence has hooked up to municipal water. There are no ordinances which allow for the construction of new supply wells within the city's jurisdiction. The Eau Claire City/County Health Department requires a permit for the construction of any new well.

There are several additional areas of contamination on-site which have been cleaned up, but some waste was left in place and would not allow for UU/UE and thus ICs are needed. Some of these areas were reviewed by the WDNR remediation program case closure committee and the determination made that if EPA required no further action in those specific areas the state would concur. Some of these determinations specifically required ICs. Others were areas subject to removal actions on-site. Those areas and dates WDNR concurred with the request included the EDS (10/15/1999), Drainage Ditch #3 (11/2/2000), southwest property corner (10/15/1999), Dry Wells #2 and #5 (10/15/1999), and Lagoon #2 (8/30/2005). No Further Action requests have been submitted for Lagoons #1 and the East Extension and the loading dock/parking lot area, but they have not yet been approved by WDNR. At this time, initial IC evaluation activities have determined that the only necessary ICs that have been implemented to date in the non-UU/UE areas are those that restrict groundwater use in the downgradient areas and for the MRDS cap area.

Status of Access Restrictions and ICs: ICs and access restrictions as required by the OU3 ROD are in place with local ordinances and a Restrictive Covenant at the MRDS. As discussed above, there may be other areas that do not meet UU/UE and for which ICs would be needed. EPA, WDNR, and NPI will review the Site to identify any other areas which may need ICs. This includes areas where remedy components are located or which do not meet UU/UE. Any areas needing ICs will be addressed by having Wisconsin Continuing Obligations, enforceable under section 292.12 of the Wisconsin Statutes completed, and to list them in the WDNR Database.

Current Compliance: There are currently no known uses of the Site which would be considered inconsistent with the objectives to be achieved by the ICs. A fence is in place to restrict access, and based on inspections and interviews, EPA is not aware of any uses of the Site or contaminated media which are inconsistent with the objectives of the ICs required by the RODs.

Long Term Stewardship: Since compliance with ICs is necessary to ensure the protectiveness of the remedy, planning for long-term stewardship (LTS) is required to ensure that the ICs are maintained, monitored and enforced so that the remedy continues to function as intended. Plans incorporating LTS procedures (e.g., an LTS Plan) should include the mechanisms and procedures for inspecting and monitoring compliance with the ICs as well as communications procedures. An annual report should be submitted to EPA to demonstrate that the Site was inspected to ensure no inconsistent uses have occurred, to certify that ICs remain in place and are effective, and to document that any necessary contingency actions have been executed.

IC Follow up Actions Needed: Other areas of the Site which may need ICs will be reviewed and evaluated. Any additional areas identified as needing ICs will have Wisconsin Continuing Obligations, enforceable under section 292.12 of the Wisconsin Statutes completed, and will be listed in the WDNR Database.

A LTS Plan will be developed and implemented to ensure that the ICs are maintained, monitored and enforced so that the remedy continues to function as intended.

The Site decision documents did not require ICs for all areas of the Site where they are needed. A decision document for ICs will be completed to document a final decision to add ICs as a component of the selected remedy.

Site-Wide Ready for Anticipated Use

On September 29, 2011, EPA determined that the Site met the requirements for the Site-Wide Ready for Anticipated Use. The Site was found to meet the following requirements: 1) all cleanup goals in the RODs (excluding groundwater) or other decision documents have been achieved for all media that may affect current and reasonably anticipated future land uses, so that there are no unacceptable risks, and 2) all ICs, or other controls, required in the RODs or identified as part of the response action to help ensure long-term protection have been put in place. (The Restrictive Covenant was subsequently recorded on October 25, 2011.)

Systems Operations/Operation & Maintenance

OU1 – Interim Action, Plume Containment at MRDS & SW Corner

The groundwater extraction wells at the MRDS and in the Southwest Corner are performing consistently. Monthly reports are submitted by NPI which summarize the amount of water pumped and treated from each extraction well and from the site as a whole (see Attachment for a summary of the results). Since 2012, the pump rates from extraction wells EW-5 and EW-6 were operating consistently. EW-5 had significant damage to it in September 2015. NPI requested to have it shut down on a trial basis and EPA/WDNR agreed to this shutdown. Subsequently, NPI requested to allow a trial shutdown of EW-6 since the SVE system in Building 105 (installed in 2015) has significantly reduced TCE concentrations in the groundwater (EW-6 was restarted on April 27, 2017 after rebound of TCE was observed in a groundwater sample). EPA/WDNR approved this shutdown. Based on results of groundwater sampling in monitoring wells down-gradient of these extraction wells, they remain effective in containing the contaminant plumes. Extraction well shut-downs have been minimal prior to the requests to take them off-line. The cascade aerators at the Southwest Corner have operated well, effectively removing contaminants with no interruption. The sewer lines to the Chippewa River for discharge of treated, extracted groundwater have also performed well with occasional clean-outs by NPI personnel.

OU2 – Hallie Public Water Supply & Annexation/Hook-up to Eau Claire Municipal Water Supply

All areas that were impacted by the groundwater plumes from NPI have either been annexed to the city of Eau Claire and are served by the Eau Claire Municipal Water System, or are served by Lake Hallie Water System (formerly the Hallie Sanitary District), which was formed in accordance with the ROD for OU2.

The Lake Hallie Water System continues to serve the residents originally included in the ROD requirement for an AWS, and has expanded to now serve the population throughout the incorporated village. The total village population is split 50/50 between municipal water and private supply wells. The village has ordinances that control the construction or maintenance of private wells for non-potable purposes and prohibit plumbing cross connections between private water supplies and the village water system. The village allows residents who have municipal water to also have a private supply well for irrigation purposes. Private supply wells in the plume area have been closed and abandoned unless they are being used for monitoring purposes.

OU3 – Waste Removal from Source Areas, SVE & Cap at MRDS, and Long-term Groundwater Monitoring

NPI prepared an Operations and Maintenance (O&M) Plan for the MRDS cap and SVE system. The O&M Plan discusses the operation and monitoring requirements for both the cap and the SVE system and the quality assurance/quality control procedures to follow. The plan describes how routine maintenance by NPI is to be conducted following manufacturers' recommended schedules and the sampling and analytical requirements.

The SVE system at the MRDS is operated continuously, using one blower at a rate of 570 standard cubic feet per minute (scfm) and nine vent wells. The blower is shut down once per month for 30 minutes to drain condensate from the system. The blower operates continuously, but is shutdown occasionally for routine maintenance if repairs are needed on the system. EPA/WDNR approved winter operation of the SVE system where the blower was operating at about 1/3 of its normal operating flow rate. NPI recently requested a trial shutdown of the blower over the winter months. The blower will resume operation in the warmer months. SVE system emissions are now tested quarterly and monthly reports are submitted to EPA and WDNR. Emission rates of total VOCs are orders of magnitude below the 5.7 lb/hr emission limit defined in WAC Ch. NR 406.04(2).

No problems with the multi-layer cap on the MRDS have been reported. During the site inspection on October 19, 2016, the cap was inspected by EPA and WDNR with a representative of NPI and its consultant. The cap is well vegetated with grass and was mowed. No damage or animal holes were observed and the cap appeared to be in good shape. No fence damage was observed.

A groundwater monitoring program was also developed and has evolved over time as contaminant concentrations declined and new sampling equipment and techniques became available for use. Prior to recent trial shutdowns of remaining extraction wells (see below), the monitoring program consisted of quarterly sampling and analysis of extraction wells EW-5 and EW-6; the effluent from cascade aerator and CAS-2; manhole MH-18; and the groundwater monitoring wells. Sampling frequencies from the groundwater monitoring wells range from quarterly to annual, depending on the historic concentrations of contaminants in a given well. The analytes for all of the wells and CAS-2 are either a select list of five VOCs (DCA, DCE, PCE, TCA and TCE) and/or Cd. The quarterly analytes for MH-18 include the above five VOCs, Cd, pH, temperature, and hardness. The annual analytes for MH-18 include arsenic, aluminum, trivalent and hexavalent chromium, copper, lead, nickel, selenium, silver, zinc, pentachlorophenol, di-n-butyl phthalate, bis (2-ethylhexyl) phthalate, and PAHs. Discharge monitoring reports are submitted quarterly and annually to WDNR. A summary of the results is in Attachment B.

Groundwater elevations are measured during each sampling event to provide data needed to prepare groundwater contour maps.

Samples of the treated groundwater effluent have also been collected and tested for chronic and acute toxicity using the whole effluent toxicity (WET) test. Sampling and testing were quarterly for one year, annually for five years, and bi-annually the last two years. The effluent has passed for all organisms in all sampling rounds and the WET test is no longer required by WDNR.

III. PROGRESS SINCE THE LAST REVIEW

Table 2: Protectiveness Determinations/Statements from the 2012 FYR

OU #	Protectiveness Determination	Protectiveness Statement
1	Short-term Protective	The remedy for OU1 is considered protective in the short term because there is no evidence that there is current exposure. Long term protectiveness will be achieved when groundwater on and from the NPI site attains cleanup standards. All ICs required in the ROD have been implemented.
2	Protective	The remedy for OU2 is protective of human health and the environment because cleanup standards have been met, and in the interim, exposure pathways that could result in unacceptable risks are being controlled through the use of ICs.
3	Short-term Protective	The remedy for OU3 is considered protective in the short term because there is no evidence that there is current human exposure to site contaminants. Long term protectiveness of the waste removals and MRDS will occur after groundwater on and from the NPI site attains cleanup standards. All ICs required in the ROD have been implemented.
Sitewide	Short-term Protective	EPA considers the site-wide remedy to be protective in the short term because the remedial actions have been fully implemented and are operating as intended. Effective ICs have been implemented and are being maintained as well. There is no evidence of current human exposure to site contaminants. Long-term protectiveness will be achieved when groundwater on and from the NPI site attains cleanup standards.

Table 3: Status of Recommendations from the 2012 FYR

OU #	Issue	Recommendations	Current Status	Current Implementation Status Description	Completion Date (if applicable)
03	NPI to develop a plan to address the on-site cadmium in the groundwater	NPI and U.S. EPA/WDNR to meet in Fall 2012 to discuss how to address the on-going cadmium contaminants. NPI to develop a workplan to address cleanup of the cadmium in the groundwater.	Completed	NPI prepared a plan to address the cadmium contamination on December 19, 2016.	12/19/2016
03	NPI to continue to identify the on-site source of TCE contamination by Building 105	NPI to continue to investigate source of TCE by Building 105.	Completed	NPI installed a SVE system in the main building on January 6, 2015. TCE contamination in the groundwater is now below NR 140 ES.	1/6/2015

Other Recommendation: The 2012 FYR contained an additional recommendation: NPI should develop ICs for the areas identified by WDNR in the No Further Action Requests. An example of addressing these ICs would be to apply Wisconsin Continuing Obligations, enforceable under section 292.12 of the Wisconsin Statutes, and to list them in the WDNR Database. See the Institutional Controls section above. This recommendation is on-going.

Other Progress Made Since the 2012 FYR

Extraction Well EW-5

NPI requested a 12-month Trial Shutdown of EW-5 on October 22, 2015. EPA granted this request. There was a hole or rip/tear in its well screen and currently there is no pump in the well. The trial shutdown in ongoing and NPI has not requested a permanent shutdown of EW-5.

Extraction Well EW-6

NPI requested a 12-month Trial Shutdown of EW-6 on November 16, 2016. EPA granted the request. NPI will continue to monitor groundwater in this area, and if rebound occurs, the company will re-activate the extraction well. Sampling in March 2017 found that TCE had rebounded in MW-76A to 4.6 ppb (just below the ES of 5 ppb). NPI reinstalled EW-6 and restarted it on April 27, 2017.

MW-34/70 Area

NPI evaluated the MW-34/70 area, in a report dated September 24, 2015, where an SVE system was put into place to address the TCE degreaser sludge which was found after the 1996 OU3 ROD was implemented. NPI wanted to determine whether the existing SVE was treating the buried sludge effectively in 2015. NPI found that it appears the buried degreaser sludge is relatively heterogeneous (compared to the native sand and gravel) and irregular in thickness. Airflow occurs primarily in the

native sand and gravel, by-passing the sludge, which limits the effectiveness of the current SVE system. The relatively impermeable and/or dense material impedes airflow, and residual TCE is absorbed to organics associated with the degreaser sludge. Diffusive transport continues, but at such a slow rate that pockets of degreaser sludge with elevated TCE remained in September 2010, following eight years of seasonal SVE. Based on the September 2010 analytical and historical SVE exhaust gas sample data, GF estimates that approximately 75 lbs of TCE currently remains in the sludge and that TCE is the predominant VOC, accounting for 75 percent or more of the residual VOC mass. NPI evaluated different alternatives to address the VOC contamination and recommended that NPI: 1) continue to operate the existing SVE system, 2) assume a 30-year timeframe for addressing the residual TCE in the degreaser sludge starting in August 2003 and 3) conduct supplemental Geoprobe sampling in August 2023 to document residual TCE concentrations in the buried degreaser sludge. This would leave 10 years to complete additional remediation and address the residual TCE, if necessary, within the 30 year timeframe. A work plan would be submitted for review prior to sampling. The SVE system continues to operate in the MW34/70 area.

Building 105

NPI conducted an investigation to locate the source of groundwater contamination near Building 105. Sampling in 2013 determined that there were VOCs west of the building, but not east of the building. It was concluded in a report dated January 16, 2014, the VOCs were underneath the building, but a source was never found. NPI installed an SVE system in the building on January 6, 2015. The SVE system has significantly reduced the concentration of TCE in the groundwater.

Melby Road Disposal Area SVE System

NPI requested a 6-month Trial Shutdown of the SVE system at the MRDS in the April 2016 *Modified Cold Weather Operation/Assessment* report for the MRDS SVE system. EPA granted this request on December 2, 2016. The system operated for a week in March 2017 at the previously approved low flow winter operation. The system resumed normal operation in June 2017 for 6 months unless the Agencies determine that the SVE should return to 12-month operation based on the data collected. EPA had granted NPI's request to operate the blowers at low flow during the winter of 2016.

Well Abandonment

Well nest MW-44 was plugged and abandoned in August 2015.

IV. FIVE-YEAR REVIEW PROCESS

Community Notification, Involvement & Site Interviews

A kick-off letter was sent to WDNR on August 29, 2016 notifying the state of the start of the FYR. (see Attachment C). A public notice was made available by a newspaper posting in the *Chippewa Herald* on November 24, 2016, stating that there was a FYR and inviting the public to submit any comments to EPA (see Attachment D). The results of the review and the report will be made available at the Site information repository located at the Chippewa Falls Public Library, 105 W. Central St., Chippewa Falls, WI 54729 and at https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm? id=0505009

Interviews

During the FYR process, interviews were conducted to document any perceived problems or successes with the remedy that has been implemented to date. The results of these interviews are summarized below.

Jeff Pippenger, Utilities Administrator, ECMWF: The well field is still operating the air stripper at the plant. Occasionally, hits of TCE are still found in Production Well 19. The city is still planning on operating the air stripper in the immediate future. Mr. Pippenger said that the city has a good relationship with NPI. The city is updating the wellhead protection ordinance by adding 2 production wells. The city is keeping up maintenance on the air stripper. The city water plant is also being upgraded.

Derek Schad, Lead Operator, Village of Lake Hallie: The residents by NPI are hooked up to municipal water. There have been no issues with NPI.

Staff of NPI, Gannett Fleming and WDNR were interviewed during the site visit. Their input from the site visit is incorporated into this FYR report.

Data Review

Plumes 1-2 Groundwater

A review of the laboratory analytical results for groundwater from monitoring wells in and around Plumes 1-2 shows that since 2015 no groundwater monitoring wells exceed the ES for TCE. There are no off-site exceedances of Cd.

The RI determined that groundwater contamination from the NPI site is characterized primarily by VOCs. On-site groundwater also contains metals, which includes Cd, at concentrations above background levels in Plumes 1-2. On-site monitoring wells MW-10A, MW-10B, MW-34A, MW-70B and MW-75 located downgradient of Lagoon No. 1 have contained Cd at levels that exceed its maximum contaminant level (MCL) under the Safe Drinking Water Act (SDWA) (5 ppb), the state ES (5 ppb) and the state preventive action limit (PAL) (0.5 ppb) for groundwater. No off-site groundwater monitoring wells exceed these concentrations for Cd. The 2009 ESD changed the groundwater cleanup goals to general compliance with WAC Ch. NR 140.

