

Mr. Kevin McKnight  
Remediation and Redevelopment Program  
Wisconsin Department of Natural Resources  
625 E. County Road Y, Suite 700  
Oshkosh, WI 54901-9731

**VAPOR MITIGATION WORK PLAN AND RESPONSE TO WDNR COMMENTS  
FORMER MIRRO PLANT NO. 20 SITE  
44 WALNUT STREET, CHILTON, WISCONSIN  
BRRTS NOS. 02-08-520157 (ERP) AND 06-08-426946 (VPLE)**

Dear Mr. McKnight:

Ramboll Americas Engineering Solutions, Inc. (Ramboll), on behalf of Newell Operating Company (NOC), has prepared the attached *Vapor Mitigation Work Plan* (the "Work Plan") for the performance of vapor mitigation activities at the former Mirro Plant No. 20 facility located at 44 Walnut Street in Chilton, Wisconsin (the "facility" or "site"). The objective of the Work Plan is to put the necessary protective measures in place to minimize potential exposure to building occupants associated with the chlorinated volatile organic compound (CVOC) impacts migrating onto the site via groundwater from an off-site source. The Work Plan was prepared in direct response to the requirement specified in Wisconsin Department of Natural Resources' (WDNR) May 1, 2024, letter (*Site Investigation Review for VPLE – Not Approved*), which states "*Vapor mitigation is required in the basement area of the building prior to case closure consideration.*" While the WDNR has concluded that the CVOC impacts are not NOC's responsibility,<sup>1</sup> NOC proposes the work identified in the Work Plan in order to help accelerate the issuance of a Certificate of Completion under the Voluntary Party Liability Exemption (VPLE) program.

NOC's responses to the remaining comments in WDNR's May 2024 letter are provided below and are based on our current understanding of site conditions, current promulgated Wisconsin Administrative Code (WAC) regulations, and additional work being requested by the WDNR. Ramboll and Patriot Environmental Management, LLC have spoken with you (most recently on May 8, 2024) to obtain additional clarification on the comments provided in the letter. For ease of review, the WDNR's comments are included in italicized font.

**WDNR Comment**

*A sediment investigation in the Manitowoc River is warranted for Resource Conservation and Recovery Act (RCRA) metals based on sludge sample results collected from the wastewater/sump system and soil on the north side of the site.*

August 28, 2024

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Ref. 1690019558

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<sup>1</sup> March 13, 2023, *Off-Site Liability Clarification Letter* from WDNR to NOC and Fraser Properties, LLC, pg. 3 ("NOC is not responsible for investigation or remediation of the CVOC contamination in groundwater and vapor that is migrating onto the Property").

*The WDNR's concern is related to releases of RCRA metals for operations prior to the implementation of wastewater permitting.*

## **NOC Response**

During our May 8, 2024, conversation, you clarified that the WDNR's request for a sediment investigation was specifically focused on lead.

Based on a thorough review of the available documents on the WDNR Bureau of Remediation and Redevelopment Tracking System (BRRTS) on the Web (BOTW) database for the site and NOC's files, Ramboll, on behalf of NOC, respectfully requests that the WDNR reconsider the request of investigating lead sediment in the South Branch of the Manitowoc River (the "Manitowoc River"). This reconsideration request is based on the following lines of evidence:

- Based on aerial photography evaluated by Stantec in 2020, prior to the completion of the building expansion and rerouting of the Manitowoc River in the early 1950s, the building did not include a basement. As such, the sumps were not installed and sump related discharges to the Manitowoc River were not possible prior to the early 1950s.
- The North outfall (Large Sump discharge) is within the location where the Manitowoc River was rerouted in the early 1950s. Any sediment samples collected after the expansion of the building and Manitowoc River reroute would not be representative of conditions prior to the 1950s and would potentially be representative of fill soils.
- The WDNR and prior State of Wisconsin departments (e.g., Committee on Water Pollution, Division of Resource Development, Industrial Waste Division, etc.) had been reviewing site operations since as early as May 1950 (note, this likely predates the building expansion and installation of the sumps). The documented May 1950 industrial waste census and site review does not indicate lead as a primary product or byproduct of the site industrial processes or the presence of "sludge" that may have contained lead. The early records indicate process wastewater was directed to the City of Chilton sanitary sewer. In addition, NOC files do not indicate a potential source of lead associated with the historic manufacturing operations. As such, lead was not considered a contaminant of concern at the site, and based on available information, lead samples were not collected as part of the industrial waste census or subsequent Wisconsin Pollution Discharge Elimination System (WPDES) permit related sampling. Select historical industrial wastewater documents are provided in Attachment A.
- Site visits conducted by the previously referenced state agencies after the building expansion and associated installation of the basement trench and sump system included visual inspection of the outfalls entering the Manitowoc River. Documentation from a November 19, 1968, inspection indicated that *"The flow from the 2-inch diameter and 3-inch diameter pipes were observed to be clear and cool. No deposits nor sludge banks were present in the vicinity of the various outfalls"* (Attachment A). This provides further evidence that solids were not being discharged to the Manitowoc River even before WPDES permitting regulations were in effect.
- Photographs of the former Mirro Plant No. 20 North outfall available on the WDNR BOTW database collected in 2004 by TEMCO and subsequent photographs collected by Ramboll during the 2020 and 2021 site investigation activities continue to demonstrate no evidence of solids being discharged to the Manitowoc River from the Large Sump (Attachment B).
- Based on all available evidence, Ramboll believes that the only significant change to the basement subfloor drainage system (basement sumps) since the implementation of wastewater permitting in the

1970s was the construction of additional trenches in the northeastern basement concrete floor, which were added by Floor Space Development, LLC, (the property owner between 2002 and 2022). Based on the current construction of the two basement sumps that discharge water to the Manitowoc River (Large Sump discharges to the North Outfall and West Sump discharges to the South Outfall), all sump pump intake piping is set above the sump bottom and below the water line. As such, if solids were to enter the sump from the trenches, those solids would not enter the pump intake and, as a result, would not be discharged to the Manitowoc River. Please note that water from the East Sump is pumped via overhead piping to the Large Sump where the combined flow is discharged to the Manitowoc River through the North Outfall. No other sump discharges water to the Manitowoc River.

- Lead concentrations in basement solid samples collected by Stantec in 2020 (SS-4 at 6,800 milligrams per kilogram [mg/kg]) and Ramboll in 2021 (Pre-East Sump at 2,600 mg/kg) were elevated; however, water samples collected from each sump during the respective investigation were either non-detect or qualified with a “J” and estimated at a concentration of 0.30 micrograms per liter (µg/L), several orders of magnitude below the surface water criteria of 140 µg/L. As such, potential lead impacted basement solids which may enter the trench network, and ultimately the sumps, are not causing elevated or detectable dissolved lead concentrations in sump water. Additionally, water observed by Ramboll on December 10, 2020, and August 5, 2021, was clear and did not appear to contain solids.
- As part of the site investigation activities completed by Ramboll in 2021, three waste characterization samples were collected from the trench networks and submitted for toxic characteristic leachate procedure (TCLP) analysis. These samples were discussed in Section 5.2.3 – Trench Solids Results of the January 11, 2024, NR 716 Site Investigation Report Addendum. Based on the TCLP analytical results, lead was not detected in all three waste characterization samples. As such, potential lead impacted basement solids which may enter the trench network, and ultimately the sumps, are not leaching into the sump water.
- Based on historic manufacturing operations, the detection of lead within the basement is not directly indicative of a lead-based industrial process, but more likely the potential degradation of lead-based paint markings accumulating on dirt particles on the floor and in the trenches.
- Metals detected in fill soils across the site, including the north side of the site, are related to historical fill soils, which encompass a majority of the property and are unrelated to historic Mirro operations. The average concentration of lead in soil, based on the 43 soil samples submitted for lead analysis, is 47 mg/kg, which is below the WDNR established background threshold value of 52 mg/kg.
- The Manitowoc River embankment along the site property boundary is well established with vegetation and does not exhibit signs of erosion. The concentrations of lead in soil samples collected from the “north side of the site” by Stantec in 2020 (PP-1 [80 mg/kg], PP-1 [70 mg/kg], and PP-3 [57 mg/kg]) are lower than the concentration of lead in samples collected by TEMCO in 2002 (SB-3 [0-4] at 201 mg/kg) from near the upstream property boundary of the property. As previously concluded in the *NR 716 Site Investigation Report Addendum* submitted to the WDNR on January 11, 2024, the detection of lead in soils throughout the site is likely attributable to fill soils and not considered a site-related compound of concern at the site.

Based on the lines of evidence presented, there is no documentation to suggest lead products were used or lead-related processes were conducted at the former Mirro Plant No. 20 site. Visits completed by state agencies and photographic evidence from 2004, 2020, and 2021 do not indicate solids were discharged to the Manitowoc River. Based on the absence of lead in site-related processes, elevated lead concentrations in

basement solid samples collected from the basement floor (Stantec sample SS-4) or from immediately prior to the east sump (Ramboll sample Pre-East Sump) are not related to a historic lead process at the facility. It is possible the lead detected in the basement solids is related to the potential use of lead-based paint on surfaces within the basement.

**WDNR Comment**

*The vapor intrusion investigation is complete. Vapor mitigation is required in the basement area of the building prior to case closure consideration.*

**NOC Response**

Ramboll acknowledges this comment and, on behalf of NOC, is submitting the attached Work Plan for performance of the vapor mitigation activities (Attachment C). As previously stated, the chlorinated solvent impacts are not NOC's responsibility. Nonetheless, proposes the work identified in the Work Plan in order to help accelerate the issuance of a certificate of completion under the VPLE program.

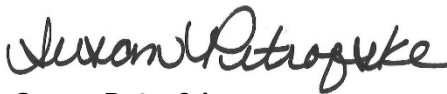
The primary Work Plan tasks include the following:

- cover and seal the east sump, to the extent practicable;
- install signage to limit access to the basement area; and
- develop an operation and maintenance (O&M) plan for the current property owner to follow to ensure that these measures remain in place and protective in the future.

An implementation schedule will be developed and coordinated with the current property owner following WDNR's approval of the Work Plan.

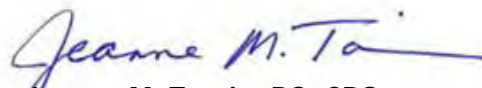
Please let us know if you have any questions regarding the above provided responses or the attached Work Plan. We appreciate your continued assistance in achieving regulatory case closure under the VPLE program.

