

## Graham, Joseph R - DNR

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**From:** Saari, Christopher A - DNR  
**Sent:** Friday, February 17, 2023 9:59 AM  
**To:** Christian.Zuidmulder@Thecreiss.com  
**Cc:** Gross, Stu; Lennie, Brian; Cull, Whitney; Serck, Jason; Graham, Joseph R - DNR; Morris, John M - DNR  
**Subject:** Materials Management Plan Approval, C. Reiss Coal Dock, Superior (BRRS #02-16-589248)  
**Attachments:** 20230217\_857\_MMP\_Appr.pdf; C Reiss Figures4A,4B,&4C\_Stantec\_20221006.pdf; C Reiss Figure7\_Stantec\_20221118.pdf; C Reiss Figures8Ato8K\_Stantec\_20221118.pdf; C. Reiss DraftCoverMaintenancePlan\_Stantec\_DEC2022.pdf

Good Morning:

The attached letter will go out in today's mail. The DNR is currently reviewing additional submittals related to this redevelopment project, and we hope to get responses to those submittals to you in the near future.

Please contact DNR Project Manager Joe Graham or me if you have any questions.

Have a good weekend.

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Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

Chris Saari

Northern Region Team Supervisor – Remediation and Redevelopment Program

Wisconsin Department of Natural Resources

2501 Golf Course Rd.

Ashland, WI 54806

**Phone: (715) 208-4004**

**Please note that my contact number has changed. You should use this phone number to reach me going forward.**

Fax: (715) 685-2909

[Christopher.Saari@Wisconsin.gov](mailto:Christopher.Saari@Wisconsin.gov)





February 17, 2023

C. Reiss Company, LLC  
Christian Zuidmulder, General Manager  
111 West Mason Street  
Green Bay WI 54303

**Subject:** Approval to Manage Contaminated Soil and Dredged Sediment under Wis. Admin. Code § NR 718.12 and § NR 718.15 on Site  
C. Reiss Coal Dock Property, City of Superior, Douglas County, WI  
Parcel IDs 048040101400 and 048040100300 (Burlington Northern R/W)  
DNR BRRTS Activity #02-16-589248, FID #816130810

Dear Mr. Zuidmulder:

On July 13, 2022, Mr. Stu Gross of Stantec Consulting Services Inc. (Stantec) submitted a Materials Management Plan and Chapter NR 718 Exemption on your behalf, requesting to manage approximately 44,000 cubic yards of contaminated soil and 28,000 cubic yards of dredged sediment on the C. Reiss Coal Dock Property (Site) from which it will be excavated per Wis. Admin. Code § NR 718.12 and § NR 718.15. The C. Reiss Company, LLC (C. Reiss) has also requested an exemption for construction over historic fill materials under Wis. Admin. Code § NR 506.085, which DNR addresses separately. Supplemental information regarding this request was also provided on October 17, 2022, December 2, 2022, and January 24, 2023. The Wisconsin Department of Natural Resources (DNR) received all applicable technical assistance and database fees for providing review and response in accordance with Wis. Admin. Code § NR 749.04(1).

The Site is a vacant 53-acre, former industrial dock being redeveloped to reestablish bulk material handling operations. The northern portion of the C. Reiss Coal Dock Property, Parcel ID 048040101400 (Property) serves as access to the west adjoining dock slip and is primarily surfaced with concrete pavement panels that are approximately four inches thick, eight feet long and eight feet wide. The southern part of the property provides access and contains several wetlands. Historic industrial fill is pervasive across the Property. At the time of this approval, C. Reiss was in the process of acquiring Parcel ID 048040100300 from the BNSF Railway Company; proposed materials management activities will also be conducted on this parcel. Former dock operations included petroleum product and coal storage and transloading, and coal briquet manufacturing. These operations occurred from the late 19th century through the late 20<sup>th</sup> century. Surrounding properties are mainly industrial in use.

The Site soil and sediment are contaminated with polycyclic aromatic hydrocarbons (PAHs), metals, and petroleum volatile organic chemicals (PVOC). Groundwater at the site is impacted by PVOCs and light nonaqueous phase liquid (LNAPL). Soil contamination resulting from past hazardous substance discharges at the Site is documented in Bureau for Remediation and Redevelopment Tracking System (BRRTS) Activity #03-16-000320 (Murphy Marine Terminal). Multiple BRRTS Activities at the east-adjoining property have been documented as impacting soil and groundwater on Site: BRRTS #s 02-16-297977 (Amoco Oil Barge Dock-Former Barge Dock), 02-16-297979 (Amoco Oil Barge Dock – OW Separator & Load Rack) and 02-16-117873 (Amoco Oil Barge Dock – Manifold & AST Area) south of the Property.

The C. Reiss Company, LLC plans to reestablish industrial bulk material handling operations at the Property by installing infrastructure for shipments by truck and rail, as well as dock wall rehabilitation and sediment dredging. The redevelopment will consist of constructing an office building, storage and maintenance building, parking lot, truck scale, railroad, rail yard, rail scale, access roads, a disposal berm, drainage swale, temporary diversion berm, stormwater retention pond, and a perimeter security fence.

Excavation, grading, and dredging activities will generate 72,000 cubic yards of contaminated soil and dredged sediment that will be managed in a disposal berm on the Property. The disposal berm configuration was designed to consolidate the contaminated material in one location and to avoid and minimize wetland impacts. Soil with the highest PAH concentrations excavated for the stormwater pond and dredged sediment will be placed at specific locations and in the lowest lifts of the disposal berm. Higher lifts of soils with lower contaminant concentrations will be placed over the lowermost lifts and capped with a soil cover. The soil cover for the disposal berm and contaminated soil/historic fill material not covered by other barriers will consist of 15 inches of clay overlain by 3 inches of topsoil.

Redevelopment at the site will impact the network of groundwater monitoring and recovery wells on the Property associated with discharges from the former Amoco Oil Barge Dock facility. Following transmittal of this approval, the DNR expects to receive a well abandonment plan from the Antea Group, on behalf of the responsible party for the Amoco Oil Barge Dock facility. To maintain your exemption from liability for off-site discharges under Wis. Stats. § 292.13, you will need to provide the responsible party and its consultants or contractors access to the Property to take actions needed to respond to their discharge. Access may be needed to extend, abandon or replace monitoring and recovery wells and to investigate and remediate the off-site discharges.

#### **Wis. Admin. Code § NR 718.12 and § NR 718.15 Approval**

This letter grants approval to manage contaminated soil and dredged sediment under Wis. Admin. Code § NR 718.12 and § NR 718.15 on site with continuing obligations (COs). COs are legal requirements to address potential exposure to remaining contamination. Approval is based on the following:

#### **Compliance with Locational Criteria**

Managing contaminated soil in areas of the site identified in Figures 4A, 4B and 4C, Site Cover Extent, October 6, 2022, in the Materials Management Plan and Chapter NR 718 Exemption will meet the locational criteria listed under Wis. Admin. Code § NR 718.12(1)(c), except for the following:

- Within 100 feet of a wetland or critical habitat area,
- Within 300 feet of any navigable river, stream, lake, pond or flowage,
- Within 3 feet of the high groundwater level.

#### **Grant of exemption to Wis. Admin. Code §§ NR 718.12(1)(c)2, 3 and 5**

In consideration of the waste characteristics and quantities, geologic and hydrogeologic characteristics, unavailability of environmentally suitable alternatives, compliance with other state and federal regulations, and material management under an inspected and maintained cover, the DNR grants an exemption to the location criteria of Wis. Admin. Code §§ NR 718.12(1)(c)2, 3 and 5. The DNR will allow the placement of contaminated soil material within 100 feet of wetlands, 300 feet of the St. Louis River, and 3 feet of the high groundwater level.

#### **Characterization of Soil to be Excavated and Sediment Dredged**

Soil and sediment samples were collected for analysis of contaminants previously detected or expected to be present at this site, including PAHs, arsenic, lead, cadmium, mercury, selenium and silver from areas most likely to contain residual contamination. PVOCs may also be present in soil. Based on an estimated volume of 44,000 cubic yards of impacted soil and a sampling frequency of one sample per 978 cubic yards, the sampling protocol described in Wis. Admin. Code § NR 718.12(1)(e) was not met. However, the DNR has determined that the material was adequately characterized due to the limited extent of higher concentrations of PAHs, lead and

arsenic, the broad area of impacted soil and fill with low concentrations of PAHs and metals, and ubiquitous black anthropogenic fill material on the property. For the 28,000 cubic yards of contaminated sediment, a sampling frequency of one sample per 549 cubic yards was achieved, which is acceptable to the DNR based on the contamination levels in the sediment and the homogeneity of the material.

#### **Submittal of a Soil Management Plan**

A complete soil management plan, as defined by Wis. Admin. Code §§ NR 718.12(2)(b) and (c), was provided to the DNR.

#### **Assessment of Risk Posed by Soil Management**

The proposed management of solid waste at the C. Reiss Coal Dock Property is expected to meet the criteria of Wis. Admin. Code §§ NR 726.13(1)(b)1 to 5, based on the assessments, design, and engineering plans submitted by Stantec.

#### **Notice Provided Prior to Commencing Soil Management Activities**

Per Wis. Admin. Code § NR 718.12(2), the DNR was provided with written notice at least seven days prior to commencing the proposed material management.

#### **Requirements of Continuing Obligations**

You have acknowledged that the continuing obligations, required under Wis. Stat. § 292.12(2) and described further below, will be required as a condition of managing the contaminated material on your property as proposed. Under Wis. Stat. § 292.12(5), you, future property owners and occupants of the property must comply with the COs as explained in this letter, which may include maintaining certain features and notifying the DNR and obtaining approval before taking specific actions. You must provide this letter and all enclosures to anyone who purchases, rents or leases this property from you. The property owner must notify occupants for any condition specified in this letter under Wis. Admin. Code § NR 727.05(2). If an occupant is responsible for maintenance of any condition specified in this letter, you and any subsequent property owner must include the condition in the lease agreement under Wis. Admin. Code § NR 727.05(3) and provide the maintenance plan to any occupant that is responsible. Some COs also apply to other properties or rights of way (ROW) affected by the contamination as identified below.

The current property owner of the Property, and any subsequent Property owners, must comply with the following COs at this site, established under Wis. Admin. Code § NR 718.12(2)(d), to ensure that conditions will remain protective. DNR staff will conduct periodic, pre-arranged inspections to ensure that the conditions included in this letter and Cover Maintenance Plan, are met. If these requirements are not followed, the DNR may take enforcement action under Wis. Stat. ch. 292 to ensure compliance with the specified requirements, limitations or other conditions related to the Property.

Documents submitted to the DNR to request the Wis. Admin. Code § NR 718.12 and § NR 718.15 approval meet the requirements of Wis. Admin. Code § NR 718.12(2)(e) and are available in PDF on the DNR's Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web (BOTW) and RR Sites Map (RRSM), to provide public notice of remaining contamination and continuing obligations. Both BOTW and RRSM are available at [dnr.wi.gov](http://dnr.wi.gov), search "WRRD."

More information on responsibilities related to continuing obligations can be found in the DNR publication "Continuing Obligations for Environmental Protection" (RR-819), which can be found at [dnr.wi.gov](http://dnr.wi.gov), search "RR-819."

Please send written notifications and annual inspection reports in accordance with the following requirements to the DNR project manager, Joe Graham. Send documents to the DNR using the RR Program Submittal Portal at [dnr.wi.gov](http://dnr.wi.gov), search "RR submittal portal" (<https://dnr.wi.gov/topic/Brownfields/Submittal.html>). Questions on



using this portal can be directed to the contact below or to the environmental program associate (EPA) for the regional DNR office. Visit [dnr.wi.gov](http://dnr.wi.gov), search “RR contacts” and select the EPA tab (<https://dnr.wi.gov/topic/Brownfields/Contact.html>). More information on submitting electronic documents can be found in the DNR publication “Guidance for Electronic Submittal for the Remediation and Redevelopment Program” (RR-690), which can be found at [dnr.wi.gov](http://dnr.wi.gov), search “RR-690.”

#### Residual Soil Contamination and Future Dredged Sediment Management

If contaminated soil and dredged sediment that was managed as proposed in the Materials Management Plan and Chapter NR 718 Exemption is excavated in the future, the property owner at the time of excavation will have the following responsibilities per Wis. Admin. Code § NR 727.05(1)(d):

- determine if contamination is present;
- determine whether the material is considered solid or hazardous waste; and
- ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules.

Excavated contaminated soil and dredged sediment may be managed in accordance with Wis. Admin. Code ch. NR 718 with DNR pre-approval. In addition, all current and future property owners and occupants of the property and right-of-way holders need to be aware that excavation of the contaminated soil and dredged sediment may pose a hazard, and special precautions may be necessary to prevent a health threat to humans.

If material that will be managed under this approval includes solid waste other than soil (i.e., dredged sediment), it may be required to obtain approval from the DNR prior to excavating the waste or constructing any structure over the materials per Wis. Admin. Code § NR 506.085.

The locations where contaminated soil and dredged sediment are proposed to be managed at the Property are depicted on the attached Figures 4A, 4B and 4C, Site Cover Extent, prepared by Stantec and dated October 6, 2022.

