

**Notice:** Pursuant to ch. 292, Wis. Stats., and chs. NR 726 and 746, Wis. Adm. Code, this form is required to be completed for case closure requests. The closure of a case means that the Department of Natural Resources (DNR) has determined that no further response is required at that time based on the information that has been submitted to the DNR. All sections of this form must be completed unless otherwise directed by the Department. DNR will consider your request administratively complete when the form and all sections are completed, all attachments are included, and the applicable fees required under ch. NR 749, Wis. Adm. Code, are included, and sent to the proper destinations. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records Law (ss. 19.31 - 19.39, Wis. Stats.). Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided.

**Site Information**

BRRTS No. 02-41-588671	VPLE No.		
Parcel ID No. 3731003000 & 3731007000			
FID No. 341361240	WTM Coordinates		
	X 680130.44	Y 288052.15	
BRRTS Activity (Site) Name Innovation Park - Lot 3 and Outlot 3	WTM Coordinates Represent: <input type="checkbox"/> Source Area <input checked="" type="checkbox"/> Parcel Center		
Site Address 1401 Discovery Parkway	City Wauwatosa	State WI	ZIP Code 53226
Acres Ready For Use 4.5			

Responsible Party (RP) Name Innovation Park Development Partners, LLC			
Company Name Irgens (attn. Timothy J. Gasperetti, P.E.)			
Mailing Address 1401 Discovery Parkway	City Wauwatosa	State WI	ZIP Code 53226
Phone Number (414) 443-2536	Email tgasperetti@irgens.com		
<input checked="" type="checkbox"/> Check here if the RP is the owner of the source property.			

Environmental Consultant Name Cory Katzban, P.E.			
Consulting Firm The Sigma Group, Inc.			
Mailing Address 1300 W. Canal Street	City Milwaukee	State WI	ZIP Code 53233
Phone Number (414) 643-4200	Email ckatzban@thesigmagroup.com		

**Fees and Mailing of Closure Request**

- Send a copy of page one** of this form and the applicable ch. NR 749, Wis. Adm. Code, fee(s) to the DNR Regional EPA (Environmental Program Associate) at <http://dnr.wi.gov/topic/Brownfields/Contact.html#tabx3>. Please see RR-997 Implementation of Wis. Admin. Code chs. NR 749 and NR 750 Fees (<https://dnr.wi.gov/DocLink/RR/RR997.pdf>) for additional information on what fees apply. Check all fees that apply:

\$1,050 Closure Fee

\$300 Database Fee for Soil, performance standard such as a cover, Structural impediment, or Industrial Soil Standard

\$350 Database Fee for Groundwater, Monitoring Wells (Not Abandoned), Vapor (7A-7E), Sediment, or Site-Specific Continuing Obligations (NR 749 Table 1 (d) 1, 3 and 4)

Total Amount of Payment \$ \_\_\_\_\_

Resubmittal, Fees Previously Paid
- Submit a complete electronic copy of the entire closure package via the RR Submittal Portal (<https://dnr.wisconsin.gov/topic/Brownfields/Submittal.html>)** to the Regional Project Manager assigned to your site. Any subsequent revisions should also be sent via the RR Submittal Portal. For additional submittal instructions, please review RR-960 Guidance for Submitting Documents (<https://dnr.wi.gov/DocLink/RR/RR690.pdf>).

**Site Summary**

*If any portion of the Site Summary Section is not relevant to the case closure request, you must fully explain the reasons why in the relevant section of the form. All information submitted shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected.*

**1. General Site Information and Site History****A. Site Location:** Describe the physical location of the site, both generally and specific to its immediate surroundings.

The site is located in the Southwest 1/4 of the Southeast 1/4 of Section 20, Township 7 North, Range 21 East, in the City of Wauwatosa, Milwaukee County, Wisconsin (Figure B.1.a.) within an area containing commercial/business, planned development, medical center, public/recreational, and residential properties. Specifically, the site is located at the address of 1401 Discovery Parkway, Wauwatosa, Wisconsin. The site was formerly Milwaukee County land used for agricultural and institutional purposes and was recently redeveloped into a new office building (Building A or Innovation One) with parking lot (Innovation Park Lot 3) and accompanying entrance drive (Outlot 3).

The site is bordered to the north by Eschweiler Drive and Discovery Parkway followed by undeveloped land (and a monarch butterfly habitat) and Milwaukee County Grounds Park; to the south by Innovation Park Lot 2 (future office building), Innovation Park Lot 1 (future development To Be Determined [TBD]) and W. Watertown Plank Road; to the east by Innovation Park Lot 4 (Innovation Park parking structure), storm water detention ponds, and Discovery Parkway; and to the west by the ABB commercial office building, storm water detention ponds, and Interstate I-41/45.

The site was previously part of a larger site investigation area described as Lot 2, Lot 3, Lot 4, and Outlot 3 of the Innovation Park redevelopment project (BRRTS 02-41-588671). The site is currently defined as Lot 3 and Outlot 3 of Innovation Park (Certified Survey Map [CSM] No. 9389)

The approximate geographic coordinates (in the Wisconsin Transverse Mercator '91 system) of the site boundary corners are as follows:

Lot 3: Innovation Park Office Building A and Parking Lot (east of ABB)

Northwest corner: 680078, 288126

North corner: 680110, 288152

Northeast corner: 680186, 288108

Southeast corner: 680185, 287980

Southwest corner: 680065, 287980

Outlot 3: Entrance Drive from Discovery Parkway to the east

Northwest corner: 680185, 288087

Northeast corner: 680232, 288097

Southeast corner: 680234, 288071

Southwest corner: 680186, 288075

The coordinates were determined using the Wisconsin Department of Natural Resources' (WDNR's) interactive Geographic Information System (GIS) internet website ([http://dnrmaps.wi.gov/sl/?Viewer=RR Sites](http://dnrmaps.wi.gov/sl/?Viewer=RR%20Sites)) and zooming in at a scale of 1:990.

**B. Prior and current site usage:** Specifically describe the current and historic occupancy and types of use.

Current site usage: The site is currently used as a large commercial office building (Building A or Innovation One) and parking lot with entrance drive. Innovation One is two stories of office/business space constructed above a parking garage (partially below grade). Innovation One and the entrance drive were constructed in 2022. The parking lot (east of the ABB building, Figure B.1.b) was previously constructed circa 2013-2015.

Historic site usage according to information from a Phase I Environmental Site Assessment (ESA) completed by K. Singh and Associates (KSA) in 2001, and a Phase I ESA completed by Environmental & Development Solutions (EDS) in 2010: The property and several of the surrounding properties were historically part of an approximately 500-acre piece of land owned by Milwaukee County (the County) known as the "County Grounds," which was purchased by the County in 1886. The current site was developed for institutional use as the Milwaukee County Home for Dependent Children by 1898. Historic plat maps and Sanborn Fire Insurance Maps published between 1900 and 1950 indicate the property served as the Milwaukee County Farm and Milwaukee County Hospital and was occupied by the Milwaukee County Home for Dependent Children. At the time, the property was developed with a large school, administrative buildings, dormitories, a swimming pool, a hospital, and an incinerator/power plant. Historic maps indicate that several of the buildings were connected by a series of tunnels, which are abandoned. The County property was also home to a variety of commercial entities throughout the late 20th century, including The Human Element, Inc. and New Beginnings, Inc. During this time period the property continued to be occupied by the Milwaukee County Children's Home, Milwaukee County Procurement Office, and Juvenile Probation.

The property experienced several phases of redevelopment through the mid-20th century until the majority of historic buildings were razed by 2005. Significant filling/grading work was completed on the property between 2005 and 2008, including flood management detention basin construction work conducted by Milwaukee Metropolitan Sewerage District (MMSD) on the property to the north-northeast. The property was later purchased by UWM Innovation Park, LLC, in

February 2011. Between 2013 and 2015 the Interstate I-41/Watertown Plank Road interchange was reconfigured to the west of the subject property and Discovery Parkway was constructed to the east. It is possible that additional soil fill material from these construction activities was placed across the property and on the site during this time.

The site as it is currently described, Lot 3 and Outlot 3 of the Innovation Park redevelopment, was historically utilized for the farming purposes associated with historic Milwaukee County Farm activities.

- C. Current zoning (e.g., industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).