Yours sincerely,



**Susan Petrofske**  
Managing Consultant

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cc: Kristin Jones, Newell (electronic copy)  
Hudson Green, Patriot (electronic copy)  
Sean Fraser, Fraser Properties, LLC (electronic copy)

**Attachments**

- Attachment A: Historical Wastewater Documents
- Attachment B: Photographs of the North Outfall (Large Sump)
- Attachment C: Vapor Mitigation Work Plan



**ATTACHMENT A**  
**HISTORICAL WASTEWATER DOCUMENTS**

INDUSTRIAL WASTE CENSUS

1. Watershed 7 Stream S. Branch Manitowoc,        Mi. above junc. with N. Branch Manitowoc

2. City or Village Chilton Town Chilton County Calumet

3. Specific Location East Main Street, Chilton

4. Name of Plant Aluminum Speciality Co. P. O. Address Chilton No. Employees 170

5. Officials, Pres. Pres. Walter Spindler Person         
Works Manager Fred Haas Sec. 1616 Wollmar, Manitowoc Interviewed       

6. Operation All year J F M A M J J A S O N D (check those which apply)

7. Products-kind and amount per day 8. Principal Raw Materials-kind and amount per day

Aluminum kitchen utensils- several thousand units per day.

sheet aluminum  
(information available at Manitowoc)

9. Industrial Water (exclusive of that used for power).

(a) Source city water (b) Quantity per day       

(c) Source and quantity of power water       

10. Industrial Wastes (not including sanitary sewage)

(a) Kind and Quantity per Day none

(b) Treatment at Plant       

(c) Disposal to       

(d) Disposal of Sanitary Sewage       

11. Remarks Naptha only liquid used. Reclaimed in filter. (See other side)

12. Do wastes reach the above listed surface water       

13. Date May 17, 1950 Signed       

(Over for additional data) Dennis O'Leary

(Attach sketch; also, where advisable, pictures, flow diagrams, etc.)

**New degreasing system utilizing soap may be installed as part of expansion program.**

[The remainder of the page contains extremely faint and illegible text, likely bleed-through from the reverse side of the document. The text is mostly mirrored and difficult to decipher.]

CALUMET CO. - ALUMINUM SPECIALTY CO., PLANT #2,  
CHILTON --- INDUSTRIAL WASTE

January 9, 1969

On November 19, 1968 a visit was made to the area immediately to the rear of the Aluminum Specialty Company, located in the City of Chilton, and on the bank of the South Branch of the Manitowoc River. Several discharge pipes are located to the rear of the industry and have, on previous occasions, been noted to discharge a foamy wastewater.

On this date, no foam was observed as being discharged to the River. The flow from the two-inch diameter and three-inch diameter pipes were observed to be clear and cool. No deposits nor sludge banks were present in the vicinity of the various outfalls.

The Aluminum Specialty Company utilizes aluminum and stainless steel in the manufacture of coffee pots and cookware. On previous occasions, samples have been taken of the various outfall pipes and such results will be shown.

The three-inch diameter outfall was sampled on October 10, 1967: B.O.D. = 3.1 mg/l; temperature = 16° C.; pH = 8.3; D.O. = 6.3. No sample was taken for MFCC.

On August 21, 1968 the B.O.D. = 1.5 mg/l; temperature = 21° C.; pH = 8.4; no dissolved oxygen was taken; the MFCC per 100ml was less than 10.

On November 19, 1968 the B.O.D. = 8.0 mg/l; temperature = 16° C.; pH = 8.4; no dissolved oxygen test; MFCC per 100ml = 20.

The ten-inch diameter outfall was sampled on two occasions, first on November 19, 1968: B.O.D. = less than 1.0; temperature = 12° C.; pH = 8.2; no tests for D.O. or MFCC.

A sample of the same pipe was taken on December 3, 1968 and no flow was observed.

A four-inch diameter outfall was sampled on two occasions, first on August 21, 1968: B.O.D. = less than 1.0; temperature = 30° C.; pH = 8.2; no tests for D.O.; 400 MFCC per 100ml. The second test was taken November 19, 1968: B.O.D. = less than 1.0; temperature = 10° C.; pH = 8.2; no D.O. tests and no MFCC tests.

The two-inch diameter outfall was sampled on two occasions, first on August 21, 1968: B.O.D. = less than 1.0; temperature 55° C.; pH = 5.8; no tests for D.O.; less than 10 MFCC per 100ml. The second observation was made on December 3, 1968 and no flow was present from the outfall.

DOMINIC A. DEAMICIS  
Regional Engineer  
Region III

pmd

cc: Waste Water Systems Section ←



**ATTACHMENT B**

**PHOTOGRAPHS OF THE NORTH OUTFALL (LARGE SUMP)**

North Outfall (Large Sump Effluent)  
April 16, 2004 Photograph from WDNR SITE FILE  
0208520157\_SITE\_FILE\_2002\_thru\_2013.pdf  
Page 1,646 of 1,695

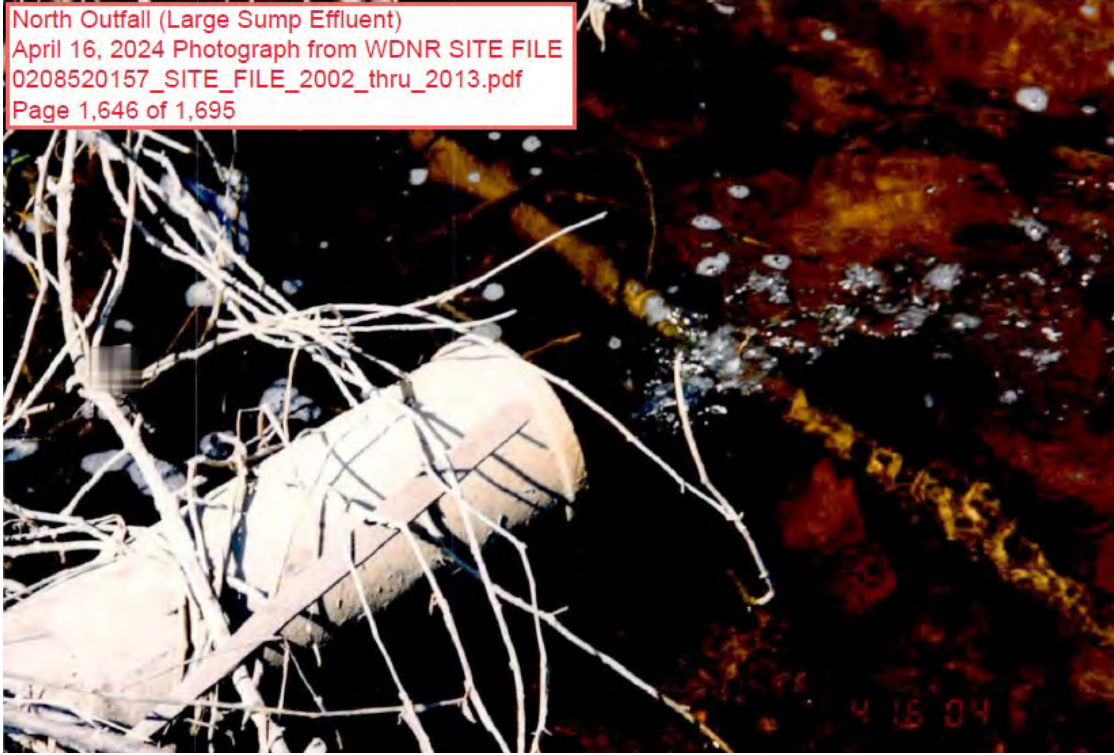


Photo 1: North Outfall photo taken on April 16, 2004, from WDNR BRRTS on the Web site file for the former Mirro Plant No. 20 project



Photo 2: North Outfall photo taken by Ramboll on December 10, 2020



Photo 3: North Outfall photo taken by Ramboll on August 5, 2021



**ATTACHMENT C**  
**VAPOR MITIGATION WORK PLAN**

# VAPOR MITIGATION WORK PLAN

**MIRRO PLANT NO. 20 (FORMER)  
44 WALNUT STREET  
CHILTON, WISCONSIN**

**BRRTS NO. 06-08-426946 (VPLE)**

**BRRTS NO. 02-08-520157(ERP)**

**FID NO. 408021130**

Intended for:

**Wisconsin Department of Natural Resources  
Oshkosh, Wisconsin**

Prepared for:

**Newell Operating Company**

Prepared by:

**Ramboll Americas Engineering Solutions, Inc.  
Milwaukee, Wisconsin**

Date:

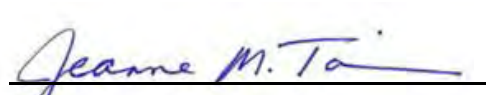
**August 28, 2024**

Project Number:

**1690019558**

## CERTIFICATION

I, Jeanne M. Tarvin, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

  
Signature

August 28, 2024

Date

Title: E&H Americas Country Market Director  
License Number 307-13

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## APPENDICES

Appendix A:	Off-Site Liability Clarification Letter
Appendix B:	Basement Signage

# 1. INTRODUCTION

Ramboll Americas Engineering Solutions, Inc. (Ramboll), on behalf of Newell Operating Company (NOC), is submitting this Vapor Mitigation Work Plan (the "Work Plan") for the performance of vapor mitigation activities at the former Mirro Plant No. 20 facility located at 44 Walnut Street in Chilton, Wisconsin (the "facility" or "site"). This Work Plan has been prepared in conformance with Wisconsin Administrative Code (WAC) Chapters NR 722 and NR 724.

The objective of this Work Plan is to put the necessary protective measures in place to minimize potential exposure to building occupants associated with the chlorinated volatile organic compound (CVOC) impacts migrating onto the site via groundwater from an off-site source. This Work Plan was prepared in direct response to the requirement specified in Wisconsin Department of Natural Resources' (WDNR) May 1, 2024, letter, which states "*Vapor mitigation is required in the basement area of the building prior to case closure consideration.*" While the WDNR has concluded that the CVOC impacts are not NOC's responsibility,<sup>1</sup> NOC intends to complete this work and coordinate with the current property owner so NOC can receive a Certificate of Completion under the Voluntary Party Liability Exemption (VPLE) program.

This Work Plan presents a brief summary of the site background, describes the vapor intrusion sampling completed to date, provides a summary of the vapor mitigation measures evaluated, and presents the scope of work for proposed mitigation measures.

## 1.1 Involved Parties

Responsible Party (RP):	Newell Operating Company 6655 Peachtree Dunwoody Road Atlanta, GA 30328 Contact: Kristin Jones, (770) 418-7822, Kristin.Jones@newellco.com
RP Representative:	Patriot Environmental Management, LLC 2404 Brown Street Pottstown, PA 19464 Contact: Hudson Green, Jr., (610) 323-4634, hgreen@patriotenviro.com
Consultant:	Ramboll Americas Engineering Solutions, Inc. 234 W. Florida Street, Fifth Floor Milwaukee, WI 53204 Contact: Jeanne Tarvin, (262) 901-0085, jtarvin@ramboll.com
Agency:	Wisconsin Department of Natural Resources 625 E. County Road Y, Suite 700 Oshkosh, WI 54901-9731 Contact: Kevin McKnight, (920) 808-0170, kevin.mcknight@wisconsin.gov
Property Owner:	Fraser Properties, LLC 398 Welhouse Drive Kimberly, WI 54136 Contact: Sean Fraser, (920) 209-7497, fraserpropertiesllc@gmail.com

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<sup>1</sup> March 13, 2023, *Off-Site Liability Clarification Letter* from WDNR to NOC and Fraser Properties, LLC, pg. 3 ("NOC is not responsible for investigation or remediation of the CVOC contamination in groundwater and vapor that is migrating onto the Property").



