

## Source Property Information

**BRRTS #:**  (No Dashes)

**ACTIVITY NAME:**

**PROPERTY ADDRESS:**

**MUNICIPALITY:**

**PARCEL ID #:**

CLOSURE DATE:

FID #:

DATCP #:

PECFA#:

**\*WTM COORDINATES:**

X:  Y:

*\* Coordinates are in  
WTM83, NAD83 (1991)*

**WTM COORDINATES REPRESENT:**

- Approximate Center Of Contaminant Source  
 Approximate Source Parcel Center

**Please check as appropriate:** (BRRTS Action Code)

### Contaminated Media:

Groundwater Contamination > ES (236)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties  
see "Impacted Off-Source Property" form)*

Soil Contamination > \*RCL or \*\*SSRCL (232)

Contamination in ROW

Off-Source Contamination

*(note: for list of off-source properties  
see "Impacted Off-Source Property" form)*

### Continuing Obligations:

N/A (Not Applicable)

Soil: maintain industrial zoning (220)

*(note: soil contamination concentrations  
between non-industrial and industrial levels)*

Structural Impediment (224)

Site Specific Condition (228)

Cover or Barrier (222)

*(note: maintenance plan for  
groundwater or direct contact)*

Vapor Mitigation (226)

Maintain Liability Exemption (230)

*(note: local government unit or economic  
development corporation was directed to  
take a response action)*

**Note:** Comments will not print out.

### Monitoring Wells:

Are all monitoring wells properly abandoned per NR 141? (234)

Yes  No  N/A

*\* Residual Contaminant Level*

*\*\*Site Specific Residual Contaminant Level*

This Adobe Fillable form is intended to provide a list of information that is required for evaluation for case closure. It is to be used in conjunction with Form 4400-202, Case Closure Request. The closure of a case means that the Department has determined that no further response is required at that time based on the information that has been submitted to the Department.

**NOTICE: Completion of this form is mandatory** for applications for case closure pursuant to ch. 292, Wis. Stats. and ch. NR 726, Wis. Adm. Code, including cases closed under ch. NR 746 and ch. NR 726. The Department will not consider, or act upon your application, unless all applicable sections are completed on this form and the closure fee and any other applicable fees, required under ch. NR 749, Wis. Adm. Code, Table 1 are included. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than reviewing closure requests and determining the need for additional response action. The Department may provide this information to requesters as required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

BRRTS #:	02-20-549952	(No Dashes)	PARCEL ID #:	V05-16-17-33-77-777-00		
ACTIVITY NAME:	WC-Former Locker Room/PAH Area	WTM COORDINATES:	X:	642420	Y:	371847

**CLOSURE DOCUMENTS** (the Department adds these items to the final GIS packet for posting on the Registry)

- Closure Letter**
- Maintenance Plan** (if activity is closed with a land use limitation or condition (land use control) under s. 292.12, Wis. Stats.)
- Continuing Obligation Cover Letter** (for property owners affected by residual contamination and/or continuing obligations)
- Conditional Closure Letter**
- Certificate of Completion (COC)** (for VPLE sites)

**SOURCE LEGAL DOCUMENTS**

- Deed:** The most recent deed as well as legal descriptions, for the **Source Property** (where the contamination originated). Deeds for other, off-source (off-site) properties are located in the **Notification** section.  
**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. (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).  
**Figure #:**                      **Title:**
- Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description accurately describes the correct contaminated property.

**MAPS** (meeting the visual aid requirements of s. NR 716.15(2)(h))

- Maps must be no larger than 11 x 17 inches unless the map is submitted electronically.
- Location Map:** A map outlining all properties within the contaminated site boundaries on a U.S.G.S. topographic map or plat map in sufficient detail to permit easy location of all parcels. If groundwater standards are exceeded, include the location of all potable wells within 1200 feet of the site.  
**Note:** Due to security reasons municipal wells are not identified on GIS Packet maps. However, the locations of these municipal wells must be identified on Case Closure Request maps.  
**Figure #: 1, 2**                      **Title: Site Location Map, Location of BRRTS Numbers**
  - Detailed Site Map:** A map that shows all relevant features (buildings, roads, individual property boundaries, 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 exceeding a ch. NR 140 Enforcement Standard (ES), and/or in relation to the boundaries of soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Levels (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.  
**Figure #: 3**                      **Title: Soil Boring Location Map**
  - Soil Contamination Contour Map:** For sites closing with residual soil contamination, this map is to show the location of all contaminated soil and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL) as determined under s. NR 720.09, 720.11 and 720.19.  
**Figure #: 4**                      **Title: Soil Analytical Results**

BRRTS #: 02-20-549952

ACTIVITY NAME: WC-Former Locker Room/PAH Area

**MAPS (continued)**

- Geologic Cross-Section Map:** A map showing the source location and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL). If groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES) when closure is requested, show the source location and vertical extent, water table and piezometric elevations, and locations and elevations of geologic units, bedrock and confining units, if any.

**Figure #: 5**                      **Title: Geological Cross Section A-A'**

**Figure #: 6**                      **Title: Geological Cross Section B-B'**

- Groundwater Isoconcentration Map:** For sites closing with residual groundwater contamination, this map shows the horizontal extent of all groundwater contamination exceeding a ch. NR140 Preventive Action Limit (PAL) and an Enforcement Standard (ES). Indicate the direction and date of groundwater flow, based on the most recent sampling data.

**Note:** This is intended to show the total area of contaminated groundwater.

**Figure #:**                      **Title:**

- Groundwater Flow Direction Map:** A map that represents groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit 2 groundwater flow maps showing the maximum variation in flow direction.

**Figure #:**                      **Title:**

**Figure #:**                      **Title:**

**TABLES (meeting the requirements of s. NR 716.15(2)(h)(3))**

Tables must be no larger than 11 x 17 inches unless the table is submitted electronically. Tables must not contain shading and/or cross-hatching. The use of **BOLD** or *ITALICS* is acceptable.

- Soil Analytical Table:** A table showing remaining soil contamination with analytical results and collection dates.  
**Note:** This is one table of results for the contaminants of concern. Contaminants of concern are those that were found during the site investigation, that remain after remediation. It may be necessary to create a new table to meet this requirement.

**Table #: 1**                      **Title: Soil Quality Data Summary**

- Groundwater Analytical Table:** Table(s) that show the most recent analytical results and collection dates, for all monitoring wells and any potable wells for which samples have been collected.

**Table #:**                      **Title:**

- Water Level Elevations:** Table(s) that show the previous four (at minimum) water level elevation measurements/dates from all monitoring wells. If present, free product is to be noted on the table.

**Table #:**                      **Title:**

**IMPROPERLY ABANDONED MONITORING WELLS**

For each monitoring well not properly abandoned according to requirements of s. NR 141.25 include the following documents.

**Note:** If the site is being listed on the GIS Registry for only an improperly abandoned monitoring well you will only need to submit the documents in this section for the GIS Registry Packet.

- Not Applicable**

- Site Location Map:** A map showing all surveyed monitoring wells with specific identification of the monitoring wells which have not been properly abandoned.

**Note:** If the applicable monitoring wells are distinctly identified on the Detailed Site Map this Site Location Map is not needed.

**Figure #:**                      **Title:**

- Well Construction Report:** Form 4440-113A for the applicable monitoring wells.

- Deed:** The most recent deed as well as legal descriptions for each property where a monitoring well was not properly abandoned.

- Notification Letter:** Copy of the notification letter to the affected property owner(s).

BRRTS #: 02-20-549952

ACTIVITY NAME: WC-Former Locker Room/PAH Area

## NOTIFICATIONS

### Source Property

**Not Applicable**

**Letter To Current Source Property Owner:** If the source property is owned by someone other than the person who is applying for case closure, include a copy of the letter notifying the current owner of the source property that case closure has been requested.

**Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying current source property owner.

### Off-Source Property

Group the following information per individual property and label each group according to alphabetic listing on the "Impacted Off-Source Property" attachment.

**Not Applicable**

**Letter To "Off-Source" Property Owners:** Copies of all letters sent by the Responsible Party (RP) to owners of properties with groundwater exceeding an Enforcement Standard (ES), and to owners of properties that will be affected by a land use control under s. 292.12, Wis. Stats.

**Note:** Letters sent to off-source properties regarding residual contamination must contain standard provisions in Appendix A of ch. NR 726.

#### Number of "Off-Source" Letters:

**Return Receipt/Signature Confirmation:** Written proof of date on which confirmation was received for notifying any off-source property owner.

**Deed of "Off-Source" Property:** The most recent deed(s) as well as legal descriptions, for all affected deeded **off-source property(ies)**. This does not apply to right-of-ways.

**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. (lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).

**Figure #:**

**Title:**

**Letter To "Governmental Unit/Right-Of-Way" Owners:** Copies of all letters sent by the Responsible Party (RP) to a city, village, municipality, state agency or any other entity responsible for maintenance of a public street, highway, or railroad right-of-way, within or partially within the contaminated area, for contamination exceeding a groundwater Enforcement Standard (ES) and/or soil exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).

#### Number of "Governmental Unit/Right-Of-Way Owner" Letters:



October 8, 2012

Wisconsin Central, Ltd.  
Attn: Mr. Brian Hayden  
1 Waterfront Drive  
Two Harbor, MN 55616

**KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS**

SUBJECT: Final Case Closure with Continuing Obligations  
Canadian National – PAH, 2 Harrison Street, North Fond du Lac, Wisconsin  
WDNR BRRTS Activity # 02-20-549952

Dear Mr. Hayden:

The Department of Natural Resources (DNR) considers the Canadian National – PAH site closed, with continuing obligations. No further investigation or remediation is required at this time. However, you and future property owners must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and any maintenance plan to anyone who purchases this property from you.

This final closure decision is based on the correspondence and data provided, and is issued under ch. NR 726, Wisconsin Administrative Code. The Northeast Region (NER) Closure Committee reviewed the request for closure on August 28, 2012. The Closure Committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. A conditional closure letter was issued by the DNR on August 29, 2012, and documentation that the conditions in that letter were met was received on October 5, 2012.

The property is currently utilized by Canadian National Railway as a railroad yard. Lead and polycyclic aromatic hydrocarbon (PAH) have been identified in soil from an unknown source. Maintenance of the existing cover was selected as an appropriate response for direct contact and groundwater protection. The conditions of closure and continuing obligations required were based on the property being used for industrial purposes (railroad yard).