Table 4 presents sampling data for Cd in groundwater from selected monitoring wells.

Table 4: Cd Groundwater Data

Date	MW-10A	MW-10B	MW-34A	MW-34B	MW-68B	MW-70B	MW-75
3/12/12	NS	3.19	NS	NS	NS	NS	NS
6/26/2012	**22.5**	NS	**11.2**	NS	1.7J	NS	NS
10/10/12	NS	**6.5**	NS	1.6J	NS	2.8J	NS
12/04/12	**18.6**	NS	NS	1.1J	2.1J	NS	NS
4/4/13	**28.8**	**12.0**	Dry	1.8J	3.6J	3.7J	NS
7/1/13	**27.2**	**10.6**	**5.6**	2.0J	3.3J	4.0J	NS
10/14/13	**29.2**	4.2J	**13.7**	2.2J	2.8J	**5.8**	NS
12/6/13	**20.8**	2.0J	**8.8**	1.0J	NS	2.4J	NS
4/16/14	**21.7**	**7.1**	NS	NS	2.5J	2.7J	NS
6/16/14	**23.4**	**8.3**	**7.7**	2.0J	NS	NS	NS
9/16/14	**22.0**	2.8J	NS	NS	2.9J	3.4J	NS
12/2/14	**22.7**	**5.5**	NS	2.1J	3.3J	4.2J	NS
6/17/15	**21.4**	**8.2**	**12.7**	1.2J	2.9J	3.6J	**10.0**
9/22/15	**20.2**	**8.0**	NS	NS	4.3J	3.6J	**5.9**
12/7/15	**20.8**	**6.4**	**10.8**	1.5J	4.0J	3.9J	2.4J

Bold Data: Exceeds Cd ES of 5 ppb
J: Estimated
NS: Not sampled

EPA requested that NPI determine the extent of Cd contamination in the groundwater at the site. Samples were collected from 17 wells in the first 2 quarters of 2013. Groundwater contamination exceeding the ES was found in well nests MW-10 and MW-34. Groundwater contamination exceeding the PAL was found in well nests MW-68 and MW-70. NPI planned to continue sampling these four wells for Cd contamination. The source of the Cd is unknown, however, it is believed to have been generated from plating operations associated with Martin Outboard Motors in the 1940s. Sampling has indicated that the source for Cd is at or near the southeast corner of the main building. NPI presented lines of evidence in a December 19, 2016 report, to demonstrate that monitored natural attenuation (MNA) is a viable option for Cd-contaminated groundwater at the site. EPA and WDNR agreed that MNA is a viable option. The MNA remedy would need to be documented in a decision document.

Plumes 3-4 Groundwater

A review of the groundwater monitoring data from Plumes 3-4 which originates at the MRDS and travels north to Lake Hallie shows that there are no exceedances of the ESs in any monitoring wells in Plumes 3-4.

Plume 5 Groundwater

A review of the groundwater monitoring data from Plume 5, which historically migrated from the EDS to Lake Hallie, shows that there are no exceedances of the ES in Plume 5. The groundwater data provides evidence for the success of the 1995 removal of contaminated materials from the EDS.

1,4-Dioxane Sampling

NPI conducted 1,4-dioxane groundwater sampling in August and December 2016 per an EPA request. No 1,4-dioxane was found.

Vapor Intrusion Study: Sub-Slab Sampling

WDNR requested that NPI conduct sub-slab sampling at its main building to evaluate vapor intrusion. NPI conducted the sampling in June, 2014 and found that all detected concentrations of VOCs were below sub-slab air vapor risk screening levels for large industrial buildings per WDNR guidelines.

Cascade Aerators and Treated Water Discharged to Surface Water

A review of laboratory analytical data from the cascade aerator treatment units indicates that removal rates at Cascade Aerator #2 have averaged approximately 30 to 40 percent. All water discharged to surface water via the storm sewer system has been well below surface water discharge standards. The data is included in Attachment B and shows that the discharge is meeting the required limits.

MRDS SVE System

Air emissions from the SVE system at the MRDS are sampled monthly and analyzed. (EPA/WDNR approved on November 20, 2014 that quarterly, rather than monthly, sampling could begin in January 2015, per an NPI request). The total VOC emission rate ranged from 0.000057 to 0.000141 lb/hr and the cumulate emissions were 0.93 lb total VOCs in 2015. Concentrations are extremely low, generally several orders of magnitude less than the concentration in vapor that could cause an ES exceedance in groundwater. All concentrations are well below permissible emission standards for air quality. The system currently operates at 570 cubic feet per minute. (During the winter of 2016, the system operated at 150-220 cubic feet per minute. NPI requested low-flow operation during the winter only, and it was approved by EPA/WDNR). NPI requested a 6-month trial shutdown of the SVE system during the winter of 2017. EPA and WDNR granted this request.

Twelve vent wells that penetrate the cap and are screened in the vadose zone below the waste are intended to intercept any VOCs that may leach or diffuse from the waste downward before it can potentially discharge to groundwater. The vent wells are screened monthly with a flame ionization detector (FID) that detects the presence of contaminant vapors. When the FID reading is positive, a VOC filter is placed on the FID intake and another reading is taken. In all cases, the filtered reading was the same as the unfiltered reading. The most likely explanation is that the positive reading is caused by methane.

Southwest Corner (aka MW-34/70 Area) SVE System

The SVE system that was constructed in 2003 to address the TCE source area identified in 2002 has operated each year from April until November. Piping runs are above ground, so the system must be shut down during the winter.

Emission rates of total VOCs are orders of magnitude below the 5.7 lb/hr emission limit defined in WAC Ch. NR 406.04(2). Since 2003, approximately 186 lbs of TCE and 356 lbs of total VOCs have been removed, respectively.

Main Building SVE System

The main building SVE system, completed on January 6, 2015, consists of one vent well (VW-1) screened from 15 to 45 feet below the top of the concrete floor, one vacuum blower, and one exhaust gas stack. The intent of this new SVE system is to maintain a vapor barrier that helps improve and protect local groundwater quality from a suspected TCE source beneath Building 105.

Samples were collected in 2015 from the exhaust gas stack of the main building SVE system and the data showed the emission rate of total VOCs ranged over multiple days from 0.00021 to 0.0033 lb/hr well below the 5.7 lb/hr limit defined in NR 406.04(2). The cumulate removal of TCE and total VOCs was 1.80 and 16.2 lbs, respectively.

Site Inspection

EPA conducted the FYR site inspection on 10/19/2016. In attendance were Howard Caine, RPM, EPA; Mae Willkom, WDNR Project Manager; Derrick Paul and Brett Seidlitz, NPI; and David Olig and Cliff Wright, Gannett Fleming. The purpose of the inspection was to assess the protectiveness of the remedy.

The Site appeared to be well maintained and ICs required by the ROD are in place. The cap at the MRDS was in good condition. Groundwater monitoring wells were locked. The East Disposal Site, the Southwest Corner and the MW-34/70 areas were also well maintained. The site inspection report and checklist are in Attachment E.

V. TECHNICAL ASSESSMENT

QUESTION A: Is the remedy functioning as intended by the decision documents?

Yes. Review of the groundwater monitoring results, remedial systems operations data, and the site inspection provide evidence that the selected engineered remedies are functioning as intended by the RODs. The IC required in the 1996 ROD has been fully implemented. No inappropriate site or media uses have been noted during the inspection or interviews.

Capping of the MRDS and the installation and operation of the SVE system has effectively contained and controlled discharge of contaminants from the waste material in the MRDS. The cap has been maintained as required. There have not been increases in groundwater contaminant concentrations down-gradient of the MRDS, indicating that the cap and SVE system are functioning as intended, and any potential contamination from the MRDS is being effectively contained by the SVE system. The ROD for OU3 requires that a deed instrument be implemented to prevent activity that would damage the MRDS cap, and this deed instrument has been recorded.

Groundwater monitoring wells down-gradient of the Southwest Corner demonstrate that waste removal from the source areas and containment by the groundwater extraction wells of groundwater contaminants are effective.

Monitoring wells at and down-gradient of the EDS provide evidence that the removal of waste from the area has been effective in minimizing or preventing discharge of contaminants to the groundwater.

This review has verified that Lake Hallie has an ordinance in place that prohibits the installation of private wells and a permit program for those residents who have retained their private wells for non-potable uses. The city of Eau Claire does not allow cross connections between private wells and the municipal water supply. Eau Claire enacted an ordinance that restricts the construction of new private water supply wells within the city as well as requiring abandonment of existing supply wells.

The monitoring well network that is in place both on and off the NPI property provides the data needed to assess the effectiveness of the selected remedies. The Agencies and NPI modified the groundwater monitoring network and plan, and it should streamline work and reduce costs.

Much of the NPI property is fenced with chain link fence. There are signs present on all sides of the property prohibiting trespassing. A security organization patrols the property to prevent intruders.

TCE cleanup goals for groundwater have been met at the site. The persistent concentrations of Cd in groundwater near the Southwest Corner indicates the presence of a minor as yet unidentified residual Cd source in the vicinity. Several investigations were done and NPI has proposed that MNA could be a viable option. EPA and WDNR agreed that MNA is a viable option. The MNA remedy would need to be documented in a decision document.

While ICs and access restrictions as required by the Site decision documents are in place with local ordinances and a Restrictive Covenant at the MRDS, there may be other areas that do not meet UU/UE and for which ICs may be needed. EPA, WDNR, and NPI will review the Site to identify any other areas which may need ICs. This includes areas where remedy components are located or which do not meet UU/UE. Any areas needing ICs will be addressed by having Wisconsin Continuing Obligations, enforceable under section 292.12 of the Wisconsin Statutes completed, and to list them in the WDNR Database.

A LTS Plan will be developed and implemented to ensure that the ICs are maintained, monitored and enforced so that the remedy continues to function as intended.

The Site decision documents did not require ICs for all areas of the Site where they are needed. A decision document for ICs will be completed to document a final decision to add ICs as a component of the selected remedy.

QUESTION B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

Yes. There have been no changes in the physical conditions of the site that would affect the protectiveness of the selected remedies at these sites and neither has there been any substantive change in the use of the property during the last five years. There have been no changes in land use near the site except for the addition of a bike trail parallel to Melby Road. No other changes are expected in the near future. There have been no newly observed species or ecologic settings. Potential exposure scenarios remain the same.

There have been no changes in either the contaminant characteristics/toxicity or the federal (SDWA MCLs) or state (WAC Ch. NR 140) standards for protection of groundwater as they relate to the

contaminants of concern at these sites. Standard risk assessment methods have not changed in a way that would affect the protectiveness of the remedies at this site.

Four new areas of contamination were identified subsequent to the 1996 Final Remedy ROD - the east extension of former Lagoon No. 1, the southwest property corner, the southwest corner of former Lagoon #2, and the loading dock area. Contamination in each area is being addressed. The waste forge compound mixed with soil in the east extension of Lagoon No. 1 and the small volume of contaminated surficial soils at the southwest property corner were excavated and consolidated under the cap at the MRDS. Soils from the southwest corner of former Lagoon No. 2 and the loading dock area were excavated and disposed of at an off-site landfill. Residual contamination in these areas is being addressed through additional remedial activities and/or ICs. NPI has also investigated contamination near Building 105, and an SVE system was installed in the building. NPI is investigating a Cd area near the southwest corner and is proposing a MNA remedy for the Cd.

Contaminant concentrations of TCE in groundwater are below the NR 140 ES. The selected remedies have been and continue to be effective in protecting human health and the environment.

QUESTION C: Has any other information come to light that could call into question the protectiveness of the remedy?

No. No new information has come to light in the last five years that would call into question the current protectiveness of the selected remedies at the NPI site. Aremedy is being developed for the Cd contamination in the southwest corner, based on groundwater exceeding the ES for Cd. There have been no newly discovered ecological risks. There have been no significant impacts from natural disasters.

VI. ISSUES/RECOMMENDATIONS

Issues/Recommendations				
OU(s) without Issues/Recommendations Identified in the Five-Year Review:				
None				
Issues and Recommendations Identified in the Five-Year Review:				
OU(s): 3	**Issue Category: Institutional Controls**			
	Issue: ICs may not cover all areas of Site where they may be needed.			
	Recommendation: Review/evaluate ICs needs for other areas of Site. If needed, implement Wisconsin Continuing Obligations, enforceable under section 292.12 of the Wisconsin Statutes, and list them in the WDNR Database.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP/EPA/State	EPA/State	6/30/2019
OU(s): 1, 2, 3	**Issue Category: Institutional Controls**			

	Issue: LTS procedures are needed to ensure that effective ICs are monitored, maintained and enforced.			
	Recommendation: Develop and implement a LTS Plan with procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual certification to EPA that the ICs remain in place and are effective.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	PRP	EPA/State	12/31/2018
OU(s): 1, 2, 3	**Issue Category: Institutional Controls**			
	Issue: Decision documents do not require ICs for all areas needing ICs.			
	Recommendation: Complete an ESD to document a final decision to add ICs as a component of the selected remedy.			
Affect Current Protectiveness	**Affect Future Protectiveness**	**Party Responsible**	**Oversight Party**	**Milestone Date**
No	Yes	EPA	EPA/State	12/31/2019

OTHER FINDINGS

In addition, the following are recommendations that were identified during the FYR and may improve management of O&M and accelerate site close out, but do not affect current nor future protectiveness:

- Update the site Quality Assurance Project Plan (QAPP). There are at least 3 different QAPPs for the site and they should be streamlined into a single updated QAPP.
- EPA to review work done since the 1996 ROD and document these items into a decision document.

VII. PROTECTIVENESS STATEMENT

Protectiveness Statement(s)	
Operable Unit: OU1	*Protectiveness Determination:* Short-term Protective
Protectiveness Statement: The remedy at OU1 currently protects human health and the environment because there is no evidence that there is current exposure. However, in order for the remedy to be protective in the long-term, the following actions need to be taken to ensure protectiveness: develop and implement a LTS plan that includes procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual certification to EPA that the ICs remain in place and are effective; and complete a decision document to document a final decision to add ICs as a component of the selected remedy.	

Protectiveness Statement(s)	
Operable Unit:	*Protectiveness Determination:*
OU2	Short-term Protective

Protectiveness Statement:
The remedy at OU2 currently protects human health and the environment because the remedy has been implemented and is operating as intended, cleanup standards have been met, and effective ICs are in place. However, in order for the remedy to be protective in the long-term, the following actions need to be taken to ensure protectiveness: develop and implement a LTS plan that includes procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual certification to EPA that the ICs remain in place and are effective; and complete a decision document to document a final decision to add ICs as a component of the selected remedy.

Protectiveness Statement(s)	
Operable Unit:	*Protectiveness Determination:*
OU3	Short-term Protective

Protectiveness Statement:
The remedy at OU3 currently protects human health and the environment because the remedial components have been implemented and are operating as intended, and there is no evidence that there is current human exposure to site contaminants. However, in order for the remedy to be protective in the long-term, the following actions need to be taken to ensure protectiveness: review/evaluate ICs needs for other areas of Site and if needed, implement Wisconsin Continuing Obligations for those areas, and list them in the WDNR Database; develop and implement a LTS plan that includes procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual certification to EPA that the ICs remain in place and are effective; and complete a decision document to document a final decision to add ICs as a component of the selected remedy.

Sitewide Protectiveness Statement
Protectiveness Determination:
Short-term Protective

Protectiveness Statement:
The Site-wide remedy currently protects human health and the environment because the remedial actions have been fully implemented and are operating as intended, effective ICs have been implemented, and there is no evidence of current human exposure to Site contaminants. However, in order for the remedy to be protective in the long-term, the following actions need to be taken to ensure protectiveness: review/evaluate ICs needs for other areas of Site and if needed, implement Wisconsin Continuing Obligations for those areas, and list them in the WDNR Database; develop and implement a LTS plan that includes procedures for monitoring and tracking compliance with existing ICs, communicating with EPA, and providing an annual

certification to EPA that the ICs remain in place and are effective; and complete a decision document to document a final decision to add ICs as a component of the selected remedy.