Depending on site-specific conditions, construction over contaminated soil or groundwater may also result in vapor migration of contaminants into enclosed structures or migration along underground utility lines. The potential for vapor intrusion and means of mitigation may need to be evaluated when planning any future redevelopment, and measures may need to be taken to ensure the continued protection of public health, safety, welfare and the environment at the site.

The DNR’s approval prior to well construction or reconstruction is required where contaminated soil was managed, in accordance with Wis. Admin. Code § NR 812.09(4)(w). This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit DNR Form 3300-254 to the DNR Drinking and Groundwater Program’s regional water supply specialist. This form is available at [dnr.wi.gov](http://dnr.wi.gov), search “3300-254.”

#### Maintenance of a Cover

A soil cover and other barriers (i.e., clean soil cap, building slabs, paved areas, railroad ballast, gravel access roads), are proposed to be installed and maintained over contaminated soil or dredged sediment that will be managed at the C. Reiss Coal Dock Property as proposed in the Materials Management Plan and Chapter NR 718 Exemption. A Draft Cover Maintenance Plan, prepared by Stantec and dated December 2022, is attached; this plan describes the inspection and maintenance activities that will apply to the proposed barrier. An updated maintenance plan must be provided to the DNR once the barrier has been constructed if changes are required, and must address actual site conditions per Wis. Admin. Code § NR 724.15(3)(h). Maps are attached which show where contaminated soil and dredged sediment are proposed to be managed and the extent of the proposed cover (Figures 4A, 4B and 4C). Once constructed, inspections of the soil cover and other barriers will be required per Wis. Admin. Code § NR 724.13, and submittal of annual inspection reports is required per Wis. Admin. Code § 727.05(1)(b)3. Notification to the DNR is required before changing to a non-industrial use if the cover is

approved for industrial land use, per Wis. Admin. Code § NR 727.07(3) to ensure that the cover will be protective for that use.

The Draft Cover Maintenance Plan prohibits certain activities in areas where maintenance of a cover or barrier is intended to prevent contact with any remaining soil contamination or dredged sediment. The following activities are prohibited on any portion of the property where a soil cover or other barrier is required, unless prior notification is provided to DNR to determine whether further action may be necessary to protect human health, safety, or welfare of the environment (§ NR 727.07):

- removal of the existing barrier or cover;
- replacement with another barrier or cover;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure; or
- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital or similar residential exposure settings.

#### Use of Industrial Land Use Soil Standards

Direct contact risk posed by contaminated material managed under this approval was assessed using residual contaminant levels for industrial land use. The DNR must be notified if the property land use will change from industrial use to a non-industrial land use per Wis. Admin. Code § NR 727.07(3). Additional investigation and remediation may be required prior to the change in land use to ensure the site conditions are protective for the planned land use.

#### Site Specific Condition

Maps showing groundwater elevations, impacted groundwater wells, and detailed cross sections are included in Materials Management Plan and Chapter NR 718 Exemption, and Figures 7, Groundwater Elevation Detail, and Figures 8A to 8K, Groundwater Cross Section Details, prepared by Stantec and dated November 18, 2022 (attached). The excavations for the proposed railroad grade will extend below the approximate groundwater table elevation between station (STA) 9+78 through 18+05 and may breach the confining clay unit near STA 11+75 and 15+10. As a result, there is a potential for groundwater seeps to form in the drainage swales flanking the railroad bed which could result in the mobilization of LNAPL or dissolved PVOCs in groundwater. Monitoring the drainage swales for LNAPL and PVOCs is warranted to protect human health and the environment.

As a condition of this approval per Wis. Admin. Code § NR 722.15 (2)(e)5, the drainage swales flanking the railroad bed shall be inspected and monitored as specified below. C. Reiss must inspect each drainage swale flanking the railroad for groundwater seeps, and when seeps are present, collect and analyze a minimum of one water sample from appropriate locations in each swale for PVOCs. Inspections and sampling should be done at the same frequencies identified for inspecting the cover system in the Draft Cover Maintenance Plan. Samples of water in the drainage swales should be taken as close as possible to the origin of the seep and, if possible, no farther south than STA 11+75. The extent of water in the swales and locations where samples are collected should be identified on a map based off Figure 7, Groundwater Elevation Detail referenced above, and results should be provided to the DNR with the required inspection reports. At a minimum, inspection records should note antecedent precipitation events, the presence and location of seeps, the longitudinal extent of water in the swales (i.e., from north to south), the presence of water current or velocity, photo documentation of seeps, and any indications of LNAPL, including but not limited to, sheen or odor. Submit a revised Cover Maintenance Plan that includes these requirements to the DNR for review and approval within 60 days of project completion. After no less than five years of inspections, C. Reiss may submit a technical assistance request and applicable fee to DNR for revisions to the Cover Maintenance Plan under Wis. Admin. Code § NR 724.13(4). Upon receipt of

such request and fee, the DNR may reduce or eliminate inspections and monitoring of the drainage swales based on the record of monitoring results.

**Other Information**

- 1) Any hazardous substance discharge discovered during contaminated soil and dredged sediment management activities must be reported to the DNR following the requirements of Wis. Admin. Code ch. NR 706.
- 2) Contaminated soil and dredged sediment management activities approved by this letter, except continuing obligations, are scheduled to be completed on or before December 31, 2025. Notify the DNR if this schedule will change.
- 3) Unless otherwise directed by the DNR, documentation of contaminated soil and dredged sediment management activities shall be provided within 60 days of the completion of this project. The documentation must comply with the requirements of Wis. Admin. Code § NR 724.05(2) and § NR 724.15(3). Documentation must include:
  - a. A cover letter that contains the information required by Wis. Admin. Code § NR 724.05(2)(e)1.
  - b. Owner contact and property location information for the C. Reiss Coal Dock Property.
  - c. Maps, drawings, cross sections, as-built topographic survey and calculated volumes that depict how contaminated soil and dredged sediment was managed.
  - d. A synopsis of the work conducted and an explanation as to how it complied with the contaminated soil and dredged sediment management plan and the conditions in this approval.
  - e. A description of any changes made to the planned management activity and an explanation as to why they were necessary for the project.
  - f. Any field observations or results of monitoring conducted during the management activity.
  - g. A description of how new site conditions are protective of human health, safety, welfare and the environment at the Property.
  - h. A revised cover maintenance plan, if needed.

The DNR will request that incomplete documentation be amended as allowed by Wis. Admin. Code § NR 724.07(2).

- 4) This approval is granted under Wis. Admin. Code § NR 718.12 and § NR 718.15 and applies only to the specific activities described within the submitted Materials Management Plan and Chapter NR 718 Exemption. Any contaminated soil or other solid waste that is excavated or otherwise disturbed at the Property, not covered under this or another approval, must be managed in compliance with the requirements of Wis. Admin. Code chs. NR 500 through NR 599. The management of contaminated soil and solid waste on a property that does not comply with these rules may be considered a hazardous substance discharge or environmental pollution, and would be required to be addressed by the process outlined in Wis. Admin. Code chs. NR 700 to NR 799.
- 5) The C. Reiss Company, its contractors and agents are responsible for obtaining any local, federal or other applicable state permits to carry out the project.

All remediation sites are included in DNR's BRRTS database. All documents and project milestones related to the cleanup of each of the involved sites and management of the contaminated material are listed in the database entry identified by BRRTS Activity # 02-16-589248.

We appreciate your efforts to protect the environment at this site. If you have any questions regarding this approval decision, please contact, Joe Graham, DNR Project Manager, by calling (715) 292-4925, or by email at [joseph.graham@wisconsin.gov](mailto:joseph.graham@wisconsin.gov).

Sincerely,



Christopher A. Saari  
Northern Region Team Supervisor  
Remediation and Redevelopment Program

Attachments:

- Figures 4A, 4B and 4C, Site Cover Extent, Stantec, October 6, 2022
- Figure 7, Groundwater Elevation Detail, Stantec, November 18, 2022
- Figures 8A to 8K, Groundwater Cross Section Detail, Stantec, November 18, 2022
- Draft Cover Maintenance Plan, Stantec, December 2022

cc: Stu Gross, Stantec - [stu.gross@stantec.com](mailto:stu.gross@stantec.com)  
Brian Lennie, Stantec - [brian.lennie@stantec.com](mailto:brian.lennie@stantec.com)  
Whitney Cull, Stantec - [whitney.cull@stantec.com](mailto:whitney.cull@stantec.com)  
Jason Serck, City of Superior - [serckj@ci.superior.wi.us](mailto:serckj@ci.superior.wi.us)  
Joe Graham, DNR – [joseph.graham@wisconsin.gov](mailto:joseph.graham@wisconsin.gov)  
John Morris, DNR - [john.morris@wisconsin.gov](mailto:john.morris@wisconsin.gov)

## **Attachments**

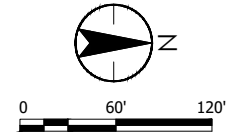
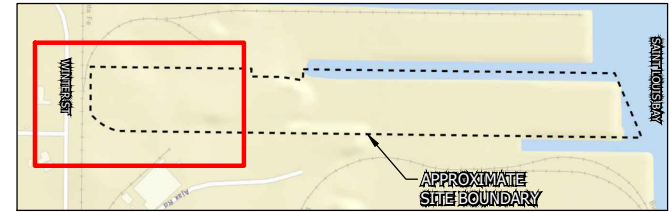
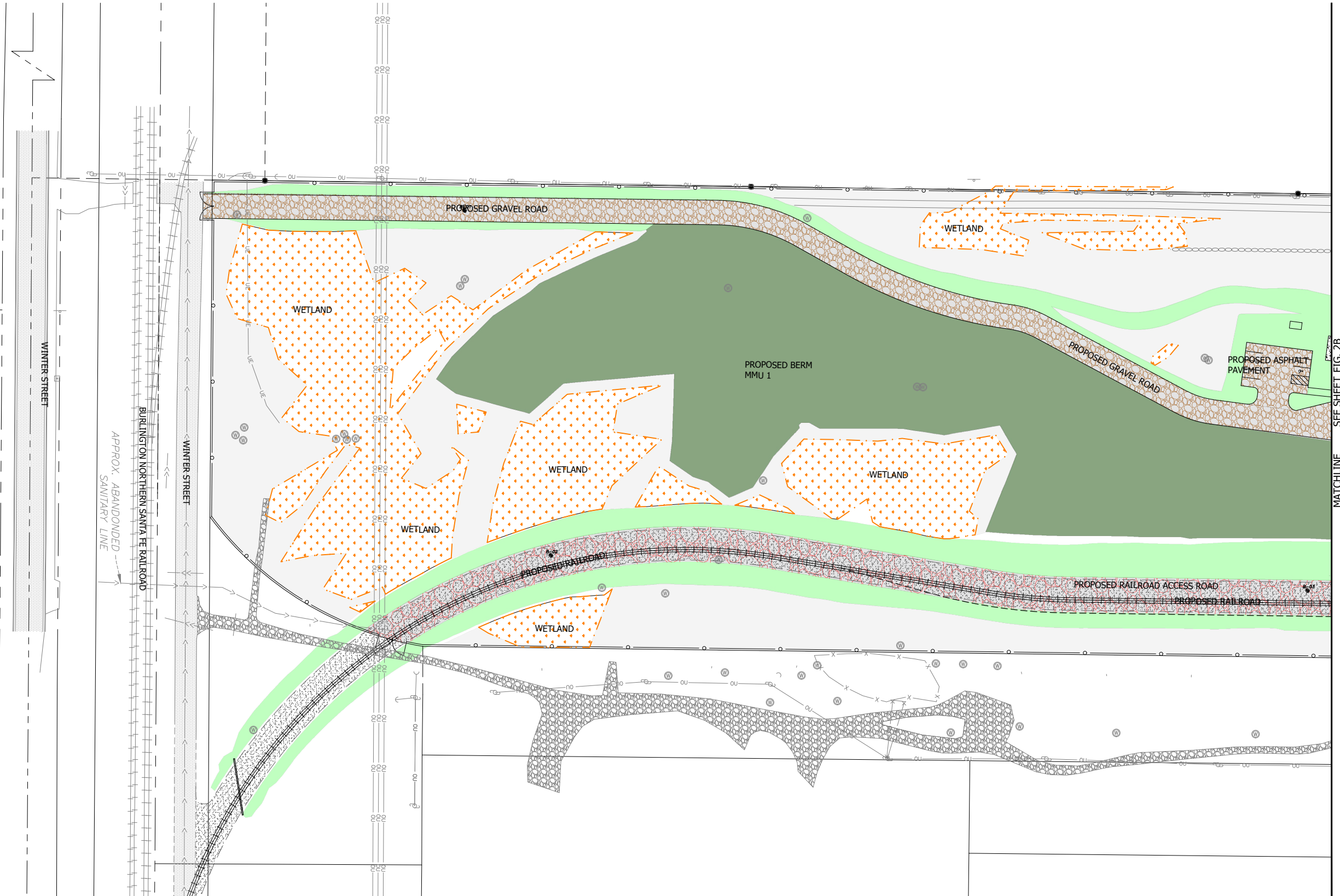
**Figures 4A, 4B and 4C, Site Cover Extent, October 6, 2022**

THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS. DO NOT SCALE THE DRAWING. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO STANTEC WITHOUT DELAY. REPRODUCTION OR USE FOR ANY PURPOSE OTHER THAN THAT AUTHORIZED BY STANTEC IS FORBIDDEN.