Continuing Obligations

The continuing obligations for this site are summarized below. Further details on actions required are found in the section Closure Conditions.

- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- Pavement, an engineered cover or a soil barrier must be maintained over contaminated soil and the DNR must approve any changes to this barrier.

### GIS Registry

This site will be listed on the Remediation and Redevelopment Program's internet accessible Geographic Information System (GIS) Registry, to provide notice of residual contamination and of any continuing obligations. DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with s. NR 812.09(4) (w), Wis. Adm. Code. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at <http://dnr.wi.gov/org/water/dwg/3300254.pdf> or at the web address listed below for the GIS Registry.

All site information is also on file at the Northeast Regional DNR office in Oshkosh located at 625 East County Road Y, Suite 700, Oshkosh, WI 54901. This letter and information that was submitted with your closure request application, including the maintenance plan, will be included on the GIS Registry in a PDF attachment. To review the site on the GIS Registry web page, visit the RR Sites Map page at <http://dnr.wi.gov/org/aw/rr/gis/index.htm>.

### Prohibited Activities

Certain activities are prohibited at closed sites because maintenance of a barrier is intended to prevent contact with any remaining contamination. When a barrier is required, the condition of closure requires notification of the DNR before making a change, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where maintenance of the existing cover is required, as shown on the **attached map – Figure 4 Extent of Soil Contamination Map**, unless prior written approval has been obtained from the DNR:

- removal of the existing barrier;
- replacement with another barrier;
- 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;
- 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;

### Closure Conditions

Compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter and the attached maintenance plans are met. If these requirements are not followed, the DNR may take enforcement action under s. 292.11, Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property.

Residual Soil Contamination (ch. NR 718, chs. 500 to 536, Wis. Adm. Code or ch. 289, Wis. Stats.)

Soil contamination remains as indicated on the **attached map - Figure 4 Extent of Soil Contamination Map**. If remaining impacted soil is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination is present, the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the

contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

Cover or Barrier (s. 292.12 (2) (a), Wis. Stats.)

The existing surface cover (asphalt/gravel) that currently exists in the location shown on the **attached map – Figure 5 Extent of Cap Map**, shall be maintained in compliance with the prepared master site cap maintenance plan in order to minimize the infiltration of water and prevent groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code, and to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

A cover or barrier for industrial land uses, or certain types of commercial land uses may not be protective if use of the property were to change such that a residential exposure would apply. This may include, but is not limited to single or multiple family residences, a school, day care, senior center, hospital or similar settings. Before using the property for such purposes, you must notify the DNR to determine if additional response actions are warranted.

A request may be made to modify or replace a cover or barrier. The replacement or modified cover or barrier must be protective of the revised use of the property, and must be approved in writing by the DNR prior to implementation.

The prepared master site cap maintenance plan and inspection log are to be kept up-to-date and on-site. Submit the inspection log to the DNR only upon request. The master cap maintenance plan for the railroad yard property is not attached to this letter due to the size of the document. However, it can be viewed via the RR Sites Map page using the previous web link.

The following DNR fact sheet, "Continuing Obligations for Environmental Protection", RR-819, was included with this letter, to help explain a property owner's responsibility for continuing obligations on their property. If the fact sheet is lost, you may obtain a copy at <http://dnr.wi.gov/files/pdf/pubs/rr/rr819.pdf>

Please be aware that the case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment.

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Keld Lauridsen at (920) 662-5420.

Sincerely,



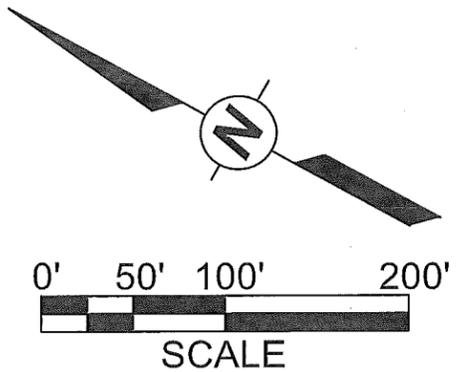
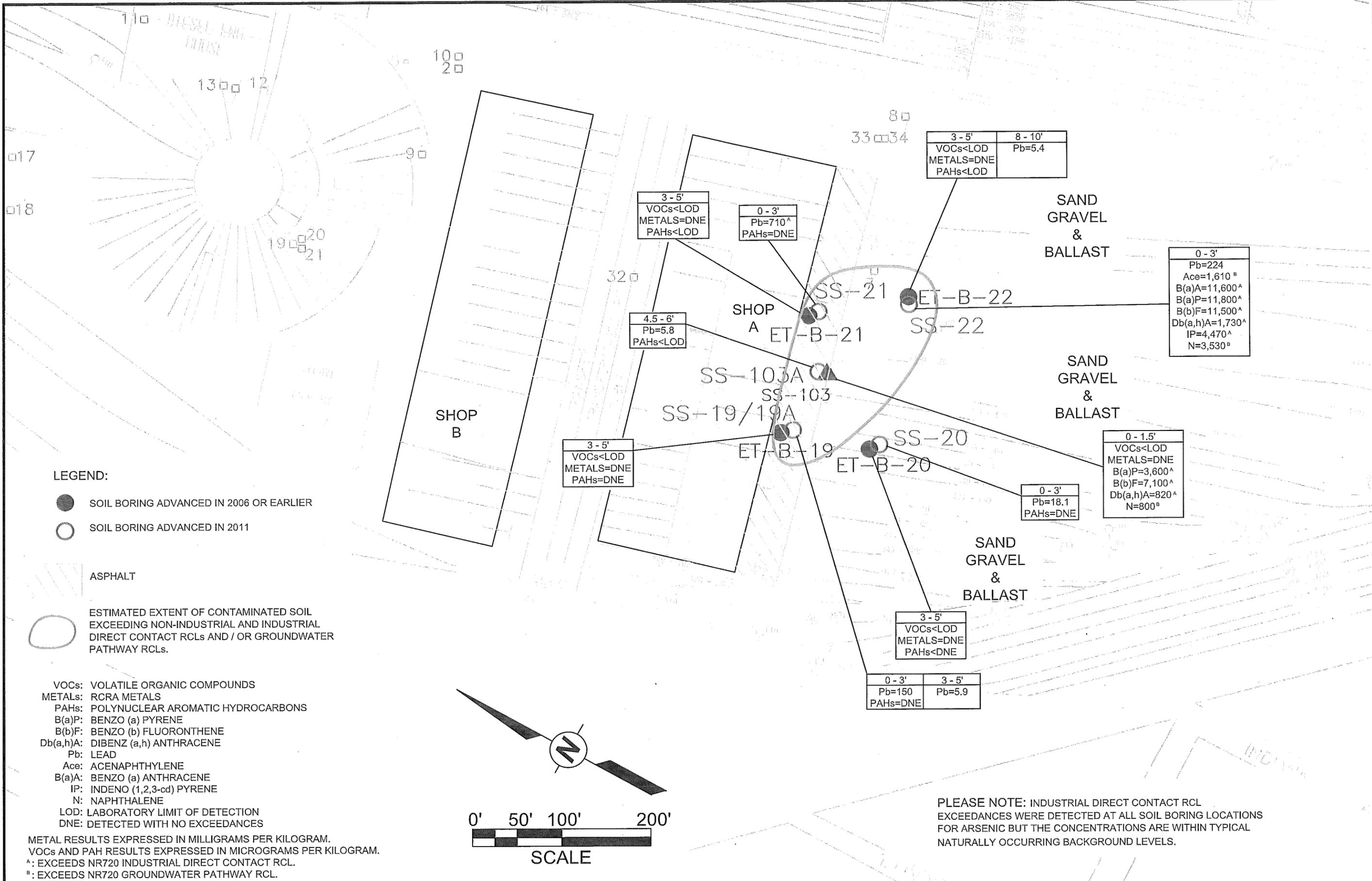
Roxanne N. Chronert, Team Supervisor  
Northeast Region Remediation & Redevelopment Program

Attachments:

- Remaining Soil Contamination Map (Figure 4)
- Extent of cap Map (Figure 5)
- Publication RR 819

cc: Dick Reesman, AECOM (e-copy - [Richard.Reesman@aecom.com](mailto:Richard.Reesman@aecom.com))

Filename: L:\Work\Projects\60135737\000\_CAD\001\_Drawings\Sheets\Well Abandonment\10-19-2011\660135737-MW\_Locations.dwg



PLEASE NOTE: INDUSTRIAL DIRECT CONTACT RCL EXCEEDANCES WERE DETECTED AT ALL SOIL BORING LOCATIONS FOR ARSENIC BUT THE CONCENTRATIONS ARE WITHIN TYPICAL NATURALLY OCCURRING BACKGROUND LEVELS.