VIII. NEXT REVIEW

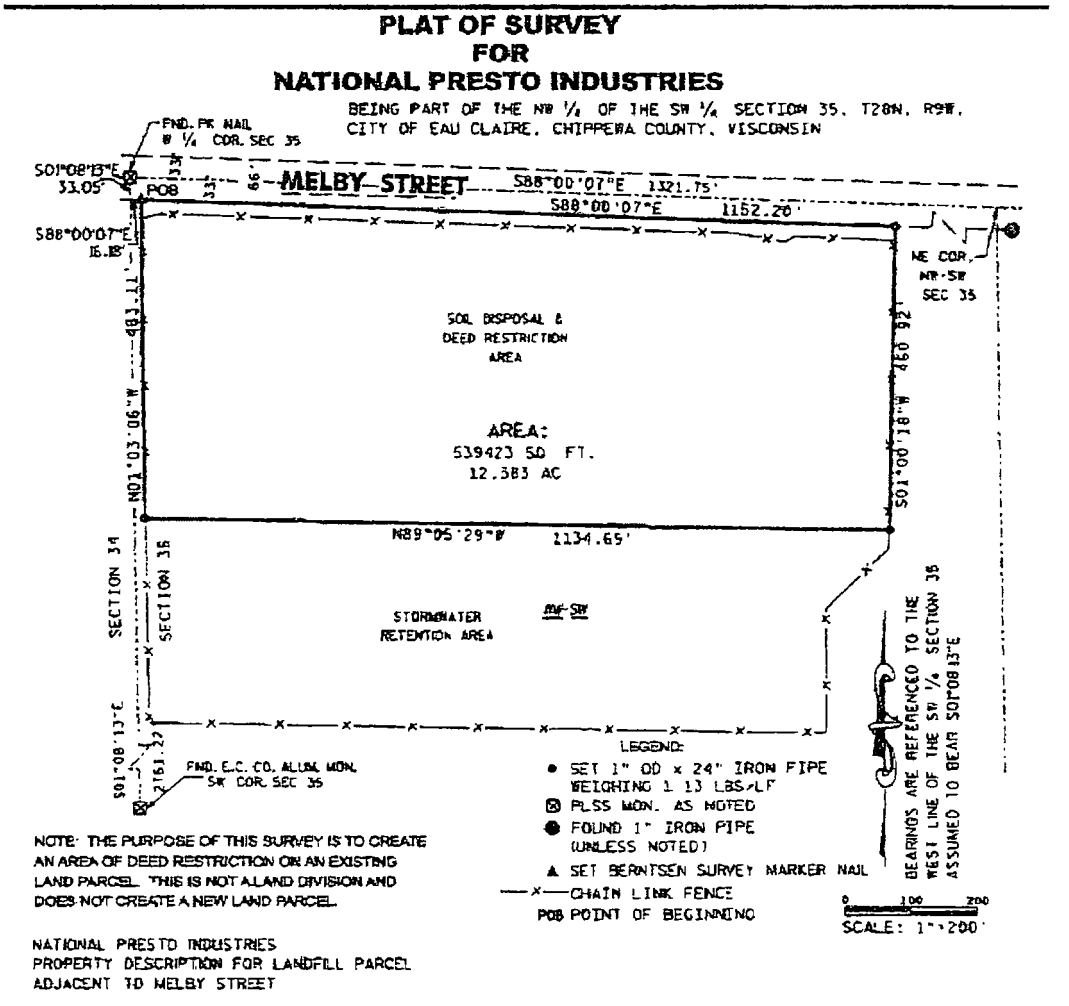
The next FYR report for the NPI Superfund Site is required no less than five years from EPA's signature date of this report.

APPENDIX A – REFERENCE LIST

- Five Year Review, September 4, 2012
- Monthly Progress Reports
- Groundwater Analytical Results for 1,4-Dioxane at NPI, May 16, 2017
- Annual Remedial Action Reports
- Quarterly Discharge Monitoring Reports
- Annual Discharge Monitoring Reports
- Compilation and Analysis of Cadmium Soil and Groundwater Data, June 23, 2015
- Multiple Line of Evidence for RNA/MNA of Cadmium in Groundwater, December 19, 2016
- Cadmium Monitoring Data-Southwest Corner Wells, August 6, 2013
- Groundwater Monitoring Plan January 2012
- Sub-Slab Air Sampling Survey, February 24, 2015
- Main Building SVE System Status Report #1, March 12, 2015
- Additional Investigation September 25, 2013
- Geoprobe Sampling Results-East Side of Building, January 16, 2014
- Remedial Alternative Analysis for the MW-34/70 Area TCE Degreaser Sludge, September 24, 2015
- Sub-Slab Air Sampling, August 19, 2014
- EW-5 Status Report and Work Plan for a 12-Month Trial Shutdown of EW-6, November 16, 2016
- https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0505009

Attachment A

EXHIBIT B
DEPICTION OF THE RESTRICTED AREA



Attachment B

Interim Remedial Action On-Site Groundwater Progress Report 2007 - 12

Date	Tot. GW Dschgd	EW-5	EW-6	
2012	**(MM Gal)**	**(gpm)**	**(gpm)**	
Jan	16 2	168	195	
Feb	13 3	169	194	EW-6 down 2/24-3/1, pump stopped working and was replaced
March	16 4	168	199	
April	16.0	169	202	
May	16 4	169	200	
June	15 6	168	194	
July	16 2	168	195	
Aug	16 2	168	194	
Sept	15 7	168	194	
Oct	16 1	168	194	
Nov	15 6	168	193	
Dec	16 2	168	193	
2013				
Jan	16 2	170	194	
Feb	14.7	170	191	
March	16 0	167	190	
April	15.5	169	190	
May	16 0	168	190	
June	15 3	167	188	
July	16 1	171	190	
Aug	16 1	172	190	
Sept	15.6	171	190	
Oct	16 2	173	190	
Nov	15 7	173	190	
Dec	16 0	170	188	
2014				
Jan	16 0	170	188	
Feb	14 5	170	189	
March	16 0	169	188	
April	15 4	170	188	

May	10 5	142	185	EW-5 was down for 20 days (May 10 - 30)
June	14.2	155	184	EW-5 was down for 23 days (May 10 - June 3)
July	15 6	166	185	
Aug	15 6	165	184	
Sept	12 9	177	183	Electrical issue 9/1-11 both EW-5, 6
Oct	15 7	169	184	
Nov	15 1	167	184	
Dec	15 2	167	174	
2015				
Jan	15 1	166	172	
Feb	13 6	167	171	
March	10 5	150	158	EW-5 stopped working on 3/16
April	9 4	165	140	EW-5 S/D 3/16-4/17 pump stopped, replaced 4/17
May	13 0	167	148	EW-6 operated 5/1, 5/4-11, 5/16-31. Down for water level to recover and for well redevelopment
June	14 4	166	175	EW-6 S/D for 24 hr (6/23-24) because moisture seeped into conduit
July	15 4	165	180	
Aug	15 4	163	181	
Sept	9 6	163	174	EW-5 badly damaged on 9/12 Evaluate permanent S/D EW-6 down 9/8-10 for electrical work.
Oct	8 1	**	182	EW-6 down 10/17 because power off
Nov	7 9	**	183	
Dec	8 2	**	184	EW-6 down 1-2 hrs for electrical work on 12/29
2016				
Jan	8 1	**	185	
Feb	7 6	**	182	
March	8 2	**	183	
April	7.9	**	183	
May	8 1	**	181	
June	7 9	**	183	
July	8.1	**	182	
Aug	8 2	**	184	Cut off temporarily on 8/11 due to due float switch malfunction
Sept	7 9	**	186	
Oct	8 2	**	185	
Nov	8 0	**	184	
Dec	8 2	**	184	

2017				
Jan	4 0	**	186	EW-6 S/D for a trial 12 month S/D approved by EPA/WDNR
Feb	**	**	**	
March	**	**	**	MW-76A rebounded to 4 6 ppb EW-6 restarted in April 2017
April	1 1	**	187	EW-6 restarted on April 27, 2017.
May	8 2	**	184	
June				
July				
Aug				
Sept				
Oct				
Nov				
Dec				

Remedial Design/Remedial Action Progress Report Data

Date	No. of Blowers	Avg. Flow Rate	Manifold Vacuum	FS 12 Vents	SVE Gas Sampled	
2012		(acfm)	(in. H2O)			
Jan	1	570	5 to 6	Y	Y	
Feb	1	570	5 to 6	Y	Y	
March	1	571	4 to 7	Y	Y	
April	1	570	5 to 8	Y	Y	
May	1	570	6 to 7	Y	Y	
June	1	570	4 to 5	Y	Y	
July	1	570	4 to 5	Y	Y	
Aug	1	570	5	Y	Y	
Sept	1	570	5	Y	Y	
Oct	1	570	4 to 5	Y	Y	
Nov	1	570	4 to 5	Y	Y	
Dec	1	570	5	Y	Y	
2013						
Jan	1	570	5 to 7	Y	Y	
Feb	1	570	6 to 9	N	Y	
March	1	570	7 to 10	N	N	SVE/FS vents sampling delayed until April for logistical
April	1	570	7 to 11	Y	Y	reasons.
May	1	570	6 to 9	Y	Y	
June	1	570	6 to 8	Y	Y	
July	1	570	4 to 6	Y	Y	
Aug	1	570	4 to 5	Y	Y	
Sept	1	570	4 to 5	Y	Y	
Oct	1	570	4 to 5	Y	Y	
Nov	1	570	5	Y	Y	
Dec	1	570	4 to 7	Y	Y	
2014						
Jan	1	570	7 to 9	Y	Y	
Feb	1	570	6 to 8	Y	Y	Inadvertently s/d for 96 hrs between 2/20 - 24/14
March	1	570	7 to 8	Y	Y	Operator Error
April	1	570	7 to 9	Y	Y	

May	1	570	7 to 9	N	Y	New Field Tech forgot air pump to the site on 22nd
June	1	570	4 to 7	Y	Y	June 2 blower beaker tripped from 4.15 pm - 7.40 pm
July	1	570	4 to 5	Y	Y	due to lightening strike.
Aug	1	570	4 to 6	Y	Y	
Sept	1	570	5 to 6	Y	Y	
Oct	1	570	5	Y	Y	
Nov	1	570	5	Y	Y	
Dec	1	570	5 to 7	Y	Y	
2015						
Jan	1	570	6 to 8	N	N	Began qrtly sampling
Feb	1	570	5 to 9	N	N	
March	1	570	6 to 10	Y	Y	
April	1	570	6 to 12	N	N	
May	1	570	7 to 9	N	N	
June	1	570	5 to 8	N	N	
July	1	570	4 to 5	N	N	
Aug	1	570	4 to 6	N	N	Variable Frequency Drive (VFD) installed 8/8-10
Sept	1	570	5	Y	Y	
Oct	1	570	4 to 5	N	N	
Nov	1	570	4	N	N	Blower down for mtnce Forgot to restart (11/2-3)
Dec	1	150	<1	Y	Y	Blower down 12/23-30 for mtnce & forgot to restart
2016						
Jan	1	150 to 220	<1	Y	Y	
Feb	1	175 to 220	<1	Y	Y	
March	1	150 to 175	<1	Y	Y	
April	1	570	7 5 to 9	N	N	
May	1	570	4 to 8	N	N	
June	1	570	5	Y	Y	
July	1	570	4 to 5	N	N	Min S/D for condensate trfr or blower changeover.
Aug	1	570	4 to 7	Y	Y	
Sept	1	570	4 to 6	N	N	
Oct	1	570	4 to 5	N	N	
Nov	1	570	3 to 4	N	N	
Dec	1	570	4	Y	Y	

2017						
Jan	**	**	**	N	N	SVE system S/D as a trial S/D for 6 months
Feb	**	**	**	N	N	
March	**	**	**	Y	Y	Measurable increase in VOCs, but two orders of
April	**	**	**	N	N	magnitude below calculated threshold levels.
May	**	**	**	N	N	
June						
July						
Aug						
Sept						
Oct						
Nov						
Dec						

Quarterly Discharge Monitoring Reports 2012-17

Sample	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		Flow
Location	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	(MGD)
10/9/2012											**10/31/2012**
EW-1R	NS		NS		NS		NS		NS		0 0
EW-2	NS		NS		NS		NS		NS		0.0
Influent 1	NS		NS		NS		NS		NS		0.0
Effluent 1	NS		NS		NS		NS		NS		0.0
EW-5	0 90 U		0 75 U		0 57 U		0 45 U		0.80 J		0.242
EW-6	1 7		0 75 U		0.57 U		0 45 U		1.1		0.522
Influent 2	1.33		0 75 U		0 57 U		0.45 U		0 96 J		0.522
Effluent 2	0 90 U	**	0.75 U	**	0 57 U	**	0.45 U	**	0.84 J	12 6	0.522
Manhole 18	0 90 U		0 75 U		0 57 U		0 45 U		0 84 J		0.522
12/5/2012											**12/31/2012**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	0 90 U		0 75 U		0 57 U		0 45 U		0 69 J		0 242
EW-6	2 10		0.75 U		0 57 U		0 45 U		0 91 J		0 279
Influent 2	1 54		0 75 U		0 57 U		0 45 U		0 81 J		0.521
Effluent 2	0 90 U	**	0.75 U	**	0 57 U	**	0.45 U	**	0 62 J	23 2	0 521
Manhole 18	0 90 U		0 75 U		0 57 U		0 45 U		0 62 J		0 521
4/1/2013											**3/31/2013**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	0 90 U		0 75 U		0 57 U		0 45 U		0.78 J		0.238
EW-6	1 60		0 75 U		0 57 U		0 45 U		0.87 J		0 272
Influent 2	1 27		0 75 U		0 57 U		0.45 U		0.83 J		0.510
Effluent 2	0 90 U	**	0 75 U	**	0 57 U	**	0 45 U	**	0 71 J	14 3	0.510
Manhole 18	0 90 U		0 75 U		0 57 U		0 45 U		0 71 J		0 510
Disch. Limit	**		**		**50**		**50**		**100**		**

Sample	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		Flow
Location	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	(MGD)
7/2/2013											**6/30/2013**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0 000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	3 0		0.28 U		0.43 U		0 47 U		0 63 J		0 242
EW-6	3.9		0 28 U		0 43 U		0 47 U		0.79 J		0 273
Influent 2	3 5		0 28 U		0 43 U		0 47 U		0.71 J		0.515
Effluent 2	3.4	2 2	0.28 U	**	0 43 U	**	0.47 U	**	0.65 J	9.1	0.515
Manhole 18	3.4		0 28 U		0.43 U		0.47 U		0.65 J		0.515
10/16/2013											**9/30/2013**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	0 44 U		0.28 U		0 43 U		0 47 U		0 71 J		0.247
EW-6	1 1		0 28 U		0.43 U		0 47 U		0.78 J		0.273
Influent 2	0.8		0 28 U		0 43 U		0 47 U		0 75 J		0.520
Effluent 2	0 5	2 2	0 28 U	**	0 43 U	**	0.47 U	**	0.63 J	15.6	0.520
Manhole 18	0.48 J		0.28 U		0.43 U		0.47 U		0 63 J		0.520
12/4/2013											**12/31/2013**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	0 44 U		0 28 U		0.43 U		0.47 U		0.62 J		0.248
EW-6	1 2		0 28 U		0.43 U		0 47 U		0.83 J		0.273
Influent 2	0.8		0 28 U		0 43 U		0.47 U		0.73 J		0 521
Effluent 2	0 4	**	0 28 U	**	0 43 U	**	0 47 U	**	0.42 J	9.1	0 521
Manhole 18	0 44 U		0.28 U		0 43 U		0 47 U		0.42 J		0.521
Disch. Limit	**		**		**50**		**50**		**100**		**