## 1.2 Site Location and Description

The site is located at 44 Walnut Street in the City of Chilton, Calumet County, Wisconsin (Figure 1). The property consists of two tax parcels (16631 and 16951) and is a combined 3.94 acres. The site is located in the NE ¼ of the NW ¼ of Section 18, T18N, R20E and is immediately bordered to the west and north by the South Branch of the Manitowoc River (Manitowoc River), east by the Kaytee Products facility (400 E. Main Street), and south by an active railroad corridor. The WTM91 coordinates obtained from the WDNR RR Sites Map are as follows: X Coordinate (WTM91) 667956 and Y Coordinate (WTM91) 397338. The surrounding properties are a mixture of commercial and industrial properties. Two agricultural properties are located immediately north across the Manitowoc River.

The site consists of a two-story industrial building with a basement in the northern portion of the building and slab on grade construction for the remainder of the building footprint. The building includes several additions, with paved parking and drive areas immediately north and east of the building. The balance of the site to the north and northeast of the building is tree-lined with open greenspace. During site redevelopment activities in the 1950s and 1960s, the meandering river was rerouted to its current location. Due to shallow depth to groundwater and the proximity of the Manitowoc River, a drainage system is located within the basement which includes shallow conveyance trenches that allow infiltrating groundwater to flow to three sumps that currently discharge to the Manitowoc River.

The topography of the site and surrounding properties is relatively flat, with a gentle slope to the west/northwest towards the Manitowoc River. The current site layout is illustrated on Figure 2. The site is served by municipal water and sanitary sewer services provided by the City of Chilton.

The site is located in a general industrial (I-2) zoning district within the City of Chilton. Neighboring properties to the south and east are zoned industrial while properties to the north and west (across the Manitowoc River) are located within the Rural Character District (R-C).

## 2. PROJECT BACKGROUND

The following sections provide a brief overview of the site development, ownership history, current site use, release history, and investigation activities to date.

### 2.1 Site Development, Ownership History, and Current Site Use

Manufacturing operations at the site started in the 1920s as the Aluminum Specialty Company and operated under that name until the mid-1970s, followed by several ownership and name changes. In 1980, the business was sold to Foley Manufacturing who later merged with Mirro in 1985 and became Mirro/Foley under ownership by NOC's parent company. The site was sold by NOC to Floor Space Development, LLC (Floor Space) in 2002. Floor Space sold the property to Fraser Properties, LLC in 2022. The site is currently occupied by multiple tenants that use the warehouse space for product storage and by a machine shop that operates in the southeast portion of the building (first floor). The basement of the building is typically vacant, although it is reportedly used for additional storage when space is needed. The general site layout and pertinent site features are shown on Figure 2.

### 2.2 Release History

Two interrelated open Bureau for Remediation and Redevelopment Tracking System (BRRTS) cases apply to the site: an Environmental Repair Program (ERP) case (BRRTS No. 02-08-520157) and a VPLE case (BRRTS No. 06-08-426946). The WDNR opened the VPLE Case (BRRTS No. 06-08-426946) in March 2003 when Newell Rubbermaid Inc., now known as Newell Brands Inc. ("Newell"), NOC's

parent company, submitted an application for enrollment in the WDNR's VPLE program. The related ERP case (BRRTS No. 02-08-520157) was subsequently opened in January 2004. In November 2018, Newell withdrew the original application, and a new VPLE application was submitted by NOC under the same VPLE case number (BRRTS No. 06-08-426946). The WDNR is providing project oversight under the VPLE program.

Four closed BRRTS cases are also associated with the site; however, these cases took place during Foley/Mirro/NOC's ownership of the site and included historical spill incidents and documentation of underground storage tank (UST) removals, which required no action.

### **2.3 Site Investigation Overview**

Site investigation and remediation activities have been conducted at the site on behalf of NOC in various phases beginning in 2002. In more recent years, site investigation work has also been performed on site or immediately adjacent to the site by others (e.g., the City of Chilton [the "City"], United States Environmental Protection Agency [USEPA], and WDNR). The results of the investigation documented the presence of CVOC and per and polyfluorinated alkyl substances (PFAS) in groundwater migrating onto the property from upgradient off-site sources. Polycyclic aromatic hydrocarbons (PAH) and Resource Conservation and Recovery Act (RCRA) metals identified in site soil are attributed to anthropogenic fill. Elevated concentrations of tetrachloroethene (PCE) and trichloroethene (TCE) were detected within the vapor present within the East Sump located within the basement; however, all indoor air and sub-slab vapor samples were below their applicable screening levels.

Details regarding the soil, groundwater and vapor intrusion investigation activities conducted to date is provided in the *NR 716 Site Investigation Report Addendum Report* submitted to the WDNR in January 2024. A summary of the vapor intrusion investigation results is also provided in Section 3.0 of this Work Plan.

### **2.4 Off-Site Liability Clarification**

Based on the site investigation results, a request for off-site liability clarification was submitted to the WDNR on behalf of NOC in July 2022 for CVOC impacts migrating onto the site from off-site properties. In a letter dated March 13, 2023, the WDNR documented their concurrence that CVOCs (specifically PCE and PCE breakdown products) detected in groundwater and vapor at the site is a result of off-site migration of contamination from the nearby Larson Cleaners (BRRTS No. 02-08-221491) onto the site. As such, the WDNR determined that NOC is not responsible for the further investigation or remediation of PCE and PCE breakdown product related impacts on the site.

The WDNR also determined that the current property owner, Fraser Properties, LLC, qualified for the off-site liability exemption under Wis. Stats. § 292.13 for the CVOC contamination in groundwater and vapor that is migrating onto the property. The letter further clarified that this exemption is subject to conditions, including but not limited to the following:

*"With respect to vapor contamination only, Fraser Properties, LLC agrees to take one or more specified actions directed by the DNR, if the DNR determines that the actions are necessary to prevent an imminent threat to human health, safety or welfare or to the environment. This would occur after the DNR has made a reasonable attempt to notify the party who caused the hazardous substance discharge about that party's responsibilities to investigate and clean up the discharge."*

A copy of WDNR's *Off-Site Liability Clarification* letter is provided in Appendix A.

### 3. SUMMARY OF VAPOR INTRUSION ASSESSMENT ACTIVITIES

As part of the WAC NR 716 site investigation, sump vapor samples were collected from the East Sump and the West Sump in July 2021. Based on the July 2021 sampling results, site use, and discussions with the WDNR, a scope of work for a phased vapor intrusion investigation approach was developed and implemented. As part of the overall vapor intrusion assessment and investigation, basement indoor air and first floor slab on grade sub-slab seasonal vapor samples were collected in August 2021 (the “cooling” season) and March 2022 (the “heating” season) to assess the potential for vapor intrusion based on the CVOC concentrations observed in the sump vapor samples collected. Due to previous and current facility operations, samples were initially analyzed for CVOCs and petroleum volatile organic compounds (PVOCs) using USEPA Method TO-15 as requested by the WDNR. Based on the July and August 2021 results, the March 2022 samples were only analyzed for CVOCs. The following sections summarize the CVOC results that are relevant to this Work Plan. Please refer to the *NR 716 Site Investigation Report Addendum Report* for a complete discussion of the vapor sampling results. Vapor sampling locations are provided on Figure 3 (Basement) and Figure 4 (First Floor). Tabulated results are provided in Table 1 (Sump Vapor), Table 2 (Indoor and Outdoor Air), and Table 3 (Sub-Slab Vapor) and further summarized below.

#### 3.1 Sump Vapor Sampling and Results

Three sump pits are present in the building basement: East Sump, West Sump, and Large Sump. Based on prior sump water analytical results and the sump construction, the East Sump and West Sump were selected for vapor sampling. The sump pump pits were observed to contain water at the time of sampling. Each sump pit was temporarily sealed the day before sampling, to allow additional time for sump vapors to accumulate and provide a more representative sump vapor sample not influenced by indoor air quality. The sump vapor samples were collected in July 2021, in an individually certified clean 6-liter Summa® canister connected to sample tubing inserted through an airtight entry into each sump. The sump vapor sampling results are summarized in Table 1. Sampling locations are shown of Figure 3. Due to the construction of the sump pits (e.g., sump crocks partially covered), the sump vapor samples (EAST SUMP and WEST SUMP) results were not directly compared to WDNR criteria; however, the WDNR’s large commercial/industrial vapor action levels (VALs) and vapor risk screening levels (VRSLs) are shown for reference.

PCE and PCE breakdown products of TCE, cis-1,2-dichloroethene (cDCE) and vinyl chloride, were the primary CVOCs detected in the sump vapor samples. PCE was detected in the EAST SUMP and WEST SUMP vapor samples at concentrations of 3,150 microgram per cubic meter ( $\mu\text{g}/\text{m}^3$ ) and  $1.5 \mu\text{g}/\text{m}^3$ , respectively. TCE was detected in the EAST SUMP at a concentration of  $1,470 \mu\text{g}/\text{m}^3$  and in the WEST SUMP at an estimated concentration of  $0.43 \mu\text{g}/\text{m}^3$ . 1,1,1-Trichloroethane (1,1,1-TCA) was detected in the EAST SUMP and WEST SUMP vapor samples at concentrations of  $17.3 \mu\text{g}/\text{m}^3$  and  $6.1 \mu\text{g}/\text{m}^3$ . cDCE was detected in the EAST SUMP at a concentration of  $7,760 \mu\text{g}/\text{m}^3$  and in the WEST SUMP at an estimated concentration of  $0.98 \mu\text{g}/\text{m}^3$ . 1,1-DCE, tDCE, and vinyl chloride were detected in the EAST SUMP samples at concentrations of  $62.1 \mu\text{g}/\text{m}^3$ ,  $287 \mu\text{g}/\text{m}^3$ , and  $385 \mu\text{g}/\text{m}^3$ , respectively.

#### 3.2 Indoor/Outdoor Air Sampling and Results

Two indoor and outdoor air sampling events were conducted at the building in August 2021 and March 2022. Three indoor air samples (IA B-1, IA B-2, and IA B-3) were collected from within the basement area and proximal to the sumps along with one outdoor air (OA) sample during each sampling event.

The samples were collected utilizing a laboratory individually certified clean 6-liter Summa® canister and were collected over an 8-hour period. The indoor air and outdoor air sampling results were compared to WDNR's large commercial/industrial VALs which are established using the USEPA's May 2023 Regional Screening Level tables. The indoor and outdoor air sampling locations are shown on Figure 3 and the results are summarized in Table 2.