Plot Date: 10/06/2022 - 9:10pm  
Drawing name: \\1937\active\193707141\03\_data\ghc\_cad\cad\dwg\SHEETS\Erhbnh\MMU\193707141\MMU4.dwg  
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Sheet: B:3622A\BGA - 193707141\_SSE - 193707141\_SSE  
Date: 10/06/2022 - 9:10pm  
Mech: Overall Layout, 201025-RAIL LINEWORK, StructuralPile1, O-NEWSHEETPILES

LEGEND

- PROPOSED GRAVEL ROAD
- PROPOSED RAILROAD BALLAST
- PROPOSED CONCRETE PAVEMENT
- PROPOSED ASPHALT PAVEMENT
- PROPOSED BUILDINGS
- PROPOSED BERM W/ 18" CAP
- SEEDED AREA WITH 18" CAP
- POND W/ 24" LINER
- EXISTING CONCRETE DOCK TO REMAIN
- EXISTING WETLAND TO REMAIN
- NO DISTURBANCE



SITE COVER EXTENT  
C. REISS DOCK  
C. REISS COMPANY, LLC  
ST. LOUIS BAY, SUPERIOR, WI

DATE OF ISSUANCE		
October 6, 2022		
NO.	REVISION	DATE
SURVEY	JIN	
DRAWN	AJR	
DESIGNED	AJR	
CHECKED	AJR	
APPROVED	AJR	
PROJ. NO.	193707141	
SHEET NUMBER	FIG 4A	



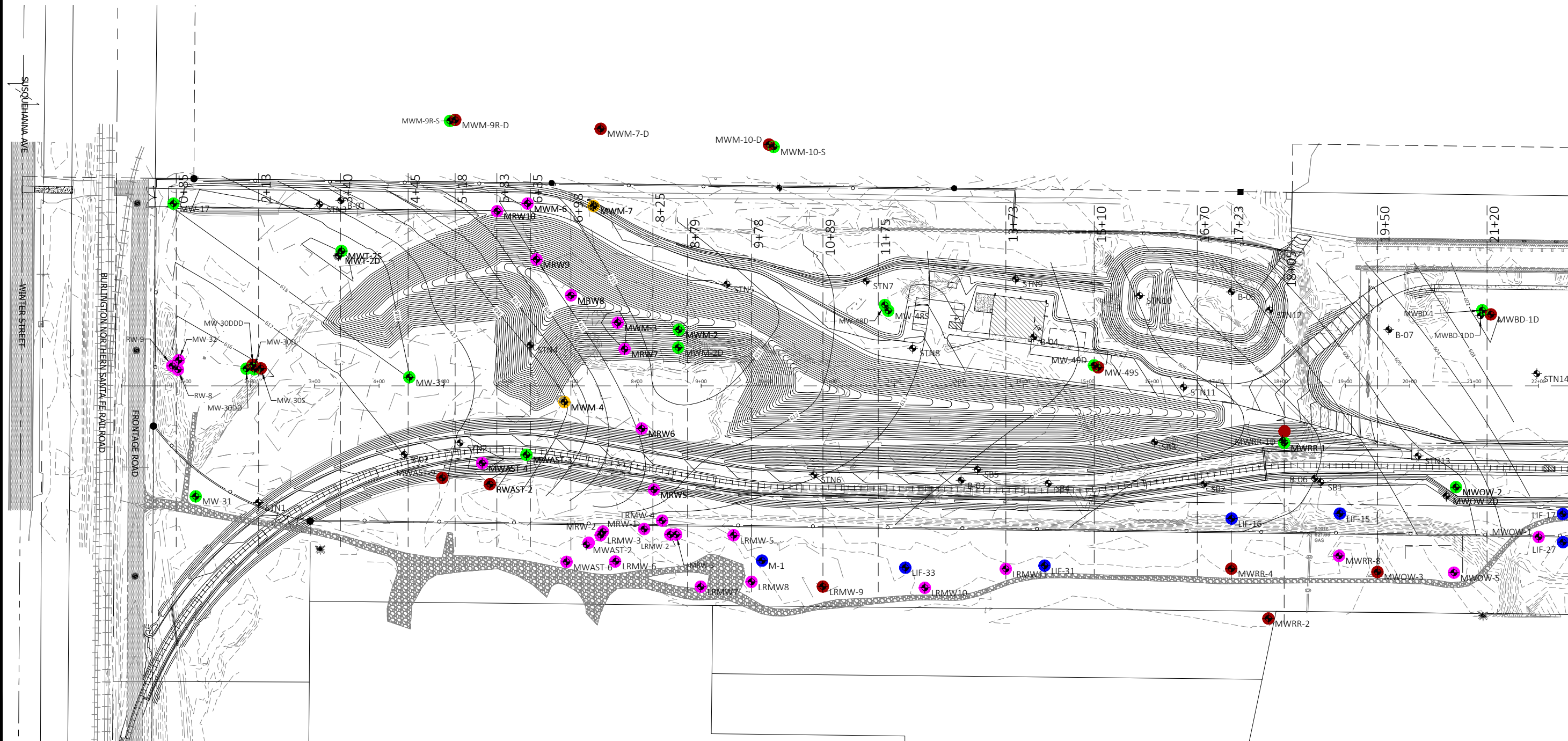






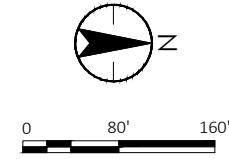
**Figure 7, Groundwater Elevation Detail, November 18, 2022**

Plot Date: 12/02/2022 - 11:20am  
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**ABBREVIATIONS:**  
 ES = Enforcement Standard  
 LIF = Laser Induced Fluorescence  
 LNAPL = Light Non-Aqueous Phase Liquid  
 PAL = Preventative Action Limit

- BENZENE DETECTIONS**
- <PAL, OR NOT DETECTED
  - >PAL
  - >ES
  - FREE PRODUCT PRESENT
  - LIF SAMPLE (NO LNAPL)
  - 610 WATER CONTOURS



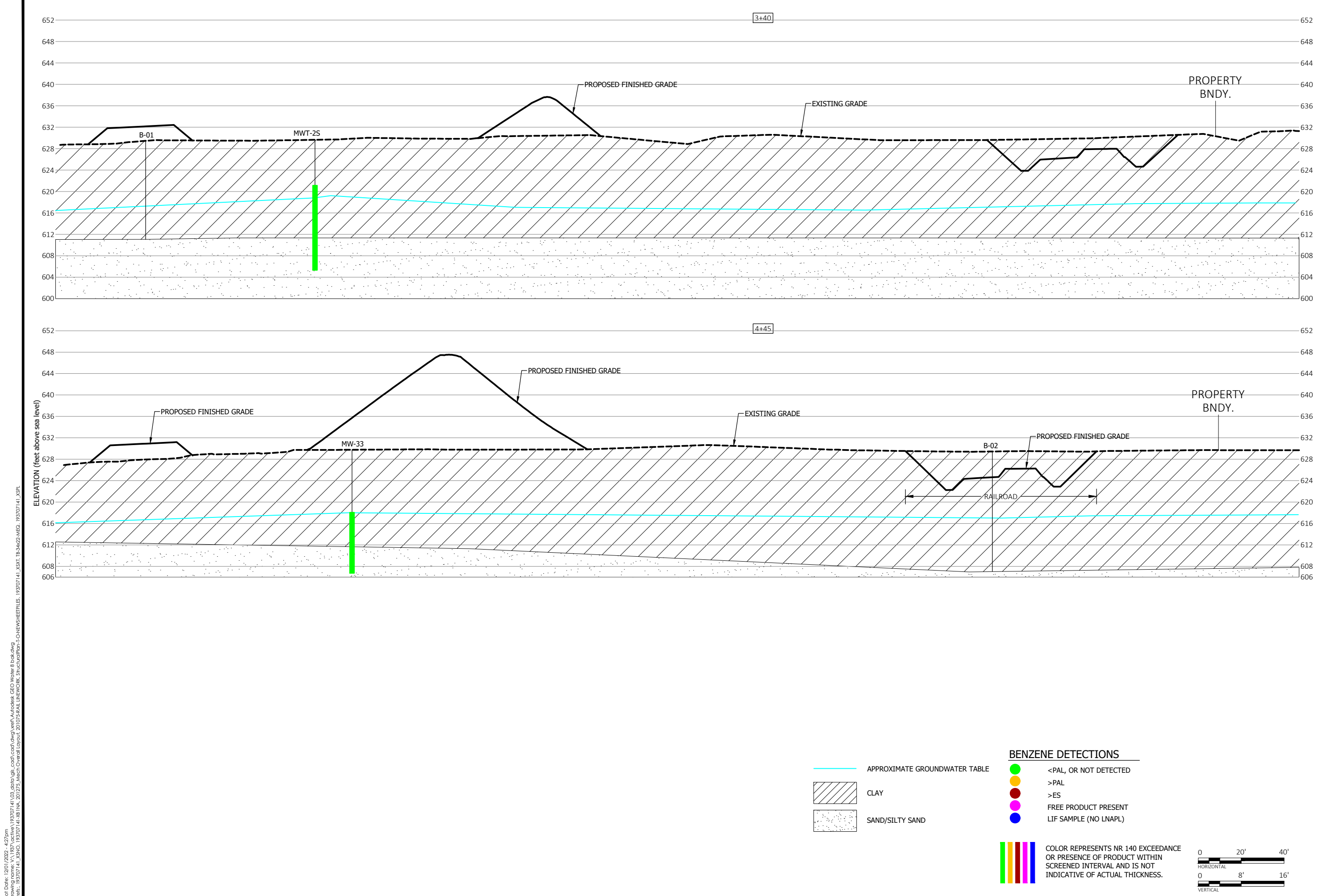
**GROUNDWATER ELEVATION DETAIL**  
  
 C. REISS DOCK  
 C. REISS COMPANY, LLC  
 ST. LOUIS BAY, SUPERIOR, WI

DATE OF ISSUANCE		NOVEMBER 18, 2022
NO REVISION	DATE	
SURVEY		JN
DRAWN		AJR
DESIGNED		AJR
CHECKED		AJR
APPROVED		AJR
PROJ. NO.		193707141
SHEET NUMBER		FIG. 7

**Figures 8A to 8K, Groundwater Cross Section Detail, November 18, 2022**







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DATE OF ISSUANCE	
NOVEMBER 18, 2022	
NO REVISION	DATE
SURVEY	JN
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141
SHEET NUMBER	<b>FIG. 8B</b>

GROUNDWATER CROSS SECTION DETAIL

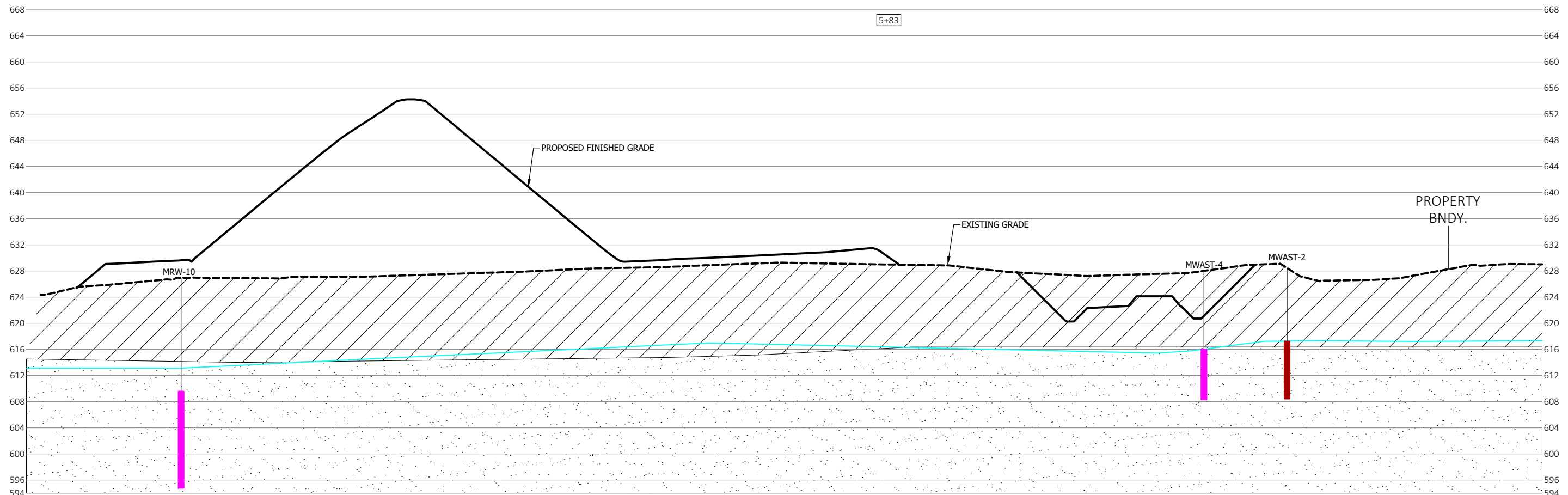
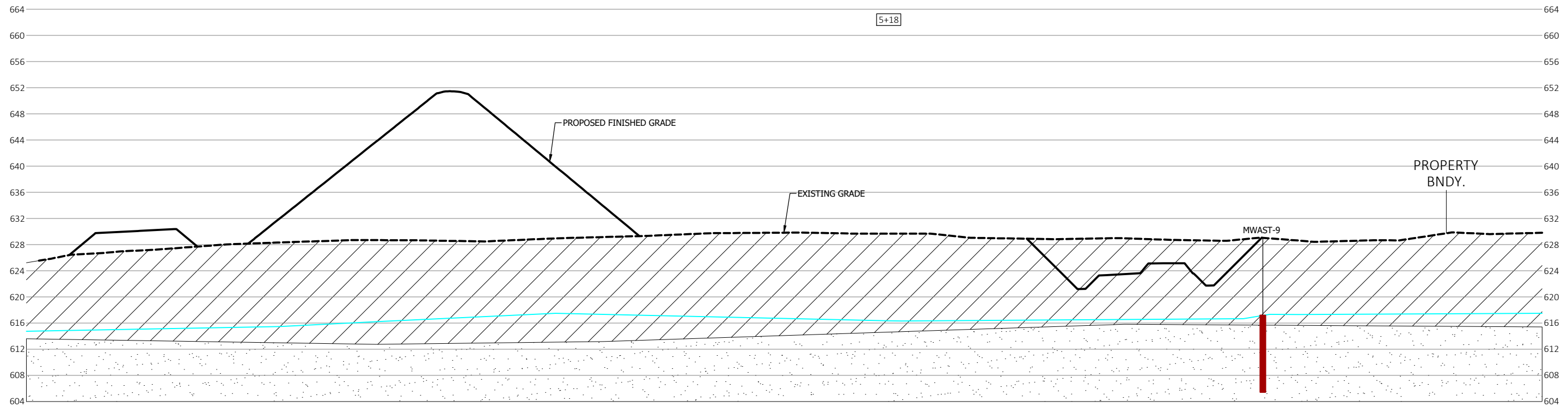
C. REISS DOCK  
 C. REISS COMPANY, LLC  
 ST. LOUIS BAY, SUPERIOR, WI