Sample Location	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		Flow
	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	(MGD)
4/14/2014											**3/31/2014**
EW-1R	NS		NS		NS		NS		NS		0 000
EW-2	NS		NS		NS		NS		NS		0 000
Influent 1	NS		NS		NS		NS		NS		0 000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	0 50 U		0.16 U		0 41 U		0.50 U		0.60 J		0 244
EW-6	1 4 U		0 26 J		0 41 U		0 50 U		0.73 J		0.271
Influent 2	1 0		0 21 J		0 41 U		0 50 U		0.67 J		0 515
Effluent 2	0 50 U	**	0 16 U	**	0 41 U	**	0 50 U	**	0.36 J	46.1	0.515
Manhole 18	0.50 U		0 16 U		0 41 U		0.50 U		0.36 J		0.515
6/17/2014											**6/30/2014**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0 000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	0 50 U		0 24 U		0 41 U		0 50 U		0.65 J		0.229
EW-6	1 5		0 24 U		0 41 U		0 50 U		0 85 J		0 267
Influent 2	1 04 J		0 24 U		0 41 U		0 50 U		0.76 J		0.496
Effluent 2	0 59 U	**	0 24 U	**	0 41 U	**	0 50 U	**	0 55 J	27.4	0.496
Manhole 18	0 59 U		0 24 U		0 41 U		0 50 U		0 55 J		0.496
9/16/2014											**9/30/2014**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0 000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0 000
EW-5	0 50 U		0 24 U		0.41 U		0 50 U		0 52 J		0.242
EW-6	1 2		0 24 U		0 41 U		0 50 U		0.71 J		0.265
Influent 2	0 87 J		0 24 U		0.41 U		0 50 U		0.62 J		0.507
Effluent 2	0 50 U	**	0.24 U	**	0 41 U	**	0 50 U	**	0 45 J	27.3	0.507
Manhole 18	0 50 U		0.24 U		0 41 U		0 50 U		0 45 J		0 507
Disch. Limit	**		**		**50**		**50**		**100**		**

Sample Location	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		Flow
	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	(MGD)
12/2/2014											12/31/2014
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0 000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0 000
EW-5	0.50 U		0 24 U		0.41 U		0.50 U		0.57 J		0.241
EW-6	1.2		0 24 U		0 41 U		0 50 U		0.79 J		0.260
Influent 2	0 86 J		0.24 U		0 41 U		0.50 U		0.68 J		0.501
Effluent 2	0 50 U	**	0 24 U	**	0 41 U	**	0 50 U	**	0 49 J	28 4	0.501
Manhole 18	0 50 U		0 24 U		0.41 U		0.50 U		0.49 J		0.501
3/24/2015											**3/31/2015**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	0 50 U		0.24 U		0 41 U		0 50 U		0 33 U		0.232
EW-6	1 2		0.24 U		0 41 U		0.50 U		0.99 J		0.235
Influent 2	0 85		0 24 U		0 41 U		0.50 U		0.66 J		0.467
Effluent 2	0 68 J	**	0.24 U	**	0.41 U	**	0 50 U	**	0.47 J	29 0	0.467
Manhole 18	0 68 J		0 24 U		0.41 U		0 50 U		0.47 J		0.467
6/16/2015											**6/30/2015**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0 000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	0 50 U		0.24 U		0.41 U		0 50 U		0.41 J		0.239
EW-6	1.4		0 24 U		0.41 U		0 50 U		0 71 J		0.228
Influent 2	0 94		0 24 U		0 41 U		0 50 U		0.56 J		0.467
Effluent 2	0 60 J	**	0.24 U	**	0 41 U	**	0 50 U	**	0 70 J	No Rmvl	0.467
Manhole 18	0 60 J		0 24 U		0 41 U		0 50 U		0.70 J		0.467
Disch. Limit	**		**		**50**		**50**		**100**		**

Sample Location	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		Flow
	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	(MGD)
9/23/2015											**9/30/2015**
EW-1R	NS		NS		NS		NS		NS		0 000
EW-2	NS		NS		NS		NS		NS		0 000
Influent 1	NS		NS		NS		NS		NS		0 000
Effluent 1	NS		NS		NS		NS		NS		0 000
EW-5	0.50 U		0 24 U		0 41 U		0.50 U		0.33 U		0 000
EW-6	1.4		0 24 U		0 41 U		0 50 U		0 79 J		0 265
Influent 2	1.40		0 24 U		0.41 U		0.50 U		0.79 J		0 265
Effluent 2	0 89 J	36 4	0 24 U	**	0 41 U	**	0 50 U	**	0.55 J	30 4	0 265
Manhole 18	0 89 J		0.24 U		0.41 U		0.50 U		0 55 J		0 265
12/7/2015											**12/31/2015**
EW-1R	NS		NS		NS		NS		NS		0 000
EW-2	NS		NS		NS		NS		NS		0 000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0 000
EW-5	0 50 U		0.24 U		0 41 U		0 50 U		0.33 U		0 000
EW-6	0 86 J		0.24 U		0.41 U		0.50 U		0 58 J		0 265
Influent 2	0.86 J		0.24 U		0 41 U		0 50 U		0.58 J		0 265
Effluent 2	0 90 J	No Rmvl	0 24 U	**	0 41 U	**	0 50 U	**	0 61 J	No Rmvl	0 265
Manhole 18	0 90 J		0.24 U		0 41 U		0 50 U		0 61 J		0 265
3/21/2016											**3/31/2016**
EW-1R	NS		NS		NS		NS		NS		0 000
EW-2	NS		NS		NS		NS		NS		0 000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	NS		NS		NS		NS		NS		0.000
EW-6	1 3		0.24 U		0.41 U		0 50 U		0.75 J		0.263
Influent 2	1 30		0 24 U		0 41 U		0 50 U		0 75 J		0.263
Effluent 2	0 83 J	36	0.24 U	**	0 41 U	**	0.50 U	**	0 48 J	36	0.263
Manhole 18	0 83 J		0 24 U		0 41 U		0 50 U		0 48 J		0 263
Disch. Limit	**		**		**50**		**50**		**100**		**

Sample Location	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		Flow
	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	(MGD)
6/13/2016											**6/30/2016**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	NS		NS		NS		NS		NS		0.000
EW-6	1 5		0.24 U		0.41 U		0.50 U		0.81 J		0.262
Influent 2	1 5		0.24 U		0.41 U		0.50 U		0.81 J		0.262
Effluent 2	1 0	33	0 24 U	**	0.41 U	**	0 50 U	**	0.65 J	20	0 262
Manhole 18	1 0		0.24 U		0.41 U		0 50 U		0.65 J		0 262
8/30/2016											**9/30/2016**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	NS		NS		NS		NS		NS		0 000
EW-6	1.5		0 24 U		0 41 U		0.50 U		0.81 J		0.263
Influent 2	1.1		0 24 U		0.41 U		0.50 U		0 73 J		0.263
Effluent 2	0 7	37	0 24 U	**	0 41 U	**	0 50 U	**	0.51 J	30	0.263
Manhole 18	0 69 J		0 24 U		0 41 U		0.50 U		0 51 J		0 263
12/6/2016											**12/31/2016**
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0 000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0.000
EW-5	NS		NS		NS		NS		NS		0 000
EW-6	1 2		0.24 U		0 41 U		0 50 U		0.70 J		0.266
Influent 2	1 1		0 24 U		0 41 U		0 50 U		0.73 J		0.266
Effluent 2	0 70	36	0 24 U	**	0.41 U	**	0 50 U	**	0.54 J	26	0.266
Manhole 18	0.70 J		0.24 U		0 41 U		0 50 U		0 54 J		0 266
Disch. Limit	**		**		**50**		**50**		**100**		**

Sample	1,1,1-TCA		1,1-DCA		1,1-DCE		PCE		TCE		Flow
Location	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	ug/l	% Rem	(MGD)
1/9/2017											3/31/2017
EW-1R	NS		NS		NS		NS		NS		0.000
EW-2	NS		NS		NS		NS		NS		0.000
Influent 1	NS		NS		NS		NS		NS		0.000
Effluent 1	NS		NS		NS		NS		NS		0 000
EW-5	NS		NS		NS		NS		NS		0 000
EW-6	NS		NS		NS		NS		NS		0.268
Influent 2	NS		NS		NS		NS		NS		0.268
Effluent 2	NS		NS		NS		NS		NS		0 268
Manhole 18	NS		NS		NS		NS		NS		0 268
EW-1R											
EW-2											
Influent 1											
Effluent 1											
EW-5											
EW-6											
Influent 2											
Effluent 2											
Manhole 18											
EW-1R											
EW-2											
Influent 1											
Effluent 1											
EW-5											
EW-6											
Influent 2											
Effluent 2											
Manhole 18											
Disch. Limit	**		**		50		50		100		**

EW-6 was shut down on January 16, 2017 as part of a trial shutdown. There was TCE rebound in MW-76 and the extraction well was turned back on April 27, 2017

Cascade aerator CAS-1 has been inactive since October 2010 because extraction wells EW-1 and EW-2 at MRDS have been off

EW-5 was removed on September 18, 2015 and was not replaced.

Gannett Fleming

NATIONAL PRESTO INDUSTRIES, INC.
EAU CLAIRE, WISCONSIN

ANNUAL DISCHARGE MONITORING RESULTS FOR 01/01/12-12/31/12

Parameter	Sample				Discharge Limits			Result Qualifier(s)
	Frequency	Type	Results	Units	Daily Max.	Weekly Avg.	Monthly Avg.	
Cadmium, total recoverable	Annual	Grab	0 42	ug/L	240			J
		Calculated	0 00182	lb/day		0.22		
Hardness, total as $CaCO_3$	Annual	Grab	51.9	mg/L				
Nickel, total recoverable	Annual	Grab	16.8	ug/L	11,000			
		Calculated	0 073	lb/day		13		
pH (field)	Annual	Grab	6.9	su	6 to 9			
Temperature (field)	Annual	Grab	52	°F				
Acenaphthene (PAH)	Annual	Grab	0 088	ug/L				J
Acenaphthylene (PAH)	Annual	Grab	1.5	ug/L				
Anthracene (PAH)	Annual	Grab	0.030	ug/L				J
Benzo(a)anthracene (PAH)	Annual	Grab	0.021	ug/L				U
Benzo(a)pyrene (PAH)	Annual	Grab	0 021	ug/L				U
Benzo(b)fluoranthene (PAH)	Annual	Grab	0.022	ug/L				U
Benzo(g,h,i)perylene (PAH)	Annual	Grab	0.026	ug/L				U
Benzo(k)fluoranthene (PAH)	Annual	Grab	0 024	ug/L				U
Chrysene (PAH)	Annual	Grab	0 023	ug/L				U
Dibenzo(a,h)anthracene (PAH)	Annual	Grab	0 045	ug/L				U
Fluoranthene (PAH)	Annual	Grab	0 036	ug/L				J
Fluorene (PAH)	Annual	Grab	0 12	ug/L				J
Indeno(1,2,3,c,d)pyrene (PAH)	Annual	Grab	0.026	ug/L				U
1-Methylnaphthalene (PAH)	Annual	Grab	0 86	ug/L				
2-Methylnaphthalene (PAH)	Annual	Grab	0.96	ug/L				
Naphthalene (PAH)	Annual	Grab	2 1	ug/L				
Phenanthrene (PAH)	Annual	Grab	0 13	ug/L				J
Pyrene (PAH)	Annual	Grab	0.065	ug/L				J
PAHs, total (summation)	Annual	Grab	6 097	ug/L				
		Calculated	0 0265	lb/day			0 91	
Zinc, total recoverable	Annual	Grab	17 7	ug/L	1,000			J

NOTES:

J = Estimated concentration below laboratory quantification level.

U = Parameter not detected at or above the indicated value, which is the detection limit for measured concentrations or a flow-weighted number for calculated levels.

NATIONAL PRESTO INDUSTRIES, INC.
EAU CLAIRE, WISCONSIN
Table 1
ANNUAL DISCHARGE MONITORING RESULTS FOR (2013)

Parameter	Sample				Discharge Limits			Result Qualifier(s)
	Frequency	Type	Results	Units	Daily Max.	Weekly Avg	Monthly Avg	
Cadmium, dissolved	Annual	Grab	0.38	ug/L	240			U
		Calculated	0 0014	lb/day		0 22		U
Chromium, dissolved	1 per 2 yrs	Grab	2 1	ug/L	19,000			J
		Calculated	0.0076	lb/day		10		J
Chromium, +6	1 per 2 yrs	Grab	3 4	ug/L	240			U
		Calculated	0 012	lb/day				U
Copper, dissolved	1 per 2 yrs	Grab	2 9	ug/L	160			J, B
Hardness, total as $CaCO_3$	Annual	Grab	57 8	mg/L				
Lead, dissolved	1 per 2 yrs	Grab	1 2	ug/L	1,300			U
		Calculated	0 0043	lb/day		1 3		U
Nickel, dissolved	Annual	Grab	2 9	ug/L	11,000			J
		Calculated	0 010	lb/day		13		J
Pentachlorophenol	1 per 2 yrs	Grab	1 0	ug/L	70			U
pH (field)	Annual	Grab	7 2	su	6 to 9			
Temperature (field)	Annual	Grab	53	°F				
Acenaphthene (PAH)	Annual	Grab	0 90	ug/L				U
Acenaphthylene (PAH)	Annual	Grab	0.94	ug/L				U
Anthracene (PAH)	Annual	Grab	0 59	ug/L				U
Benzo(a)anthracene (PAH)	Annual	Grab	0 58	ug/L				U
Benzo(a)pyrene (PAH)	Annual	Grab	0 91	ug/L				U
Benzo(b)fluoranthene (PAH)	Annual	Grab	1 4	ug/L				U
Benzo(g,h,i)perylene (PAH)	Annual	Grab	0 73	ug/L				U
Benzo(k)fluoranthene (PAH)	Annual	Grab	0 97	ug/L				U
Chrysene (PAH)	Annual	Grab	0 74	ug/L				U
Dibenzo(a,h)anthracene (PAH)	Annual	Grab	1 3	ug/L				U
Fluoranthene (PAH)	Annual	Grab	0 86	ug/L				U
Fluorene (PAH)	Annual	Grab	1 1	ug/L				U
Indeno(1,2,3,c,d)pyrene (PAH)	Annual	Grab	0 63	ug/L				U
1-Methylnaphthalene (PAH)	Annual	Grab	0 98	ug/L				U
2-Methylnaphthalene (PAH)	Annual	Grab	1 3	ug/L				U
Naphthalene (PAH)	Annual	Grab	0 66	ug/L				U
Phenanthrene (PAH)	Annual	Grab	0 60	ug/L				U
Pyrene (PAH)	Annual	Grab	1 5	ug/L				U
PAHs, total (summation)	Annual	Grab	16 69	ug/L				U
		Calculated	0 060	lb/day			0 91	U
Zinc, dissolved	Annual	Grab	19 0	ug/L	1,000			J

NOTES.
Samples collected from manhole MH-18 on December 4, 2013.
B = Analyte was detected in the associated method blank.
J = Estimated concentration below laboratory quantification level
U = Parameter not detected at or above the indicated value, which is the detection limit for measured concentrations or a flow-weighted number for calculated levels.

Gannett Fleming

NATIONAL PRESTO INDUSTRIES, INC
EAU CLAIRE, WISCONSIN

ANNUAL DISCHARGE MONITORING RESULTS FOR 2014

Parameter	Sample				Discharge Limits			Result Qualifier(s)
	Frequency	Type	Results	Units	Daily Max	Weekly Avg.	Monthly Avg	
Cadmium, total recoverable	Annual	Grab	1 0	ug/L	240			U
		Calculated	0.00404	lb/day		0.22		
Hardness, total as $CaCO_3$	Annual	Grab	50 1	mg/L				
Nickel, total recoverable	Annual	Grab	17 7	ug/L	11,000			
		Calculated	0 071	lb/day		13		
pH (field)	Annual	Grab	7.4	su	6 to 9			
Temperature (field)	Annual	Grab	50	°F				
Acenaphthene (PAH)	Annual	Grab	0 024	ug/L				J
Acenaphthylene (PAH)	Annual	Grab	0 0046	ug/L				J
Anthracene (PAH)	Annual	Grab	0 0037	ug/L				J
Benzo(a)anthracene (PAH)	Annual	Grab	0.0020	ug/L				U
Benzo(a)pyrene (PAH)	Annual	Grab	0 0026	ug/L				U
Benzo(b)fluoranthene (PAH)	Annual	Grab	0 0028	ug/L				U
Benzo(g,h,i)perylene (PAH)	Annual	Grab	0 0032	ug/L				U
Benzo(k)fluoranthene (PAH)	Annual	Grab	0 0034	ug/L				U
Chrysene (PAH)	Annual	Grab	0 0021	ug/L				U
Dibenzo(a,h)anthracene (PAH)	Annual	Grab	0 0032	ug/L				U
Fluoranthene (PAH)	Annual	Grab	0 0023	ug/L				U
Fluorene (PAH)	Annual	Grab	0.011	ug/L				J
Indeno(1,2,3,c.d)pyrene (PAH)	Annual	Grab	0.0025	ug/L				U
1-Methylnaphthalene (PAH)	Annual	Grab	0 018	ug/L				B, J
2-Methylnaphthalene (PAH)	Annual	Grab	0.0060	ug/L				B, J
Naphthalene (PAH)	Annual	Grab	0 028	ug/L				J
Phenanthrene (PAH)	Annual	Grab	0 0043	ug/L				J
Pyrene (PAH)	Annual	Grab	0.0025	ug/L				J
PAHs, total (summation)	Annual	Grab	0 1262	ug/L				
		Calculated	0 00051	lb/day			0 91	
Zinc, total recoverable	Annual	Grab	23 6	ug/L	1.000			J

NOTES:

B = Analyte was detected in the associated method blank

J = Estimated concentration below laboratory quantification level

U = Parameter not detected at or above the indicated value, which is the detection limit for measured concentrations or a flow-weighted number for calculated levels.