According to the City of Wauwatosa Planning and Zoning Department, the site is zoned PUD for Planned Unit Development overlay. The land is currently used for commercial purposes (commercial office with parking). The adjacent land to the north and east is partially zoned as PUD, Special Purpose - Conservation District (SP-CON), and Special Purpose - Medical Center District (SP-MED), to the south SP-MED, and to the west to the Special Purpose - Public Facilities District (SP-PUB). A City of Wauwatosa Zoning Map is included as Attachment F.3.

- D. Describe how and when site contamination was discovered.

In 2019, GESTRA Engineering, Inc. (GESTRA) conducted geotechnical soil borings within select locations of the site as part of pre-redevelopment planning for the Innovation Park redevelopment. In 2021, GZA GeoEnvironmental, Inc. (GZA) also conducted geotechnical soil borings within select locations of the site as part of pre-redevelopment planning. The Sigma Group, Inc. (Sigma) collected soil samples from select geotechnical soil borings for laboratory analysis of volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and Resource Conservation and Recovery Act (RCRA) metals. The results of Sigma's sampling activities indicated the presence of soil impacts greater than Wisconsin Department of Natural Resources (WDNR) Chapter NR 720 Residual Contaminant Levels (NR 720 RCLs). Sigma, on behalf of Innovation Park Development Partners, LLC (IPDP), reported the impacts to the WDNR on September 27, 2021.

#### Historic Investigation and Regulatory Notes:

The site (Lot 3 and Outlot 3) was formerly associated with the historic Milwaukee County grounds, which was previously investigated on a larger area-wide scale by KSA between 2000 and 2002 and associated with the address of 9480 W. Watertown Plank Rd, Wauwatosa, Wisconsin. The results of KSA's investigation identified residual soil and groundwater impacts greater than NR 720 RCLs and WDNR Chapter NR 140 groundwater Enforcement Standards (ESs) and/or Preventative Action Limits (PALs), respectively. The historic impacts were reported to the WDNR and subsequently investigated by KSA. Additional site investigation activities were conducted by Symbiont on behalf of the City of Wauwatosa in 2015 and 2016 as part of a community-wide brownfield grant program. The historic site investigation activities conducted by Symbiont identified residual soil and groundwater contamination greater than NR 720 RCLs and NR 140 ESs/PALs, respectively; however, the results were not reported to the WDNR until September 27, 2021 (see paragraph above). The impacts identified by KSA and Symbiont were associated with historic filling of the Milwaukee County grounds area (including the site) with soil/fill material generated during area-wide redevelopment, MMSD floodway construction activities, and highway construction. KSA and Symbiont did not collect investigation data within the current boundaries of the site (Lot 3 and Outlot 3).

- E. Describe the type(s) and source(s) or suspected source(s) of contamination.

The site impacts generally consist of selenium impacted soil and arsenic impacted groundwater. The impacts are associated with reworked soils (fill material) historically placed at the site during area-wide filling and grading activities conducted by Milwaukee County during construction of the County Grounds Park and MMSD's flood detention project to the northeast. Residual PAH impacts were identified within reworked soils on adjacent Lot 2 and Lot 4 of Innovation Park and based on interpretation of the extent of reworked soil material across Lot 2, Lot 3, Lot 4 and Outlot 3, it is assumed that reworked soil impacted with residual PAHs may be present across Lot 3 and Outlot 3, despite the absence of soil analytical data confirming this assumption.

- F. Other relevant site description information (or enter Not Applicable).

The parking lot area of the site east of the ABB building (Figure B.1.b.2) was not investigated for environmental impacts; however, based on the extent of reworked soil and fill material identified at the site during investigation of the site, as well as the adjacent Innovation Park lots and neighboring properties, residual soil and groundwater impacts are assumed to be similar and present beneath the parking lot area of the site.

Multiple utilities service and/or transect the site:

- Water: A buried water utility main runs along Discovery Parkway and Eschweiler Drive and enters the site from the northwest corner where it runs along the west side of the site.

- Sanitary Sewer: Buried sanitary sewer lines run along Discovery Parkway and Eschweiler Drive and enter the site from the southeast and northwest corners. The southeast sanitary line runs west and north. The northwest sanitary sewer line runs beneath Innovation One, Outlot 3, and the new parking structure on Lot 4.

- Storm Sewer: Buried storm water lines run along Discovery Parkway and beneath portions of the site to control storm water runoff within the parking lot and divert storm water to the various detention basins located adjacent to the site.

- Electric: Buried electric utility lines run along Discovery Parkway and Eschweiler Drive and enter the site from the

northwest corner where they run along the west side of the site, and service the ABB building and lighting features within the parking lot.

- Natural Gas: A buried natural gas utility runs along Discovery Parkway and Eschweiler Drive, and enters the site from the north.

- Communication/Fiber Optic: Buried fiber optic runs along Discovery Parkway and Eschweiler Drive and enters the site from the north.

- Steam Tunnels (abandoned): Heated steam tunnels formerly serviced the property in the area south of the site.

- G. List BRRTS activity/site name and number for BRRTS activities at this source property, including closed cases.  
BRRTS #02-41-588671 - Innovation Park Lot 3 and Outlot 3 (open ERP case): Opened in November 2021. Contamination is related to metals and PAHs within reworked soil. This is the site and this case is the subject of this case closure request.
- H. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to (abutting) this source property.  
BRRTS #02-41-592121 - Innovation Park Lot 2 (open ERP case) at 1325 Discovery Parkway south of the site: Contamination is related to metals and PAHs within reworked soil.

BRRTS #02-41-592120 - Innovation Park Lot 4 (open ERP case) at 1301 Discovery Parkway east of the site: Contamination is related to metals and PAHs within reworked soil.

BRRTS #: 02-41-267167 Innovation Park Mke Cnty Grounds, NE Quad (historic ERP) - Case closed January 25, 2002. To the south of the site. This relates to the former Milwaukee County grounds investigated by KSA.

BRRTS #: 02-41-578083 Echelon Development (closed ERP case): Case closed September 18, 2017. To the northwest of the site. Fill-related soil PAH contamination.

BRRTS #: 04-41-591086 Midwest Drilled Inc Spill (Innovation Park - Lot 4) (closed No Further Action) - Case closed December 14, 2022. To the east of the site on Innovation Park - Lot 4. Limited petroleum soil impacts related to a drill rig fire/spill were cleaned up and closed via No Further Action.

## 2. General Site Conditions

### A. Soil/Geology

- i. Describe soil type(s) and relevant physical properties, thickness of soil column across the site, vertical and lateral variations in soil types.

The site is currently covered by an office building with a lower level garage with concrete floor slab; the parking lot adjacent to the ABB building is asphalt with parking areas of brick pavers; the native planting area north of the office building is covered with topsoil and native plants; and the greenspace areas and parking lot islands are covered with topsoil/mulch. The greenspace and medians constructed as part of new construction (in 2022) include an engineered cap consisting of a traffic bond warning layer and 6-inches of topsoil/landscaping. Underlying the topsoil and surface covers is a layer of reworked soil/fill material consisting of gravelly clay and silty sand observed between 1 and 20 feet thick. Apparent construction-related debris (concrete, brick, and/or wood fragments, as well as trace amounts of asphalt) were observed within the fill material in several of the soil borings advanced by Symbiont within Lot 2 to the south of the site, which is attributed to historic demolition of the former buildings and parking lot historic located on Lot 2, and may partially extend into the southern portion of the ABB parking lot area. Native silty clay is present below the reworked soil/fill material across the site

- ii. Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site.

Underlying the topsoil and surface covers is a layer of reworked soil/fill material consisting of gravelly clay and silty sand observed between 1 and 20 feet thick. Apparent construction-related debris (concrete, brick, and/or wood fragments, as well as trace amounts of asphalt) were observed within the fill material in several of the soil borings advanced by Symbiont within Lot 2 to the south of the site, which is attributed to historic demolition of the former buildings and parking lot historic located on Lot 2, and may partially extend into the southern portion of the ABB parking lot area.

The reworked soil/fill observed during Sigma's activities is consistent with the material identified/reported during the work conducted by Symbiont in 2015-2016. The fill material is predominantly reworked soil placed at the site in the past as part of grading activities. The majority of reworked soil/fill material appears to be soils native to the County Grounds area, which was likely placed at the site during nearby construction related activities over the preceding decades and by MMSD.

- iii. Describe the depth to bedrock, bedrock type, competency and whether or not it was encountered during the investigation. Silurian limestone/dolomite bedrock is expected to be encountered at a depth of 50 to 100 feet below ground surface (bgs) based on bedrock maps obtained from the Wisconsin Geological and Natural History Survey (WGNHS) and WDNR. A well construction report AAA919 for the nearby high-capacity well at the MPMC power plant facility (Figure B.1.b.1) indicates bedrock was encountered at a depth of 85 feet below bgs.