PCE, TCE, cDCE, trans-1,2-dichloroethene (tDCE), and vinyl chloride were detected at least once in the indoor air samples collected during the August 2021 or March 2022 vapor intrusion sampling events; however, all detected concentrations were below their respective VALs. No other CVOC was detected from the indoor or outdoor air samples during the August 2021 or March 2022 vapor intrusion sampling event.

### **3.3 Sub-Slab Sampling and Results**

Four sub-slab vapor samples (VP-1 through VP-4) were collected within the slab on grade portion of the first floor of the building during both the August 2021 and March 2022 sampling events. To facilitate collection of sub-slab vapor samples from just beneath the concrete floor, Vapor Pins™ were installed. A sub-slab vapor sample was collected from each sub-slab vapor sampling probe using an individually certified clean 6-liter Summa® canister fitted with a flow controller regulating the flow rates. Note that sub-slab vapor samples were not collected within the basement due to groundwater being in contact with the basement floor. The sub-slab vapor samples were compared to WDNR's large commercial/industrial VRSLs which are established using the USEPA's May 2023 Regional Screening Level tables. The sub-slab vapor sampling locations are shown on Figure 4, and the results are summarized in Table 3.

PCE, TCE, and 1,1,1-TCA were detected at least once in the sub-slab vapor samples collected during the August 2021 or March 2022 vapor intrusion sampling events; however, all detected concentrations were below their respective VRSLs. No other CVOC was detected from the sub-slab vapor samples during the August 2021 or March 2022 vapor intrusion sampling event.

### **3.4 Conceptual Site Model for Vapor Intrusion Migration**

Based on the results of the site investigation activities conducted to date and the concurrence of the WDNR, the source of the CVOCs detected in sump vapor is impacted groundwater migrating onto the property from an off-site upgradient source (Larson Cleaners, BRRTS No. 02-08-221491). This impacted groundwater is drawn into the basement via the sumps. The East Sump is primarily used to dewater the freight elevator shaft which is located within the contaminated groundwater footprint where CVOC concentrations are generally the highest. Sump water and sump vapor samples collected from the East Sump contain significantly higher concentrations of CVOCs when compared to samples collected from the West Sump or Large Sump water. Indoor air samples collected within close proximity to the basement sumps are orders of magnitude below the applicable large commercial/industrial VALs. All sub-slab vapor samples collected beneath the first-floor slab on grade portion of the southeastern portion of the building were below the applicable large commercial/industrial VRSLs. Additionally, the generally unoccupied use of the basement space further limits potential exposure and associated risk to building occupants.

## **4. EVALUATION OF VAPOR MITIGATION APPROACHES**

To address the vapor intrusion risk associated with the elevated CVOC vapor concentrations in the East Sump, several controls were evaluated to determine the most effective and technically

implementable approach. The following provides a summary of the vapor mitigation control measures evaluated to address the vapor intrusion risk.

### **Source Control**

Source Remediation: Source remediation (e.g., groundwater extraction, permeable reactive barrier, or treatment) is not feasible as the source of the CVOC impacts is an off-site, upgradient release that is the responsibility of responsible party Larson Cleaners.

### **Engineering Controls**

- **Active Basement Sub-Slab Depressurization:** Active basement sub-slab depressurization system (SSDS) is not practicable or implementable due to the difficulty of optimizing the SSDS based on variable groundwater elevations directly beneath the basement floor.
- **Basement Indoor Air Ventilation:** The eastern sump area of the basement indoor air is currently ventilated using two large wall fans exhausted to the eastern exterior of the building. Based on discussions with the property owner, these fans are generally run during the summer months. Continuous operation of the fans during sump pump maintenance activities would improve air circulation and reduce the potential vapor exposure risks within the eastern portion of the basement.
- **Sump Cover/Sealing:** Sump covering/sealing of the East Sump is implementable and would limit potential exposure or migration of vapors to the basement indoor air. While the majority of the sump cover could be sealed, a portion of the sump cover would need to remain open to facilitate basement trench drainage to the sump. Passive and active venting measures were considered as follows:
  - Passive venting of the covered/sealed East Sump was considered but ruled out due to the potential for air/vapors to be drawn into system/area verses away from the system. Depending on exterior weather-related conditions, passive venting could potentially result in an increase in positive pressures beneath the slab or cause freezing of sump pump components during the winter months.
  - Active venting of the East Sump (similar to SSDS) could be implemented; however, the variable groundwater elevations, humid environment, and potential temperature gradient may reduce the efficiency of the system (e.g., consistent maintenance, ice accumulation at effluent, inadequate air flow) and require persistent maintenance and additional costs to the current property owner.

### **Administrative Controls**

- **Limit Use of Basement:** While the current use of the basement is generally limited to building maintenance activities, additional measures could be taken to alert building occupants to the potential hazards and/or further limit access to the basement. This could be accomplished through the placement of signage at entrance points to the basement and limiting access to the basement to only authorized individuals.
- **Operation, Maintenance, and Monitoring (OM&M) Plan:** An OM&M Plan would be developed associated with the implemented vapor mitigation measures. The OM&M Plan would require performance of routine inspections (annually, at a minimum) to verify that the mitigation controls remain in place and continue to be effective. The inspections would be documented with copies maintained on site or at another designated location stipulated in the OM&M Plan. Copies of the inspection documentation could be provided to the WDNR, if requested.

## 5. PLANNED VAPOR MITIGATION WORK PLAN

Based on the previously described identification and evaluation of mitigation measures and the current use of the building, a combination of engineering and administrative controls was selected as the most cost effective, practicable, and technically implementable at the site. Additional measures may be required in the future if the property owner makes changes to the current site use.

### 5.1 Vapor Mitigation Measures

The following vapor mitigation measures are planned for implementation at the site. Figure 5 illustrates the vapor mitigation measures layout.

#### Cover and Seal East Sump

A clear polycarbonate cover will be custom fit over the East Sump and will include required access ports to existing sump components. The perimeter of the sump basin will be dried and cleaned to the extent practical so a silicone based acrylic caulk or similar material can be applied for a proper seal. As previously discussed, a portion of the sump cover must remain open to the sump to allow water flow and will not be sealed.

#### Basement Use, Venting, and Signage

Access to the basement space will continue to be limited to designated personnel primarily for the purposes of performing building maintenance activities. When performing maintenance activities on the East Sump, the designated personnel will be required to ensure that the two nearby wall unit fans are operative to improve air circulation. In addition, signage will be placed at the five entry points into the basement as shown on Figure 5. The sign will indicate "caution - authorized personnel only." An example of the proposed signage is provided in Appendix B.

#### Operation, Maintenance, and Monitoring Plan

An OM&M Plan will be developed that includes the following primary components:

- summary of the vapor intrusion sampling results;
- description and photographs of the mitigation measures that are to be inspected and maintained;
- details regarding inspection frequency (annual) and requirements;
- inspection log/form to document the inspections; and
- contact information for the individuals who will be conducting the inspections.

### 5.2 Vapor Mitigation Documentation

The implementation of the selected vapor mitigation measures will be documented in a Vapor Mitigation Documentation Report that will be submitted to the WDNR. The report will describe the vapor mitigation measures and will include a copy of the OM&M Plan. Compliance with the OM&M Plan will be the responsibility of the current property owner. As such, the OM&M Plan will be signed by the property owner.

### 5.3 Anticipated Continuing Obligations

Continuing obligations may be imposed by the WDNR to ensure that the vapor mitigation measures implemented remain protective into the future. Potential continuing obligations associated with the tasks described in this Work Plan could include continued use of the site for industrial purposes and

implementation of the OM&M Plan. Compliance with the continuing obligations will be the responsibility of the current property owner.

## **6. IMPLEMENTATION SCHEDULE**

The vapor mitigation measures outlined in the Work Plan will be initiated within 60 days following receipt of WDNR approval of this Work Plan, pending contractor availability. Ramboll will keep the WDNR Project Manager apprised of any delays that are outside of Ramboll and/or NOC's control.

## TABLES



**Table 1. Sump Vapor Sample Analytical Results**

Former Mirro Plant No. 20  
 44 Walnut Street, Chilton, WI  
 BRRTS No.: 02-08-520157 (ERP) & 06-08-426946 (VPLE)

Sample Location	Sample Type	Sample Date	CVOC	CVOC	CVOC	CVOC	CVOC	CVOC	CVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	
			1,1,1-Trichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	cis-1,2-Dichloroethene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Toluene	Xylene, o	Xylenes, m + p	Xylenes, Total	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Methyl-tert-butyl-ether	Naphthalene
Reporting Units:			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
VRSL Large Commercial/Industrial:			2,200,000	88,000	470	18,000	18,000	18,000	880	2,800	1,600	4,900	2,200,000	44,000	44,000	44,000	26,000	26,000	47,000	360
VAL Large Commercial/Industrial:			22,000	880	4.7	180	180	180	8.8	28	16	49	22,000	440	440	440	260	260	470	3.6
EAST SUMP	Sump Vapor	07/08/2021	17.3	62.1	0.65 J	7,760	3,150	287	1,470	385	0.93	<0.46	2.5	0.61 J	2.6 J	3.2 J	1.4 J	0.63 J	<0.19	4.4
WEST SUMP	Sump Vapor	07/08/2021	6.1	<0.22	<0.31	0.98 J	1.5	<0.27	0.43 J	<0.14	<0.18	<0.49	2.2	0.74 J	2.9	3.6 J	2.0	0.71 J	<0.20	4.6

**Notes:**  
 Sump vapor samples were collected from basement sumps sealed with plastic sheeting for 18-hours prior to sample collection. These sump vapor samples are not considered representative of indoor air or sub-slab conditions within the basement. The Large Commercial/Industrial Sub-Slab VRSL and Indoor Air VAL are, thus, provided here as points of reference only.

Gray Text analyte not detected  
 < = Concentration was not detected above the reported limit  
 J = Estimated concentration

**Acronyms:**  
 µg/m<sup>3</sup> = micrograms per cubic meter  
 BRRTS = Bureau for Remediation and Redevelopment Tracking System (Wisconsin Department of Natural Resources (WDNR))  
 CVOC = Chlorinated Volatile Organic Compound  
 PVOC = Petroleum Volatile Organic Compound  
 VAL = Vapor Action Level for indoor air  
 VRSL = Vapor Risk Screening Level (= VAL/Attenuation Factor) for subslab vapor samples

VALs and VRSLs based on U.S.EPA Regional Screening Level Tables; see <http://dnr.wi.gov/topic/brownfields/vapor.html> for more details.