Gannett Fleming

NATIONAL PRESTO INDUSTRIES, INC
EAU CLAIRE, WISCONSIN

ANNUAL DISCHARGE MONITORING RESULTS FOR 2015

Parameter	Sample				Discharge Limits			Result Qualifier(s)
	Frequency	Type	Results	Units	Daily Max	Weekly Avg	Monthly Avg.	
Cadmium, total recoverable	Annual	Grab	1 0	ug/L	240			U
		Calculated	0 0032	lb/day		0.22		U
Chromium, total recoverable	1 per 2 yrs	Grab	2.2	ug/L	19,000			J
		Calculated	0 0071	lb/day		10		J
Chromium, +6	1 per 2 yrs	Grab	3 9	ug/L	240			U
		Calculated	0 013	lb/day				U
Copper, total recoverable	1 per 2 yrs	Grab	3 4	ug/L	160			U
Hardness, total as $CaCO_3$	Annual	Grab	46 2	mg/L				
Lead, total recoverable	1 per 2 yrs	Grab	1.6	ug/L	1,300			U
		Calculated	0 0051	lb/day		1 3		U
Nickel, total recoverable	Annual	Grab	2.0	ug/L	11.000			J
		Calculated	0 0064	lb/day		13		J
Pentachlorophenol	1 per 2 yrs	Grab	1.4	ug/L	70			U
pH (field)	Annual	Grab	7 0	su	6 to 9			
Temperature (field)	Annual	Grab	54	°F				
Acenaphthene (PAH)	Annual	Grab	1.3	ug/L				U
Acenaphthylene (PAH)	Annual	Grab	1.0	ug/L				U
Anthracene (PAH)	Annual	Grab	1 7	ug/L				U
Benzo(a)anthracene (PAH)	Annual	Grab	0.51	ug/L				U
Benzo(a)pyrene (PAH)	Annual	Grab	1 8	ug/L				U
Benzo(b)fluoranthene (PAH)	Annual	Grab	0 62	ug/L				U
Benzo(g,h,i)perylene (PAH)	Annual	Grab	0 77	ug/L				U
Benzo(k)fluoranthene (PAH)	Annual	Grab	0 95	ug/L				U
Chrysene (PAH)	Annual	Grab	1 7	ug/L				U
Dibenzo(a,h)anthracene (PAH)	Annual	Grab	1.3	ug/L				U
Fluoranthene (PAH)	Annual	Grab	0.54	ug/L				U
Fluorene (PAH)	Annual	Grab	0 71	ug/L				U
Indeno(1,2,3,c,d)pyrene (PAH)	Annual	Grab	1 4	ug/L				U
1-Methylnaphthalene (PAH)	Annual	Grab	1.6	ug/L				U
2-Methylnaphthalene (PAH)	Annual	Grab	1 4	ug/L				U
Naphthalene (PAH)	Annual	Grab	1 8	ug/L				U
Phenanthrene (PAH)	Annual	Grab	1 7	ug/L				U
Pyrene (PAH)	Annual	Grab	1.3	ug/L				U
PAHs, total (summation)	Annual	Grab	22.1	ug/L				U
		Calculated	0 071	lb/day			0 91	U
Zinc, total recoverable	Annual	Grab	8 7	ug/L	1,000			J

NOTES:

J = Estimated concentration below laboratory quantification level

U = Parameter not detected at or above the indicated value, which is the detection limit for measured concentrations or a flow-weighted number for calculated levels

Gannett Fleming

NATIONAL PRESTO INDUSTRIES, INC
EAU CLAIRE, WISCONSIN

ANNUAL DISCHARGE MONITORING RESULTS FOR 2016

Parameter	Sample[1]				Discharge Limits			Result Qualifier(s)
	Frequency	Type	Results	Units	Daily Max.	Weekly Avg	Monthly Avg.	
Cadmium, total recoverable	Annual	Grab	1 3	ug/L	240			U
		Calculated	0 00286	lb/day		0 22		
Hardness, total as $CaCO_3$	Annual	Grab	51.2	mg/L				
Nickel, total recoverable	Annual	Grab	3.3	ug/L	11,000			J
		Calculated	0 007	lb/day		13		
pH (field)	Annual	Grab	7.1	su	6 to 9			
Temperature (field)	Annual	Grab	50	°F				
Acenaphthene (PAH)	Annual	Grab	0 040	ug/L				
Acenaphthylene (PAH)	Annual	Grab	0 0050	ug/L				U
Anthracene (PAH)	Annual	Grab	0 010	ug/L				U
Benzo(a)anthracene (PAH)	Annual	Grab	0 0076	ug/L				U
Benzo(a)pyrene (PAH)	Annual	Grab	0 011	ug/L				U
Benzo(b)fluoranthene (PAH)	Annual	Grab	0 0057	ug/L				U
Benzo(g,h,i)perylene (PAH)	Annual	Grab	0 0068	ug/L				U
Benzo(k)fluoranthene (PAH)	Annual	Grab	0 0076	ug/L				U
Chrysene (PAH)	Annual	Grab	0 013	ug/L				U
Dibenzo(a,h)anthracene (PAH)	Annual	Grab	0 010	ug/L				U
Fluoranthene (PAH)	Annual	Grab	0.011	ug/L				U
Fluorene (PAH)	Annual	Grab	0.018	ug/L				J
Indeno(1,2,3,c,d)pyrene (PAH)	Annual	Grab	0 018	ug/L				U
1-Methylnaphthalene (PAH)	Annual	Grab	0 012	ug/L				J
2-Methylnaphthalene (PAH)	Annual	Grab	0 0074	ug/L				J
Naphthalene (PAH)	Annual	Grab	0 018	ug/L				U
Phenanthrene (PAH)	Annual	Grab	0 014	ug/L				U
Pyrene (PAH)	Annual	Grab	0.0076	ug/L				U
PAHs, total (summation)	Annual	Grab	0.2227	ug/L				
		Calculated	0 00049	lb/day			0 91	
Zinc, total recoverable	Annual	Grab	9.3	ug/L	1.000			U

NOTES:
J = Estimated concentration below laboratory quantification level.
U = Parameter not detected at or above the indicated value, which is the detection limit for measured concentrations or a flow-weighted number for calculated levels

FOOTNOTE:
(1) Samples were collected from Manhole 18 on 12/5/16 (metals, hardness, pH, and temperature) and 12/7/16 (PAHs) Calculated mass discharge estimates were based on average annual flow rate

Attachment C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

AUG 29 2016

REPLY TO THE ATTENTION OF

SR-6J

Mae Willkom
Wisconsin Department of Natural Resources
1300 West Clairemont Avenue
Eau Claire, WI 54701

Re: Notification of Five Year Review Start for the National Presto Industries Superfund Site

Dear Ms. Willkom:

This letter is to confirm that U.S. EPA and the Wisconsin Department of Natural Resources (WDNR) has begun the process of the Five Year Review for the National Presto Industries Superfund site (NPI). U.S. EPA will lead the NPI Five Year Review.

The Five Year Review for NPI is statutorily due on September 4, 2017. It is appropriate that U.S. EPA and WDNR provide key parties with at least a six month notification so that we can begin the necessary coordination activities. Necessary activities include notifying the public, accepting public input, gathering data, arranging for site visits, and developing any pertinent recommendations, etc. I will be contacting you to set up a time to conduct the site visit in 2016.

I look forward to working with the WDNR, NPI and Gannett Fleming in compiling the Five Year Review report for the NPI Superfund site. If you have any questions, please feel free to call me at 312 353 9685 or email me at caine.howard@epa.gov.

Sincerely,

Howard Caine
Remedial Project Manager
U.S EPA Region 5

cc: B. Eleder, Five Year Review Coordinator (SR-6J), via email
K. Adler, Section Chief (SR-6J), via email
S. Pastor, Community Involvement Coordinator (SI-7J), via email
E. Weiler, Associate Regional Counsel (C-14J), via email
D. Paul, National Presto Industries
D. Olig, Gannett Fleming

Attachment D

Leading off

FACEBOOK and TWITTER

For the latest stories, photo galleries and more, follow Chippewa Herald Sports on Twitter (twitter.com/chpheraldsports) and Facebook (facebook.com/chpheraldsports).

THE QUICKEST UPDATES

Stay up to date with updates from games and events Brandon and Ben are at by following them on Twitter (@brandon_berg and @BenPetersonCH).

PHOTO GALLERIES

Check out our latest photo galleries online at chippewa.com.

Chippewa.com/gallery

TELEVISION SCHEDULE

THURSDAY

COLLEGE BASKETBALL
AdvoCare Invitational Indiana St. vs Iowa St., ESPN2, 11:30 a.m.; NIT Season Tip-Off Florida St. vs Temple, ESPNU, 11:30 a.m.; Advocare Invitational Stanford vs Miami, ESPN2, 1:30 p.m.; NIT Season Tip-Off West Virginia vs Illinois, ESPNU, 1:30 p.m.; Wooden Legacy Virginia Tech vs New Mexico, ESPN, 3:30 p.m.; AdvoCare Invitational Gonzaga vs Quinnipiac, ESPN2, 5:30 p.m.; Las Vegas Invitational Butler vs Vanderbilt, FS1, 7 p.m.; Advocare Invitational Seton Hall vs Florida, ESPN2, 7:30 p.m.; Wooden Legacy Nebraska vs Dayton, ESPNU, 7:30 p.m.; Great Alaskan Shootout Drake vs Iona, CBSSN, 8:30 p.m.; Las Vegas Invitational Arizona vs Santa Clara, FS1, 9:30 p.m.; Wooden Legacy UCLA vs Portland, ESPN2, 10 p.m.; Great Alaskan Shootout UC Davis vs Weber St., CBSSN, 11 p.m.

COLLEGE FOOTBALL
LSU at Texas A&M, ESPN, 6:30 p.m.; Miles College at Alabama St. (same-day tape), ESPNU, 9:30 p.m.

GOLF
PGA Tour Australasia World Cup of Golf, GOLF, 7 p.m.

NFL
Minnesota at Detroit, CBS, 11:30 a.m.; Washington at Dallas, FOX, 3:30 p.m.; Pittsburgh at Indianapolis, NBC, 7:30 p.m.

UEFA EUROPA LEAGUE SOCCER
Fenerbahce SK vs Zorya Luhansk, FS1, 9:50 a.m.; Zenit ST. Petersburg vs Maccabi Tel Aviv, FS2, 9:50 a.m.; Sparta Praha vs Southampton, FS1, noon; Hapoel Beer-Sheva vs Inter Milan, FS2, noon; Manchester United vs Feyernoord, FS1, 2 p.m.; AS Saint-Etienne vs Mainz 05, FS2, 2 p.m.

FRIDAY

AUTO RACING
Formula One Abu Dhabi Grand Prix practice, NBCSN, 7 a.m.

COLLEGE BASKETBALL
Abilene Christian at Oklahoma, FSN, 2 p.m; Marshall at Ohio St., BTN, 6 p.m.; UT Martin at Kentucky, SEC, 6 p.m.; Emerald Coast Classic Memphis vs Providence, CBSSN, 8:30 p.m.

COLLEGE FOOTBALL
Northern Illinois at Kent St., CBSSN, 11 a.m.; NC State at North Carolina, ESPN, 11 a.m.; Houston at Memphis, ABC, 11 a.m.; Arkansas at Missouri, CBS, 1:30 p.m.; Washington at Washington State, FOX, 2:30 p.m.; Boise State at Air Force, CBSSN, 2:30 p.m.; TCU at Texas, FS1, 2:30 p.m.; Nebraska at Iowa, ABC, 2:30 p.m.; Louisiana Tech at Southern Mississippi, ESPNEWS, 3 p.m.; Toledo at Western Michigan, ESPN2, 4 p.m.; Baylor at Texas Tech, ESPN, 5 p.m.; Cincinnati at Tulsa, ESPN2, 7:30 p.m.; Arizona State at Arizona, ESPN, 8:30 p.m.

GOLF
Ladies European Tour Qatar Open, GOLF, 4 a.m.; PGA Tour Australasia World Cup of Golf, GOLF, 7 p.m.

NBA
Charlotte at New York, NBA, 6:30 p.m.; Toronto at Milwaukee, FSWI, 7 p.m.; Minnesota at Phoenix, FSN, 8 p.m.; Golden State at L.A. Lakers, NBA, 9:30 p.m.

NHL
N.Y. Rangers at Philadelphia, NBC, noon; Pittsburgh at Minnesota, FSN, 3 p.m.

BUNDESLIGA SOCCER
Freiburg vs RB Leipzig, FS2, 1:20 p.m.

ENGLISH PREMIERSHIP RUGBY
Northampton vs Newcastle, NBCSN, 1:30 p.m.

BRIEFLY

LOCAL SPORTS

Collecting used sports equipment

Chi-Hi and McDonell are joining with Chippewa Valley Family YMCA to coordinate a used sports equipment drive over the next few weeks to help local families in need. A large orange bin will be located near the entrances to the high school gymnasiums for donations at home events. The donated new or used sports equipment will be made available to any family in need on December 3 at the YMCA when families can select a few items for their family.

NFL

Bills GM expects receiver Watkins to resume practicing

ORCHARD PARK, N.Y. — Buffalo Bills general manager Doug Whaley anticipates receiver Sammy Watkins will return to practice on Wednesday for the first time since aggravating an injury to his surgically repaired left foot nine weeks ago.

Whaley made the announcement during his weekly show on Buffalo's WGR-Radio.

It's too early to determine whether Watkins will be activated off injured reserve, or if he can play Sunday when Buffalo (5-5) hosts Jacksonville (2-8). The Bills' top receiving threat has been limited to six catches for 63 yards in playing the first two games this season. Watkins missed most of the offseason after having surgery in April, when he had two screws inserted into his left foot to repair a stress fracture. He aggravated the injury when a teammate stepped on his foot in practice.

RG3 returns to practice with Browns

BEREA, Ohio — Browns quarterback Robert Griffin moved closer to playing again this season as the team designated him for return from injured reserve. The team officially made the move Wednesday, giving the Browns 21 days to activate him to the roster. Griffin has been sidelined since breaking a bone in his left shoulder in the season opener, his debut with Cleveland.

Griffin still needs to be cleared for full contact, and it's possible he could play as early as Dec. 11, when the Browns host the Cincinnati Bengals. Josh McCown will start this week against the New York Giants, replacing rookie Cody Kessler who sustained his second concussion since Oct. 23 in a loss to Pittsburgh.

The Browns (0-11) have four games left after their Dec. 4 bye, and the team would like to get another look at Griffin, whom they signed to a two-year, $15 million contract in March.

NHL

NHL expansion team gets a name: Vegas Golden Knights

LAS VEGAS — The NHL's newest team is named the Vegas Golden Knights.

— *The Herald, Associated Press*

Badgers

From B1

If the Buckeyes win this week and Penn State loses to Michigan State, the Badgers would have the same opportunity — only they would jump Michigan next week before having the chance to knock off Ohio State in the conference's title game.

The debate surrounding the possible exclusion of a two-loss UW team comes from the following scenario: Ohio State and Penn State both win, sending the Nittany Lions to the Big Ten Championship Game due to a head-to-head tiebreaker with the Buckeyes.