- iv. Describe the nature and locations of current surface cover(s) across the site (e.g., natural vegetation, landscaped areas, gravel, hard surfaces, and buildings).

The site is currently covered by an office building with concrete floor slab; the parking lot adjacent to the ABB building is asphalt with parking areas of brick permeable pavers; the native planting area north of the office building is covered with topsoil and native plants; and greenspace areas and parking lot islands are covered with topsoil/mulch. The greenspace and medians constructed as part of new construction (in 2022) include an engineered cap consisting of a traffic bond warning layer and 6-inches of topsoil/landscaping.

#### B. Groundwater

- i. Discuss depth to groundwater and piezometric elevations. Describe and explain depth variations, including high and low water table elevation and whether free product affects measurement of water table elevation. Describe the stratigraphic unit(s) where water table was found or which were measured for piezometric levels.

Groundwater elevations across the site as measured within the small-diameter groundwater monitoring wells installed during site investigation activities on Lots 2 and 4 ranged from 754 feet to 777 feet above mean sea level (MSL), which corresponds to depths of approximately 3 to 20 feet bgs within layers of reworked soils and underlying native silty clay, as discussed with the Site Investigation Report and Remedial Action Plan (SIR/RAP) completed for the site in January 2022.

- ii. Discuss groundwater flow direction(s), shallow and deep. Describe and explain flow variations, including fracture flow if present.

Shallow groundwater was determined to generally flow east and match local surface topography.

Deep groundwater measurements and flow direction were not determined as no deep wells or piezometers were installed.

- iii. Discuss groundwater flow characteristics: hydraulic conductivity, flow rate and permeability, or state why this information was not obtained.

Hydraulic conductivity testing was not completed at the site; however, based on the soil types identified within the saturated zone, hydraulic conductivity is estimated to be between  $1 \times 10^{-3}$  (gravelly/sandy silts and fill material) and  $1 \times 10^{-7}$  (native clay) centimeters per second (cm/s).

- iv. Identify and describe locations/distance of potable and/or municipal wells within 1200 feet of the site. Include general summary of well construction (geology, depth of casing, depth of screened or open interval).

The well construction reports from the WGNHS, as provided on the WDNR's Well Construction Information System website (<https://dnr.wi.gov/WellConstructionSearch/#!/PublicSearch/Index>), were reviewed in July 2023. The map review indicates that no private potable water supply wells have been installed within 1,200 feet of the site.

One high capacity well was identified within a 1-mile radius of the Site: Well Construction Report ID #AAA919 was identified for the Milwaukee Regional Medical Center (MRMC) with an address of 9250 W. Watertown Plank Road to the east of the Site. The well was installed in early 2021 and will be used as a cooling water source at the MRMC power plant (non-potable use).

Multiple wells were identified with the address of 10122 W North Avenue to the north of the site. These wells are non-potable wells that service Blue Mound Country Club for golf course irrigation and/or HVAC uses.

Copies of well construction forms and historic well construction forms located within 0.5 miles of the site obtained from the WDNR Well Construction Information System are included in the January 2022 SIR/RAP.

The site and surrounding properties are supplied potable water via municipal water supply, which obtains treated water from Lake Michigan. Potable water wells are not located within 1,200 feet of the site and based on the distance and direction of local wells from the site, there is low risk of impact to these potential receptors.

### 3. Site Investigation Summary

#### A. General

- i. Provide a brief summary of the site investigation history. Reference previous submittals by name and date. Describe site investigation activities undertaken since the last submittal for this project and attach the appropriate documentation in Attachment C, if not previously provided.

Site investigation documentation has been previously submitted to the WDNR with the following reports:

- Environmental Update and Request for Technical Assistance by Sigma (dated August 24, 2021)

- Request for Grant of Exemption to NR 506 to Develop at a Historic Fill Site by Sigma (dated August 24, 2021)

- Soil Placement Approval Request for the Innovation Park MKE County Grounds by Friess Environmental Consulting, Inc. (FEC) (dated December 30, 2021)

- Site Investigation Report and Remedial Action Plan by Sigma (dated January 18, 2022), which included a Soil Management Plan and draft Cap Maintenance Plan.

An evaluation regarding the potential use of emerging contaminants at the site, including perfluoroalkyl/polyfluoroalkyl substances (PFAS) and 1,4-dioxane was previously provided within the above-noted Site Investigation Report and Remedial Action Plan.

- Request for Updated BRRTS Information by Sigma (dated May 15, 2023).

Site investigation activities specific to the site, which is comprised of Lot 3 and Outlot 3, but also associated with Innovation Park Lots 1, 2, and, 4 (part of overall redevelopment plan), were conducted in concurrence with site investigation activities across the Innovation Park - Phase I site area (refer to Figure B.1.b.1) between 2015 and 2021. The investigation activities conducted at the site include:

- The advancement of nine geotechnical soil borings, P-1, P-2, PS1-1, PS1-3 PS1-4, PS1-5, A-2, A-4, and A-6, by GESTRA in October 2019. Soil samples were only collected from GESTRA soil borings A-2, A-4, and A-6 by Sigma during borehole advancement (only these soil borings are represented on Figures within this Case Closure packet). Soil samples were submitted for laboratory analysis of VOCs, PAHs, and RCRA metals.

- The advancement of three geotechnical soil borings, GZA-1, GZA-2, and GZA-3 by GZA in April 2021. Soil samples were collected from each GZA soil boring by Sigma during borehole advancement. Soil samples collected from GZA soil borings were submitted for laboratory analysis of VOCs, PAHs, and select RCRA metals arsenic, cadmium, lead, mercury, and selenium.

WDNR correspondence with respect to the approval of the site investigation, historic fill exemption, and material (soil) management plans associated with the site was included within the following WDNR letters:

- Building on a Historic Fill Site Exemption Approval letter by the WDNR (dated March 9, 2022)

- Site Investigation Report and Remedial Action Plan Review letter by the WDNR (dated March 30, 2022)

- Approval to Manage Contaminated Soil under Wis. Admin Code NR 718.12 at a Different Site or Facility letter (dated March 30, 2022).

- Email - Innovation Park - Phase I Case Closures by the WDNR (dated May 19, 2023)

No other site investigation activities have been conducted at the site since the last submittal and the redevelopment activities completed in early 2023.

- ii. Identify whether contamination extends beyond the source property boundary, and if so describe the media affected (e.g., soil, groundwater, vapors and/or sediment, etc.), and the vertical and horizontal extent of impacts. The extent of soil and groundwater impacts at the site is consistent with the extent of reworked soil (fill) material present site-wide to the property boundaries, and therefore does not extend beyond the site boundaries.
- iii. Identify any structural impediments to the completion of site investigation and/or remediation and whether these impediments are on the source property or off the source property. Identify the type and location of any structural impediment (e.g., structure) that also serves as the performance standard barrier for protection of the direct contact or the groundwater pathway.

No structural impediments were encountered which prevented the completion of the site investigation.

#### B. Soil

- i. Describe degree and extent of soil contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways.

Review of the site soil data indicates the reworked soil material present at the site is impacted with concentrations of the RCRA metal selenium greater than its NR 720 RCL for the protection of groundwater. Concentrations of VOCs were not reported greater than laboratory limits of detection (LODs) within soil samples collected from the site. Concentrations of select PAHs were reported greater than LODs, but less than NR 720 RCLs within select soil samples collected from the site. Potential contaminants of concern at the site were determined only to be VOCs, PAHs, and RCRA metals.

Concentrations of selenium within soil samples collected from the site may be naturally occurring, as selenium was detected within soil samples collected from within the native soil horizon on adjacent parcels Lot 2 and Lot 4. The concentrations of selenium are low-level and ubiquitous. The presence of low-level concentrations of select PAHs within soil samples collected from the site is attributed to the reworked nature of soil fill material placed at the site in the past.

Soil impacts do not indicate the presence of a contaminant point source area and are attributed to site-wide fill and

resemble background conditions at the site. To date, no considerable VOC or other indicators of more significant impacts have been identified.

It should be noted that soil data collected on adjacent Lot 2 and Lot 4 suggest that fill-related PAH soil impacts greater than NR 720 RCLs may also be present across Lot 3 and Outlot 3 (the site). The extent of fill-related impacts, including PAH impacts greater than NR 720 RCLs is therefore interpreted to the Lot 3 and Outlot 3 property boundaries.