1-INCH

VERIFY SCALE IF PLAN SHEET IS REDUCED

DRN BY:	DES BY:	CHK BY:	APP BY:	DESCRIPTION	REV	DRN	CHK	DATE
ALB	RSR	RSR	RSR					

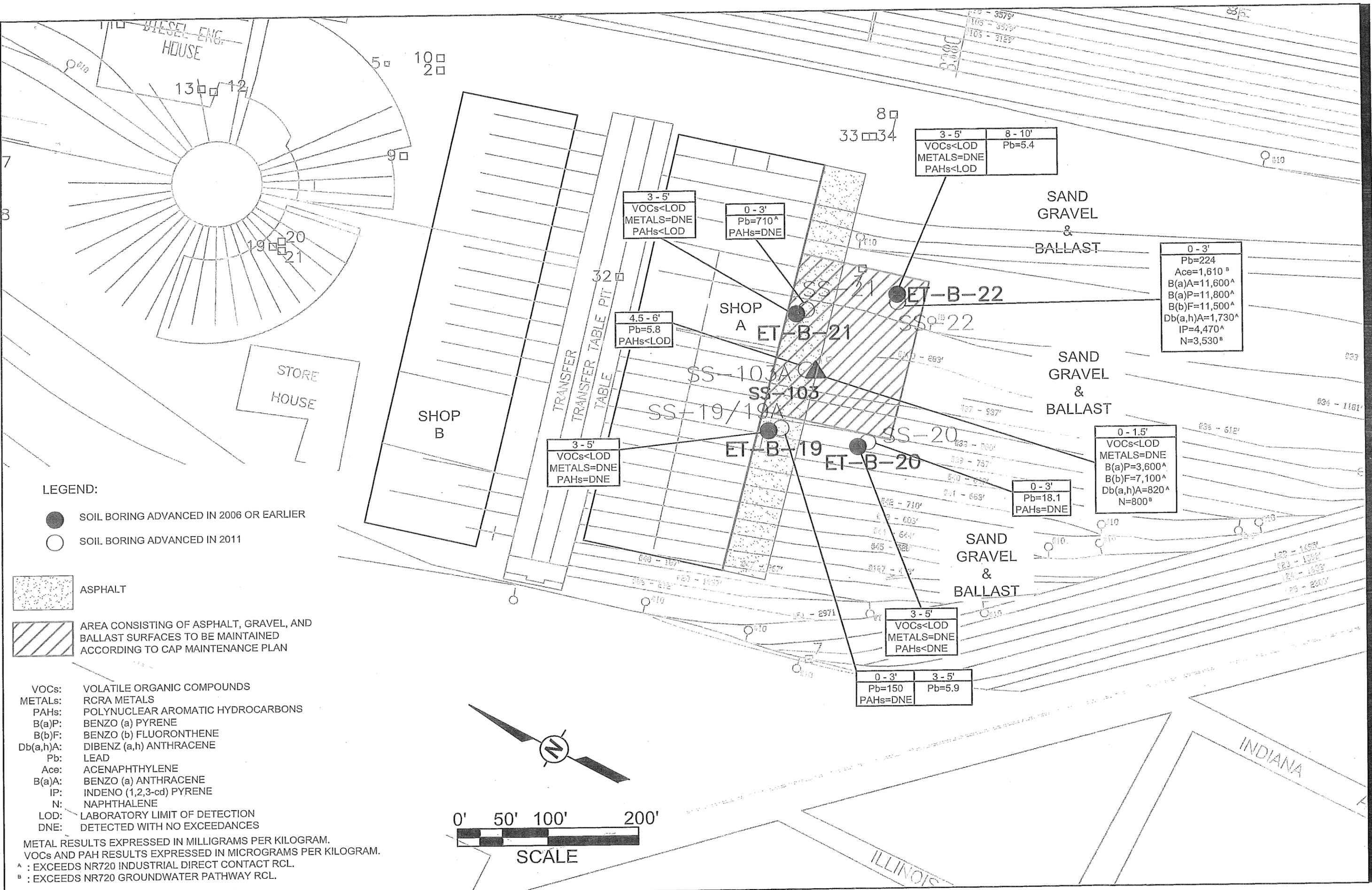
**AECOM**

200 Indiana Avenue  
Stevens Point, WI 54481  
T 715.341.8110 F 715.341.7390  
WWW.AECOM.COM

WISCONSIN CENTRAL NORTH FOND DU LAC RAIL YARD  
FORMER LOCKER ROOM / PAH AREA - BRRTS # 02-20-549952  
NORTH FOND DU LAC, WI

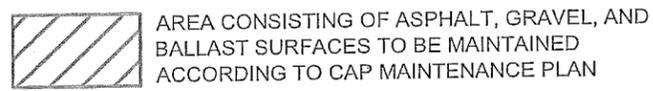
**SOIL ANALYTICAL RESULTS**

DATE	10/8/2012
PROJECT NO.	60135737
FILENAME	660135737-MW_Locations.dwg
SHEET NO.	
DRAWING NO.	FIGURE 4



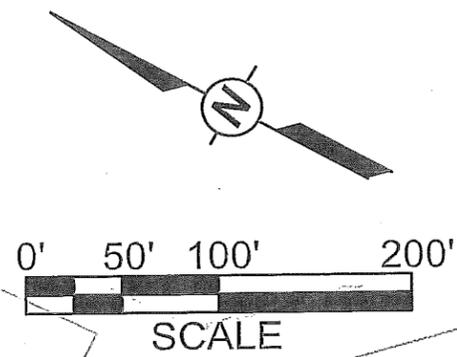
**LEGEND:**

- SOIL BORING ADVANCED IN 2006 OR EARLIER
- SOIL BORING ADVANCED IN 2011



- VOCs: VOLATILE ORGANIC COMPOUNDS
- METALS: RCRA METALS
- PAHs: POLYNUCLEAR AROMATIC HYDROCARBONS
- B(a)P: BENZO (a) PYRENE
- B(b)F: BENZO (b) FLUORANTHENE
- Db(a,h)A: DIBENZ (a,h) ANTHRACENE
- Pb: LEAD
- Ace: ACENAPHTHYLENE
- B(a)A: BENZO (a) ANTHRACENE
- IP: INDENO (1,2,3-cd) PYRENE
- N: NAPHTHALENE
- LOD: LABORATORY LIMIT OF DETECTION
- DNE: DETECTED WITH NO EXCEEDANCES

METAL RESULTS EXPRESSED IN MILLIGRAMS PER KILOGRAM.  
 VOCs AND PAH RESULTS EXPRESSED IN MICROGRAMS PER KILOGRAM.  
 ^ : EXCEEDS NR720 INDUSTRIAL DIRECT CONTACT RCL.  
 ^ : EXCEEDS NR720 GROUNDWATER PATHWAY RCL.



## CAP and BIOPILE MAINTENANCE PLAN

This Maintenance Plan pertains to the Wisconsin Central, Ltd portion of the North Fond du Lac Rail Yard where residual soil contamination has been left in-place within the top four feet of the ground surface. The source of the soil contamination is from spills and/or releases of petroleum related contaminants associated with five different Bureau for Remediation and Redevelopment Tracking System (BRRTS) cases. This plan also pertains to the maintenance of two soil BioPiles, which are associated with two of the five BRRTS cases. The locations of these five BRRTS cases and the BioPiles are shown on Figure 1.

### Property Located at:

North Fond du Lac Rail Yard  
2 Harrison Street  
North Fond du Lac, Wisconsin

### Wisconsin Department of Natural Resources (WDNR) Reference Information:

Canadian National Railway – Storehouse; BRRTS No. 02-20-297826  
Canadian National – PAH; BRRTS No.02-20-549952  
Wisconsin Central Ltd – Refueling Area; BRRTS No. 02-20-000914  
Wisconsin Central RR – Diesel Spill Track 55; BRRTS No. 02-20-543232  
Wisconsin Central LTD – Paint Shop UST; BRRTS No. 03-20-548039

### Legal Description:

#### Source Areas

Due to the large size of the North Fond du Lac Rail Yard the following legal description (as shown on Figure 2) describes the portion of the North Fond du Lac Rail Yard, which includes the six separate BRRTS cases.

That part of the Southwest ¼ of Section 33, Township 16 North, Range 17 East, in the Village of North Fond du Lac, County of Fond du Lac, State of Wisconsin, more particularly described as:

Commencing at the Southeast corner of said Southwest ¼ section;  
Thence South 89°50'27" West, 121.71 feet, along the south line of said ¼ Section;  
Thence North 16°46'00" West, 1133.41 feet, to the point of beginning;  
Thence South 77°18'00" West, 950.00 feet;  
Thence North 05°56'00" West, 1605.00 feet;  
Thence South 83°47'54" East, 701.56 feet;  
Thence South 16°46'00" East, 1370.00 feet, to the point of beginning.

This area contains 1,199,529.80 square feet, or 27.5374 acres, more or less.

#### BioPiles – Soil Disposal Location

The following legal description (as shown on Figure 3) describes the portion of the North Fond du Lac Rail Yard that includes the BioPile Area.

That part of the Northeast 1/4 of Section 4, Township 15 North, Range 17 East, in the Village of North Fond du Lac, and the City of Fond du Lac, County of Fond du Lac, State of Wisconsin, more particularly described as:

Commencing at the Northwest corner of said Northeast 1/4 Section;  
Thence South 89°50'27" West, 882.98 feet, along the north line of the Northwest 1/4 of said Section 4;  
Thence South 42°45'00" East, 1710.77 feet, to the point of beginning;  
Thence continue South 42°45'00" East, 1200.00 feet;  
Thence South 47°15'00" West, 265.00 feet;  
Thence North 42°45'00" West, 1200.00 feet;  
Thence North 47°15'00" East, 265.00 feet, to the point of beginning.

This parcel contains 318,000.00 square feet, or 7.3003 acres, more or less.

**Introduction:**

This Maintenance Plan established for direct contact issues at the locations of the above referenced BRRTS locations meets the requirements of s. NR 724.13(2) of the Wisconsin Administrative Code. The maintenance activities relate to the coarse sand and gravel, ballast, and asphalt surfaces covering the areas containing residual industrial direct contact contaminant levels (RCLs). The locations of the ground surface areas that need to be maintained are shown on Figure 2. The maintenance activities associated with the BioPiles include maintaining a chain-link fence around the perimeter of the BioPiles.

A brief summary of the residual impacts at each BRRTS location is described below.

Canadian National Railway – Storehouse; BRRTS No. 02-20-297826

Fill material containing slag and foundry sand appears to be the source of lead contamination that was identified in the soil during subsurface investigations conducted in the area of the former Storehouse near Shop A.

Approximately 740 cubic yards of lead contaminated soil has been excavated to a depth of 7 to 12 feet from the location of the former USTs associated with the former Storehouse. The excavated soils were disposed in a BioPile that was constructed on the southern end of the rail yard. Approximately, 1,500 cubic yards of soil impacted with lead concentrations above the NR 720 industrial direct contact RCL of 500 mg/kg remain in the area of the former Storehouse. The remaining lead contaminated soil appears to be limited to within the fill material at depths of approximately 2 to 4 feet below grade. The soil samples collected from the underlying natural clay did not have RCL exceedances for lead. The clay soil is relatively dense and inhibits contaminant migration thus protecting the groundwater, which is anticipated to be present at depths below 8 feet below grade. Additionally, the soil lead concentrations are below NR 720 industrial direct contact RCLs for 0 to 2-foot interval, except for the area of MW-104A, which is capped by 1 foot of gravel.

Groundwater sampling performed on the site indicates groundwater is not impacted with lead.

The Cap and BioPile Maintenance Plan relates to the existing coarse sand and gravel, ballast rock, and asphalt surfaces over the area of residual lead-impacted soil. The location of the surfaces to be maintained in accordance with this Cap and BioPile Maintenance Plan is identified on the attached Figure 4.

Canadian National – PAH; BRRTS No.02-20-549952

An unknown source of polynuclear aromatic hydrocarbon (PAH) contamination was identified in the fill soil during subsurface investigations conducted near Shop A in January 2004. From 2006 through 2011, additional soil samples from borings (ET-B-19 through ET-B-22, SS-103A, and SS-19A through SS-22) were collected to evaluate soil quality and delineate the extent of contaminated soil. Results of the additional soil sampling determined that PAH and lead contamination is located in shallow fill soils (<3.5 feet below grade) at concentrations exceeding the NR 720 industrial direct contact RCLs and generic groundwater pathway RCLs.