DATE OF ISSUANCE  
 NOVEMBER 18, 2022

NO. REVISION DATE

SURVEY	JN
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER  
**FIG. 8C**



APPROXIMATE GROUNDWATER TABLE

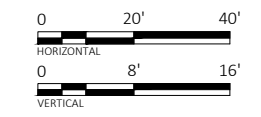
CLAY

SAND/SILTY SAND

**BENZENE DETECTIONS**

- <PAL, OR NOT DETECTED
- >PAL
- >ES
- FREE PRODUCT PRESENT
- LIF SAMPLE (NO LNAPL)

COLOR REPRESENTS NR 140 EXCEEDANCE OR PRESENCE OF PRODUCT WITHIN SCREENED INTERVAL AND IS NOT INDICATIVE OF ACTUAL THICKNESS.



Plot Date: 12/01/2022 - 4:28pm  
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 User: AJR  
 Plot: 193707141\_8C.dwg  
 Plot Date: 12/01/2022 - 4:28pm





GROUNDWATER CROSS SECTION DETAIL

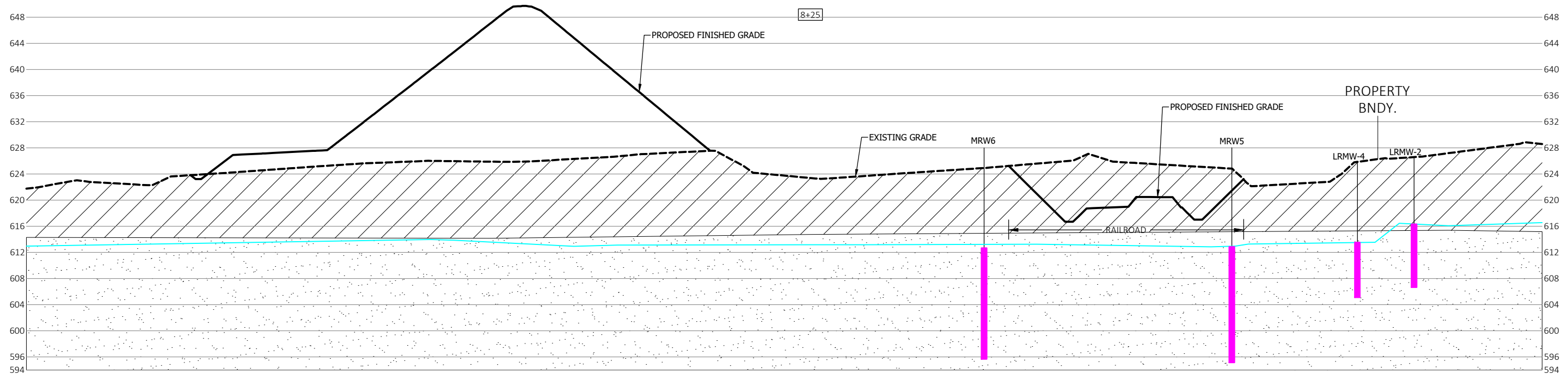
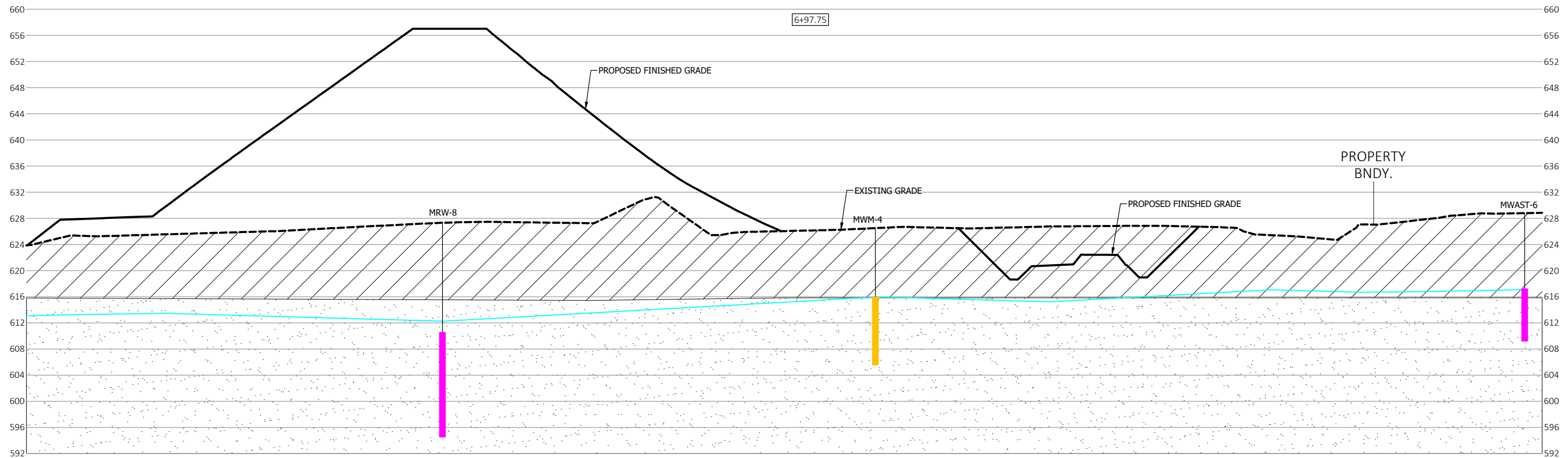
C. REISS DOCK  
 C. REISS COMPANY, LLC  
 ST. LOUIS BAY, SUPERIOR, WI

DATE OF ISSUANCE  
 NOVEMBER 18, 2022

NO REVISION DATE

SURVEY	JN
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER  
**FIG. 8E**



**APPROXIMATE GROUNDWATER TABLE**

CLAY

SAND/SILTY SAND

**BENZENE DETECTIONS**

- <PAL, OR NOT DETECTED
- >PAL
- >ES
- FREE PRODUCT PRESENT
- LIF SAMPLE (NO LNAPL)

COLOR REPRESENTS NR 140 EXCEEDANCE OR PRESENCE OF PRODUCT WITHIN SCREENED INTERVAL AND IS NOT INDICATIVE OF ACTUAL THICKNESS.

0 20' 40'  
 HORIZONTAL  
 0 8' 16'  
 VERTICAL

Plot Date: 12/01/2022 - 4:29pm  
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GROUNDWATER CROSS SECTION DETAIL

C. REISS DOCK  
 C. REISS COMPANY, LLC  
 ST. LOUIS BAY, SUPERIOR, WI

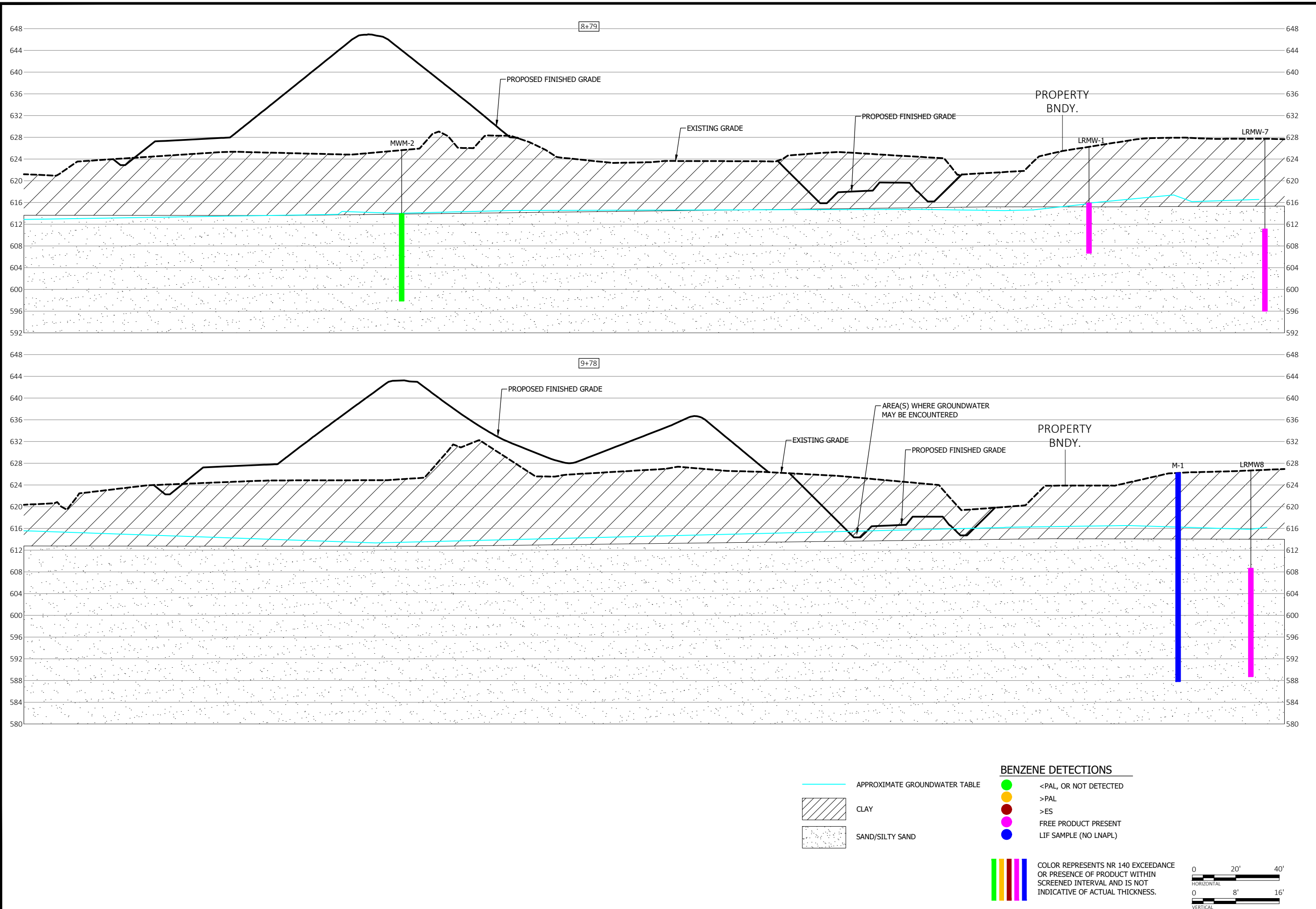
DATE OF ISSUANCE  
 NOVEMBER 18, 2022

NO REVISION DATE

SURVEY JIN  
 DRAWN AJR  
 DESIGNED AJR  
 CHECKED AJR  
 APPROVED AJR

PROJ. NO. 193707141

SHEET NUMBER  
**FIG. 8F**



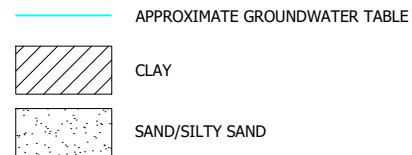
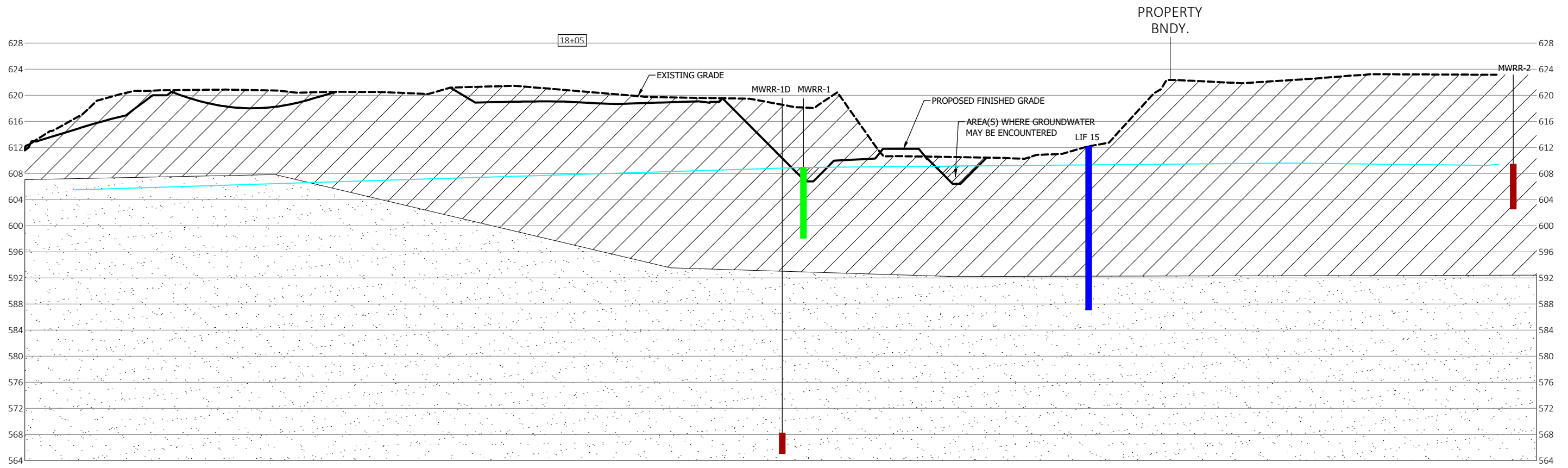
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 User: 193707141\JIN