- ii. Describe the concentration(s) and types of soil contaminants found in the upper four feet of the soil column. Review of the site soil data indicates the reworked soil material within the upper four feet of the soil column is impacted with concentrations of selenium greater than its NR 720 RCL for the protection of groundwater. Concentrations of VOCs were not reported greater than LODs within soil samples collected from the site. Concentrations of select PAHs were reported greater than LODs, but less than NR 720 RCLs within select soil samples collected from the site.

Concentrations of selenium within soil samples collected from the site may be naturally occurring, as selenium was detected within soil samples collected from within the native soil horizon on adjacent parcels Lot 2 and Lot 4. The concentrations of selenium are low-level and ubiquitous. The presence of low-level concentrations of select PAHs within soil samples collected from the site is attributed to the reworked nature of soil fill material placed at the site in the past.

Soil impacts do not indicate the presence of a contaminant point source area and are attributed to site-wide fill and resemble background conditions at the site. To date, no considerable VOC or other indicators of more significant impacts have been identified.

It should be noted that soil data collected on adjacent Lot 2 and Lot 4 suggest that fill-related PAH soil impacts greater than NR 720 RCLs for the protection of human health by direct contact may also be present across Lot 3 and Outlot 3 and within the upper four feet of the soil column. The extent of fill-related PAH impacts greater than NR 720 direct contact RCLs within the upper four feet of the soil column is interpreted to the Lot 3 and Outlot 3 property boundaries, including the parking lot space adjacent to the ABB building.

- iii. Identify the ch. NR 720, Wis. Adm. Code, method used to establish the soil cleanup standards for this site. This includes a soil performance standard established in accordance with s. NR 720.08, a Residual Contaminant Level (RCL) established in accordance with s. NR 720.10 that is protective of groundwater quality, or an RCL established in accordance with s. NR 720.12 that is protective of human health from direct contact with contaminated soil. Identify the land use classification that was used to establish cleanup standards. Provide a copy of the supporting calculations/information in Attachment C.

Site-specific RCLs were not calculated. Soil RCLs are from the WDNR's current RCL spreadsheet (dated December 2018) available on the WDNR website.

Due to the calculated RCLs for arsenic for the protection of groundwater (0.584 milligrams per kilogram [mg/kg]) and non-industrial direct contact (0.677 mg/kg) pathways are less than its BTV of 8 mg/kg, the BTV for arsenic became the default RCL in accordance with s. NR 720.07(3), Wis. Adm. Code.

Due to the calculated RCLs for the protection of groundwater for barium (164.8 mg/kg), cadmium (0.752 mg/kg) and lead (27 mg/kg) are less than their respective BTVs of 364 mg/kg, 1 mg/kg and 52 mg/kg, the BTVs for barium, cadmium, and lead were selected as the RCLs for the protection of groundwater in accordance with s. NR 720.07(3), Wis. Adm. Code.

The BTVs for arsenic, barium, cadmium, and lead are the non-outlier trace element maximum levels in Wisconsin surface soils based on the USGS report "Distribution and Variation of Arsenic in Wisconsin Surface Soils, With Data on Other Trace Elements" (revised February 2013).

### C. Groundwater

- i. Describe degree and extent of groundwater contamination. Relate this to known or suspected sources and known or potential receptors/migration pathways. Specifically address any potential or existing impacts to water supply wells or interception with building foundation drain systems.

Groundwater monitoring wells were not installed at the site (Lot 3 and Outlot 3).

During subsurface investigation activities conducted by another consultant, Symbiont, in 2015 and 2016, a total of 13 temporary monitoring wells were installed and sampled across adjacent Lot 2 and Lot 4. The results and known presence of similar reworked soil fill material across Lot 2, Lot 3, Lot 4, and Outlot 3 suggest that similar groundwater impacts may be present across each Lot and Outlot of the Innovation Park investigation area. Symbiont collected two rounds of groundwater samples from the network of monitoring wells in October and November 2015 and submitted the samples for laboratory analysis of VOCs, PAHs, and/or select dissolved RCRA metals. Symbiont's groundwater laboratory analytical results for groundwater samples collected from adjacent Lot 2 and Lot 4 are summarized in Table A.1 and below:

VOCs: Review of the laboratory analytical results indicates the PVOC constituent toluene was detected within four

groundwater samples; however, the reported concentrations were each less than the NR 140 PAL and ES with several concentrations estimated less than the laboratory Limit of Quantitation (LOQ). No other VOCs were detected within groundwater samples collected during the groundwater sampling activities adjacent to the site.

**PAHs:** Multiple PAHs were detected at concentrations greater than NR 140 PALs and/or ESs within 1 of the 13 groundwater samples collected during the first round of sampling in October 2015 (well A2-01). During the second round of sampling conducted in November 2015, no detected PAH concentrations were reported greater than NR 140 PALs or ESs within well A2-01. Low-level and limited PAH impacts to groundwater during the first round of sampling at the site (adjacent Lot 2 and Lot 4) are likely attributed to sampling techniques (i.e. small-diameter temporary wells can often result in biased high concentrations due to entrained sediment within the water sample matrix). Therefore, it is likely that elevated PAH concentrations reported during the 2015 sampling activities can be attributed to the sampling techniques and the non-NR 141-compliant monitoring wells. The results of the second round of sampling from well A2-01 in November 2015 are likely to be more representative of groundwater quality conditions and PAH concentrations, as it is suspected that Symbiont was more cognizant of suspended sediment for this sampling event.

**RCRA Metals:** Dissolved arsenic was reported at concentrations greater than its NR 140 PAL within each groundwater sample collected from wells adjacent to the site during both sampling events, with the exception of one temporary well location. In general, the dissolved arsenic concentrations detected within wells adjacent to the site were reported at similar concentrations during both rounds of sampling and greater than the NR 140 PAL. Dissolved lead was reported at concentrations greater than its NR 140 PAL and/or ES within six of the off-site temporary monitoring wells sampled during the first round; however, the reported concentrations of lead during the second round of sampling were less than NR 140 PALs/ESs and/or laboratory LODs. Mercury was reported greater than its NR 140 PAL within off-site temporary well (A2-04) during the first round of sampling but was non-detect during the second round of sampling. Overall, the low-level and limited RCRA metal impacts to groundwater at the site are attributed to the reworked soil or are naturally occurring metals in the environment (arsenic, lead, and mercury).

Groundwater quality within wells installed and sampled adjacent to the site was evaluated with respect to the reworked soil/fill-related soil impacts and the results indicate that groundwater is not significantly impacted with VOCs, PAHs, and/or RCRA metals. However, only two rounds of groundwater data were collected, and used to evaluate groundwater quality at the site. Based on the detection of select PAHs and lead at concentrations greater than their NR 140 ESs within off-site wells used to evaluate groundwater quality at the site, and lack of additional groundwater monitoring data, it is assumed that groundwater at the site may be impacted with PAHs and lead at concentrations greater than NR 140 ESs. Groundwater sampling data also indicate residual, likely naturally occurring, concentrations of arsenic greater than the NR 140 PAL are within groundwater across the site.

The mobilization potential of the limited groundwater impacts and the potential for impacts to at-risk receptors is low. Furthermore, the site and surrounding properties obtain treated drinking water from Lake Michigan via the municipal water system; therefore, the potential for impact to drinking water is not a risk.

- ii. Describe the presence of free product at the site, including the thickness, depth, and locations. Identify the depth and location of the smear zone.

Not Applicable: Free product was not identified at the site during subsurface investigation activities nor during redevelopment. Free product indicators (e.g. elevated PVOC concentrations within soil) were also not identified. Free product was not identified within groundwater monitoring wells installed in off-site lots adjacent to the site or during investigation and redevelopment activities adjacent to the site.

**D. Vapor**

- i. Describe how the vapor migration pathway was assessed, including locations where vapor, soil gas, or indoor air samples were collected. If the vapor pathway was not assessed, explain reasons why.

Sigma completed a vapor intrusion screening assessment for the site in general accordance with WDNR guidance to determine if the potential for vapor intrusion exists at the site in regard to the proposed redevelopment and current site conditions. The screening was performed based on the parameters presented for properties affected by chlorinated VOCs (CVOCs) and PVOCs. Sigma concluded that vapor intrusion screening criteria do not apply to the site and vapor sampling and vapor control technologies or other mitigation strategies were not necessary. The WDNR concurred with Sigma's assessment in their March 2022 technical assistance letter .