Soil beneath the sandy fill soil consists of low permeability, dense, silty clay. Concentrations of PAH and Resource Conservation and Recovery Act (RCRA) metal compounds were not identified in soil samples collected from the underlying clay soil at concentrations above their respective RCLs. Therefore, considering the contaminants do not appear to have migrated into the underlying clay soil, the contaminants in the upper fill soils do not likely present a threat to groundwater quality.

Arsenic compounds were also detected in the five soil samples submitted for RCRA metals analysis at concentrations that exceed the industrial direct contact RCL; however, the concentrations are in the range of naturally occurring background concentrations.

Groundwater was not present in the soil boring advanced to a depth of 10 feet below ground surface (bgs).

The Cap and BioPile Maintenance Plan relates to the existing coarse sand and gravel, ballast rock, and asphalt surfaces over the area of contaminated soil. The location of the surfaces to be maintained in accordance with this Cap and BioPile Maintenance Plan is identified on the attached Figure 5.

Wisconsin Central Ltd – Refueling Area; BRRTS No. 02-20-000914

In September 1989 a release of approximately 1,300 gallons of diesel fuel occurred at the locomotive refueling station. Absorbent pads and a vacuum truck were used to collect the diesel fuel on the surface. Subsequently, a free product/groundwater recovery trench system to remove free product in the area was installed. The oil/water mixture was collected by two sumps which pumped the oil/water mixture into an aboveground 500-gallon oil/water separator. The oil/water separator was pumped out by an oil recycler.

Based on the preliminary subsurface investigation results from the early 1990s, a groundwater collection system was installed. The groundwater collection system, which included two product skimmer pumps and an oil/water separator, was installed in 1994/1995. As part of the construction of the groundwater collection system, a total of 2,227 cubic yards of petroleum impacted soil was excavated. The excavated soils were placed in the BioPile located on the south end of the Yard.

In June of 2008 a 500-gallon capacity oil-skimming collection underground storage tank (UST) and the oil-skimmer pump associated with the former free product removal system was removed. During removal of the collection UST, approximately 50 tons of visually-apparent petroleum-impacted soil was removed from within the collection UST cavity and disposed off-site.

Several soil borings and groundwater monitoring wells were installed throughout the refueling area and the extent of the petroleum impacted soil and groundwater has been defined. The results of the soil analytical testing indicate that there is only one industrial direct contact RCL exceedance, which is for benzo(a)pyrene located from 1 to 3 feet below the ground surface at MW-17. Groundwater pathway RCL exceedances are also present; however, the extent of the groundwater pathway RCL exceedances has been defined. The results of the most recent groundwater analytical testing indicate that NR 140 enforcement standard exceedances are not present in the area. PAL exceedances for benzo(a)pyrene, benzo(b)fluoranthene, and chrysene are present at MW-17.

The Cap and BioPile Maintenance Plan relates to the existing coarse sand and gravel surface over the area of contaminated soil near the location of MW-17. The location of the surface to be maintained in accordance with this Cap and BioPile Maintenance Plan is identified on the attached Figure 6.

Wisconsin Central RR – Diesel Spill Track 55; BRRTS No. 02-20-543232

A petroleum spill from a locomotive occurred along Track 55 in February 2000. WDNR records indicate between 10 and 80 gallons of diesel fuel were released onto the snow alongside Track 55, approximately 175 feet from the nearest track crossover. An interim remedial action was completed to contain and remediate the release. The remedial response consisted of recovering the free product and washing the trackside ballast and soil.

A surface sample (SS-113) was collected in the spill area in January 2004. Laboratory analytical results confirmed the presence of diesel range organics (DROs) and two PAHs, naphthalene and benzo(a)pyrene, at a concentration exceeding their respective groundwater pathway RCLs. Additionally, the benzo(a)pyrene concentration exceeds the industrial direct contact RCL.

Additional soil samples were collected from the soil/ballast interface in five borings (ET-B14, ET-B15, ET-B16, ET-B17, and ET-B18) to evaluate soil quality and delineate the extent of petroleum-contaminated soil. One sample was collected from the native soil material at least 2 feet below the soil/ballast interface in ET-B14, which was advanced in the approximate location of SS-113.

There was no evidence of free phase petroleum product in the soil borings. No volatile organic compounds (VOCs) or PAHs were detected at concentrations exceeding regulatory levels in the additional soil samples collected from the Track 55 release area.

Groundwater was not present in the soil boring advanced to a depth of 10 feet below ground surface. Soil beneath the ballast consists of relatively impermeable, dense, silty clay. Petroleum compounds were not identified in soil samples collected between 3 and 10 feet in the release area. The field observations and laboratory results confirm that the release is not a threat to groundwater quality.

The Cap and BioPile Maintenance Plan relates to the existing coarse gravel and ballast rock surface over the isolated area of contaminated soil at the location of SS-113. The location of the gravel and ballast rock surface to be maintained in accordance with this Cap and BioPile Maintenance Plan is identified on the attached Figure 7.

#### Wisconsin Central LTD – Paint Shop UST; BRRTS No. 03-20-548039

This area was previously used for painting locomotives and other rolling stock. A 1,000-gallon UST of unknown contents is registered with the Wisconsin Department of Safety and Professional Services (DSPS) as closed by removal.

A release from the UST was documented by the presence of gasoline range organics (GRO) and DRO at concentrations exceeding regulatory limits in soil samples collected beneath the UST. Soil samples were collected from borings advanced within and adjacent to the former UST cavity. The highest petroleum-related compound concentrations were detected in the shallow sample (3 to 5 feet bgs) at the location of ETMW-1/SS01 (located within the former UST cavity). The concentrations of ethylbenzene, 1,3,5-trimethylbenzene, xylene, and naphthalene exceed their respective NR720, NR746, or PAH interim guidance limits. The samples collected from the lower depth (5 to 10 feet bgs) within the former UST cavity did not exhibit petroleum volatile organic compound (PVOC) or PAH concentrations above regulatory or interim limits.

The Cap and BioPile Maintenance Plan relates to the existing paved surface over the area of contaminated soil at the location of ETMW-1/SS01. The location of the paved surface to be maintained in accordance with this Cap and BioPile Maintenance Plan is identified on the attached Figure 8.

#### **Ground Cover and BioPile Barrier Purpose:**

The asphalt, coarse sand and gravel, and ballast rock surfaces over the residual impacted soil in the areas of the five above referenced BRRTS cases serves as a barrier to prevent direct contact with residual contaminated soil that exceed industrial direct contact RCLs which might otherwise pose a threat to human health. The public will not encounter the soil, and workers are generally not actively working in these areas as these areas are primarily vacant land or used for storage of equipment. Based on the current and future use of the property, the existing ground cover should function as intended unless disturbed.

The BioPiles are located at the south end of the Yard (see Figure 1 for location). Contaminated soil excavated from the Refueling Area (BRRS No. 02-20-000914) and the former Storehouse Area (BRRS No. 02-20-297826) was disposed at this location for BioPile treatment. The contaminated soils within the BioPiles are covered with a Griffolyn TX 1200 nylon reinforced polyethylene liner. The polyethylene liner is secured by sand bags and tires. Additionally, the outer surfaces are heavily vegetated. A 6-foot high, 9-gauge chain-link fence will be placed around the perimeter of the BioPiles. The fence will serve as a barrier to prevent direct contact with the contaminated soil within the BioPiles. The polyethylene liner and heavy vegetation will provide additional protection from direct contact.

**Annual Inspection:**

The surfaces overlying the residual contaminated soils in the five BRRS areas will be inspected once a year (normally in the spring after the snow and ice has melted) for asphalt, sand and gravel, and ballast displacement, settling, and other potential problems that may cause exposure to underlying soils. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, and other factors. Areas where soils have become or are likely to become exposed will be documented.

The chain-link fence around the BioPile will also be inspected annually (normally in the spring after the snow and ice has melted) for the presence of any damage that may have been caused by the fence (i.e. snow plowing).

A log of the inspections and repairs, if any, will be maintained by the property owner. An example inspection log is included as Exhibit A, Cap Inspection Log. The log will include recommendations for necessary repairs. Once repairs are completed, they will be documented in the inspection log.

**Maintenance Activities:**

If problems are noted during the annual inspections or at another time during the year, repairs will be completed as soon as practical. Repairs may include the addition of coarse gravel or ballast rock or patching holes in the asphalt. In the event that necessary maintenance activities expose the underlying soil, the owner will inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment (PPE). Residual contaminated soil that is excavated during maintenance activities will be treated, stored, or disposed of by the owner in accordance with applicable local, state and federal law.

In the event the surface overlying the contaminated soil is removed or replaced, the replacement barrier must be equally or more protective in reducing risk from direct contact with the soil. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Cap and BioPile Maintenance Plan unless indicated otherwise by the WDNR or its successor.