That would leave the door open for Alabama, Ohio State, Clemson and Washington to remain ahead of a Badgers team that finishes 11-2 with a Big Ten title, and UW may need Washington or Clemson to lose another game in order to finish in the top four when the final rankings are released Dec. 4.

Both the Huskies (Pac-12) and Tigers (ACC) also would be conference champions if they won their final two games.

"The Washington discussion over a Penn State or a Wisconsin team — that discussion to me is the one that's left," ESPN analyst Joey Galloway said on Tuesday's CFP rankings show. "And when you look at Washington's resume with Utah on it, let's say they win this week with Washington State, they're going to have an opportunity to have a pretty stout resume moving forward."

If Washington defeats No. 23 Washington State, the Huskies will play either No. 9 Colorado or 13th-ranked Southern Cal in the Pac-12 title game.

Fivethirtyeight.com gives the Badgers an 86 percent chance to make the playoff if they win their final two games. Under the scenario in which Alabama, Ohio State, Clemson, Washington and UW all win out, the website still gives the Badgers a 44 percent chance to be included in the four-team field.

The Badgers likely won't need to worry about any team outside the top six jumping ahead of them if they win their final two games.

Rounding out the top 10 behind UW are Penn State, Oklahoma, Colorado and Oklahoma State. CFP chairman Kirby Hocutt said Tuesday night on ESPN that the separation between teams ranked 7-10 was small, and there wasn't much discussion among committee members about the Badgers being ranked inside the top six.

That bodes well for UW, as some believed Oklahoma may have a shot to rise higher up the rankings after a big win at West Virginia on Saturday, especially since the Sooners have an opportunity for another resume builder against Oklahoma State next week.

Offense

From B1

They know that they can't expect to sustain that kind of production over the final six games of the season, starting in Detroit on Thursday.

"Any time we get help from our defense or special teams, obviously, it's a huge help," quarterback Sam Bradford said. "And it's great to have that, but as an offense, we can't rely on that. We've got to get it done there expecting for us to go out and play well and put up enough points to win."

The Vikings offense did score twice in the first half against the Cardinals, but managed just three points in the second half and put up 217 yards in the game. New offensive coordinator Pat Shurmur pulled out several different trick plays to try to loosen up the defense, using some wildcat formations to get a little production out of the league's worst running game and even going to a flea-flicker that drew a penalty and set up another touchdown.

"I still think there's a lot of room for improvement," Bradford said. "We've got to be better in the second half. But there were some positives, and obviously, just to get a win. I think that just does a lot for this team and does a lot for this group. Hopefully that's something we can build on going forward."

Jerick McKinnon and Matt Asiata combined to rush for 64 yards on 21 carries. That's not a number that jumps out, but considering they entered the game on pace to become the first team to average under 3.0 yards per carry since the Patriots in 1994, it was viewed as a step in the right direction.

Coach Mike Zimmer was encouraged by the ability to convert a third-and-1 and for Asiata to pound into the end zone from two yards out after watching his team fail over and over in short yardage situations during that four-game skid.

"We're not going to be Eric Dickerson yet," Zimmer said. "We're working on the little things."

There remains a possibility that injured star Adrian Peterson could return to the field sometime in December, though he still has a long way to go in the rehab process following surgery on a torn meniscus in his right knee. Peterson has been out since Week 2 against Green Bay, but he was only averaging 1.6 yards per carry before he went down.

In Peterson's absence, Patterson has emerged as a playmaker that the Vikings offense sorely needs. The 2013 first-round draft choice went through a 20-game stretch from 2015 into this season where he had just four catches for 24 yards. But in the last seven games, Patterson has caught 32 passes for 295 yards and two touchdowns. Those aren't numbers that will make Julio Jones jealous, but it's a start.

"Nothing is good as it seems and nothing is as bad as it seems," Zimmer said. "Somewhere in the middle is where reality falls."

Triggerman

From B1

"He is very even-keeled," Orioles coach Jeff Koenig said. "It makes it tough to read sometimes, you don't know if he's in the mental state you need him to be in. But he was very consistent. It didn't matter if we were up by a lot or down or fighting, he was just even-keeled and would tell us what he was seeing and try and improve from the last series. He was just a great asset to our football team."

As Hause's confidence grew, his coaches' confidence in him grew as well. It wasn't long before the Oriole staff had full confidence in their signal caller to make adjustments as needed and use his feedback to tweak the offensive plan.

After all, Hause never did anything with the intention of adding yards, scores or recognition to his own resume. His goals always resided with the team.

"Our kids are committed to the process we have here," Koenig said. "They know offensively that they're going to get an opportunity to touch the ball, they're going to get an opportunity to score. They just have to use that opportunity. Being at the quarterback position, he's really the person that distributes the ball and decides where it goes every play and reads what the defense is giving us. He's done a great job with that.

"Our kids, offensively and defensively, all of our seniors this year, kids in the past, they've just been committed to the process it takes to win as a team. Everyone hopes that they can get those personal accolades but their view is the team's success is more important than any accolades they could get. They've played very selfless in that regard and we're pretty fortunate to have that."

Leaving a legacy

Hause won eight playoff games in his career, earned four varsity football letters and will go down as one of the best to play the quarterback position for the Orioles.

He's still considering his college options and is open to the idea of playing football after high school. Right now his mind is on basketball season as the Orioles look to be in contention for a Western Cloverbelt Conference title.

Hause plays baseball in the spring as well. His dedication as an athlete goes beyond individual sports. He's committed himself to be the team player that his team needs no matter what program in Oriole athletics he's competing for.

"You'll see him leading the team in either of those other two sports as well and I think that's really important for our size of school, if not all schools, to have those kids that are playing hard, working hard together in all three seasons," Koenig said. "It makes it that much more special for them when they're out there competing together."

As much as Hause leaves an imprint on the Oriole football program, the imprint it left on him is worth noting as well.

"It's amazing to be able to be the quarterback of this great team," he said. "To be able to play with these guys and the coaching staff has just been amazing. I wouldn't want to play anywhere else."

SCOREBOARD

Prep Football

Chippewa County Statistical Leaders

Passing	Comp.	Att.	Yards	TD	INT
Seth Hause, Stanley-Boyd	139	295	2,466	26	9
Alex Otte, McDonell	136	261	1,980	23	13
Michael Emery, Cadott	92	190	1,486	14	8
Luke Geist, LHC	62	148	668	8	4
Mitch Post, Bloomer	40	106	579	3	6
Rushing	**Att.**		**Yards**		**TD**
Collin Bergartz, Bloomer	211		1,087		11
Colby Melvin, CH-HI	144		1,047		9
Ryan Sorenson, McDonell	165		957		14
Matt Pontello, CH-HI	127		826		8
Matthew Bruder, CH-HI	137		756		11
Receiving	**Catches**		**Yards**		**TD**
Brandon Herrick, Stanley-Boyd	64		1,127		17
Hayden Baughman, McDonell	35		444		9
Grayson Kowalkowski, McDonell	38		444		9
Dominick Grime, Cadott	30		438		5
Nathan Hoglund, McDonell	22		417		3
Scoring					**Points**
Brandon Herrick, Stanley-Boyd					164
Ryan Sorenson, McDonell					162
Collin Bergartz, Bloomer					80
Ben Turner, Stanley-Boyd					80
Matthew Bruder, CH-HI					76
Offense	**Games**	**Rush**	**Pass**		**Total**
Stanley-Boyd	13	1579	2004		3583
McDonell	10	1237	2067		3304
CH-HI	10	1013	1613		2514
Bloomer	10	1054	1026		2080
Cadott	9	1169	1462		2195
Lake Holcombe/Cornell	8	1281	644		2225
Defense	**Games**	**Rush**	**Pass**		**Total**
Stanley-Boyd	13	1402	1215		2717
CH-HI	10	1185	1139		2424
Bloomer	10	1482	1953		2681
Lake Holcombe/Cornell	8	2025	1181		3185
McDonell	10	2733	1956		2229
Cadott	9	2229	1051		3281

Final Season Standings

Big Rivers	W	L	WF	L
Menomonie	7	0	11	2
Hudson	5	2	8	3
Rice Lake	5	2	10	3
Chi-Hi	4	3	5	5
Superior	4	3	6	4
Eau Claire Memorial	2	5	4	5
River Falls	1	6	2	7
Eau Claire North	0	7	0	9
Cloverwood	**W**	**L**	**WF**	**L**
Abbotsford	9	0	12	1
Loyal	8	1	10	2
Assumption	6	3	6	4
Owen-Withee	6	3	7	4
McDonell	5	4	5	5
Thorp	4	5	4	5
Athens	3	6	3	6
Gilman	3	6	3	6
Wausau Newman	3	8	3	8
Greenwood	0	9	0	9
Heart O'North	**W**	**L**	**WF**	**L**
Chetek-Weyerhaeuser	6	1	9	2
Hayward	6	1	8	2
New Townsend	6	1	7	3
Bloomer	3	4	3	6
Cumberland	3	4	3	6
Ladysmith	2	5	3	6
Spooner	1	6	1	8
Barron	0	7	0	9
Cloverbelt	**W**	**L**	**WF**	**L**
Eau Claire Regis	8	0	11	0
Stanley-Boyd	7	1	11	2
Spencer/Columbus	6	2	8	3
Altoona	5	3	7	4
Colby	4	4	6	6
Fall Creek	3	5	4	5
Osseo-Fairchild	2	6	3	7
Cadott	1	7	2	7
Neillsville/Granton	0	8	0	9
South Lakeland	**W**	**L**	**WF**	**L**
Elmwood/Plum City	6	1	7	3
Pepin/Alma	6	1	10	3
North Lake	6	1	8	3
Flambeau	4	3	5	5
Bruce	3	4	4	6
Lake Holcombe/Cornell	2	5	3	7
Shell Lake	1	6	1	8

EPA Begins Review of National Presto Industries Superfund Site Eau Claire, Wisconsin

U.S. Environmental Protection Agency is conducting a five year review of the National Presto Industries Superfund site, 3925 N. Hastings Way, Eau Claire, Wis. The Superfund law requires regular checkups of sites that have been cleaned up with waste managed on-site - to make sure the cleanup continues to protect people and the environment. This is the fifth five-year review of this site.

EPA's cleanup of contaminated soil and groundwater consisted of constructing a permanent water supply system, installing groundwater extraction wells, treating the extracted water using cascade aeration units, excavating waste forge compound, installing soil vapor extraction systems, removing soil/waste from ditches and dry wells, operating an air stripper that services two plumes pumping and treating contaminated groundwater and monitoring.

More information is available at the Chippewa Falls Public Library, 105 W. Central St., and at www.epa.gov/superfund/national-presto. The review should be completed by September 2017.

The five-year-review report is an opportunity for you to tell EPA about site conditions and any concerns you have. Contact:

Susan Pastor	Howard Caine
Community Involvement Coordinator	Remedial Project Manager
312-353-1325	312-353-9685
pastor.susan@epa.gov	caine.howard@epa.gov

You may call EPA toll-free at 800-621-8431, 8:30 a.m. to 4:30 p.m. weekdays.

Attachment E

United States Environmental Protection Agency
Region 5
77 West Jackson Boulevard (SR-6J)
Chicago, Illinois 60604

Date: January 3, 2017

Site: National Presto Industries, Inc., Superfund Site, 3925 North Hastings Way, Eau Claire, Wisconsin (WID 006 196 174)

From: Howard Caine, RPM

To: File

Introduction and Purpose

The United States Environmental Protection Agency (EPA) Region 5 and the Wisconsin Department of Natural Resources (WDNR) conducted a site visit as part of the Five Year Review at the National Presto Industries, Inc., (NPI) Superfund site. The site was toured and discussed The site visit took place on October 19, 2016.

Participants

Howard Caine, EPA

Mae Willkom, WDNR

Derrick Paul, NPI
Brett Seidlitz, NPI

David Olig, Gannett Fleming
Cliff Wright, Gannett Fleming

Inspection

On-site Documents and Records

EPA and WDNR reviewed the documents which were presented during the meeting. Monthly progress reports are submitted monthly to both EPA and WDNR. Various monitoring reports are submitted throughout the year.

EPA/WDNR discussed the need to update the site QAPP. Currently, there are 3 old QAPPs in use for the site.

O&M Costs

This is a PRP lead site. The PRPs are not required to disclose O&M costs.

Access and Institutional Controls

The site is surrounded by fencing. The fencing appeared to be intact and gates locked. There have been no on-site or off-site land use changes.

EPA had requested that the PRPs peform an Institutional Controls (ICs) Study in the past. The study was performed and found that ordinances and regulations were in-place. The Operational Unit 3 (OU3) Record of Decision (ROD) required that an IC be in-place at the Melby Road Disposal Site (MRDS). The Restrictive Covenant was recorded at the Chippewa County Recorder's Office in October 25, 2011. EPA/WDNR and the PRPs are going to review other areas at the site that are going to need ICs. Other areas of the site that were determined to need no further action by WDNR are going to be reviewed to ensure work has been completed for ICs These additional IC requirements may need to be documented in a decision document.

The Loading Dock Area exceeds Cd in soils for non-industrial standards on a small area near the road. NPI covered this area in November 2016.

As part of NPI's continuing obligations, ICs will be evaluated and groundwater monitoring wells, if found, would be abandoned properly.

General Site Conditions

The roads appeared to be well maintained. The site also appeared to be in good shape.

The vegetation over the cap at the MRDS is being used for animal feed.

Groundwater Remedies

Source Areas

The source areas which were visited included the East Disposal Site, Melby Road Disposal Site, the Southwest Corner and the MW-34/70 area. All these areas appeared to be well maintained.

The MW34/70 area will be reassessed in 2023 regarding the degreaser sludge that is buried in this area. The existing SVE system has been removing TCE, but it has been determined that there are some 'hotspots'. These hotspots will be reviewed in 2023 to see if the SVE system has reduced the concentrations of these hotspots and are no longer impacting the groundwater. This area was identified in 2003.

There is a small area on the site which has cadmium (Cd) contamination in the groundwater above the MCLs. This area is being modeled and the PRPs have identified different constituencies needed and have collected soil and groundwater samples. The PRPs have developed a report of their findings. The PRPs used the 2015 MNA Guidance for metals.

NPI also requested to reduce low-flow operations to 6 months at the MRDS. EPA has also granted NPI to turn off the SVE over the winter months on a trial basis to see if it needs to be operated year round.

Monitoring Data

Operational data for the extraction wells and the soil vapor extraction system are submitted to the Agencies monthly. Discharge monitoring reports are submitted quarterly and annually the Agencies. The PRPs submit an annual report which discusses site activities over the prior year.

NPI conducted one round of sampling 1,4-dioxane and all samples were non-detect.

NPI also inquired about how many rounds of sampling were necessary to show that the goals have been met for the TCE requirements. EPA will review the Record of Decision.

Attachments
Five Year Review Site Inspection Checklist
Photographs

Please note that "O&M" is referred to throughout this checklist. At sites where Long-Term Response Actions are in progress, O&M activities may be referred to as "system operations" since these sites are not considered to be in the O&M phase while being remediated under the Superfund program.

Five-Year Review Site Inspection Checklist (Template)

(Working document for site inspection. Information may be completed by hand and attached to the Five-Year Review report as supporting documentation of site status. "N/A" refers to "not applicable.")

I. SITE INFORMATION	
Site name: NATIONAL PRESTO INDUSTRIES	**Date of inspection:** 10/19/16
Location and Region: EAU CLAIRE, WI REG 5	**EPA ID:** WID 006 196 174
Agency, office, or company leading the five-year review: U.S. EPA REGION 5	**Weather/temperature:** SUNNY / WARM

Remedy Includes: (Check all that apply)

- Landfill cover/containment ✓
- Access controls
- Institutional controls ✓
- Groundwater pump and treatment ✓
- Surface water collection and treatment
- Other _____

- Monitored natural attenuation
- Groundwater containment
- Vertical barrier walls

Attachments: Inspection team roster attached Site map attached

II. INTERVIEWS (Check all that apply)

1. **O&M site manager** DERRICK MAUL (Name) | CASH MGR (Title) | 10/19/16 (Date)
   Interviewed (at site) (at office) by phone Phone no. _____
   Problems, suggestions; Report attached _____

2. **O&M staff** DAVID OLIG / CLIFF WILLITT (Name) | GEOLOGIST / CONTRACT FIRM (Title) | 10/19/16 (Date)
   Interviewed (at site) (at office) by phone Phone no. _____
   Problems, suggestions; Report attached _____

3. **Local regulatory authorities and response agencies** (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply.