**CVOC Vapor Intrusion Screening Parameters:**

**Building over or within 100 feet of CVOC impacted soil:** CVOCs were not detected within soil samples collected from the site. This condition does not apply. The CVOC constituent tetrachloroethene (PCE) was detected within one soil sample, A4-05 (2 to 4 feet bgs), off-site(Lot 4) at an estimated concentration greater than its NR 720 groundwater pathway RCL, but less than the laboratory LOQ. The soil sample was collected within the southern half of Lot 4 within the footprint of a new parking structure. The deeper soil sample collected from this location at a depth of 6 to 8 feet bgs did not contain a detectable concentration of PCE, nor did the remaining soil samples collected from the site and adjacent Lots/Outlots. The immediate area around A4-05 was cut by approximately 3 to 5 feet and the identified low-level PCE impacted soil was removed and managed/disposed of appropriately off-site. Again, this condition does not apply to the site.

Building overlies groundwater with CVOC concentrations above Wis. Admin. Code NR 140 Enforcement Standards (ES) at the water table: There were no CVOC concentrations detected within the groundwater samples collected from the wells installed off-site adjacent to the site. This condition does not apply.

Groundwater with concentrations above Wis. Admin. Code NR 140 Preventative Action Limit (PAL) has entered the building or is in contact with the building's foundation: There were no CVOC concentrations detected within the groundwater samples collected from wells installed off-site adjacent to the site. This condition does not apply.

Utility line(s) that transect a CVOC source area: There are no CVOC sources areas at the site or identified off-site adjacent to the site. This condition does not apply.

PVOC Vapor Intrusion Screening Parameters:

Building has less than 15-foot vertical separation or 30-foot horizontal separation from NAPL: No non-aqueous phase liquid (NAPL, or petroleum free product), nor indicators of free product (e.g., elevated soil or groundwater impacts as NAPL indicators) were identified at the site. This condition does not apply.

Building has less than 5-feet of vertical separation from groundwater with benzene > 1 milligram per liter (mg/L): Benzene was not detected within the groundwater samples collected from wells installed off-site adjacent to the site. This condition does not apply.

Groundwater with concentrations above Wis. Admin. Code NR 140 PAL has entered the building or is in contact with the building's foundation: Limited and low-level detected concentrations of PVOCs within select groundwater samples collected from a well installed off-site adjacent to the site (estimated concentrations of toluene in only two groundwater samples) were reported less than NR 140 PALs. This condition does not apply.

Building has less than 5-foot (vertical and horizontal) separation distance from petroleum contaminated soil with the potential for off-gassing: Concentrations of PVOCs were not detected within soil samples collected at the site. Additionally, no evidence of petroleum soil impacts has been observed to date during field drilling activities. This condition does not apply.

Petroleum vapors are present in utilities that transect a petroleum source area: There are no petroleum source areas present at the site. This condition does not apply.

Petroleum vapors are present in building near petroleum source area: There is no information to date regarding the presence of petroleum vapors within building(s) at the site. There are no petroleum sources areas that have been identified at the site. This condition does not apply.

Based on the results of soil sampling and off-site groundwater sampling activities completed to date, and available information with respect to the site and new redevelopment, the vapor intrusion screening criteria/parameters discussed above do not apply.

- ii. Identify the applicable DNR action levels and the land use classification used to establish them. Describe where the DNR action levels were reached or exceeded (e.g., sub slab, indoor air or both).

Not Applicable: Vapor samples were not collected at the site as the vapor intrusion risk screening assessment concluded vapor was not a risk at the site.

#### E. Surface Water and Sediment

- i. Identify whether surface water and/or sediment was assessed and describe the impacts found. If this pathway was not assessed, explain why.

Not Applicable: Surface water and/or sediment were not sampled or assessed. Wetlands were not identified at the site. The nearest surface water body, the Menomonee River, is located approximately 3,000 feet northeast of the site, as identified on the U.S.G.S. 7.5-minute series topographic map. Regional surface water flow would likely flow toward the Menomonee River and subsequently to Lake Michigan, which is approximately 7 miles east of the site.

- ii. Identify any surface water and/or sediment action levels used to assess the impacts for this pathway and how these were derived. Describe where the DNR action levels were reached or exceeded.

Not Applicable: Surface water and sediment were not sampled.

#### 4. Remedial Actions **Implemented** and Residual Levels at Closure

- A. General: Provide a brief summary of the remedial action history. List previous remedial action report submittals by name and date. Identify remedial actions undertaken since the last submittal for this project and provide the appropriate documentation in Attachment C.

Proposed remedial actions within Sigma's "Site Investigation Report and Remedial Action Plan" (dated January 18, 2022), which included a Soil Management Plan and draft Cap Maintenance Plan, were implemented at the site to properly manage

impacted soil and address the potential direct contact risks posed by residual PAHs impacts greater than NR 720 direct contact RCLs suspected to be present within the upper four feet of the site.

Soil management during the grading and construction work associated with the redevelopment project, including excavations for the lower level of parking beneath Building A, building footings/foundations, utilities and subgrade preparation/grading for the floor slabs, drive areas, and sidewalks, was conducted.

Soil management for the site followed the protocol within the WDNR-approved Soil Management Plan. A request for beneficial reuse of impacted material on-site under NR 718.12 was included as part of the Soil Management Plan. The impacted material removed during Site redevelopment that could not be reused on-site due to volume constraints or geotechnical soil qualities was transported off-site to the R&R Excavating LHE contractor disposal site, as approved in the March 30, 2022 WDNR letter.

Soil management and disposal activities were conducted at the site between May and December 2023. The soil management and disposal activities at the site were conducted concurrently with soil management and disposal activities at the Lot 4 redevelopment (east-adjacent). Based on the Summary of Filling Operations for Innovation Park Phase 1 provided by the disposal site, R&R Excavating in Cedarburg, WI, a total of 814 truck loads of soil were transported off-site from Innovation Park and disposed of at R&R Excavating between May and December 2022. A portion of the total truck loads was impacted soil excavated from the site.

Following soil management and redevelopment activities, the site was covered by engineered barriers to prevent direct contact with underlying residual soil impacts (soil within the upper four feet of the soil column assumed to be impacted with PAH concentrations greater than NR 720 direct contact RCLs based on adjacent property soil data and extent of reworked soil/fill material), and potential for reworked soil impacted with PAHs to be moved around during site redevelopment:

**Concrete Building Floor Slab** - New building floor slabs at or below the ground level were constructed. The concrete floor slabs are 6-inches thick.

**Concrete Pavements and Sidewalks** - Concrete-paved drive areas are 5-inches thick, while concrete sidewalks and drive approaches are 6-inches thick or more.

**Asphalt Pavements** - Asphalt pavement 4-inches thick was used for the outdoor parking and drive areas surrounding the new building / lot and along the entrance drive.

The parking rows within the ABB parking lot area are surfaced with permeable brick pavers, constructed of permeable brick approximately 4-inches thick.

**Clean Soil Barrier** - Limited landscaped areas are located around the new building and entrance drive, and the paved parking lot. Within the landscaped areas along the southern facade of Innovation One and within the Outlot 3 parking drive island, the soil cover system consists of a traffic bond warning layer placed over the subgrade soil and capped with 6-inches of clean soil that is compacted with construction machinery and 4 inches of vegetated or mulched topsoil (cover designed per landscaping specifications). Within the landscaped areas north of the office building and south of Outlot 3 along the parking structure ramp, the soil cover system consists of a 6-inch topsoil cap with native plantings and prairie grass. The landscaped areas at the site incur limited use by site occupants (commercial office workers and maintenance staff).

The construction of engineered barriers at the site occurred through the second half of 2022 and into the early half of 2023. The ABB parking lot cap was previously constructed (circa 2013-2015).

Documentation of soil management and construction of engineered barriers is included in Attachment C.

Remedial actions were not implemented with respect to potential residual groundwater impacts greater than NR 140 ESs (PAHs and lead, as described above in section 3.C.i.).