The property owner, in order to maintain the integrity of the protective surfaces, will maintain a copy of this Cap and BioPile Maintenance Plan on-site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

**Amendment or Withdrawal of Maintenance Plan:**

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

**Contact Information (as of August 2012):**

Site Owner and Operator:

Mr. Brian Hayden  
Wisconsin Central, Ltd.  
1 Waterfront Drive  
PO Box 509  
Two Harbors, MN 55616

Consultant:

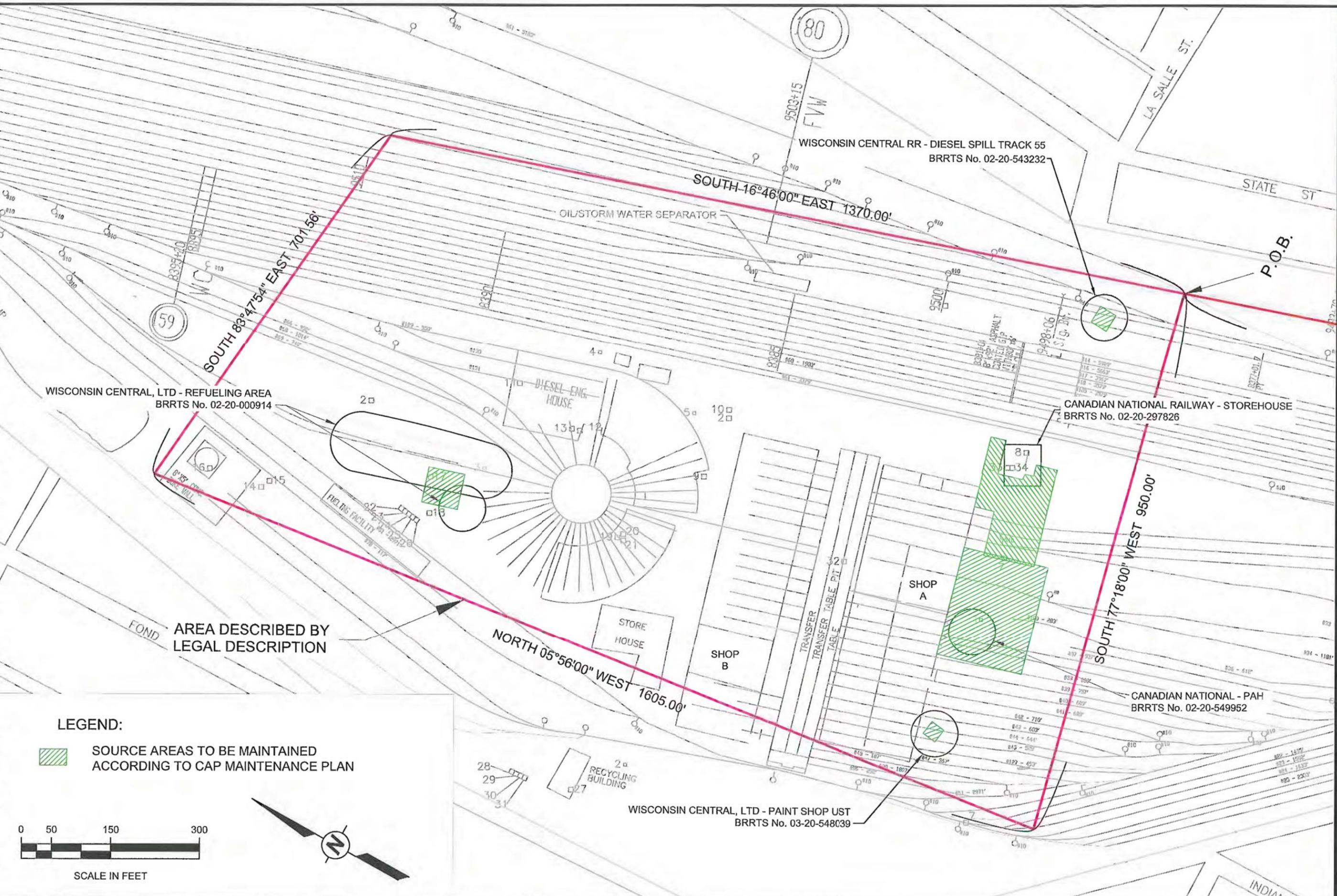
Mr. Dick Reesman  
AECOM  
1026 Willow Green Circle  
Eau Claire, WI 54701

WDNR:

Mr. Keld Lauridsen  
Wisconsin Department of Natural Resources  
Northeast Regional Office  
2984 Shawano Avenue  
Green Bay, WI 54313-6727

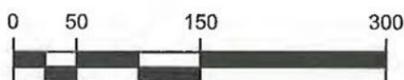


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Project Management: KAM, Checked: RSR, Approved: RSR, ANS: B 11" x 17"

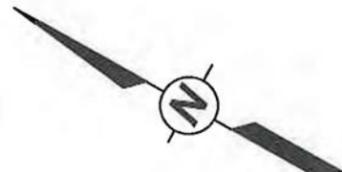


**LEGEND:**

 SOURCE AREAS TO BE MAINTAINED ACCORDING TO CAP MAINTENANCE PLAN

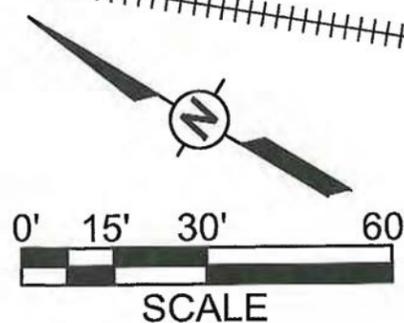
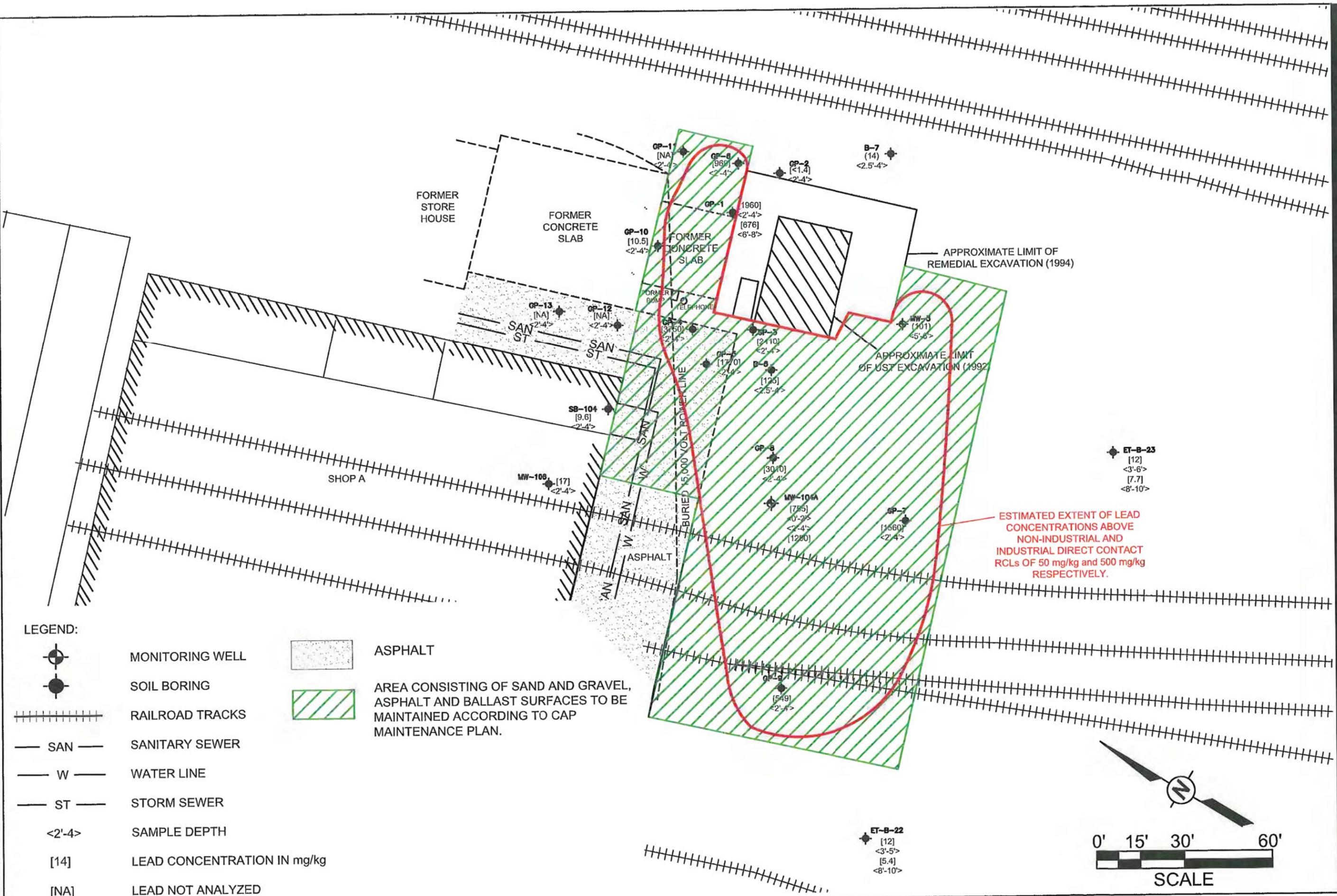


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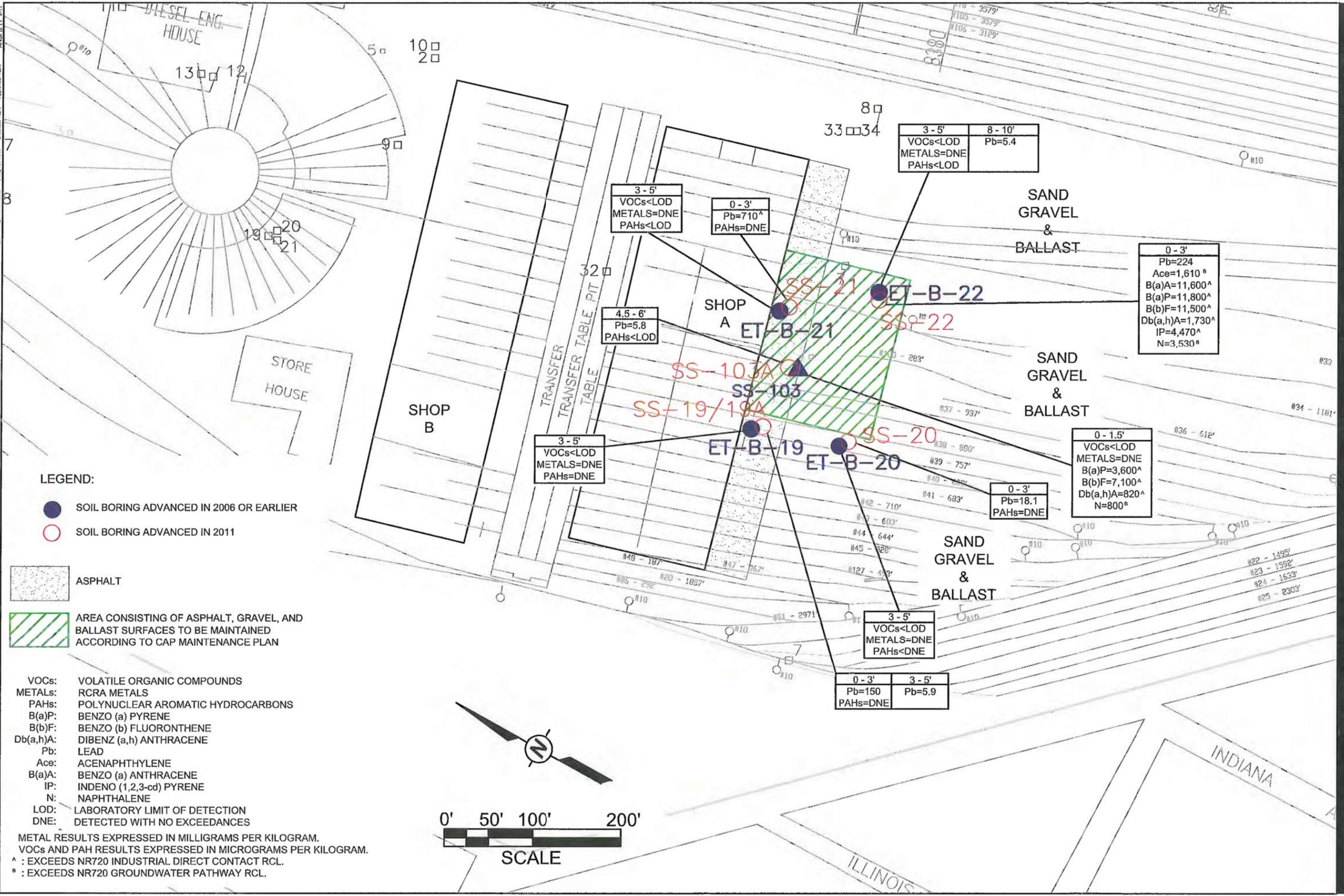