Agency WDNR
Contact MAE WILLIAM — HYDROGEOLOGIST — 10/19/16 — _____
Name — Title — Date — Phone no.
Problems; suggestions; Report attached _____

Agency _____
Contact _____ — _____ — _____ — _____
Name — Title — Date — Phone no.
Problems; suggestions; Report attached _____

Agency _____
Contact _____ — _____ — _____ — _____
Name — Title — Date — Phone no.
Problems; suggestions; Report attached _____

Agency _____
Contact _____ — _____ — _____ — _____
Name — Title — Date — Phone no.
Problems; suggestions; Report attached _____

4. **Other interviews** (optional) Report attached.

JEFF PIPPENGER, EAU CLAIRE MUNICIPAL WELL FIELD
DOREEN SCHAD, VILLAGE OF LAKE HALLIE

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. **O&M Documents**

O&M manual	Readily available	Up to date ✓	N/A
As-built drawings	Readily available	Up to date ✓	N/A
Maintenance logs	Readily available	Up to date ✓	N/A

Remarks

2. **Site-Specific Health and Safety Plan** Readily available Up to date ✓ N/A
   Contingency plan/emergency response plan Readily available Up to date ✓ N/A

Remarks

3. **O&M and OSHA Training Records** Readily available Up to date ✓ N/A

Remarks

4. **Permits and Service Agreements**

Air discharge permit	Readily available	Up to date	N/A
Effluent discharge	Readily available	Up to date	N/A
Waste disposal, POTW	Readily available	Up to date	N/A
Other permits	Readily available	Up to date	N/A

Remarks LIMITS INCLUDED IN MONITORING REPORTS

5. **Gas Generation Records** Readily available Up to date N/A

Remarks SVE REPORTS SENT TO AGENCY

6. **Settlement Monument Records** Readily available Up to date N/A ✓

Remarks

7. **Groundwater Monitoring Records** Readily available Up to date ✓ N/A

Remarks SUBMITTED TO AGENCIES

8. **Leachate Extraction Records** Readily available Up to date N/A ✓

Remarks

9. **Discharge Compliance Records**

Air	Readily available	Up to date ✓	N/A
Water (effluent)	Readily available	Up to date ✓	N/A

Remarks SUBMITTED TO AGENCIES

10. **Daily Access/Security Logs** Readily available Up to date ✓ N/A

Remarks SIGN-IN / SIGN-OUT IN MAIN OFFICE

IV. O&M COSTS

1. **O&M Organization**

State in-house — Contractor for State
PRP in-house ✓ — Contractor for PRP ✓
Federal Facility in-house — Contractor for Federal Facility
Other_____

2. **O&M Cost Records**

Readily available — Up to date — PRP LEAD DOES NOT HAVE TO PROVIDE
Funding mechanism/agreement in place
Original O&M cost estimate_____ Breakdown attached

Total annual cost by year for review period if available

From_____ To_____ _____ Breakdown attached
Date Date Total cost
From_____ To_____ _____ Breakdown attached
Date Date Total cost
From_____ To_____ _____ Breakdown attached
Date Date Total cost
From_____ To_____ _____ Breakdown attached
Date Date Total cost
From_____ To_____ _____ Breakdown attached
Date Date Total cost

3. **Unanticipated or Unusually High O&M Costs During Review Period**

Describe costs and reasons: COSTS SHOULD DECREASE W/ SHUTDOWN OF EXTRACTION WELLS

V. ACCESS AND INSTITUTIONAL CONTROLS — Applicable — N/A

A. Fencing

1. **Fencing damaged** — Location shown on site map — Gates secured ✓ — N/A

Remarks_____

B. Other Access Restrictions

1. **Signs and other security measures** OK ✓ — Location shown on site map — N/A

Remarks_____

C. Institutional Controls (ICs)

1. **Implementation and enforcement**

Site conditions imply ICs not properly implemented — Yes — No ✓ — N/A

Site conditions imply ICs not being fully enforced — Yes — No ✓ — N/A

Type of monitoring (*e.g.*, self-reporting, drive by) _____

Frequency _____

Responsible party/agency _____

Contact _____ (Name) _____ (Title) _____ (Date) _____ (Phone no.)

Reporting is up-to-date — Yes — No — N/A

Reports are verified by the lead agency — Yes — No — N/A

Specific requirements in deed or decision documents have been met — Yes ✓ — No — N/A

Violations have been reported — Yes — No — N/A ✓

Other problems or suggestions: Report attached

ICs REQUIRED BY ROD ARE IN-PLACE

2. **Adequacy** — ICs are adequate ✓ — ICs are inadequate — N/A

Remarks _____

D. General

1. **Vandalism/trespassing** — Location shown on site map — No vandalism evident ✓

Remarks _____

2. **Land use changes on site** — N/A ✓

Remarks _____

3. **Land use changes off site** — N/A ✓

Remarks _____

VI. GENERAL SITE CONDITIONS

A. Roads — Applicable — N/A

1. **Roads damaged** — Location shown on site map — Roads adequate ✓ — N/A

Remarks _____

B. Other Site Conditions

Remarks_____

_____

_____

_____

_____

_____

VII. LANDFILL COVERS Applicable ✓ N/A

A. Landfill Surface

1. **Settlement** (Low spots) Location shown on site map Settlement not evident ✓
   Areal extent_____ Depth_____
   Remarks_____
   _____

2. **Cracks** Location shown on site map Cracking not evident ✓
   Lengths_____ Widths_____ Depths_____
   Remarks_____
   _____

3. **Erosion** Location shown on site map Erosion not evident ✓
   Areal extent_____ Depth_____
   Remarks_____
   _____

4. **Holes** Location shown on site map Holes not evident ✓
   Areal extent_____ Depth_____
   Remarks_____
   _____

5. **Vegetative Cover** Grass Cover properly established No signs of stress ✓
   Trees/Shrubs (indicate size and locations on a diagram)
   Remarks_____
   _____

6. **Alternative Cover (armored rock, concrete, etc.)** N/A ✓
   Remarks_____
   _____

7. **Bulges** Location shown on site map Bulges not evident ✓
   Areal extent_____ Height_____
   Remarks_____
   _____

8. **Wet Areas/Water Damage** — Wet areas/water damage not evident ✓
   - Wet areas — Location shown on site map — Areal extent_____
   - Ponding — Location shown on site map — Areal extent_____
   - Seeps — Location shown on site map — Areal extent_____
   - Soft subgrade — Location shown on site map — Areal extent_____

   Remarks_____

9. **Slope Instability** — Slides — Location shown on site map — No evidence of slope instability ✓
   Areal extent_____
   Remarks_____

B. Benches — Applicable — N/A ✓

(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

1. **Flows Bypass Bench** — Location shown on site map — N/A or okay
   Remarks_____

2. **Bench Breached** — Location shown on site map — N/A or okay
   Remarks_____

3. **Bench Overtopped** — Location shown on site map — N/A or okay
   Remarks_____

C. Letdown Channels — Applicable — N/A ✓

(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

1. **Settlement** — Location shown on site map — No evidence of settlement
   Areal extent_____ Depth_____
   Remarks_____

2. **Material Degradation** — Location shown on site map — No evidence of degradation
   Material type_____ Areal extent_____
   Remarks_____

3. **Erosion** — Location shown on site map — No evidence of erosion
   Areal extent_____ Depth_____
   Remarks_____

4. **Undercutting** Location shown on site map No evidence of undercutting
Areal extent_____ Depth_____
Remarks_____

5. **Obstructions** Type_____ No obstructions
Location shown on site map Areal extent_____
Size_____
Remarks_____

6. **Excessive Vegetative Growth** Type_____
No evidence of excessive growth
Vegetation in channels does not obstruct flow
Location shown on site map Areal extent_____
Remarks_____

D. Cover Penetrations Applicable ✓ N/A

1. **Gas Vents** Active ✓ Passive
Properly secured/locked Functioning ✓ Routinely sampled ✓ Good condition ✓
Evidence of leakage at penetration Needs Maintenance
N/A
Remarks SVE SYSTEM

2. **Gas Monitoring Probes**
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance N/A
Remarks SVE SYSTEM

3. **Monitoring Wells** (within surface area of landfill)
Properly secured/locked ✓ Functioning ✓ Routinely sampled ✓ Good condition ✓
Evidence of leakage at penetration Needs Maintenance N/A
Remarks_____

4. **Leachate Extraction Wells**
Properly secured/locked Functioning Routinely sampled Good condition
Evidence of leakage at penetration Needs Maintenance N/A ✓
Remarks_____

5. **Settlement Monuments** Located Routinely surveyed N/A ✓
Remarks_____

E. Gas Collection and Treatment Applicable ✓ N/A

1. **Gas Treatment Facilities**
   Flaring Thermal destruction Collection for reuse
   Good condition ✓ Needs Maintenance
   Remarks SVE SYSTEM

2. **Gas Collection Wells, Manifolds and Piping**
   Good condition ✓ Needs Maintenance
   Remarks

3. **Gas Monitoring Facilities** (*e.g* , gas monitoring of adjacent homes or buildings)
   Good condition ✓ Needs Maintenance N/A
   Remarks

F. Cover Drainage Layer Applicable N/A ✓

1. **Outlet Pipes Inspected** Functioning N/A
   Remarks

2. **Outlet Rock Inspected** Functioning N/A
   Remarks

G. Detention/Sedimentation Ponds Applicable ✓ N/A

1. **Siltation** Areal extent_____ Depth_____ N/A
   Siltation not evident ✓
   Remarks

2. **Erosion** Areal extent_____ Depth_____
   Erosion not evident ✓
   Remarks

3. **Outlet Works** Functioning N/A ✓
   Remarks

4. **Dam** Functioning N/A ✓
   Remarks

H. Retaining Walls Applicable N/A ✓

1. **Deformations** Location shown on site map Deformation not evident
   Horizontal displacement_____ Vertical displacement_____
   Rotational displacement_____
   Remarks_____

2. **Degradation** Location shown on site map Degradation not evident
   Remarks_____

I. Perimeter Ditches/Off-Site Discharge Applicable ✓ N/A

1. **Siltation** Location shown on site map Siltation not evident ✓
   Areal extent_____ Depth_____
   Remarks_____

2. **Vegetative Growth** Location shown on site map N/A
   Vegetation does not impede flow ✓
   Areal extent_____ Type_____
   Remarks_____

3. **Erosion** Location shown on site map Erosion not evident ✓
   Areal extent_____ Depth_____
   Remarks_____

4. **Discharge Structure** Functioning ✓ N/A
   Remarks_____

VIII. VERTICAL BARRIER WALLS Applicable N/A ✓

1. **Settlement** Location shown on site map Settlement not evident
   Areal extent_____ Depth_____
   Remarks_____

2. **Performance Monitoring** Type of monitoring_____
   Performance not monitored
   Frequency_____ Evidence of breaching
   Head differential_____
   Remarks_____

IX. GROUNDWATER/SURFACE WATER REMEDIES Applicable ✓ N/A

A. Groundwater Extraction Wells, Pumps, and Pipelines Applicable ✓ N/A

1. **Pumps, Wellhead Plumbing, and Electrical**
   Good condition ✓ All required wells properly operating Needs Maintenance N/A
   Remarks EROSION NOTED BY EW-5

2. **Extraction System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   Good condition ✓ Needs Maintenance
   Remarks

3. **Spare Parts and Equipment**
   Readily available ✓ Good condition Requires upgrade Needs to be provided
   Remarks

B. Surface Water Collection Structures, Pumps, and Pipelines Applicable N/A ✓

1. **Collection Structures, Pumps, and Electrical**
   Good condition Needs Maintenance
   Remarks

2. **Surface Water Collection System Pipelines, Valves, Valve Boxes, and Other Appurtenances**
   Good condition Needs Maintenance
   Remarks

3. **Spare Parts and Equipment**
   Readily available Good condition Requires upgrade Needs to be provided
   Remarks

C. Treatment System Applicable ✓ N/A

1. **Treatment Train** (Check components that apply)
   - Metals removal — Oil/water separation — Bioremediation
   - Air stripping ✓ — Carbon adsorbers
   - Filters_____
   - Additive (*e.g.*, chelation agent, flocculent)_____
   - Others_____
   - Good condition ✓ — Needs Maintenance
   - Sampling ports properly marked and functional ✓
   - Sampling/maintenance log displayed and up to date ✓
   - Equipment properly identified ✓
   - Quantity of groundwater treated annually_____
   - Quantity of surface water treated annually_____

   Remarks_____

2. **Electrical Enclosures and Panels** (properly rated and functional)
   N/A — Good condition ✓ — Needs Maintenance

   Remarks_____

3. **Tanks, Vaults, Storage Vessels**
   N/A — Good condition ✓ — Proper secondary containment — Needs Maintenance

   Remarks_____

4. **Discharge Structure and Appurtenances**
   N/A — Good condition ✓ — Needs Maintenance

   Remarks_____

5. **Treatment Building(s)**
   N/A — Good condition (esp. roof and doorways) ✓ — Needs repair
   Chemicals and equipment properly stored

   Remarks_____

6. **Monitoring Wells** (pump and treatment remedy)
   Properly secured/locked ✓ Functioning ✓ — Routinely sampled ✓ — Good condition ✓
   All required wells located — Needs Maintenance — N/A

   Remarks_____

D. Monitoring Data

1. Monitoring Data
   Is routinely submitted on time ✓ — Is of acceptable quality ✓

2. Monitoring data suggests:
   Groundwater plume is effectively contained ✓ — Contaminant concentrations are declining ✓

D. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)
   Properly secured/locked Functioning Routinely sampled Good condition
   All required wells located Needs Maintenance N/A ✓
   Remarks_____

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).

400D

B. Adequacy of O&M

Describe issues and observations related to the implementation and scope of O&M procedures. In particular, discuss their relationship to the current and long-term protectiveness of the remedy.

400D

C. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, that suggest that the protectiveness of the remedy may be compromised in the future.

N/A

D. Opportunities for Optimization

Describe possible opportunities for optimization in monitoring tasks or the operation of the remedy.