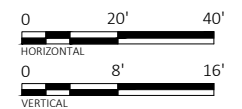


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- BENZENE DETECTIONS**
- <PAL, OR NOT DETECTED
  - >PAL
  - >ES
  - FREE PRODUCT PRESENT
  - LIF SAMPLE (NO LNAPL)

**COLOR REPRESENTS NR 140 EXCEEDANCE OR PRESENCE OF PRODUCT WITHIN SCREENED INTERVAL AND IS NOT INDICATIVE OF ACTUAL THICKNESS.**



GROUNDWATER CROSS SECTION DETAIL

C. REISS DOCK  
 C. REISS COMPANY, LLC  
 ST. LOUIS BAY, SUPERIOR, WI

DATE OF ISSUANCE  
 NOVEMBER 18, 2022

NO	REVISION	DATE

SURVEY	JN
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141

SHEET NUMBER  
**FIG. 8J**



GROUNDWATER CROSS SECTION DETAIL

C. REISS DOCK  
 C. REISS COMPANY, LLC  
 ST. LOUIS BAY, SUPERIOR, WI

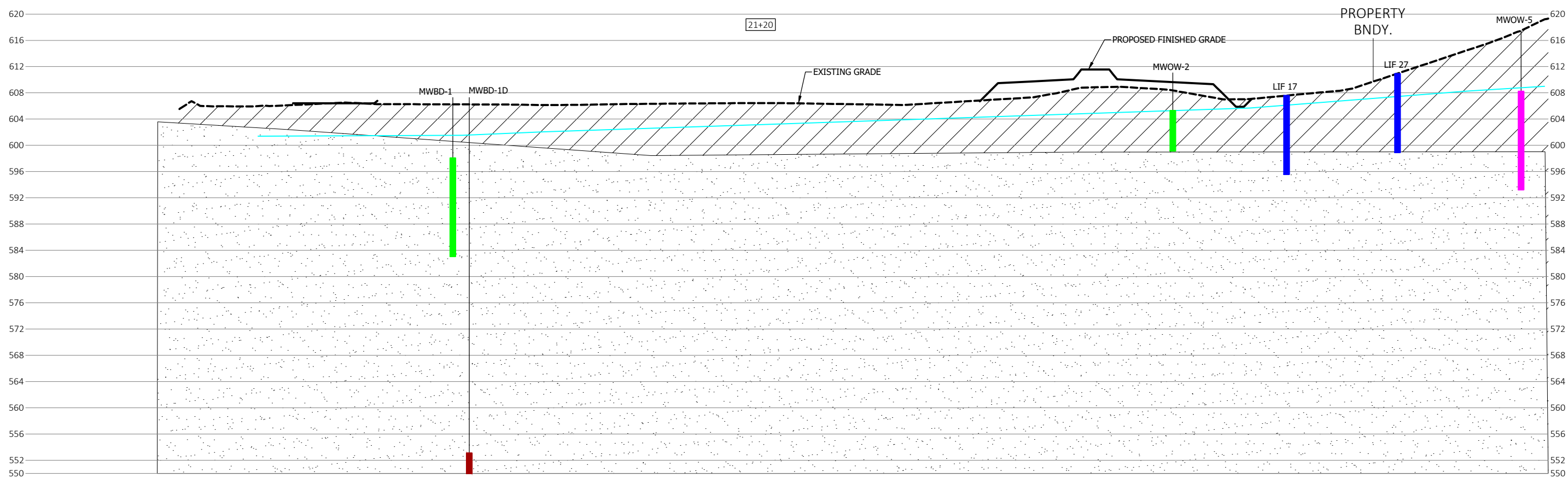
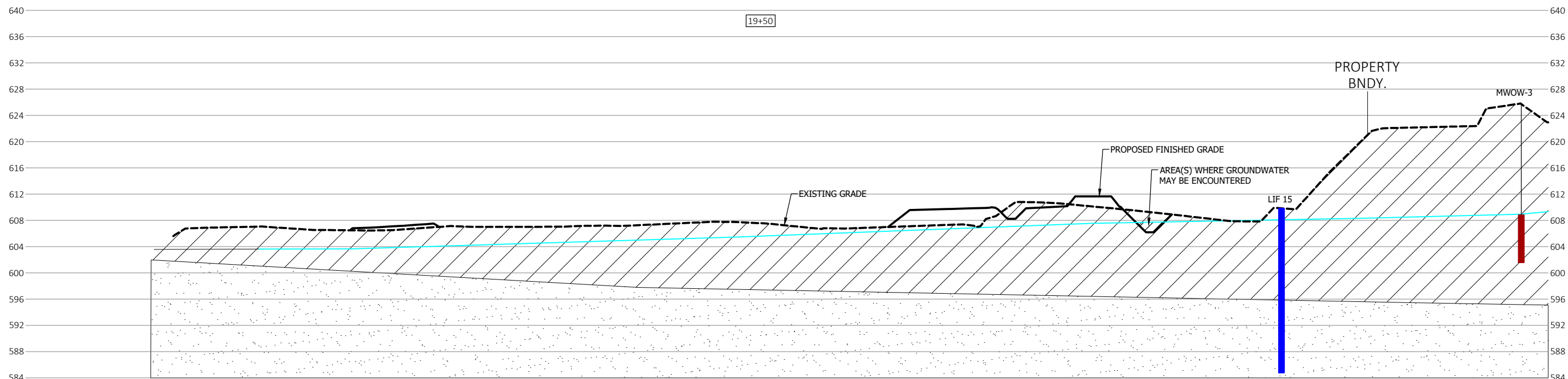
DATE OF ISSUANCE  
 NOVEMBER 18, 2022

NO REVISION DATE

SURVEY JIN  
 DRAWN AJR  
 DESIGNED AJR  
 CHECKED AJR  
 APPROVED AJR

PROJ. NO. 193707141

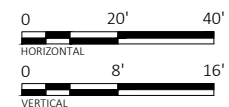
SHEET NUMBER  
**FIG. 8K**



— APPROXIMATE GROUNDWATER TABLE  
 CLAY  
 SAND/SILTY SAND

**BENZENE DETECTIONS**  
 <PAL, OR NOT DETECTED  
 >PAL  
 >ES  
 FREE PRODUCT PRESENT  
 LIF SAMPLE (NO LNAPL)

COLOR REPRESENTS NR 140 EXCEEDANCE OR PRESENCE OF PRODUCT WITHIN SCREENED INTERVAL AND IS NOT INDICATIVE OF ACTUAL THICKNESS.



**Draft Cover Maintenance Plan, Stantec, December 2022**



## DRAFT COVER MAINTENANCE PLAN C. Reiss Coal Dock Property, Superior, Wisconsin

**December 2022**

### Property Information

This Cover Maintenance Plan is applicable to the following parcels which comprise the C. Reiss Coal Dock property in Superior, Wisconsin (the Property) (**Figure 1**). All Property parcels lie within the East ½ of the Northeast ¼ of Section 16, and the East ½ of the Southeast ¼ of Section 09, Township 49 North, Range 14 West, City of Superior, Douglas County, Wisconsin.

Site Name	BRRTS#(s) FID#	Address	WTM Coordinates (WTM91):	Parcel ID
<b>C Reiss Coal Dock Parcel</b>	<b>02-16-589248</b> <b>03-16-000320</b> <i>816130810</i>	NE NE SEC16 T49N R14W	X: 357936.1 Y: 697633.7	048040101400
<b>Burlington Northern R/W Parcel</b>	<i>None</i>	<i>None</i>	X: 357884.9 Y: 697286.4	048040100300

### Introduction

This document is the Maintenance Plan for a protective cover at the above-referenced properties in accordance with the requirements of s. NR 724.13 (2), Wis. Adm. Code. The maintenance activities relate to the cover occupying the area over residual contaminated soil and groundwater at the Property.

More site-specific information about the Sites may be found on the Wisconsin Department of Natural Resources (WDNR) Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web for the BRRTS case numbers referenced above.

- The case file in the DNR Northern Region Office (Spooner, Wisconsin),
- At <http://dnr.wi.gov/topic/Brownfields/wrrd.html>, which includes:
  - BRRTS on the Web (DNR's internet-based data base of contaminated sites) for the link to a PDF for site-specific information at the time of closure and on continuing obligations;
  - RR Sites Map for a map view of the site; and
- The DNR project manager for Douglas County.

### Description of Contamination

Soil contaminated by polycyclic aromatic hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) metals and/or petroleum volatile organic compounds (PVOCs) is present in surficial soils/fill materials across the Property, from the ground surface and extending to the water table in some areas; the groundwater table elevation ranges from near-surface at approximately 604 feet above mean sea level (ft amsl) on the north end of the Property, to approximately 617 ft amsl on the south end. The horizontal extent of soil contamination (Stantec, 2022) is shown on **Attachment A**.

Groundwater contaminated by PVOCs is located from the shallow water table to a depth of approximately 58 feet below the existing ground surface on the Property. Additionally, a light non-aqueous phase liquid (LNAPL) "finger plume" is present on the south end of the Property at an average depth of 13 feet below existing ground surface. The source of this groundwater contamination and LNAPL is from an east-adjointing (upgradient) property. The horizontal extent of groundwater contamination and the extent of the LNAPL finger plume are shown on the Antea® Group 2021 Progress Report, January – December 2021, Figures 7 through 10 (Antea, 2022) included as **Attachment B**.

#### Description of the Cover to be Maintained

The Cover consists of building slabs, paved areas, railroad ballast, gravel access roads, and/or clean soil cap (including native grass seeding). The rail spur will be capped with at least 12 inches of impermeable compacted sub-ballast stone topped by nine inches of ballast stone. A gated fence spans the perimeter of the Property to further restrict access, with exception to the proposed railroad spur. Wetlands present on the Property are not to be capped/disturbed. The components and extents of the area subject to this Cover Maintenance Plan are further described below and are illustrated on **Figure 2**.

In the berm and landscaped areas on the southern portion of the Property, the cap will consist of a minimum of 15 inches of clay topped by at least three inches of imported topsoil for planting with a native grass seed mix. The clay will be sourced from the native clay soils on the Property encountered during excavation activities as part of redevelopment, which have been demonstrated to have no PVOC, PAH or RCRA metal detections at concentrations exceeding ch. NR720 Wisconsin Administrative Code (NR720) direct contact standards. Topsoil will be seeded with a native tall grass prairie mix to reinforce and maintain the soil cap in these areas.

The northern portion of the Property is covered with concrete panels that are approximately four inches thick, eight feet long and eight feet wide; these concrete panels along with the proposed gravel access road and railroad ballast will prevent direct contact with contaminated soils exceeding NR720 direct contact standards.

#### Cover Purpose

The Cover over the contaminated soil and groundwater on the Property serves to prevent direct human contact with residual soil contamination that might otherwise pose a threat to human health. The Cover also acts as a partial infiltration barrier to minimize future soil-to-groundwater contamination migration that would violate the groundwater standards in ch. NR 140, Wisconsin Administrative Code. Based on the current industrial use of the Property, the Cover should function as intended unless disturbed.

#### Inspections

The Cover overlying the contaminated soil and groundwater on the Property and as depicted in **Figure 2** will be inspected per the following schedule for deterioration, cracks and other potential problems that can cause exposure to underlying soils:

- Four times per year (quarterly) for the first (2) years following construction;
- Twice per year for the following (3) years; and
- Once per year (annually) for each year beyond, normally in the spring after all snow and ice is gone.