**Table 2. Basement Indoor Air and Outdoor Air Sample Analytical Results**

Former Mirro Plant No. 20  
 44 Walnut Street, Chilton, WI  
 BRRTS No.: 02-08-520157 (ERP) & 06-08-426946 (VPLE)

Sample Location	Sample Type	Sample Date	CVOC	CVOC	CVOC	CVOC	CVOC	CVOC	CVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC		
			1,1,1-Trichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	cis-1,2-Dichloroethene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Toluene	Xylene, o	Xylenes, m + p	Xylenes, Total	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Methyl-tert-butyl-ether	Naphthalene
Reporting Units:			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>
VAL Large Commercial/Industrial:			22,000	880	4.7	180	180	180	8.8	28	16	49	22,000	440	440	440	260	260	470	3.6
IA-B-1	Indoor Air	08/06/2021	<0.29	<0.21	<0.30	0.32 J	2.7	<0.26	<0.30	<0.13	1.4	1.3 J	6.1	2.1	4.2	6.3	2.7	1.3 J	<0.20	<3.4
IA-B-1	Indoor Air	03/25/2022	<0.27	<0.20	<0.28	61.6	4.1	0.94 J	3.0	2.0	--	--	--	--	--	--	--	--	--	--
IA-B-2	Indoor Air	08/06/2021	<0.28	<0.21	<0.29	<0.29	1.8	<0.25	<0.29	<0.13	1.3	1.4	6.7	2.1	4.5	6.7	3.4	1.8	<0.19	3.3 J
IA-B-2	Indoor Air	03/25/2022	<0.29	<0.22	<0.31	3.6	<0.46	<0.27	<0.31	<0.14	--	--	--	--	--	--	--	--	--	--
IA-B-3	Indoor Air	08/06/2021	<0.29	<0.21	<0.30	<0.30	1.3	<0.26	<0.30	<0.13	1.3	1.5	7.4	2.5	5.1	7.6	4.0	1.7	<0.20	<3.4
IA-B-3	Indoor Air	03/25/2022	<0.27	<0.20	<0.28	3.2	<0.42	<0.24	<0.28	<0.12	--	--	--	--	--	--	--	--	--	--
OA	Outdoor Air	08/06/2021	<0.30	<0.22	<0.31	<0.31	<0.47	<0.27	<0.32	<0.14	0.39 J	<0.50	0.50 J	<0.44	<1.0	<1.0	<0.57	<0.47	<0.20	<3.5
OA	Outdoor Air	03/25/2022	<0.28	<0.21	<0.29	<0.30	<0.44	<0.26	<0.30	<0.13	--	--	--	--	--	--	--	--	--	--

**Notes:**

Indoor Air sample results were compared to the Large Commercial/Industrial VAL based on property use.

Gray Text	analyte not detected
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**Results & Flags:**

< = Concentration was not detected above the reported limit  
 J = Estimated concentration

**Acronyms:**

µg/m<sup>3</sup> = micrograms per cubic meter  
 BRRTS = Bureau for Remediation and Redevelopment Tracking System (Wisconsin Department of Natural Resources (WDNR))  
 CVOC = Chlorinated Volatile Organic Compound  
 PVOC = Petroleum Volatile Organic Compound  
 VAL = Vapor Action Level for indoor air

VALs based on U.S.EPA Regional Screening Level Tables; see <http://dnr.wi.gov/topic/brownfields/vapor.html> for more details.

**Table 3. Sub-Slab Vapor Sample Analytical Results**

Former Mirro Plant No. 20  
 44 Walnut Street, Chilton, WI  
 BRRTS No.: 02-08-520157 (ERP) & 06-08-426946 (VPLE)

Sample Location	Sample Type	Sample Date	CVOC	CVOC	CVOC	CVOC	CVOC	CVOC	CVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC	PVOC		
			1,1,1-Trichloroethane	1,1-Dichloroethene	1,2-Dichloroethane	cis-1,2-Dichloroethene	Tetrachloroethene	trans-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Toluene	Xylene, o	Xylenes, m + p	Xylenes, Total	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Methyl-tert-butyl-ether	Naphthalene
Reporting Units:			µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	µg/m <sup>3</sup>	
VRSL Large Commercial/Industrial:			<b>2,200,000</b>	<b>88,000</b>	<b>470</b>	<b>18,000</b>	<b>18,000</b>	<b>18,000</b>	<b>880</b>	<b>2,800</b>	<b>1,600</b>	<b>4,900</b>	<b>2,200,000</b>	<b>44,000</b>	<b>44,000</b>	<b>44,000</b>	<b>26,000</b>	<b>26,000</b>	<b>47,000</b>	<b>360</b>
VP-1	Sub-Slab Vapor	08/06/2021	45.9	<4.1	<5.8	<5.8	1,220	<5.0	<5.8	<2.6	<3.4	<9.2	<7.3	<8.1	<19.1	<19.1	<10.5	<8.6	<3.8	<64.7
VP-1	Sub-Slab Vapor	03/25/2022	21.9	<0.21	<0.29	<0.30	674	<0.26	12.1	<0.13	--	--	--	--	--	--	--	--	--	--
VP-2	Sub-Slab Vapor	08/06/2021	40.1	<2.2	<3.1	<3.1	878	<2.7	<3.2	<1.4	<1.8	<5.0	<3.9	<4.4	<10.3	<10.3	<5.7	<4.7	<2.0	<34.9
VP-2	Sub-Slab Vapor	03/25/2022	27.1	<0.21	<0.29	<0.30	590	<0.26	<0.30	<0.13	--	--	--	--	--	--	--	--	--	--
VP-3	Sub-Slab Vapor	08/06/2021	15.9	<1.0	<1.4	<1.4	501	<1.2	<1.4	<0.63	<0.83	<2.3	2.1 J	<2.0	<4.7	<4.7	<2.6	2.3 J	<0.92	<15.8
VP-3	Sub-Slab Vapor	03/25/2022	10.5	<0.22	<0.31	<0.31	245	<0.27	0.40 J	<0.14	--	--	--	--	--	--	--	--	--	--
VP-4	Sub-Slab Vapor	08/06/2021	4.6	<0.21	<0.29	<0.29	74.9	<0.25	0.47 J	<0.13	1.7	1.2 J	5.9	2.5	4.7	7.1	2.9	<0.43	<0.19	3.8 J
VP-4	Sub-Slab Vapor	03/25/2022	2.0	<0.21	<0.30	<0.30	34.4	<0.26	<0.30	<0.13	--	--	--	--	--	--	--	--	--	--

**Notes:**

Sub-Slab Vapor sample results were compared to the Large Commercial/Industrial VRSL based on property use.

Gray Text analyte not detected

< = Concentration was not detected above the reported limit

J = Estimated concentration

**Acronyms:**

µg/m<sup>3</sup> = micrograms per cubic meter

BRRTS = Bureau for Remediation and Redevelopment Tracking System (Wisconsin Department of Natural Resources (WDNR))

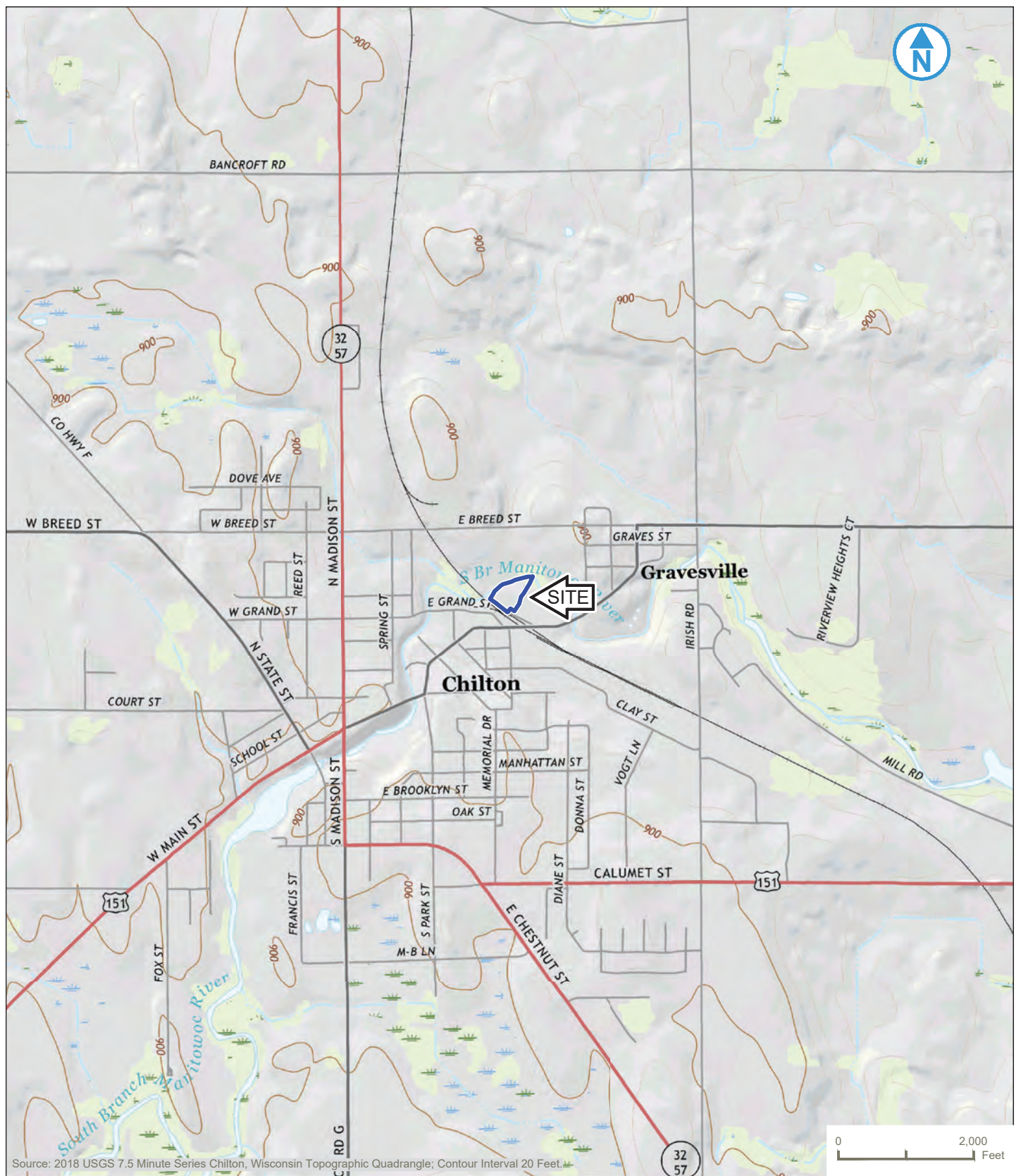
CVOC = Chlorinated Volatile Organic Compound

PVOC = Petroleum Volatile Organic Compound

VRSL = Vapor Risk Screening Level ( = VAL/Attenuation Factor) for subslab vapor

VRSLs based on U.S.EPA Regional Screening Level Tables; see <http://dnr.wi.gov/topic/brownfields/vapor.html> for more details.

## FIGURES



Map Scale: 1:24,000 | Map Center: 44.0344, -88.1535

### SITE LOCATION MAP

### FIGURE 1



KEY MAP

**NEWELL OPERATING COMPANY**  
**FORMER MIRRO PLANT NO. 20**  
 44 WALNUT STREET  
 CHILTON, WISCONSIN

RAMBOLL AMERICAS  
 ENGINEERING SOLUTIONS, INC.  
 A RAMBOLL COMPANY





Source: Basemap: The Sigma Group, drawing no. 19824-topo.dwg dated 12/28/2020.  
Aerial Imagery: Bing Maps © Microsoft Corporation 2021.