- B. Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code.  
Not Applicable: No immediate or interim actions were taken at the site.
- C. Describe the *active* remedial actions taken at the source property, including: type of remedial system(s) used for each media affected; the size and location of any excavation or in-situ treatment; the effectiveness of the systems to address the contaminated media and substances; operational history of the systems; and summarize the performance of the active remedial actions. Provide any system performance documentation in Attachment A.7.  
Not Applicable: No active remedial actions were taken at the site.
- D. Describe the alternatives considered during the Green and Sustainable Remediation evaluation in accordance with NR 722.09 and any practices implemented as a result of the evaluation.  
A "green and sustainable" evaluation of remedial alternatives was not specifically conducted at the time of the remediation work. The remedial action selected (i.e. soil management/disposal and cap construction) was effective in removing a volume

of impacted soil and contaminant mass, and mitigating direct contact risks posed by residual soil contamination. However, the ideology of sustainability was evident in some aspects of the remedial action, such as reducing the amount of generated waste by reusing impacted soil on-site to the extent practicable. Additionally, impacted soil transported off-site for disposal at R&R Excavating is to be beneficially reused as part of the disposal site's reclamation and closure plan.

The site and redevelopment project has also obtained LEED certification and SITES certification, which include the implementation of green and sustainable construction practices and building/site operations.

- E. Describe the nature, degree and extent of residual contamination that will remain at the source property or on other affected properties after case closure.

Residual soil impacts that will remain after case closure include concentrations of selenium greater than the NR 720 RCL for protection of groundwater. Reworked soil/fill-related PAH soil impacts greater than NR 720 RCLs for the protection of groundwater as well as human health by direct contact may also be present across the site and will remain after case closure. The extent of selenium and PAH impacts greater than NR 720 RCLs is interpreted to the Lot 3 and Outlot 3 property boundaries, including the parking lot space adjacent to the ABB building.

Based on the detection of select PAHs and lead at concentrations greater than their NR 140 ESs within off-site adjacent monitoring wells with similar reworked soil fill-related impacts, and lack of additional groundwater monitoring data, it is assumed that groundwater at the site may be impacted with PAHs and lead at concentrations greater than NR 140 ESs, and that groundwater impacts greater than NR 140 groundwater quality standards will remain after case closure. Groundwater sampling data indicates residual, likely naturally occurring, concentrations of arsenic greater than the NR 140 PAL will remain within groundwater across the site after case closure.

Based on the site investigation activities, no vapor impacts or risks are present at the site.

- F. Describe the residual soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds RCLs established under s. NR 720.12, Wis. Adm. Code, for protection of human health from direct contact.

Residual soil PAH impacts greater than NR 720 RCLs for the protection human health by direct contact are expected to be present across the site within the direct contact zone, and will remain after case closure.

- G. Describe the residual soil contamination that is above the observed low water table that attains or exceeds the soil standard(s) for the groundwater pathway.

Residual soil impacts that will remain above the observed low water table at the site after case closure include concentrations of selenium greater than the NR 720 RCL for protection of groundwater. Reworked soil/fill-related PAH soil impacts greater than NR 720 RCLs for the protection of groundwater may also be present across the site and will remain after case closure. The extent of selenium and PAH impacts greater than NR 720 RCLs for groundwater protection is interpreted to the Lot 3 and Outlot 3 property boundaries, including the parking lot space adjacent to the ABB building.

- H. Describe how the residual contamination will be addressed, including but not limited to details concerning: covers, engineering controls or other barrier features; use of natural attenuation of groundwater; and vapor mitigation systems or measures.

Residual soil impacts that pose a risk to human health by direct contact will be addressed by engineered barriers (site caps) (soil within the upper four feet of the soil column assumed to be impacted with PAH concentrations greater than NR 720 direct contact RCLs based on adjacent property soil data and extent of reworked soil/fill material):

Concrete Building Floor Slab - New building floor slabs at or below the ground level were constructed. The concrete floor slabs are 6-inches thick.

Concrete Pavements and Sidewalks - Concrete-paved drive areas are 5-inches thick, while concrete sidewalks and drive approaches are 6-inches thick or greater.

Asphalt Pavements - Asphalt pavement 4 inches thick was used for the outdoor parking and drive areas surrounding the new building / lot and along the entrance drive.

The parking rows within the ABB parking lot area are surfaced with permeable brick pavers, constructed of permeable brick approximately 4-inches thick.

Clean Soil Barrier - Limited landscaped areas are located around the new building and entrance drive, and the paved parking lot. Within the landscaped areas along the southern facade of Innovation One and within the Outlot 3 parking drive island, the soil cover system consists of a traffic bond warning layer placed over the subgrade soil and capped with 6-inches of clean soil that is compacted with construction machinery and 4 inches of vegetated or mulched topsoil (cover designed per landscaping specifications). Within the landscaped areas north of the office building and south of Outlot 3 along the parking structure ramp, the soil cover system consists of a 6-inche topsoil cap with native plantings and prairie grass. The landscaped areas at the site incur limited use by site occupants (commercial office workers and maintenance staff).

Soil data collected at the site in conjunction with soil and groundwater data collected on the adjacent Lots 2 and 4 suggest that groundwater is not at risk from residual soil impacts at the site.

Based on the site investigation activities, no vapor impacts or risks are present at the site.

- I. If using natural attenuation as a groundwater remedy, describe how the data collected supports the conclusion that natural attenuation is effective in reducing contaminant mass and concentration (e.g., stable or receding groundwater plume).

Not Applicable: Natural attenuation is not being used as a groundwater remedy.

- J. Identify how all exposure pathways (soil, groundwater, vapor) were removed and/or adequately addressed by immediate, interim and/or remedial action(s).

The site is capped as described above in Sections 4.A. and 4.H. Residual soil contamination that poses a risk to human health by direct contact will be addressed through inspection and maintenance of the existing caps. Soil across the site that contains residual impacts will be managed appropriately if excavated or disturbed in the future.

Site caps and storm/melt water management features will help reduce surface water migration through impacted vadose zone soils. Groundwater data collected from lots adjacent to the site indicate that site groundwater is not significantly impacted, but may contain PAHs and lead at concentrations greater than NR 140 ESs, and arsenic at concentrations greater than the NR 140 PAL. The site obtains treated drinking water from Lake Michigan via the Milwaukee Water Works utility; therefore, the site occupants are not at risk from consuming potentially impacted shallow groundwater.

There are currently no vapor risks at the site.

- K. Identify any system hardware anticipated to be left in place after site closure, and explain the reasons why it will remain.

Not Applicable: No remedial system hardware was installed.

- L. Identify the need for a ch. NR 140, Wis. Adm. Code, groundwater Preventive Action Limit (PAL) or Enforcement Standard (ES) exemption, and identify the affected monitoring points and applicable substances.

Not applicable: There are no requests for exemptions for NR 140 PAL or ES exceedances.

- M. If a DNR action level for vapor intrusion was exceeded (for indoor air, sub slab, or both) describe where it was exceeded and how the pathway was addressed.

Not Applicable: Vapor samples were not collected as the vapor intrusion risk assessment conducted for the site determined vapor is not a risk.

- N. Describe the surface water and/or sediment contaminant concentrations and areas after remediation. If a DNR action level was exceeded, describe where it was exceeded and how the pathway was addressed.

Not Applicable: Surface water and/or sediment samples were not collected.

**5. Continuing Obligations: Includes all affected properties and rights-of-way (ROWs). In certain situations, maintenance plans are also required, and must be included in Attachment D.**

Directions: For each of the 3 property types below, check all situations that apply to this closure request.

(NOTE: Monitoring wells to be transferred to another site are addressed in Attachment E.)

This situation applies to the following property or Right of Way (ROW):			Case Closure Situation - Continuing Obligation (database fees will apply, ii. - xiv.)	Maintenance Plan Required	
Property Type:					
Source Property	Affected Property (Off-Source)	ROW			
i.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	None of the following situations apply to this case closure request.	NA
ii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual groundwater contamination exceeds ch. NR 140 ESs.	NA
iii.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination exceeds ch. NR 720 RCLs.	NA
iv.				Monitoring Wells Remain:	
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Not Abandoned (filled and sealed)	NA
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	• Continued Monitoring (requested or required)	Yes
v.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cover/Barrier/Engineered Cover or Control for (soil) direct contact pathways (includes vapor barriers)	Yes
vi.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cover/Barrier/Engineered Cover or Control for (soil) groundwater infiltration pathway	Yes
vii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Structural Impediment: impedes completion of investigation or remedial action (not as a performance standard cover)	NA
viii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Residual soil contamination meets NR 720 industrial soil RCLs, land use is classified as industrial	NA
ix.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor Mitigation System (VMS) required due to exceedances of vapor risk screening levels or other health based concern	Yes
x.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Dewatering System needed for VMS to work effectively	Yes
xi.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Compounds of Concern in use: full vapor assessment could not be completed	NA
xii.	<input type="checkbox"/>	<input type="checkbox"/>	NA	Vapor: Commercial/industrial exposure assumptions used.	NA
xiii.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Vapor: Residual volatile contamination poses future risk of vapor intrusion	NA
xiv.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Site-specific situation: (e. g., fencing, methane monitoring, other) ( <i>discuss with project manager before submitting the closure request</i> )	Site specific

**6. Underground Storage Tanks**

- A. Were any tanks, piping or other associated tank system components removed as part of the investigation or remedial action?  Yes  No
- B. Do any upgraded tanks meeting the requirements of ch. ATCP 93, Wis. Adm. Code, exist on the property?  Yes  No
- C. If the answer to question 6.B. is yes, is the leak detection system currently being monitored?  Yes  No

## General Instructions

All information shall be legible. Providing illegible information will result in a submittal being considered incomplete until corrected. For each attachment (A-G), provide a Table of Contents page, listing all 'applicable' and 'not applicable' items by Closure Form titles (e.g., A.1. Groundwater Analytical Table, A.2. Soil Analytical Results Table, etc.). If any item is 'not applicable' to the case closure request, you must fully explain the reasons why.