The inspections will be performed by the Property owner or their designated representative. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented.

A log of the inspections and any repairs will be maintained by the Property owner using the WDNR Continuing Obligations Inspection and Maintenance Log (Form 4400-305). The log will include recommendations for necessary repair of any areas where underlying soils are exposed and where infiltration from the surface will not be effectively minimized. Once repairs are completed, they will be documented in the inspection log. A copy of the maintenance plan and inspection log will be kept at the address of the Property owner and available for submittal or inspection by WDNR representatives upon their request.

#### Mowing, Cover Integrity, and Disposal Berm Slopes

Native grass/landscape Cover components on the Property depicted on **Figure 2** will be mowed once per year, normally in late autumn. Annual mowing will maintain the integrity of the cap by controlling the growth of trees and other woody vegetation. Mowing will include the top, base, and side slopes (approximately 3:1 ratio of run to rise) of the Property berm.

Maintenance Activities

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling or larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law.

In the event the Cover overlying contaminated soil/groundwater is removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR or its successor.

The Property owner, to maintain the integrity of the Cover, will maintain a copy of this Maintenance Plan at the address of the Property owner and make it available to all interested parties (i.e., on-site employees, contractors, future property owners, etc.) for viewing.

Prohibition of Activities and Notification of DNR Prior to Actions Affecting a Cap/Barrier

The following activities are prohibited on any portion of the property where Cover features including building slabs, paved areas, railroad ballast, gravel access roads, clean soil cap or other barrier is required as shown on **Figure 2** attached, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; 6) construction or placement of a building or other structure; or 7) changing the use or occupancy of the Property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

If removal, replacement or other changes to a cover, or a building which is acting as a cover, are considered, the Property owner will contact WDNR at least 45 days before taking such an action, to determine whether further action may be necessary to protect human health, safety, or welfare or the environment, in accordance with s. NR 727.07, Wis. Adm. Code.

Amendment or Withdrawal of Maintenance Plan

This Maintenance Plan can be amended or withdrawn by the Property owner and its successors with the written approval of WDNR.

**CONTACT INFORMATION – December 2022**

**RESPONSIBLE PARTY &  
PROPERTY OWNER:**

C. Reiss Coal Company, LLC  
111 West Mason Street  
Green Bay, Wisconsin 54303  
c/o Christian Zuidmulder, General Manager  
Phone: (920) 436-7600  
Email: [Christian.Zuidmulder@Thecreiss.com](mailto:Christian.Zuidmulder@Thecreiss.com)

Signature:

**CONSULTANT &  
TECHNICAL CONTACT:**

---

Stantec Consulting Services Inc.  
12075 Corporate Parkway, Suite 200  
Mequon, Wisconsin 53092  
Stu Gross, Project Manager  
Phone: (262) 643-9159  
Email: [Stu.Gross@stantec.com](mailto:Stu.Gross@stantec.com)

**WDNR CONTACT:**

Wisconsin Department of Natural Resources  
810 West Maple Street  
Spooner, Wisconsin 54802-1255  
Joseph Graham, Contaminated Sediments Specialist  
Phone: (715) 292-4925  
Email: [Joseph.Graham@wisconsin.gov](mailto:Joseph.Graham@wisconsin.gov)

References:

Antea, 2022. 2021 Progress Report, January – December 2021, Former Amoco Terminal, 2904 Winter Street, Superior, Wisconsin, February 8, 2022.

Stantec, 2022. Site Investigation Report, C. Reiss Coal Dock Property, Superior, Wisconsin, July 8, 2022.

Figures:

Figure 1: Site Location and Local Topography

Figure 2: Site Cover Extent

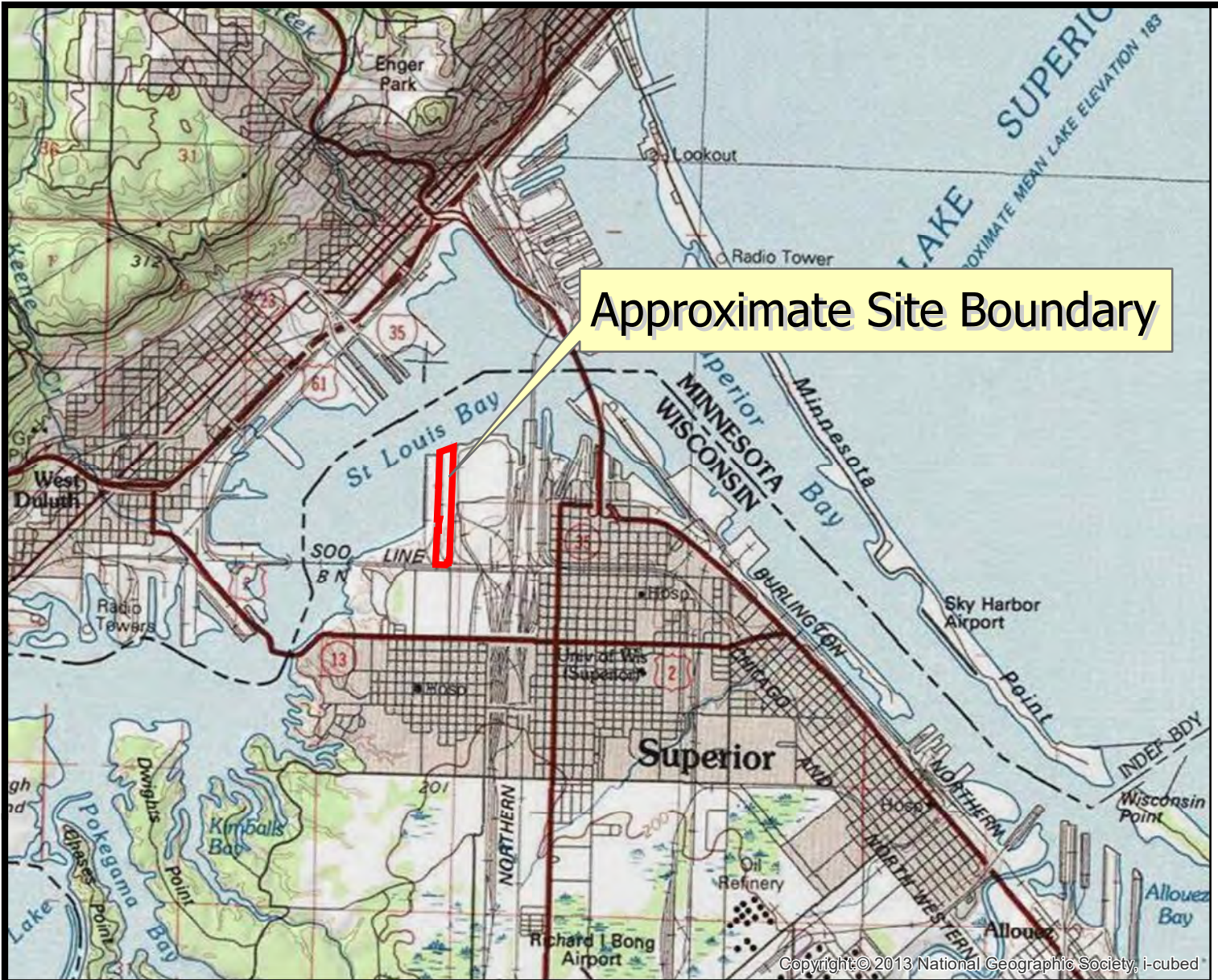
Attachments:

Attachment A: Extents of Soil Contamination (Stantec, 2022)

Attachment B: Extents of Groundwater Contamination and LNAPL (Antea, 2022)

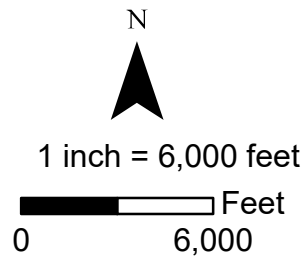
# FIGURES



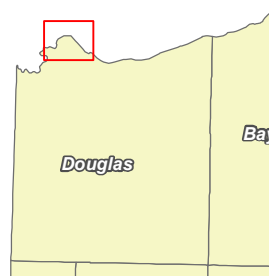


Approximate Site Boundary

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The information on this map has been compiled by Stantec staff from a variety of sources and is subject to change without notice. Stantec makes no representations or warranties, express or implied, as to accuracy, completeness, timeliness, or rights to the use of such information.



County Location



State Location

AERIAL IMAGERY AND PARCEL DATA SOURCE:  
ESRI Mapping Center World Imagery Layer - USGS TOPO QUAD

## Site Location & Local Topography

**C. REISS DOCK  
ST. LOUIS BAY, SUPERIOR, WI**



DATE: 2022-06-06

Project Path: V:\1937\active\193707141\03\_data\gis\_cad\gis\mxds\193707141\_FIG1.mxd

Design With Community In Mind

FIGURE 1











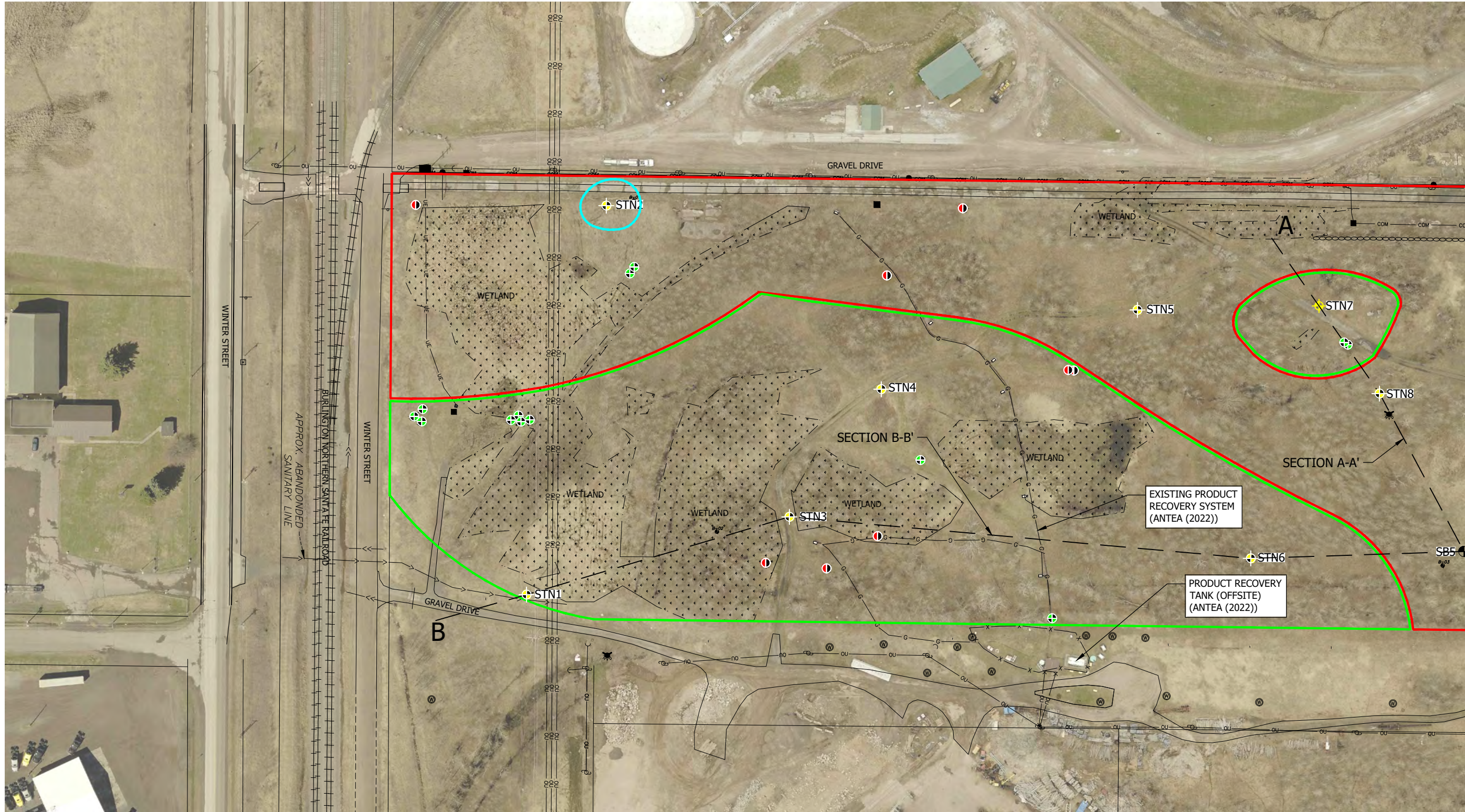
# **ATTACHMENTS**

**ATTACHMENT A**  
**Extents of Soil Contamination**  
**(Stantec, 2022)**



THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL DIMENSIONS. DO NOT SCALE THE DRAWING. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO STANTEC WITHOUT DELAY. REPRODUCTION OR USE FOR ANY PURPOSE OTHER THAN THAT AUTHORIZED BY STANTEC IS FORBIDDEN.