**LEGEND**

- - - PROPERTY BOUNDARY
- PARCEL BOUNDARY
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING POINT
- PIEZOMETER INSTALLED BY OMNI/WDNR
- SUMP PIT
- SOIL BORING
- STAFF GAUGE
- MANHOLE
- OUTFALL
- TRANSFORMER
- CHAIN LINK FENCE
- CONCRETE AREA

- APPROXIMATE LOCATION OF MINERAL SPIRITS USTs REMOVED IN OCTOBER 1990 (CLOSED BRRTS 09-08-294564)
- APPROXIMATE LOCATION OF FORMER FUEL USTs ABANDONED IN PLACE IN JANUARY 1996 (CLOSED BRRTS 09-08-292322)

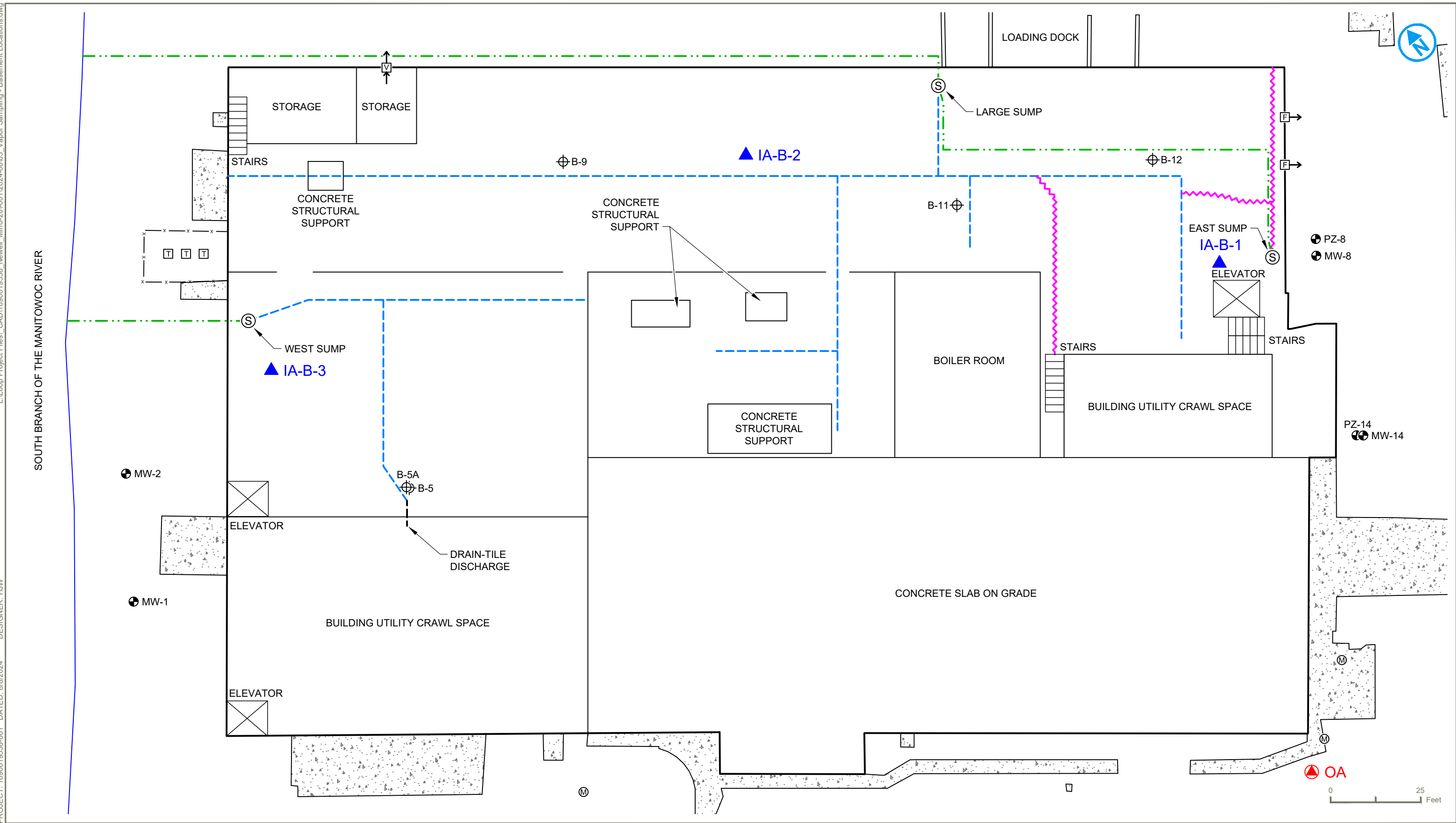
**SITE LAYOUT**

**NEWELL OPERATING COMPANY  
FORMER MIRRO PLANT NO. 20**  
44 WALNUT STREET  
CHILTON, WISCONSIN

**FIGURE 2**

RAMBOLL AMERICAS  
ENGINEERING SOLUTIONS, INC.  
A RAMBOLL COMPANY





**LEGEND**

- x- CHAIN LINK FENCE
- CONCRETE AREA
- ⊙ SUMP PIT
- Ⓜ MANHOLE
- Ⓣ TRANSFORMER
- ⊕ GROUNDWATER MONITORING WELL

- - - ORIGINAL TRENCH NETWORK
- POST-2002 FLOOR SAWCUTS
- ▲ INDOOR AIR SAMPLE LOCATION
- ▲ OUTDOOR AIR SAMPLE LOCATION
- ⊕ GROUNDWATER MONITORING POINT
- F→ FAN

- V→ WALL VENT
- - - SUMP DISCHARGE LINE

**NOTE**  
 LOCATIONS OF INTERIOR BUILDING FEATURES AND HISTORIC INTERIOR SAMPLE LOCATIONS ARE APPROXIMATE.

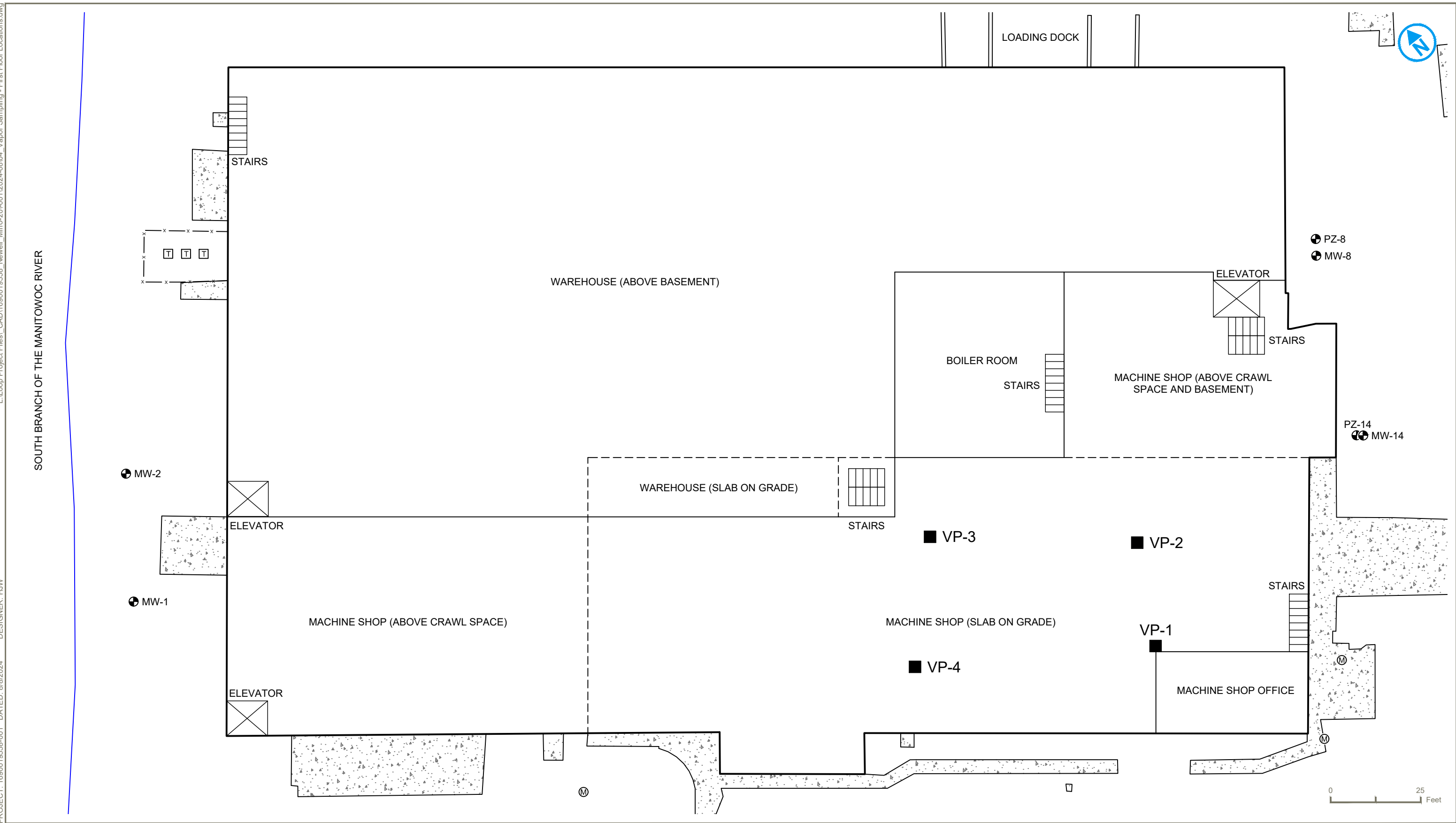
**VAPOR SAMPLING - BASEMENT LOCATIONS**

**NEWELL OPERATING COMPANY**  
 FORMER MIRRO PLANT NO. 20  
 44 WALNUT STREET  
 CHILTON, WISCONSIN

**FIGURE 3**

RAMBOLL AMERICAS  
 ENGINEERING SOLUTIONS, INC.  
 A RAMBOLL COMPANY





**LEGEND**

- x — CHAIN LINK FENCE
- ▨ CONCRETE AREA
- Ⓜ MANHOLE
- ⓧ TRANSFORMER
- ⊕ GROUNDWATER MONITORING WELL
- SUB-SLAB VAPOR MONITORING LOCATION
- ⊕ GROUNDWATER MONITORING POINT
- ☞ FAN