**LEGAL DESCRIPTION LOCATION MAP FOR SOURCE AREAS**





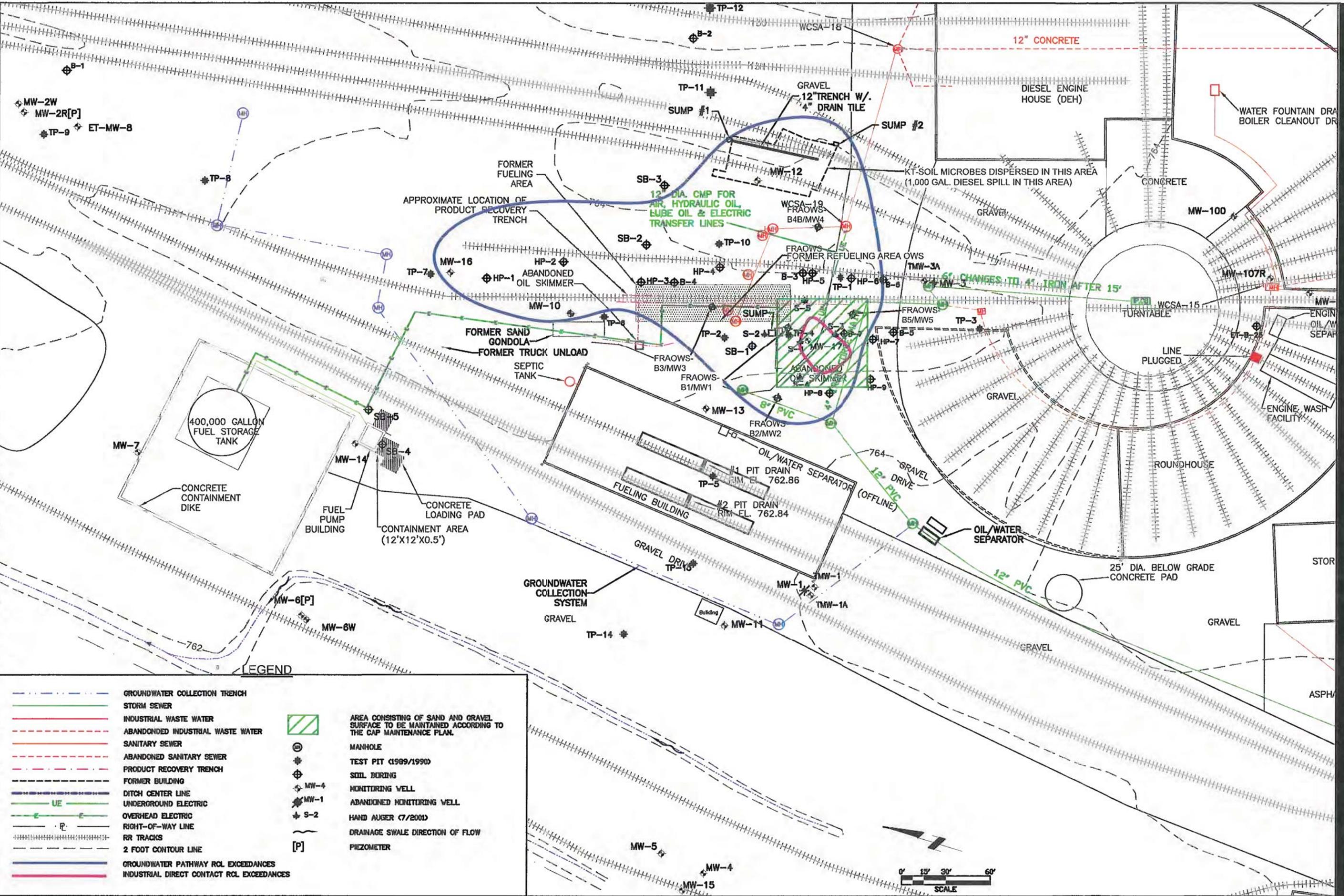
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 Project Management Initials: Designer: KAN Checkout: RSR Approved: RSR ANS/B 11'-3/4"



VOCs: VOLATILE ORGANIC COMPOUNDS  
 METALS: RCRA METALS  
 PAHs: POLYNUCLEAR AROMATIC HYDROCARBONS  
 B(a)P: BENZO (a) PYRENE  
 B(b)F: BENZO (b) FLUORANTHENE  
 Db(a,h)A: DIBENZ (a,h) ANTHRACENE  
 Pb: LEAD  
 Ace: ACENAPHTHYLENE  
 B(a)A: BENZO (a) ANTHRACENE  
 IP: INDENO (1,2,3-cd) PYRENE  
 N: NAPHTHALENE  
 LOD: LABORATORY LIMIT OF DETECTION  
 DNE: DETECTED WITH NO EXCEEDANCES

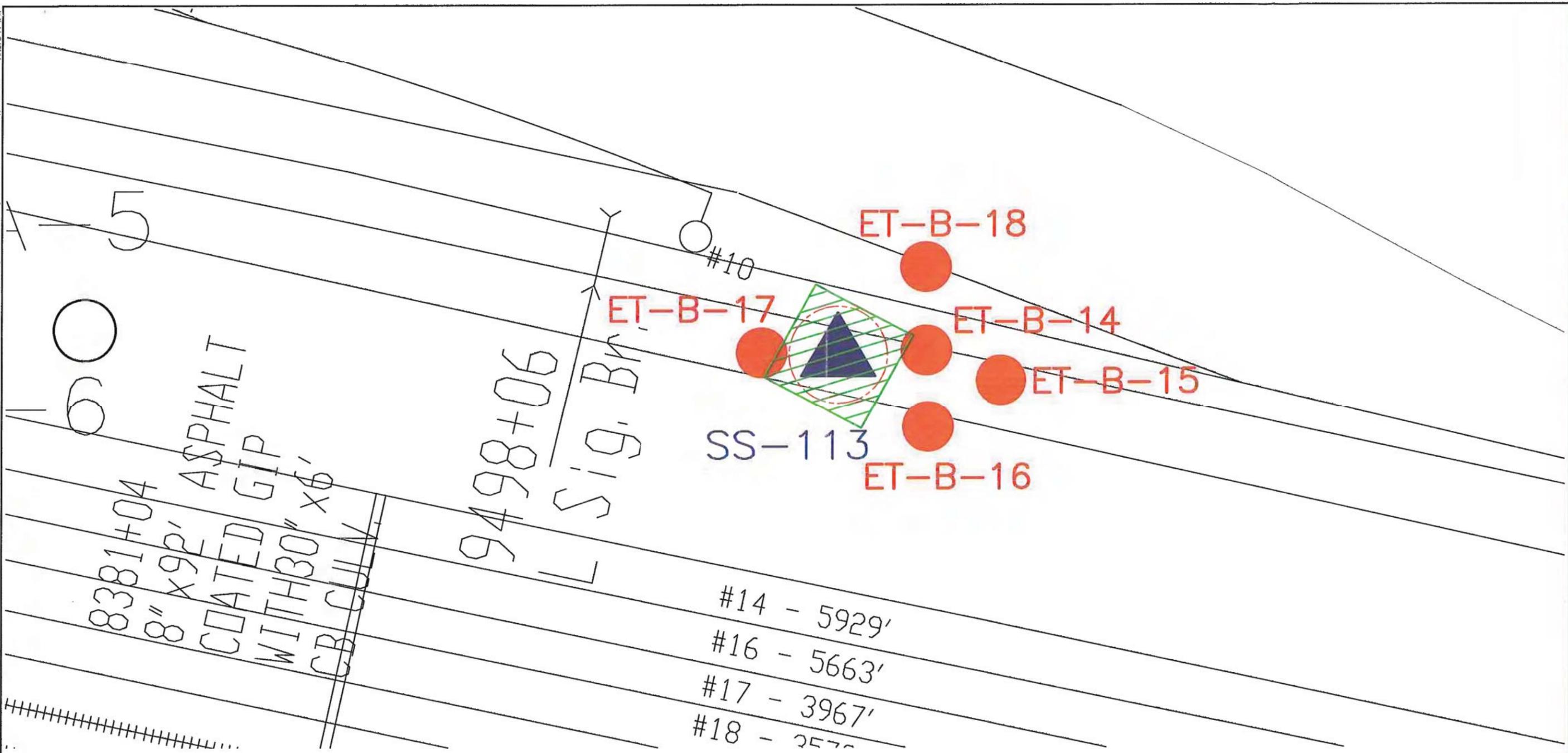
METAL RESULTS EXPRESSED IN MILLIGRAMS PER KILOGRAM.  
 VOCs AND PAH RESULTS EXPRESSED IN MICROGRAMS PER KILOGRAM.  
<sup>A</sup> : EXCEEDS NR720 INDUSTRIAL DIRECT CONTACT RCL.  
<sup>B</sup> : EXCEEDS NR720 GROUNDWATER PATHWAY RCL.