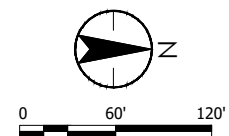
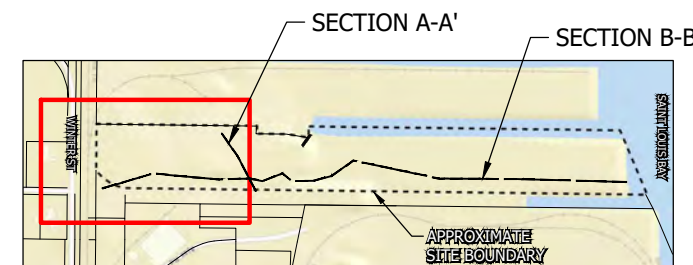
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 User: B-3622\AMEA  
 Sheet: B-3622\AMEA



**LEGEND**

**ABBREVIATIONS:**  
 GW = Groundwater  
 IDC = Industrial Direct Contact  
 NIDC = Non-Industrial Direct Contact  
 PAH = Polycyclic Aromatic Hydrocarbon  
 PVOC = Petroleum Volatile Organic Compound  
 RCL = Residual Contaminant Level  
 RCRA = Resource Conservation and Recovery Act

- EXISTING ACCESS ROAD (CONCRETE)
- EXISTING ACCESS ROAD (UNPAVED)
- STANTEC (2022a,b) BOREHOLE LOCATIONS
- ANTEA (2022) MONITORING WELLS TO REMAIN (9/2022)
- ANTEA (2022) MONITORING WELLS TO BE ABANDONED (9/2022)
- ALL SOIL DETECTIONS <IDC RCLs
- PVOC DETECTIONS >GW PATHWAY RCL
- PAH AND/OR RCRA METAL DETECTIONS >IDC RCLs IN FILL



MATCHLINE SEE SHEET FIG. 10B

**SOIL QUALITY - PLAN VIEW**

C. REISS DOCK  
 C. REISS COMPANY, LLC  
 ST. LOUIS BAY, SUPERIOR, WI

DATE OF ISSUANCE	October 7, 2022
NO. REVISION	DATE
SURVEY	JN
DRAWN	AJR
DESIGNED	AJR
CHECKED	AJR
APPROVED	AJR
PROJ. NO.	193707141
SHEET NUMBER	FIG. 10A









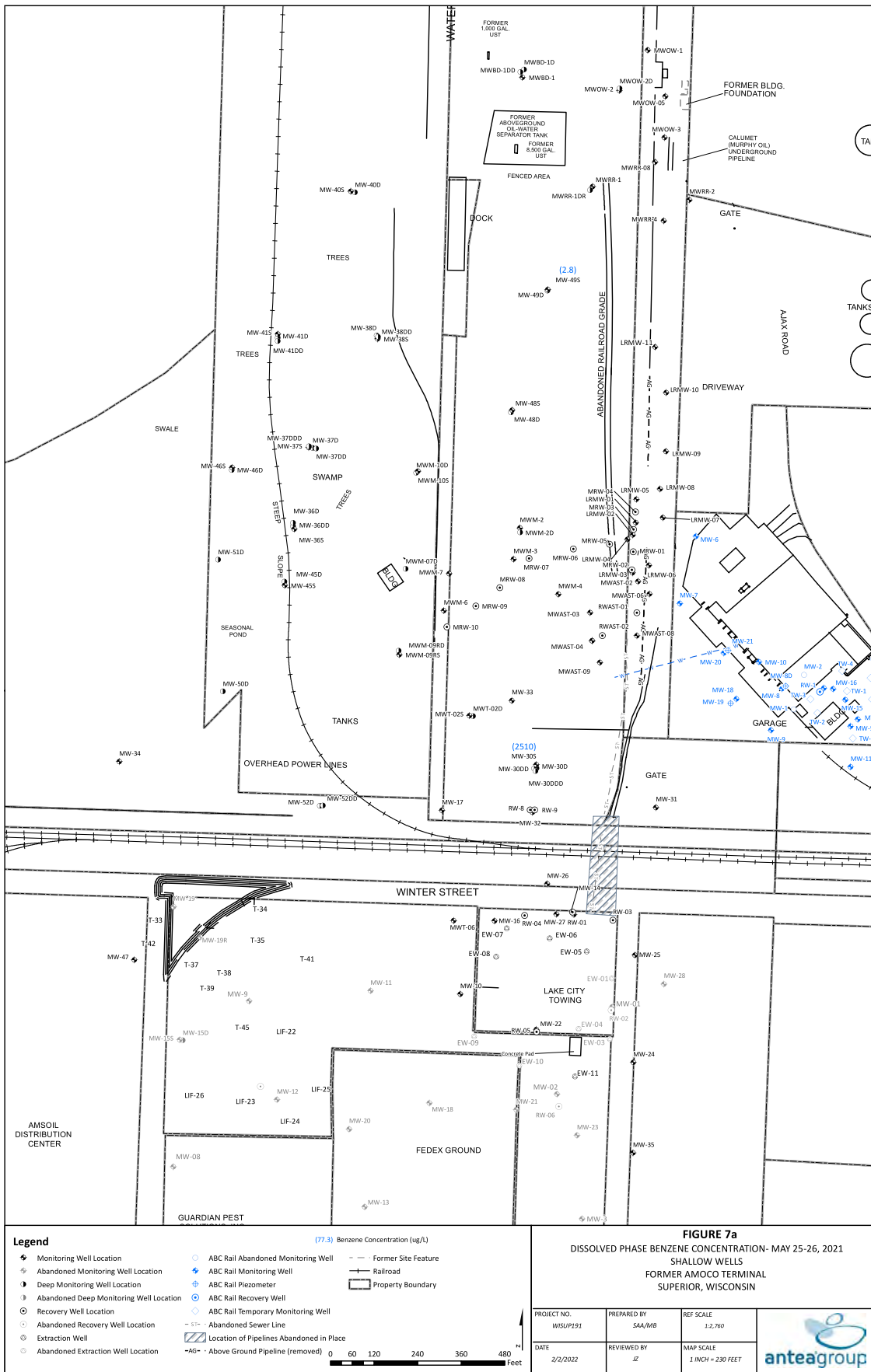


**ATTACHMENT B**  
**Extents of Groundwater Contamination and LNAPL**  
**(Antea, 2022)**



# Attachment B - Extents of Groundwater Contamination and LNAPL (Antea, 2022)

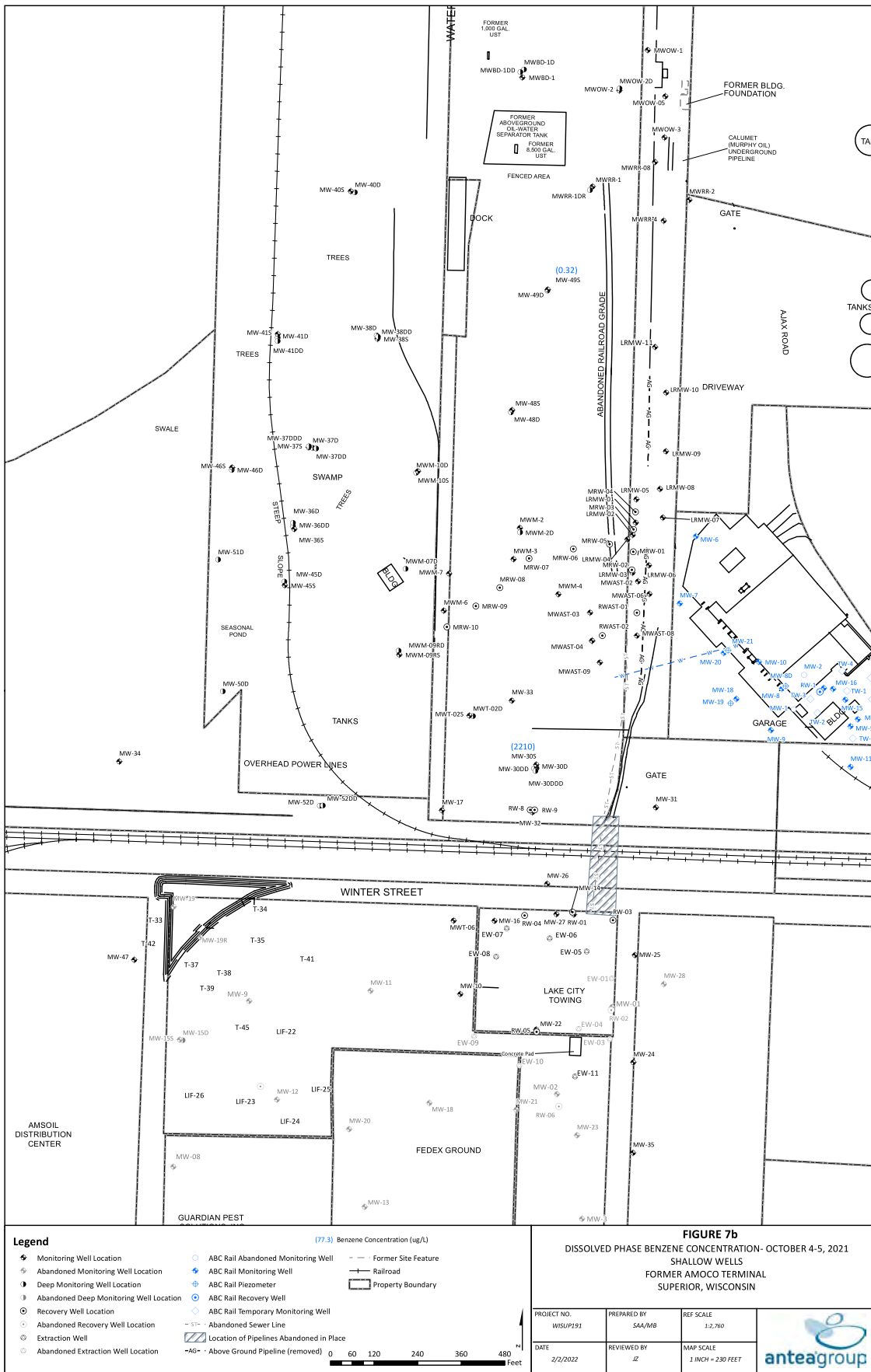
Antea, 2022. 2021 Progress Report, January - December 2021, Former Amoco Terminal, 2904 Winter Street, Superior, Wisconsin, February 8, 2022.



C:\Users\markb2\Antea USA, Inc\NCGH-Digital Solutions2021 - Geospatial - private - Geospatial - private\ITEMP GIS Files\Superior Terminal\WISUPERIOR\Layout\Benzene\_shallow\_2021.mxd

# Attachment B - Extents of Groundwater Contamination and LNAPL (Antea, 2022)

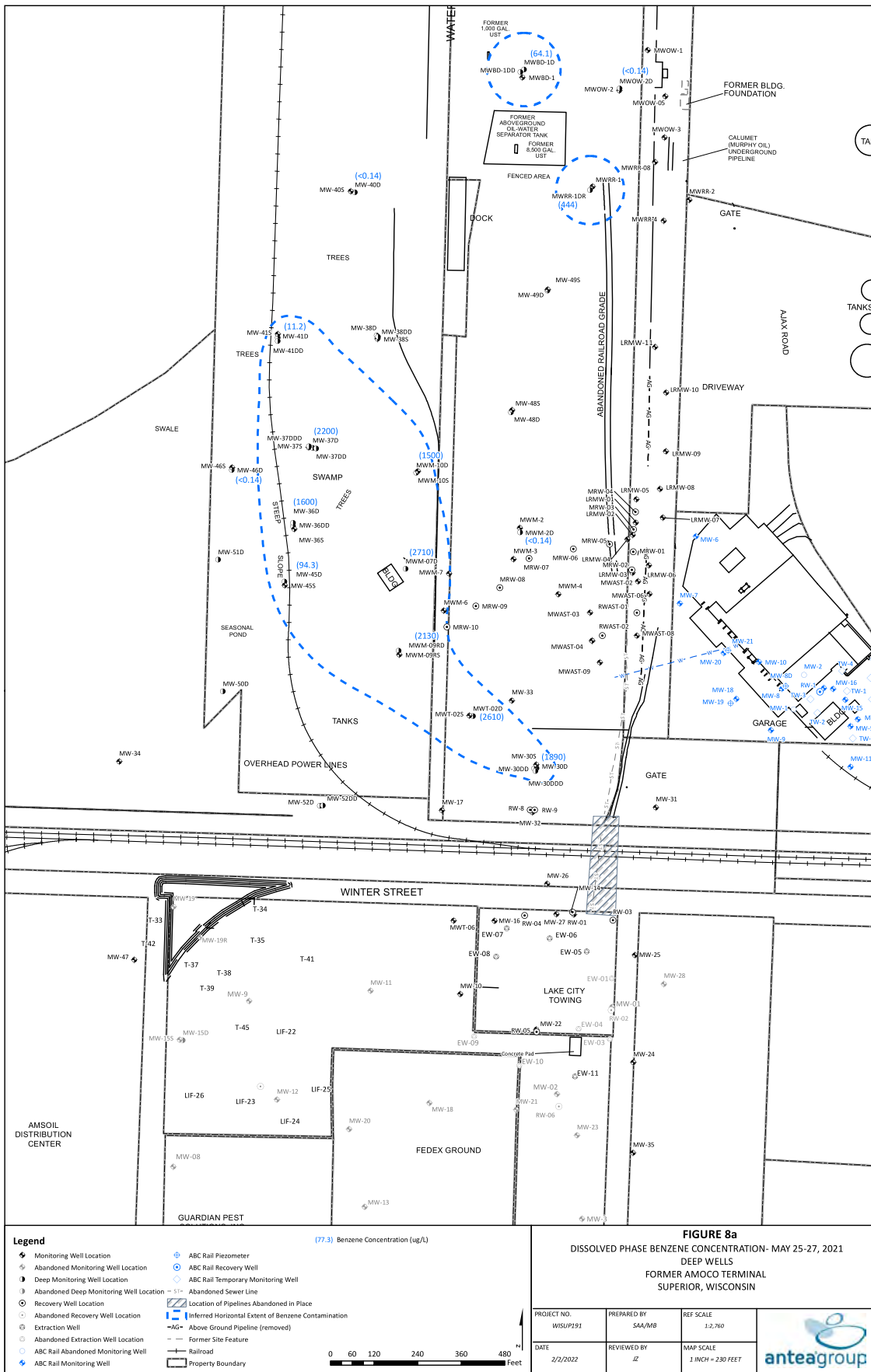
Antea, 2022. 2021 Progress Report, January - December 2021, Former Amoco Terminal, 2904 Winter Street, Superior, Wisconsin, February 8, 2022.