**NOTE**  
 LOCATIONS OF INTERIOR BUILDING FEATURES AND HISTORIC  
 INTERIOR SAMPLE LOCATIONS ARE APPROXIMATE.

**VAPOR SAMPLING -  
 FIRST FLOOR LOCATIONS**

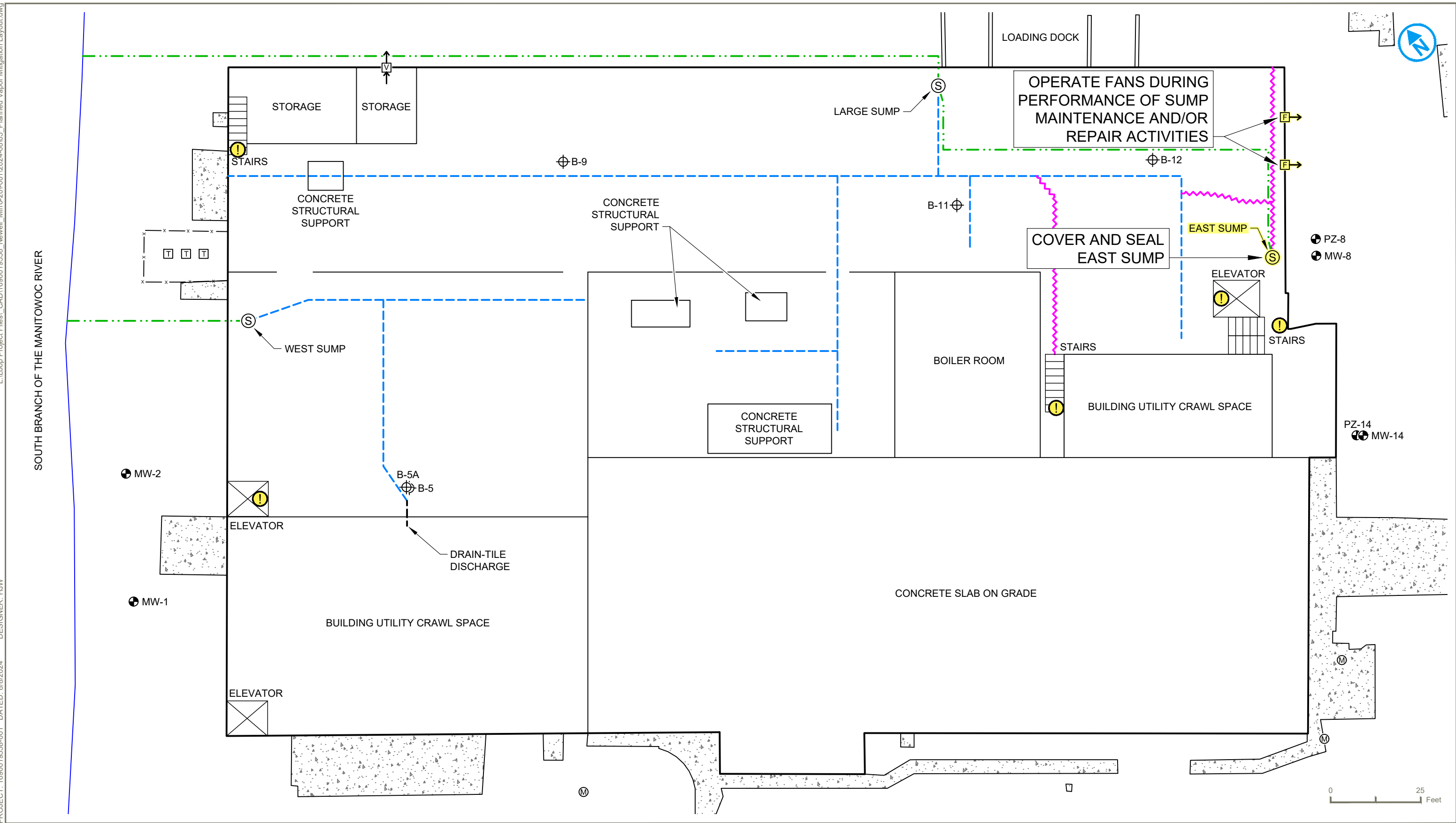
**NEWELL OPERATING COMPANY**  
 FORMER MIRRO PLANT NO. 20  
 44 WALNUT STREET  
 CHILTON, WISCONSIN

**FIGURE 4**

RAMBOLL AMERICAS  
 ENGINEERING SOLUTIONS, INC.  
 A RAMBOLL COMPANY







**LEGEND**

	CHAIN LINK FENCE		ORIGINAL TRENCH NETWORK		WARNING SIGN
	CONCRETE AREA		POST-2002 FLOOR SAWCUTS		GROUNDWATER MONITORING POINT
	SUMP PIT		FAN		GROUNDWATER MONITORING WELL
	MANHOLE		WALL VENT		SUMP DISCHARGE LINE
	TRANSFORMER				

**NOTE**  
LOCATIONS OF INTERIOR BUILDING FEATURES AND HISTORIC INTERIOR SAMPLE LOCATIONS ARE APPROXIMATE.

**PLANNED VAPOR MITIGATION LAYOUT**

**NEWELL OPERATING COMPANY**  
FORMER MIRRO PLANT NO. 20  
44 WALNUT STREET  
CHILTON, WISCONSIN

**FIGURE 5**

RAMBOLL AMERICAS  
ENGINEERING SOLUTIONS, INC.  
A RAMBOLL COMPANY



## **APPENDIX A**

### **OFF-SITE LIABILITY CLARIFICATION LETTER**



March 13, 2023

Newell Operating Company  
Attn: Kristin Jones  
6655 Peachtree Dunwoody Road  
Atlanta, GA 30328  
*Sent via email only to [Kristin.Jones@newellco.com](mailto:Kristin.Jones@newellco.com)*

Fraser Properties, LLC  
Attn: Sean Fraser  
398 Welhouse Drive  
Kimberly, WI 54136  
*Sent via email only to [fraserpropertiesllc@gmail.com](mailto:fraserpropertiesllc@gmail.com)*

Subject: Off-site liability clarification for property located at 44 Walnut Street, Chilton, WI with contamination from an off-site source  
Mirro Plt #20 (Former), BRRTS #s: 07-08-402366, 02-08-520157, & 06-08-426946  
Parcel #s: 16631 & 16951

Dear Ms. Jones and Mr. Fraser:

### **Purpose**

The Department of Natural Resources (DNR) recently reviewed Newell Operating Company's request for an off-site liability clarification letter for the property located at 44 Walnut Street, Chilton WI, which will be referred to in this letter as "the Property." Refer to the attached Figure 2, Site Layout and Existing Monitoring Well Network, Ramboll, January 26, 2022, for a map of the Property. A fee was not received for this request due to the Property being enrolled in the Voluntary Liability Exemption Program (VPLE).

### **Request**

Newell Operating Company (NOC) has requested that the DNR determine if NOC is liable to further investigate or remediate groundwater (saturated soil and sump water associated with groundwater) and vapor contamination on the Property related to tetrachloroethene (PCE) and its breakdown products, and 1,2-Dichloroethane in groundwater. The DNR will also clarify if the property owner, Fraser Properties, LLC, is exempt from Wis. Stats. §§ 292.11(3), (4) and (7)(b) and (c), (commonly known as the "Spill Law"), with respect to the existence of the hazardous substance discharges identified above, that NOC believes is migrating onto the Property from an off-site source.

Wis. Stat. § 292.55 authorizes the DNR to issue clarification letters concerning environmental liability. Wisconsin's Spill Law includes an "off-site exemption," in Wis. Stats. § 292.13, that limits the liability of a person who possesses or controls property that is contaminated by an off-site discharge when certain conditions are met. To make this determination, the DNR reviewed information about the Property, including soil and groundwater sampling data for the Property and other sites contained in the following documents:

- Off-Site Liability Exemption and Liability Clarification Application form (Form 4400-201) signed July

14, 2022;

- Off-Site Liability Clarification Request, Ramboll, July 15, 2022;
- DNR Case File, Mirro Plt #20 (Former), BRRTS# 02-08-520157;
- Response to the Off-Site Liability Exemption and Liability Clarification Application for Former Mirro Plant No. 20 Site, Foth, November 29, 2022.

### **Background**

The Property has been used for manufacturing since the 1920s. The Property is a former manufacturing site for production of aluminum and steel cookware and bakeware. Newell Operating Company (as Newell Rubbermaid, Inc.) received a responsible party letter for this property in 2004 as the “causer” for contamination found at the Property due to their relationship to the companies that operated and caused hazardous substance discharges on the Property. Fraser Properties, LLC purchased the Property in 2022 and received a responsible party letter on May 25, 2022, because they possessed the hazardous substance discharges on the Property when they took ownership. The Property is currently occupied by multiple tenants and used as a warehouse and machine shop.

The DNR considered the documents listed above in making the determinations presented in this letter. Site investigation activities began in 2002 and identified contamination including volatile organic compounds (VOC), polycyclic aromatic hydrocarbons (PAH), and Resource Conservation and Recovery Act (RCRA) metals in soil and/or groundwater on the Property. Chlorinated volatile organic compounds (CVOC) were identified in groundwater in the southern portion of the property but were not found in unsaturated soil samples analyzed in these locations. The investigation identified Larson Cleaners (02-08-221491), a known source of CVOCs as the likely source of groundwater contamination found at the Property. Review of soil borings, soil sampling data, well construction reports, and groundwater levels in monitoring wells and piezometers, and groundwater sampling data supported this assessment. Therefore, DNR concurs the contamination of CVOCs in groundwater and vapor is a result of off-site migration of contamination from Larson Cleaners.

A determination was also requested for 1,2-Dichloroethane in groundwater that NOC contends is migrating from an off-site source. Based on the location of off-site monitoring wells and lack of supporting groundwater data linking the contamination from Chilton Metal Products (BRRTS #s 02-08-561133 and 03-08-000802) to the contamination on the Property, the DNR does not concur with the conclusion that 1,2-Dichloroethane is migrating from an off-site source at this time. Therefore, the site investigation and remediation of 1,2-Dichloroethane is the responsibility of NOC.

### **Determination and Liability Clarification**

Based upon the available information and in accordance with Wis. Stat. §§ 292.55 and 292.13, the DNR makes the following determinations regarding the presence of CVOCs including perchloroethylene (PCE), trichloroethylene (TCE), cis-1,2-dichloroethene (cDCE), and vinyl chloride in groundwater and vapor. CVOCs have been identified in on-site monitoring wells MW-8, MW-13, MW-14, PZ-5, PZ-13, B-12, East Sump and Large Sump, and previously abandoned groundwater monitoring wells MW-3, MW-5, and PZ-10. Off-gassing of CVOC vapor from groundwater was confirmed via sampling of the basement sumps.

The DNR has determined that NOC is not responsible for investigation or remediation of the CVOC contamination in groundwater or vapor that is migrating onto the Property. This contamination did not originate from discharges on the Property and was not caused by the operations of NOC or its predecessors. However, NOC does not qualify for the off-site exemption at this time because they do not currently own the Property. NOC remains responsible for completing investigation and remedial action for any discharges of hazardous substances whose source originates on the Property. In addition to the clarification for NOC, the following is the determination for the off-site exemption for Fraser Properties as the Property owner.