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 Project Management Initials: Designer: KAM Checker: RSR Approver: RSR  
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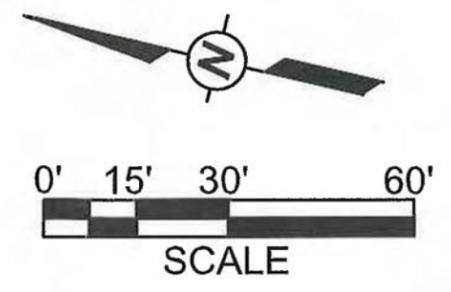
WISCONSIN CENTRAL, LTD - REFUELING AREA - BRRTS No. 02-20-000914

Project: Management: Initials: Designer: KAM Checked: RSR Approved: RSR ANSIB 11" x 17"  
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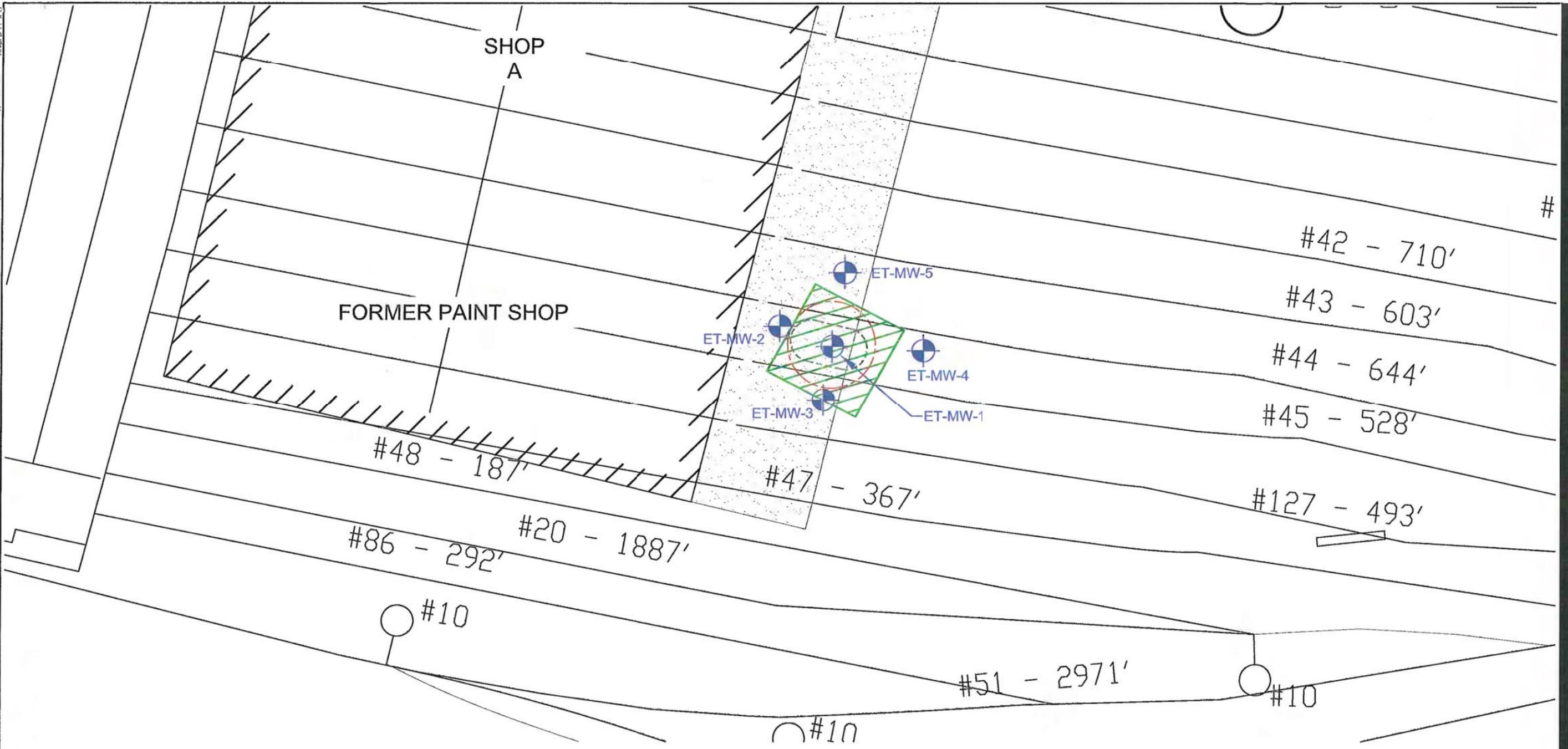
-  RAILROAD TRACKS
-  SURFACE SOIL SAMPLE (TRC - JANUARY 2004)
-  SOIL SAMPLE (ARCOM - MARCH 2006)
-  ESTIMATED EXTENT OF SOIL CONTAMINATION
-  GRAVEL AND BALLAST AREA TO BE MAINTAINED ACCORDING TO CAP MAINTENANCE PLAN.



WISCONSIN CENTRAL RR - DIESEL SPILL TRACK 55 - BRRTS No. 02-20-543232

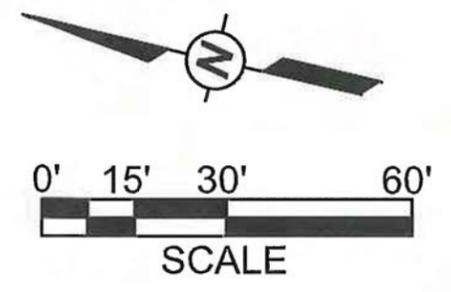
WISCONSIN CENTRAL, LTD  
 NORTH FOND DU LAC RAIL YARD  
 NORTH FOND DU LAC, WISCONSIN

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Project Management Initials: Designer: KAM Checked: RSR Approved: RSR ANSI B 11" x 17"



LEGEND:

-  ASPHALT PAVEMENT
-  RAILROAD TRACKS
-  MONITORING WELL (AECOM, APRIL 2007)
-  FORMER 1,000 GALLON UST LOCATION
-  ESTIMATED EXTENT OF SOIL CONTAMINATION
-  ASPHALT AND GRAVEL AREA TO BE MAINTAINED ACCORDING TO CAP MAINTENANCE PLAN.







August 29, 2012

Wisconsin Central, Ltd.  
Attn: Mr. Brian Hayden  
1 Waterfront Drive  
Two Harbor, MN 55616

Subject: Conditional Closure Decision with Requirements to Achieve Final Closure  
Canadian National – PAH, 2 Harrison Street, North Fond du Lac, Wisconsin  
WDNR BRRTS Activity # 02-20-549952

Dear Mr. Hayden:

On August 28, 2012, the Northeast Region Closure Committee reviewed your request for closure of the case described above. The Closure Committee reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases. After careful review of the closure request, the Closure Committee has determined that the polycyclic aromatic hydrocarbon (PAH) and lead contamination identified in what is likely contaminated soil fill material south of the car repair shop appears to have been investigated and remediated to the extent practicable under site conditions. Your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code and will be closed if the following conditions are satisfied:

**MONITORING WELL ABANDONMENT**

The monitoring wells no longer needed at the site must be properly abandoned in accordance with ch. NR 141, Wis. Adm. Code. Documentation of well abandonment must be submitted to me on Form 3300-005, found at <http://dnr.wi.gov/org/water/dwg/forms/3300005.pdf> or provided by the Department of Natural Resources.

**PURGE WATER, WASTE AND SOIL PILE REMOVAL**

Any remaining purge water, waste and/or soil piles generated as part of site investigation or remediation activities must be removed from the site and disposed of or treated in accordance with Department of Natural Resources' rules. Once that work is completed, please send appropriate documentation regarding the treatment or disposal of the remaining purge water, waste and/or soil piles.

When the above conditions have been satisfied, please submit the appropriate documentation (for example, well abandonment forms, disposal receipts, copies of correspondence, etc.) to verify that applicable conditions have been met, and your case will be closed.

Your site will be listed on the DNR's Remediation and Redevelopment GIS Registry. Information that was submitted with your closure request application will be included on the GIS Registry. To review the site on the GIS Registry web page, visit the RR Sites Map page at:  
<http://dnrmaps.wi.gov/imf/imf.jsp?site=brrts2>.

## CONTINUING OBLIGATIONS AND RESPONSIBILITIES

As part of the approval of the closure of this case, you will be responsible for maintaining the following continuing obligations:

- Residual soil contamination exists that must be properly managed should it be excavated or removed
- The existing surface cover must be maintained over contaminated soil and the DNR must approve any changes to this barrier. It is the Department's understanding that a cap maintenance plan for the entire facility is in the process of being prepared.

In the final closure approval, you will also be required to conduct annual inspections. Documentation of the inspection will be required to be kept on site.

A map delineating the remaining soil contamination exceeding any applicable Residual Contaminant Levels (RCL) should be prepared and submitted to the Department for inclusion on the GIS registry.

Please be aware that the case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment.

We appreciate your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me in Green Bay at (920) 662-5420.

Sincerely,



Keld Lauridsen  
Hydrogeologist  
Remediation & Redevelopment Program

cc: Dick Reesman, AECOM (e-copy - Richard.Reesman@aecom.com)

## Memorandum

To WDNR

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CC

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Subject Legal Description –  
Former Locker Room/PAH  
Area

---

From Dick Reesman

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Date 10/31/11

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Due to the large size of the North Fond du Lac Rail Yard the following legal description (as shown on Figure 2) describes the southern portion of the North Fond du Lac Rail Yard, which includes the Former Locker Room/PAH Area.

That part of the Southwest ¼ of Section 33, Township 16 North, Range 17 East, in the Village of North Fond du Lac, County of Fond du Lac, State of Wisconsin, more particularly described as:

Commencing at the Southeast corner of said Southwest ¼ section;  
Thence South 89°50'27" West, 121.71 feet, along the south line of said ¼ Section;  
Thence North 16°46'00" West, 1133.41 feet, to the point of beginning;  
Thence South 77°18'00" West, 950.00 feet;  
Thence North 05°56'00" West, 1605.00 feet;  
Thence South 83°47'54" East, 701.56 feet;  
Thence South 16°46'00" East, 1370.00 feet, to the point of beginning.

This area contains 1,199,529.80 square feet, or 27.5374 acres, more or less.

An illustration of the area described in the above legal description is presented on the attached Figure 2.

The WTM coordinates for the PAH Area are: 642604E, 371847N. The WTM coordinates were obtained from the Wisconsin Department of Natural Resources RR Sites Map.