C:\Users\markb2\Antea USA, Inc\NCGH-Digital Solutions2021 - Geospatial - private - Geospatial - private\ITEMP GIS Files\Superior Terminal\WISUPERIOR\Layout\Benzene\_shallow\_4Q21.mxd

# Attachment B - Extents of Groundwater Contamination and LNAPL (Antea, 2022)

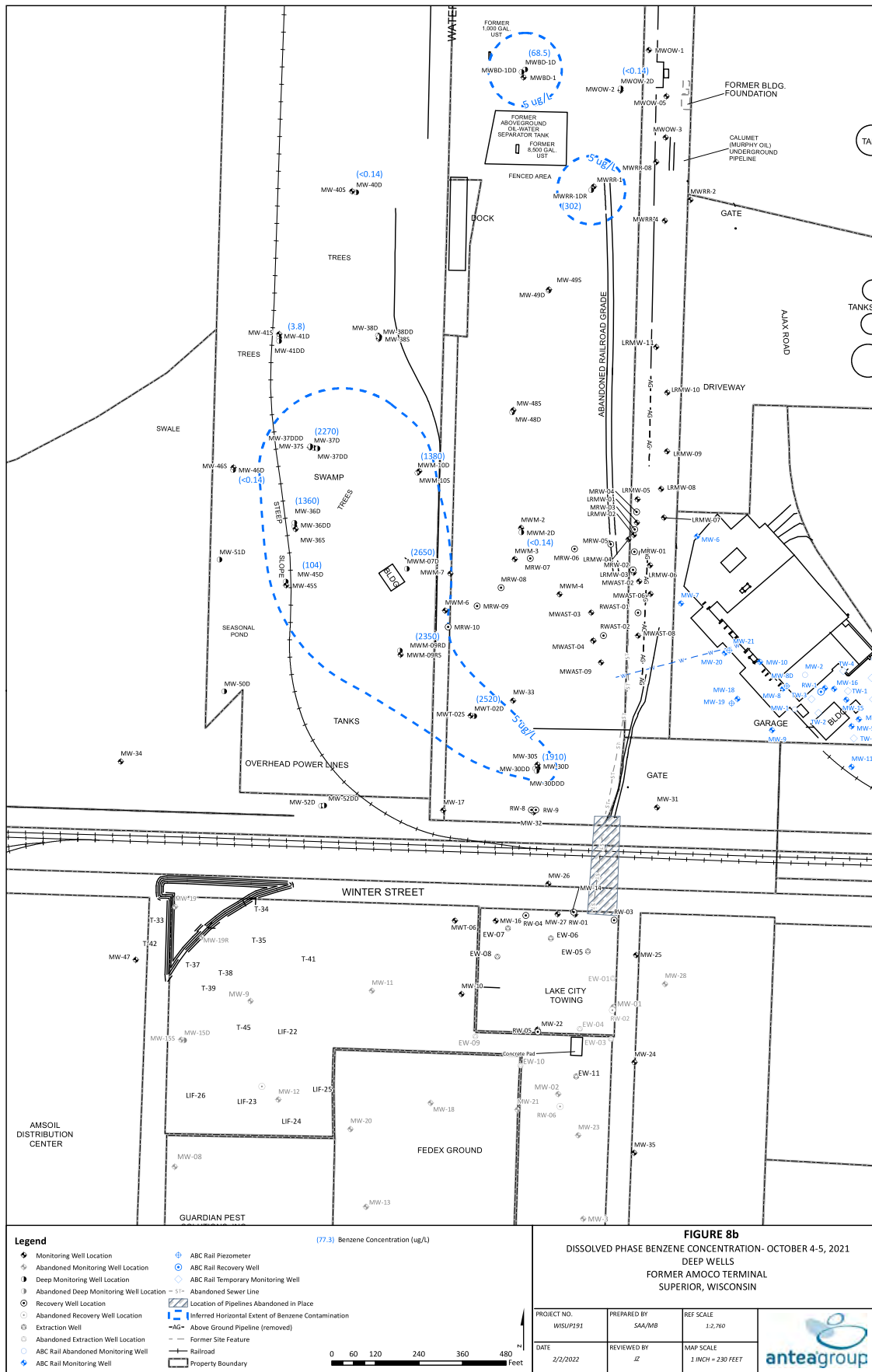
Antea, 2022. 2021 Progress Report, January - December 2021, Former Amoco Terminal, 2904 Winter Street, Superior, Wisconsin, February 8, 2022.



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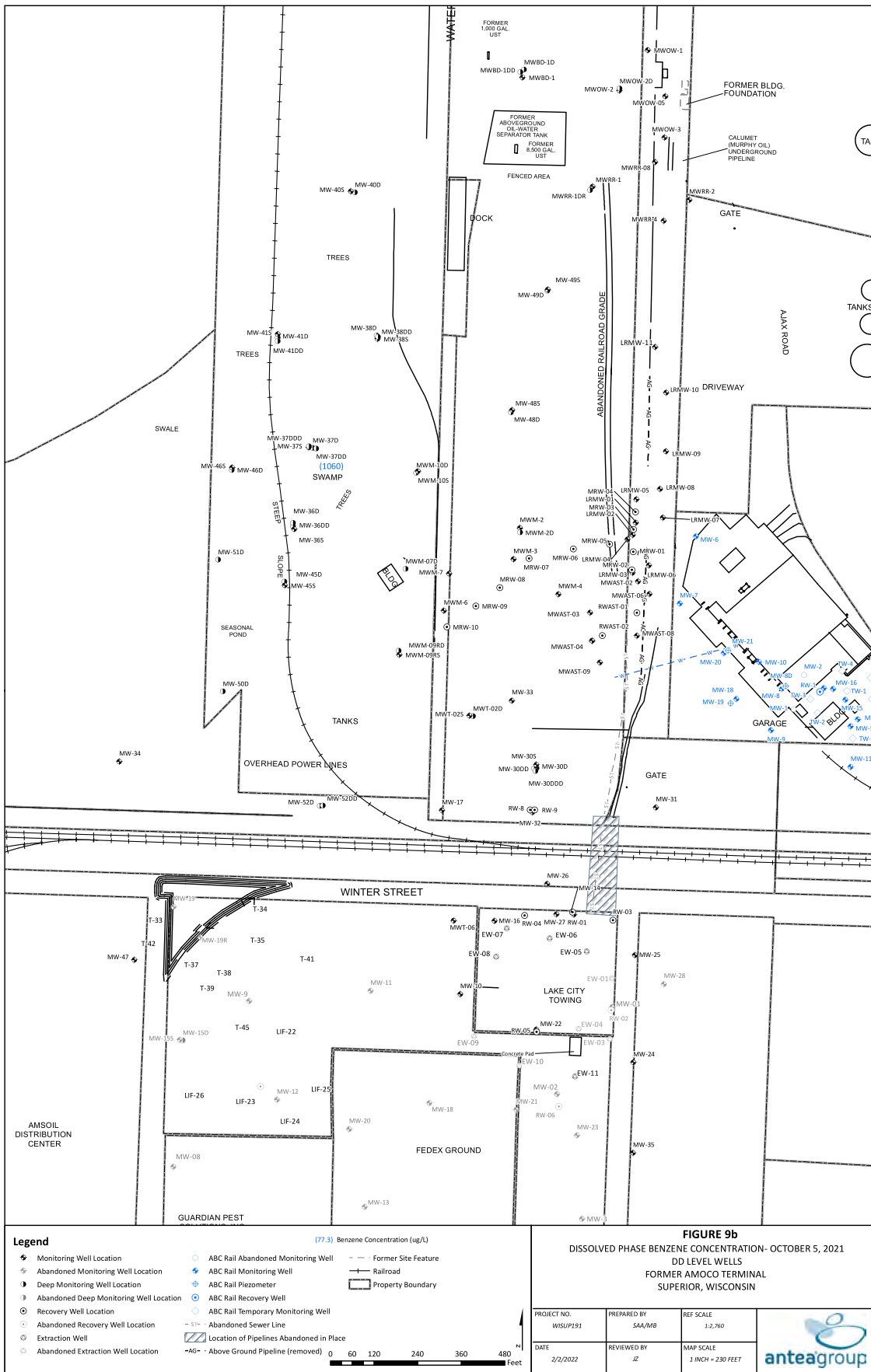
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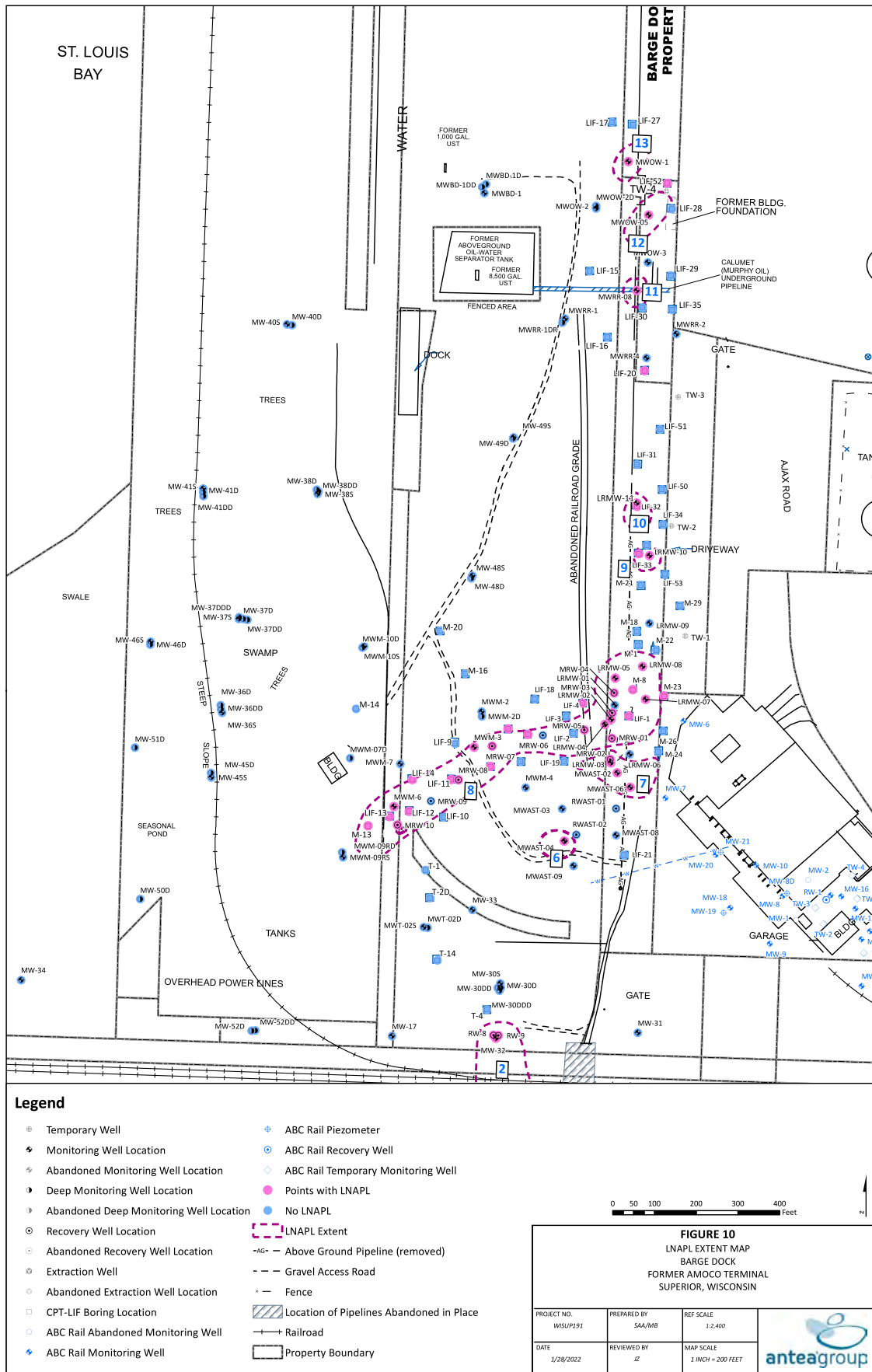
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