The DNR, based on the information available, determined that the Property owner met the conditions in Wis. Stats. § 292.13 to qualify for the liability exemption, including but not limited to the following provisions:

1. The hazardous substance discharge originated from a source on property that is not possessed or controlled by Fraser Properties, LLC.
2. Fraser Properties, LLC did not possess or control the hazardous substance on the property on which the discharge originated.
3. Fraser Properties, LLC did not cause the discharge.
4. Fraser Properties, LLC will not have liability under the Spill Law for investigation or remediation of the groundwater or vapor contamination originating from off-site onto the Property, provided that Fraser Properties, LLC does not take possession or control of the property on which the discharge originated.

#### **Exemption Conditions for Property Owner**

The DNR's determination, as set forth in this letter, is subject to compliance with the following conditions, as specified in Wis. Stats. §§ 292.13(1) and (1m).

1. The facts upon which the DNR based its determination are accurate and do not change.
2. Fraser Properties, LLC agrees to allow the following parties to enter the Property to take action to respond to the discharge: the DNR and its authorized representatives; any party that possessed or controlled the hazardous substance or caused the discharge; and any consultant or contractor of such a party.
3. Fraser Properties, LLC agrees to avoid any interference with action undertaken to respond to the discharge and to avoid actions that worsen the discharge.
4. Fraser Properties, LLC agrees to any other condition that the DNR determines is reasonable and necessary to ensure that the DNR and any other authorized party can adequately respond to the discharge.
5. With respect to vapor contamination only, Fraser Properties, LLC agrees to take one or more specified actions directed by the DNR, if the DNR determines that the actions are necessary to prevent an imminent threat to human health, safety or welfare or to the environment. This would occur after the DNR has made a reasonable attempt to notify the party who caused the hazardous substance discharge about that party's responsibilities to investigate and clean up the discharge.

#### **Responsibilities for Continuing Obligations**

In addition to the conditions above, after the contamination at the source property is remediated, the DNR's approval of the cleanup may include continuing obligations at the source property as well as for this Property. Often residual contamination remains after an approved environmental cleanup is complete. This approval may include requirements to maintain engineering controls, such as a cap or soil cover, to reduce the impact of the contamination. In that event, the Property owner may also be required to notify the DNR prior to constructing a water supply well on this Property. If the neighboring property owners request for cleanup approval includes requirements for this Property, the party conducting the cleanup is required to notify the Property owner before the DNR reviews the proposal for final approval of the clean-up.

#### **Conclusion**

The DNR clarified that NOC is not responsible for investigation or remediation of the CVOC contamination in groundwater and vapor that is migrating onto the Property, since it did not originate from discharges on the Property and was not caused by the operations of NOC or its predecessors. Please note the DNR made this determination based on the information and data submitted. If the DNR becomes aware of new information concerning the CVOC contamination, the DNR may evaluate that data at that time to determine if this clarification still applies.

The DNR also determined that Fraser Properties, LLC has the off-site exemption under Wis. Stats. § 292.13 for the CVOC contamination in groundwater and vapor that is migrating onto the Property. Please note that the DNR may revoke the determinations made in this letter if it determines that any of the requirements under Wis. Stats. § 292.13, cease to be met.

Future Property owners are eligible for the exemption under Wis. Stats. § 292.13, if they meet the requirements listed in that statute section. The determinations in this letter for the off-site liability exemption, however, only applies to Fraser Properties, LLC, and may not be transferred or assigned to other parties. The DNR will provide a written determination to future owners of this Property, if such a determination is requested in accordance with the requirements of Wis. Stats. § 292.13.

The Bureau for Remediation and Redevelopment Tracking System (BRRTS) identification number for this activity is shown at the top of this letter. The DNR tracks information on all determinations such as this in a DNR database available online at [dnr.wi.gov](http://dnr.wi.gov) and search: "BOTW".

If you have any questions or concerns regarding this letter, please contact me at 920-362-39810 or the DNR project manager, Kevin McKnight, at 920-808-0170 or by email at [Kevin.McKnight@wisconsin.gov](mailto:Kevin.McKnight@wisconsin.gov).

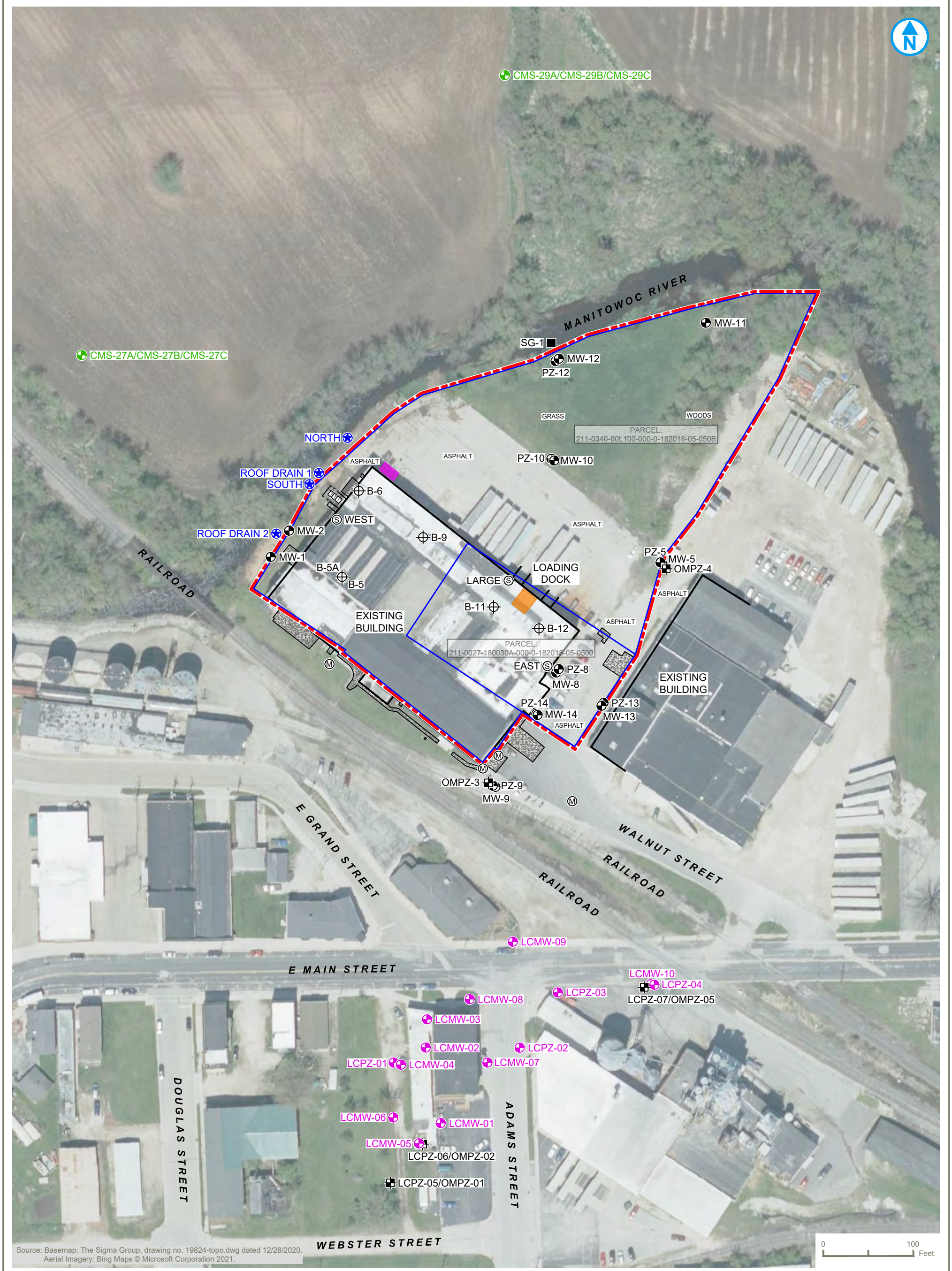
Sincerely,



Roxanne N. Chronert  
Team Supervisor, Northeast Region  
Remediation and Redevelopment Program

Attachments: Figure 2, Site Layout and Existing Monitoring Well Network, Ramboll, January 26, 2022

cc: Hudson Green, Patriot Environmental – [hgreen@patriotenviro.com](mailto:hgreen@patriotenviro.com)  
Susan Petrofske, Ramboll – [spetrofske@ramboll.com](mailto:spetrofske@ramboll.com)  
Jeane Tarvin, Ramboll – [jtarvin@ramboll.com](mailto:jtarvin@ramboll.com)  
Andrew Sawula, ArentFox Schiff LLP – [Andrew.sawula@afslaw.com](mailto:Andrew.sawula@afslaw.com)  
Tracy Ott, 317 E Main St., Chilton – [tracyott25@email.com](mailto:tracyott25@email.com)  
Michael Prager, DNR – [Michael.Prager@wisconsin.gov](mailto:Michael.Prager@wisconsin.gov)  
Tauren Beggs, DNR – [Tauren.Beggs@wisconsin.gov](mailto:Tauren.Beggs@wisconsin.gov)  
Kevin McKnight, DNR – [Kevin.McKnight@wisconsin.gov](mailto:Kevin.McKnight@wisconsin.gov)



Source: Basemap: The Sigma Group, drawing no. 19824-topo.dwg dated 12/28/2020.  
Aerial Imagery: Bing Maps © Microsoft Corporation 2021.

- PROPERTY BOUNDARY
- PARCEL BOUNDARY
- GROUNDWATER MONITORING WELL
- GROUNDWATER MONITORING WELL (LARSON CLEANERS - BRRTS 02-08-221491)
- GROUNDWATER MONITORING WELL (FORMER CHILTON METAL PRODUCTS - BRRTS 02-08-561133 & 03-08-000802)
- ⊕ GROUNDWATER MONITORING POINT
- ⊕ PIEZOMETER INSTALLED BY OMNI/WDNR
- ⊕ SUMP PIT
- ⊕ SOIL BORING
- STAFF GAUGE
- ⊙ MANHOLE
- ⊕ OUTFALL
- ⊕ TRANSFORMER
- x CHAIN LINK FENCE
- CONCRETE AREA
- APPROXIMATE LOCATION OF MINERAL SPIRITS USTs REMOVED IN OCTOBER 1990 (CLOSED BRRTS 09-08-294564)
- APPROXIMATE LOCATION OF FORMER FUEL USTs ABANDONED IN PLACE IN JANUARY 1996 (CLOSED BRRTS 09-08-292322)

### SITE LAYOUT AND EXISTING MONITORING WELL NETWORK

**NEWELL OPERATING COMPANY  
FORMER MIRRO PLANT NO. 20**  
44 WALNUT STREET  
CHILTON, WISCONSIN

**FIGURE 2**

RAMBOLL US CONSULTING, INC.  
A RAMBOLL COMPANY



**APPENDIX B**  
**BASEMENT SIGNAGE**



Example of sign to be placed at all entrances to the basement.