## Data Tables (Attachment A)

### Directions for Data Tables:

- Use **bold** and italics font for information of importance on tables and figures. Use **bold** font for ch. NR 140, Wis. Adm. Code ES attainments or exceedances, and *italicized font* for ch. NR 140, Wis. Adm. Code, PAL attainments or exceedances.
- Use **bold** font to identify individual ch. NR 720 Wis. Adm. Code RCL exceedances. Tables should also include the corresponding groundwater pathway and direct contact pathway RCLs for comparison purposes. Cumulative hazard index and cumulative cancer risk exceedances should also be tabulated and identified on Tables A.2 and A.3.
- Do not use shading or highlighting on the analytical tables.
- Include on Data Tables the level of detection for results which are below the detection level (i.e., do not just list as no detect (ND)).
- Include the units on data tables.
- Summaries of all data must include information collected by previous consultants.
- Do not submit lab data sheets unless these have not been submitted in a previous report. Tabulate all data required in s. NR 716.15(3)(c), Wis. Adm. Code, in the format required in s. NR 716.15(4)(e), Wis. Adm. Code.
- Include in Attachment A all of the following tables, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: A.1. Groundwater Analytical Table; A.2. Soil Analytical Results Table, etc.).
- For required documents, each table (e.g., A.1., A.2., etc.) should be a separate Portable Document Format (PDF).

### A. Data Tables

- A.1. **Groundwater Analytical Table(s)**: Table(s) showing the analytical results and collection dates for all groundwater sampling points (e.g., monitoring wells, temporary wells, sumps, extraction wells, potable wells) for which samples have been collected.
- A.2. **Soil Analytical Results Table(s)**: Table(s) showing **all** soil analytical results and collection dates. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated).
- A.3. **Residual Soil Contamination Table(s)**: Table(s) showing the analytical results of only the residual soil contamination at the time of closure. This table shall be a subset of table A.2 and should include only the soil sample locations that exceed an RCL. Indicate if sample was collected above or below the observed low water table (unsaturated versus saturated). Table A.3 is optional only if a total of fewer than 15 soil samples have been collected at the site.
- A.4. **Vapor Analytical Table(s)**: Table(s) showing type(s) of samples, sample collection methods, analytical method, sample results, date of sample collection, time period for sample collection, method and results of leak detection, and date, method and results of communication testing.
- A.5. **Other Media of Concern (e.g., sediment or surface water)**: Table(s) showing type(s) of sample, sample collection method, analytical method, sample results, date of sample collection, and time period for sample collection.
- A.6. **Water Level Elevations**: Table(s) showing all water level elevation measurements and dates from all monitoring wells. If present, free product should be noted on the table.
- A.7. **Other**: This attachment should include: 1) any available tabulated natural attenuation data; 2) data tables pertaining to engineered remedial systems that document operational history, demonstrate system performance and effectiveness, and display emissions data; and (3) any other data tables relevant to case closure not otherwise noted above. If this section is not applicable, please explain the reasons why.

## Maps, Figures and Photos (Attachment B)

### Directions for Maps, Figures and Photos:

- Provide on paper no larger than 11 x 17 inches, unless otherwise directed by the Department. Maps and figures may be submitted in a larger electronic size than 11 x 17 inches, in a PDF readable by the Adobe Acrobat Reader. However, those larger-size documents must be legible when printed.
- Prepare visual aids, including maps, plans, drawings, fence diagrams, tables and photographs according to the applicable portions of ss. NR 716.15(4), 726.09(2) and 726.11(3), (5) and (6), Wis. Adm. Code.
- Include all sample locations.
- Contour lines should be clearly labeled and defined.
- Include in Attachment B all of the following maps and figures, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: B.1. Location Map; B.2. Detailed Site Map, etc).
- For the electronic copies that are required, each map (e.g., B.1.a., B.2.a, etc.,) should be a separate PDF.
- Maps, figures and photos should be dated to reflect the most recent revision.

### B.1. Location Maps

- B.1.a. **Location Map**: A map outlining all properties within the contaminated site boundaries on a United States Geological Survey (U.S.G.S.) topographic map or plat map in sufficient detail to permit easy location of all affected and/or adjacent parcels. If groundwater standards are exceeded, include the location of all potable wells, including municipal wells, within 1200 feet of the area of contamination.
- B.1.b. **Detailed Site Map**: A map that shows all relevant features (buildings, roads, current ground surface cover, individual property boundaries for all affected properties, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination attaining or exceeding a ch. NR 140 ES, and/or in relation to the boundaries of soil contamination attaining or exceeding a RCL. Provide parcel identification numbers for all affected properties.
- B.1.c. **RR Sites Map**: From RR Sites Map (<https://dnrmaps.wi.gov/H5/?viewer=rssites>) attach a map depicting the source property, and all open and closed BRRTS sites within a half-mile radius or less of the property.

**B.2. Soil Figures**

- B.2.a. **Soil Contamination:** Figure(s) showing the location of **all** identified unsaturated soil contamination. Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720.Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedances (0-4 foot depth).
- B.2.b. **Residual Soil Contamination:** Figure(s) showing only the locations of soil samples where unsaturated soil contamination remains at the time of closure (locations represented in Table A.3). Use a single contour to show the horizontal extent of each area of contiguous soil contamination that exceeds a soil to groundwater pathway RCL as determined under ch. NR 720 Wis. Adm. Code. A separate contour line should be used to indicate the horizontal extent of each area of contiguous soil contamination that exceeds a direct contact RCL exceedance (0-4 foot depth).

**B.3. Groundwater Figures**

- B.3.a. **Geologic Cross-Section Figure(s):** One or more cross-section diagrams showing soil types and correlations across the site, water table and piezometric elevations, and locations and elevations of geologic rock units, if encountered. Display on one or more figures all of the following:
- Source location(s) and vertical extent of residual soil contamination exceeding an RCL. Distinguish between direct contact and the groundwater pathway RCLs.
  - Source location(s) and lateral and vertical extent if groundwater contamination exceeds ch. NR 140 ES.
  - Surface features, including buildings and basements, and show surface elevation changes.
  - Any areas of active remediation within the cross section path, such as excavations or treatment zones.
  - Include a map displaying the cross-section location(s), if they are not displayed on the Detailed Site Map (Map B.1.b.)
- B.3.b. **Groundwater Isoconcentration:** Figure(s) showing the horizontal extent of the post-remedial groundwater contamination exceeding a ch. NR 140, Wis. Adm. Code, PAL and/or an ES. Indicate the date and direction of groundwater flow based on the most recent sampling data.
- B.3.c. **Groundwater Flow Direction:** Figure(s) representing groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit two groundwater flow maps showing the maximum variation in flow direction.
- B.3.d. **Monitoring Wells:** Figure(s) showing all monitoring wells, with well identification number. Clearly designate any wells that: (1) are proposed to be abandoned; (2) cannot be located; (3) are being transferred; (4) will be retained for further sampling, or (5) have been abandoned.