N/A

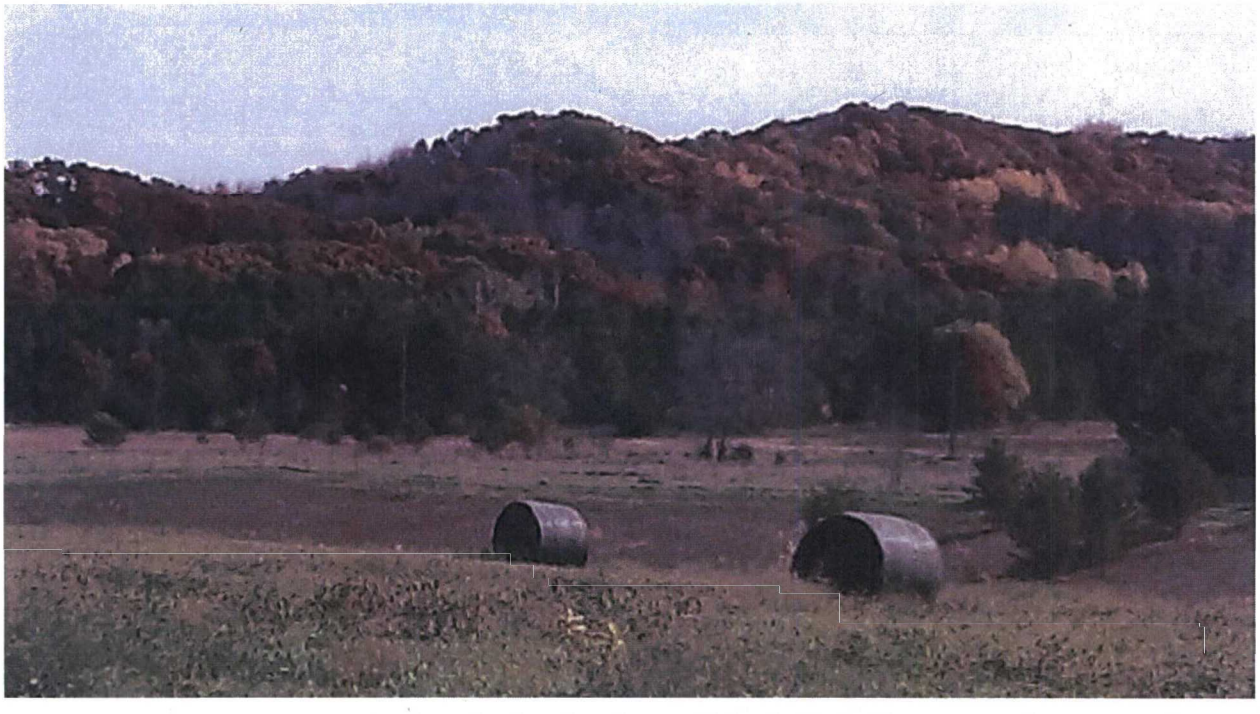
Melby Road Disposal Site Building

Melby Road Disposal Site Building

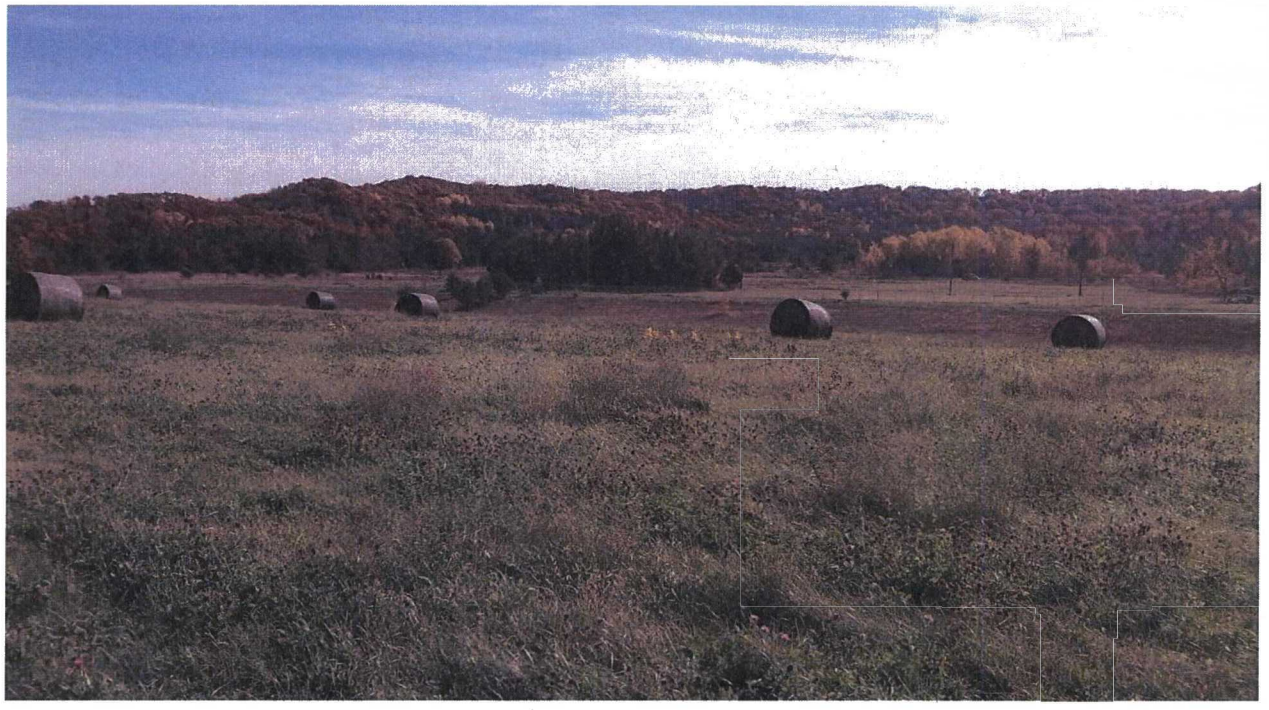
Melby Road Disposal Site Cap

Melby Road Disposal Site Cap

Melby Road Disposal Site Cap



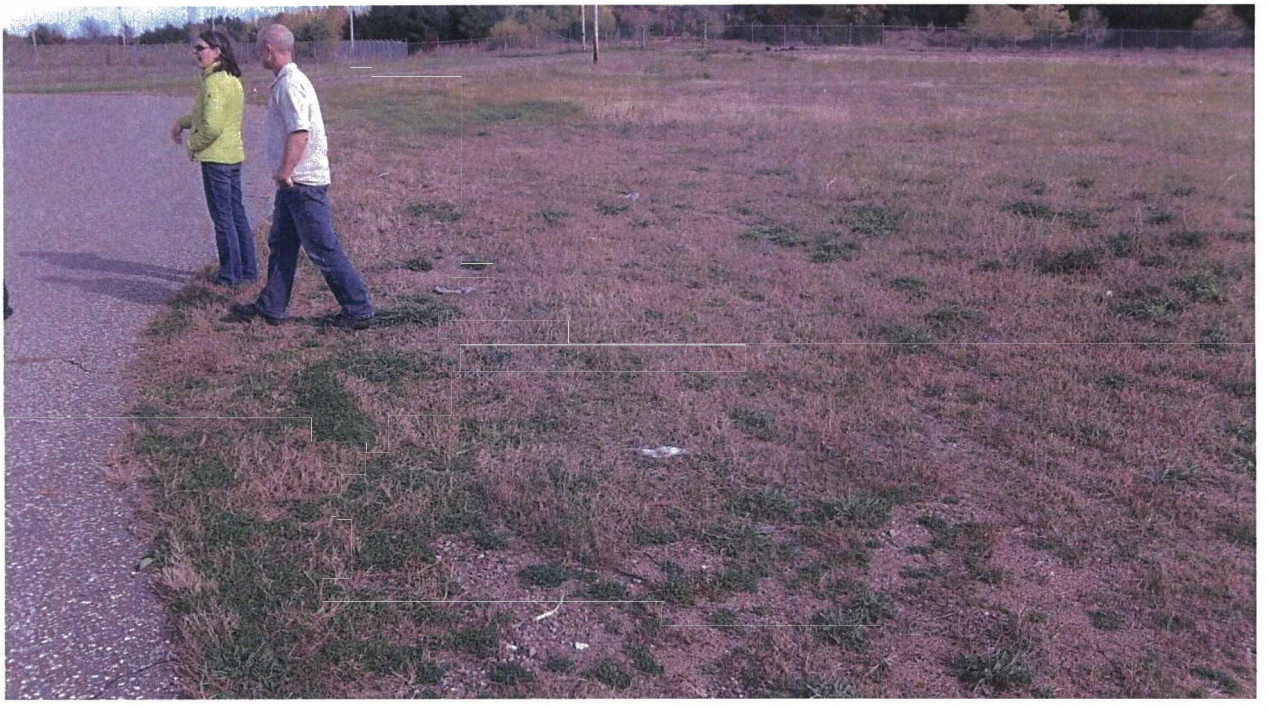
Melby Road Disposal Site Cap



Melby Road Disposal Site Cap

East Disposal Area

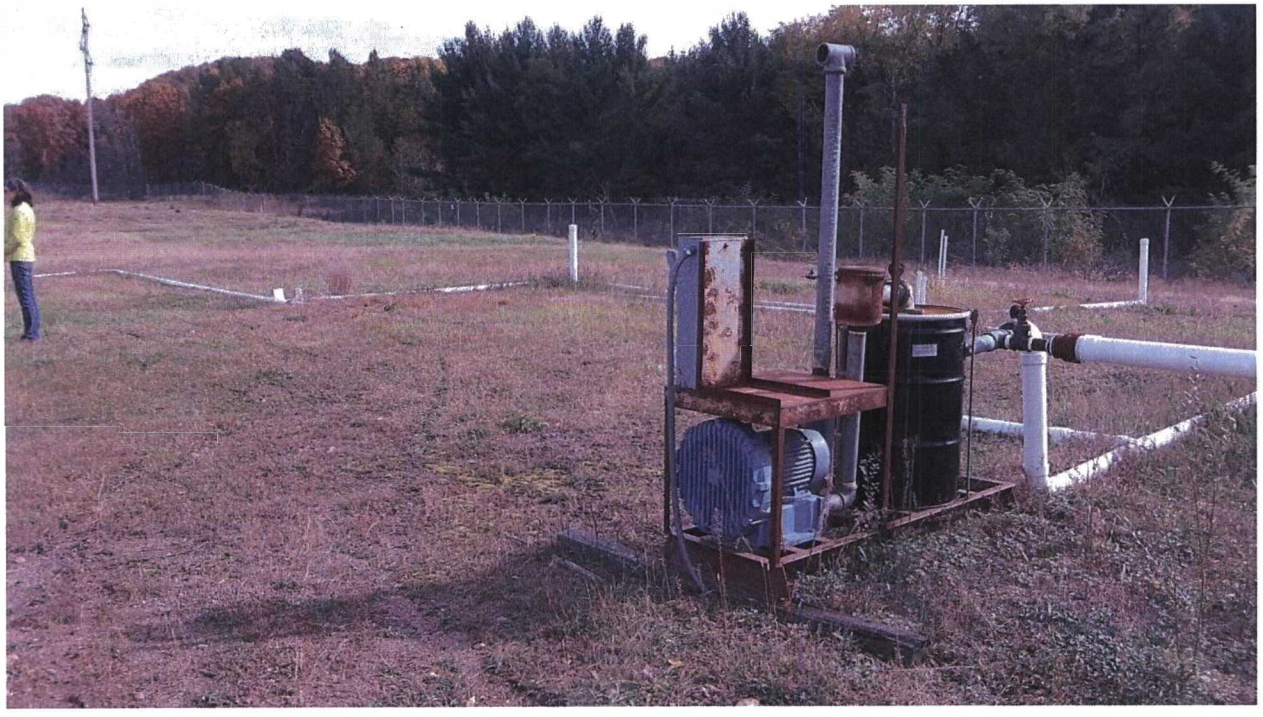
Groundwater Well Nest MW-10



Road near Loading Area where Additional Paving would be done

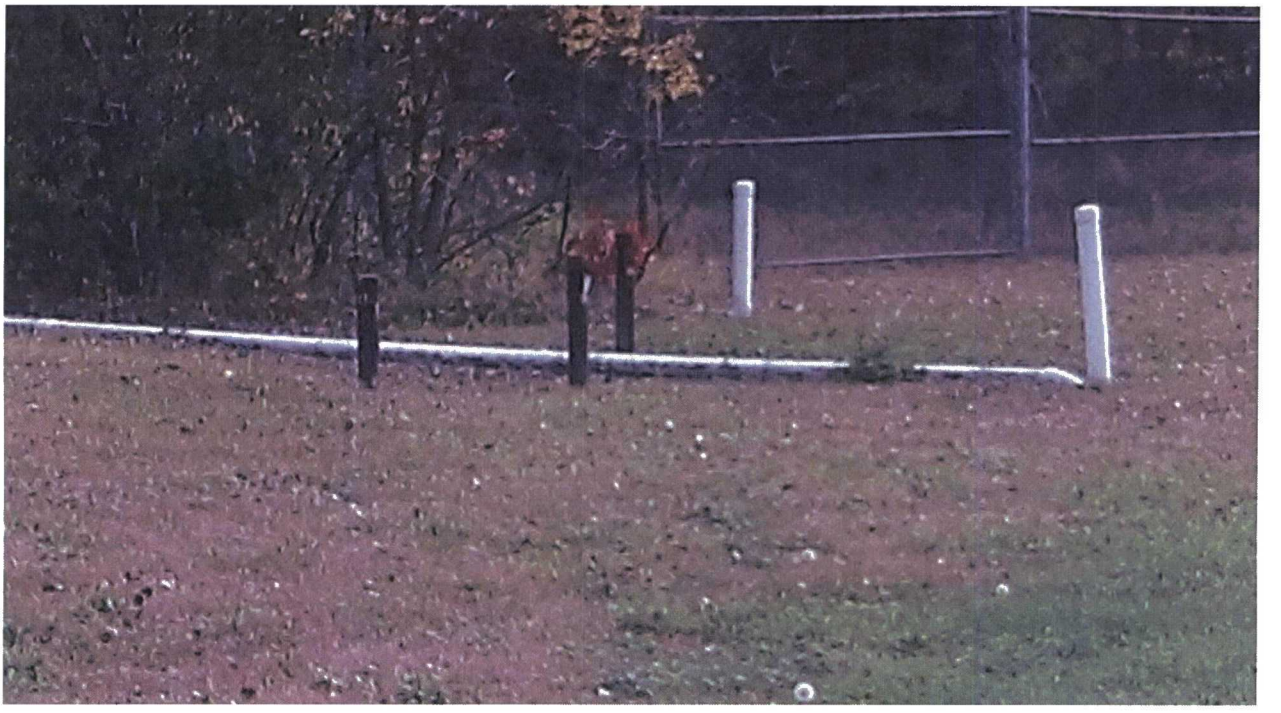
Road near Loading Area which would require Additional Paving

Loading Dock Area



MW 34/70 SVE System

Groundwater Well Nest MW-70



Groundwater Well Nest MW-34

Manhole 18

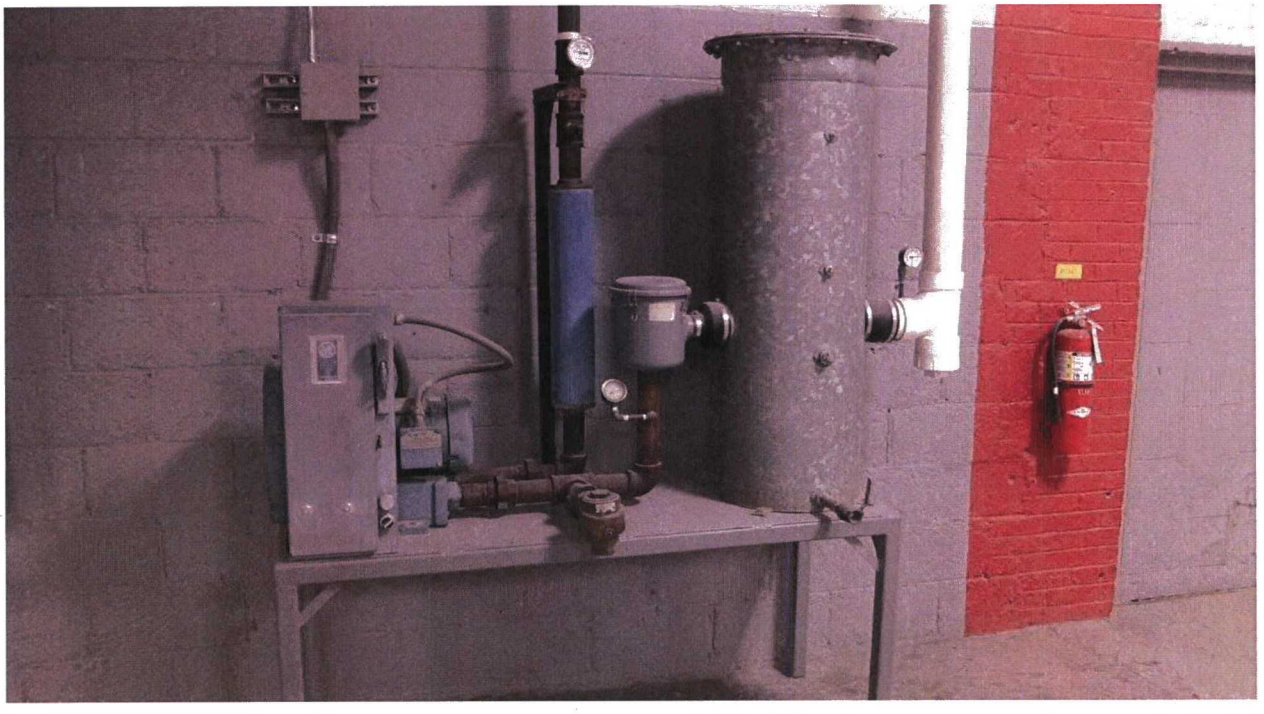
Cascade Aerator 2R (CAS-2R)

Extraction Well 5 (EW-5)

Erosion by EW-5

Extraction Well EW-6

Groundwater Well Nest MW-34



Building 105 SVE System

Building 105 SVE System Intake