**B.4. Vapor Maps and Other Media**

- B.4.a. **Vapor Intrusion Map:** Map(s) showing all locations and results for samples taken to investigate the vapor intrusion pathway in relation to residual soil and groundwater contamination, including sub-slab, indoor air, soil vapor, soil gas, ambient air, and communication testing. Show locations and footprints of affected structures and utility corridors, and/or where residual contamination poses a future risk of vapor intrusion.
- B.4.b. **Other media of concern (e.g., sediment or surface water):** Map(s) showing all sampling locations and results for other media investigation. Include the date of sample collection and identify where any standards are exceeded.
- B.4.c. **Other:** Include any other relevant maps and figures not otherwise noted above. (This section may remain blank).

- B.5. Structural Impediment Photos:** One or more photographs documenting the structural impediment feature(s) which precluded a complete site investigation or remediation at the time of the closure request. The photographs should document the area that could not be investigated or remediated due to a structural impediment. The structural impediment should be indicated on Figures B.2.a and B.2.b.

**Documentation of Remedial Action (Attachment C)****Directions for Documentation of Remedial Action:**

- Include in Attachment C all of the following documentation, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: C.1. Site Investigation Documentation; C.2. Investigative Waste, etc.).
- If the documentation requested below has already been submitted to the DNR, please note the title and date of the report for that particular document requested.
  - C.1. **Site investigation documentation**, that has not otherwise been submitted with the Site Investigation Report.
  - C.2. **Investigative waste** disposal documentation.
  - C.3. Provide a **description of the methodology** used along with all supporting documentation if the RCLs are different than those contained in the Department's RCL Spreadsheet available at: <https://dnr.wisconsin.gov/topic/Brownfields/Professionals.html#tabx2>.
  - C.4. **Construction documentation** or as-built report for any constructed remedial action or portion of, or interim action specified in s. NR 724.02(1), Wis. Adm. Code.
  - C.5. **Decommissioning of Remedial Systems.** Include plans to properly abandon any systems or equipment.
  - C.6. **Other.** Include any other relevant documentation not otherwise noted above (This section may remain blank).

**Maintenance Plan(s) and Photographs (Attachment D)****Directions for Maintenance Plans and Photographs:**

Attach a maintenance plan for each affected property (source property, each off-source affected property) with continuing obligations requiring future maintenance (e.g., direct contact, groundwater protection, vapor intrusion). See Site Summary section 5 for all affected property(s) requiring a maintenance plan. Maintenance plan guidance and/or templates for: 1) Cover/barrier systems; 2) Vapor intrusion; and 3) Monitoring wells, can be found at: <http://dnr.wi.gov/topic/Brownfields/Professionals.html#tabx3>

- D.1. **Descriptions of maintenance action(s) required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required:**

- Provide brief descriptions of the type, depth and location of residual contamination.
  - Provide a description of the system/cover/barrier/monitoring well(s) to be maintained.
  - Provide a description of the maintenance actions required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.
  - Provide contact information, including the name, address and phone number of the individual or facility who will be conducting the maintenance.
- D.2. **Location map(s) which show(s):** (1) the feature that requires maintenance; (2) the location of the feature(s) that require(s) maintenance - on and off the source property; (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site; (4) the extent and type of residual contamination; and (5) all property boundaries.
- D.3. **Photographs** for site or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system, include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features shall be visible and discernible. Photographs shall be submitted with a title related to the site name and location, and the date on which it was taken.
- D.4. **Inspection log**, to be maintained on site, or at a location specified in the maintenance plan or approval letter. The inspection and maintenance log is found at: <http://dnr.wi.gov/files/PDF/forms/4400/4400-305.pdf>.

### Monitoring Well Information (Attachment E)

#### Directions for Monitoring Well Information:

For all wells that will remain in use, be transferred to another party, or that could not be located; attach monitoring well construction and development forms (DNR Form 4400-113 A and B: [http://dnr.wi.gov/topic/groundwater/documents/forms/4400\\_113\\_1\\_2.pdf](http://dnr.wi.gov/topic/groundwater/documents/forms/4400_113_1_2.pdf))

#### Select One:

- No monitoring wells were installed as part of this response action.
- All monitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site
- Select One or More:**
- Not all monitoring wells can be located, despite good faith efforts. Attachment E must include a description of efforts made to locate the wells.
- One or more monitoring wells will be transferred to another owner upon case closure being granted. Attachment E should include documentation identifying the name, address and email for the new owner(s). Provide documentation from the party accepting future responsibility for monitoring well(s).
- One or more wells will remain in use at the site after this closure. Attachment E must include documentation as to the reason(s) the well(s) will remain in use. When one or more monitoring wells will remain in use this is considered a continuing obligation and a maintenance plan will be required and must be included in Attachment D.

### Source Legal Documents (Attachment F)

#### Directions for Source Legal Documents:

Label documents with the specific closure form titles (e.g., F.1. Deed, F.2. Certified Survey Map, etc.). Include all of the following documents, in the order listed:

- F.1. **Deed:** The most recent deed with legal description clearly listed.  
**Note:** *If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*
- F.2. **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- F.3. **Verification of Zoning:** Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- F.4. **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description(s) accurately describe(s) the correct contaminated property or properties. This section applies to the source property only. Signed statements for Other Affected Properties should be included in Attachment G.

**Notifications to Owners of Affected Properties (Attachment G)****Directions for Notifications to Owners of Affected Properties:**

Complete the table on the following page for sites which require notification to owners of affected properties pursuant to ch. 292, Wis. Stats. and ch. NR 725 and 726, Wis. Adm. Code. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records law [ss. 19.31- 19.39, Wis. Stats.]. The DNR's "Guidance on Case Closure and the Requirements for Managing Continuing Obligations" (PUB-RR-606) lists specific notification requirements <https://dnr.wi.gov/DocLink/RR/RR606.pdf>.

State law requires that the responsible party provide a 30-day, written advance notification to certain persons prior to applying for case closure. This requirement applies if: (1) the person conducting the response action does not own the source property; (2) the contamination has migrated onto another property; and/or (3) one or more monitoring wells will not be abandoned. Use form 4400-286, Notification of Continuing Obligations and Residual Contamination, at <http://dnr.wi.gov/files/PDF/forms/4400/4400-286.pdf>

Include a copy of each notification sent and accompanying proof of delivery, i.e., return receipt or signature confirmation.

Include the following documents for each property, keeping each property's documents grouped together and labeled with the letter G and the corresponding ID number from the table on the following page. (Source Property documents should only be included in Attachment F):

- **Deed:** The most recent deed with legal descriptions clearly listed for all affected properties.  
*Note: If a property has been purchased with a land contract and the purchaser has not yet received a deed, a copy of the land contract which includes the legal description shall be submitted instead of the most recent deed. If the property has been inherited, written documentation of the property transfer should be submitted along with the most recent deed.*
- **Certified Survey Map:** A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map. In cases where the certified survey map or recorded plat map are not legible or are unavailable, a copy of a parcel map from a county land information office may be substituted. A copy of a parcel map from a county land information office shall be legible, and the parcels identified in the legal description shall be clearly identified and labeled with the applicable parcel identification number.
- **Verification of Zoning:** Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.
- **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes the attached legal description(s) accurately describe(s) the correct contaminated property or properties.



**Signatures and Findings for Closure Determination**

This page has been updated as of February 2019 to comply with the requirements of Wis. Admin. Code ch. NR 712.

Check the correct box for this case closure request and complete the corresponding certification statement(s) listed below to demonstrate that the requirements of Wis. Admin. Code ch. NR 712 have been met. The responsibility for signing the certification may not be delegated per Wis. Admin. Code § NR 712.09 (1). Per Wis. Admin. Code § 712.05 (1), the work must be conducted or supervised by the person certifying.

- The investigation and/or response action(s) for this site evaluated and/or addressed groundwater (including natural attenuation remedies). Both a professional engineer and a hydrogeologist must sign this document per Wis. Admin. Code ch. NR 712.
- The investigation and the response action(s) for this site did not evaluate or address groundwater. A professional engineer must sign this document per Wis. Admin. Code ch. NR 712.

**Engineering Certification**

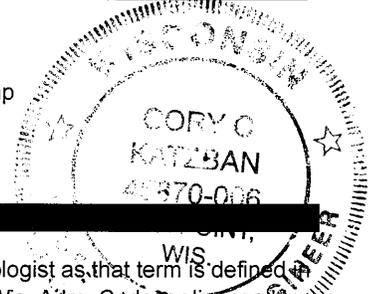
I, Cory C. Katzban, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all 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 

P. E. # 45870-006

Title Senior Engineer

P.E. Stamp



**Hydrogeologist Certification**

I, Kristin Kurzka, 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 

Title Senior Hydrogeologist and Geoscience Group Manager

Date