Regards,



Dick Reesman, P.E.  
Senior Project Engineer  
richard.reesman@aecom.com



**Environment**

PO Box 509  
Two Harbors, MN, USA  
55616

October 31, 2011

To Whom It May Concern:

To the best of my knowledge, the following legal description completely and accurately describes an area on the North Fond du Lac Rail Yard that contains the PAH Area:

That part of the Southwest 1/4 of Section 33, Township 16 North, Range 17 East, in the Village of North Fond du Lac, County of Fond du Lac, State of Wisconsin, more particularly described as:

Commencing at the Southeast corner of said Southwest 1/4 section;  
Thence South  $89^{\circ}50'27''$  West, 121.71 feet, along the south line of said 1/4 Section;  
Thence North  $16^{\circ}46'00''$  West, 1133.41 feet, to the point of beginning;  
Thence South  $77^{\circ}18'00''$  West, 950.00 feet;  
Thence North  $05^{\circ}56'00''$  West, 1605.00 feet;  
Thence South  $83^{\circ}47'54''$  East, 701.56 feet;  
Thence South  $16^{\circ}46'00''$  East, 1370.00 feet, to the point of beginning.

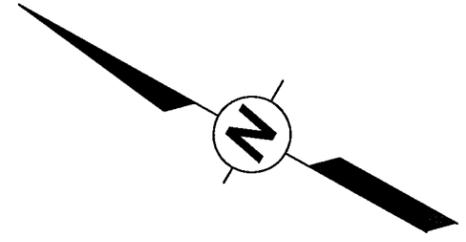
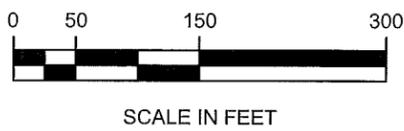
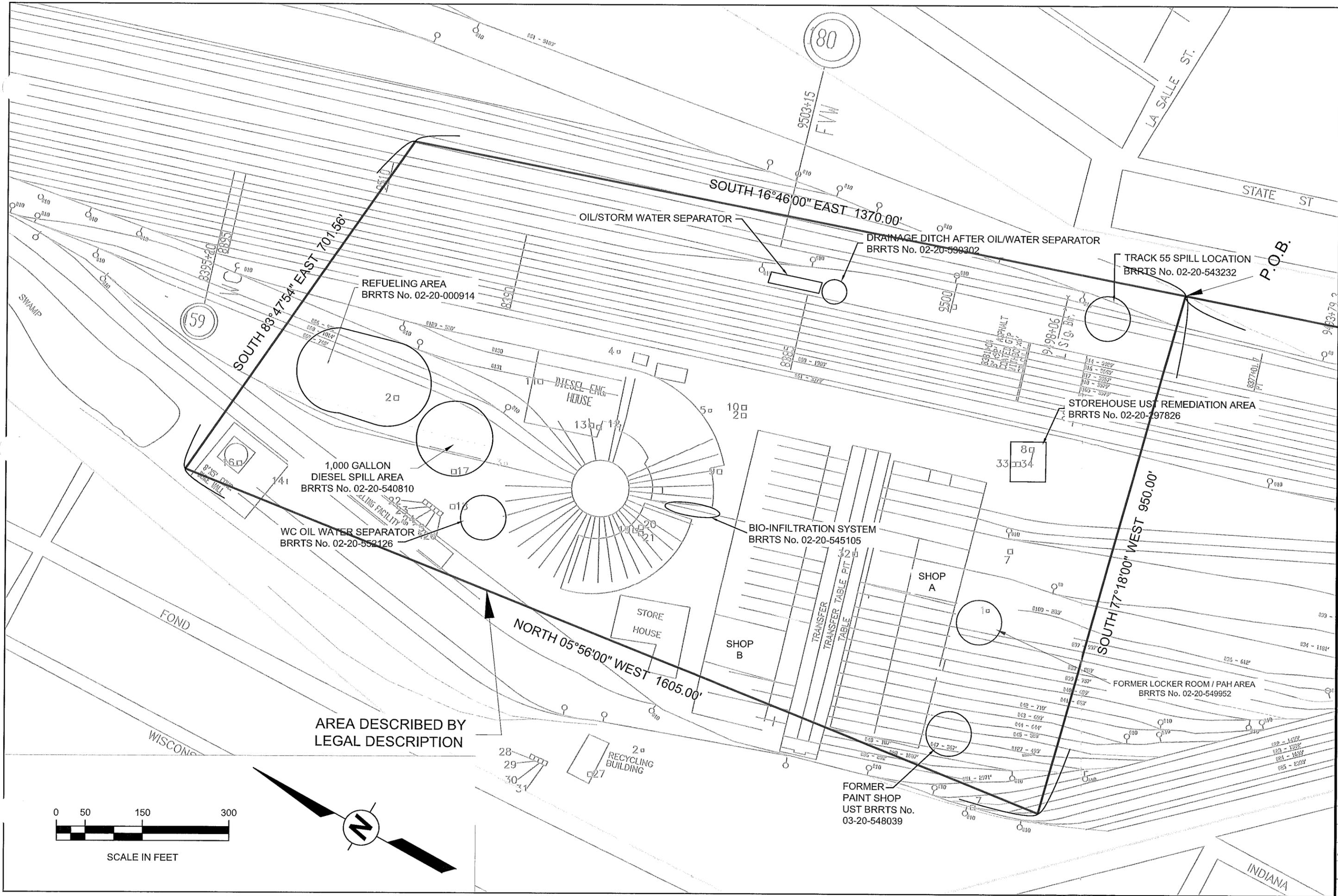
This parcel contains **1,199,529.80 square feet**, or **27.5374 acres**, more or less.

The Wisconsin Department of Natural Resources Bureau Remediation and Redevelopment Tracking System (BRRTS) number for the Paint Shop UST Release is 02-20-549952.

Respectfully,

A handwritten signature in black ink that reads "Brian T. Hayden". The signature is written in a cursive style.

Brian Hayden  
Regional Manager - Environment



AREA DESCRIBED BY  
LEGAL DESCRIPTION

REV	DESCRIPTION	DRN	CHK	DATE

DRN BY: ALB  
DES BY: RSR  
CHK BY: RSR  
APP BY: RSR

**AECOM**  
200 Indiana Avenue  
Stevens Point, WI 54481  
T 715.341.8110 F 715.341.7390  
WWW.AECOM.COM

WISCONSIN CENTRAL NORTH FOND DU LAC RAIL YARD  
FORMER LOCKER ROOM / PAH AREA - BRRTS # 02-20-549952  
NORTH FOND DU LAC, WI

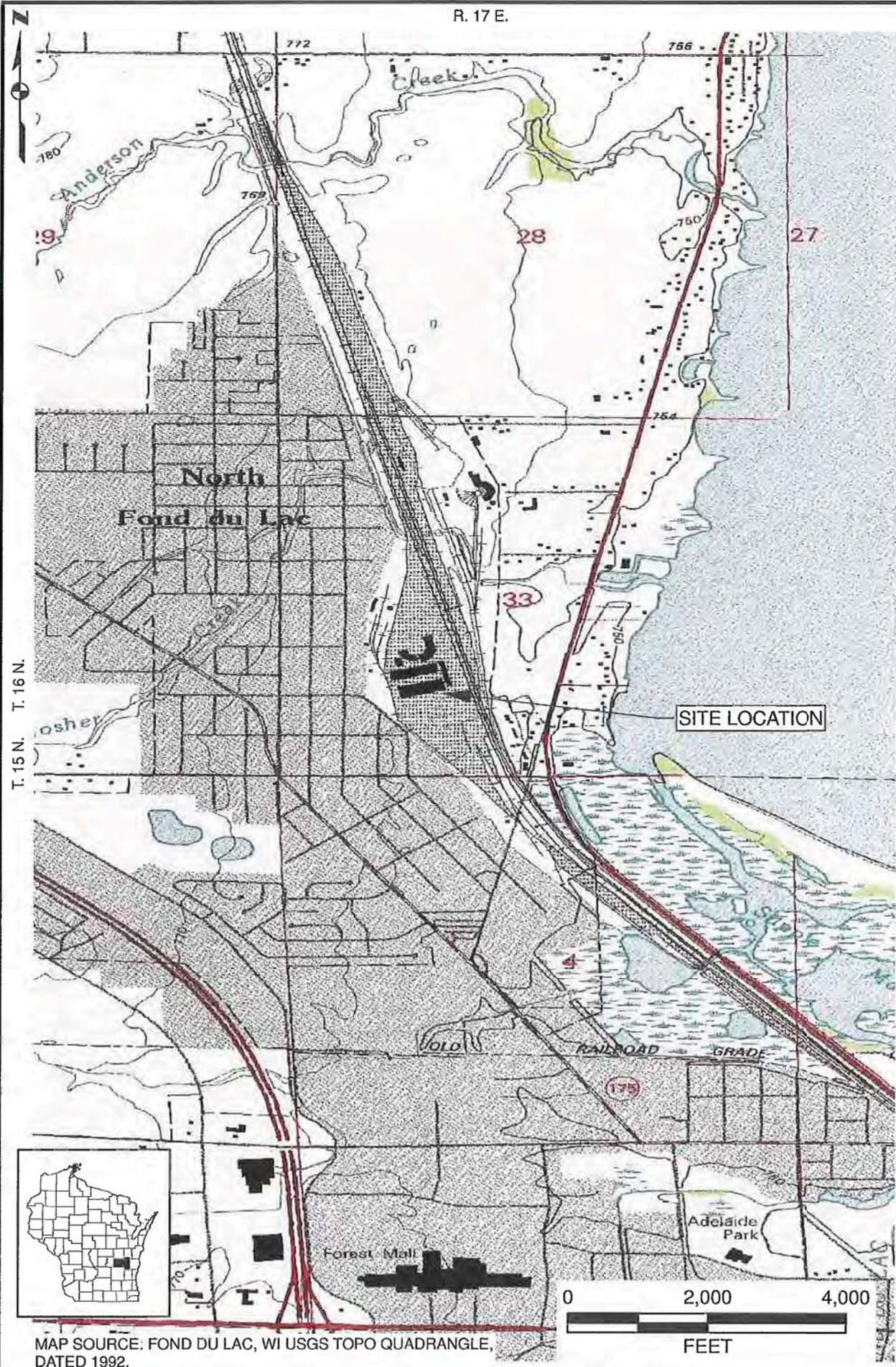
**LEGAL DESCRIPTION LOCATION MAP**

DATE	10/24/2011
PROJECT NO.	60135737
FILENAME	60135737-Figure 2.dwg
SHEET NO.	
DRAWING NO.	FIGURE 2

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T. 15 N. T. 16 N.

R. 17 E.



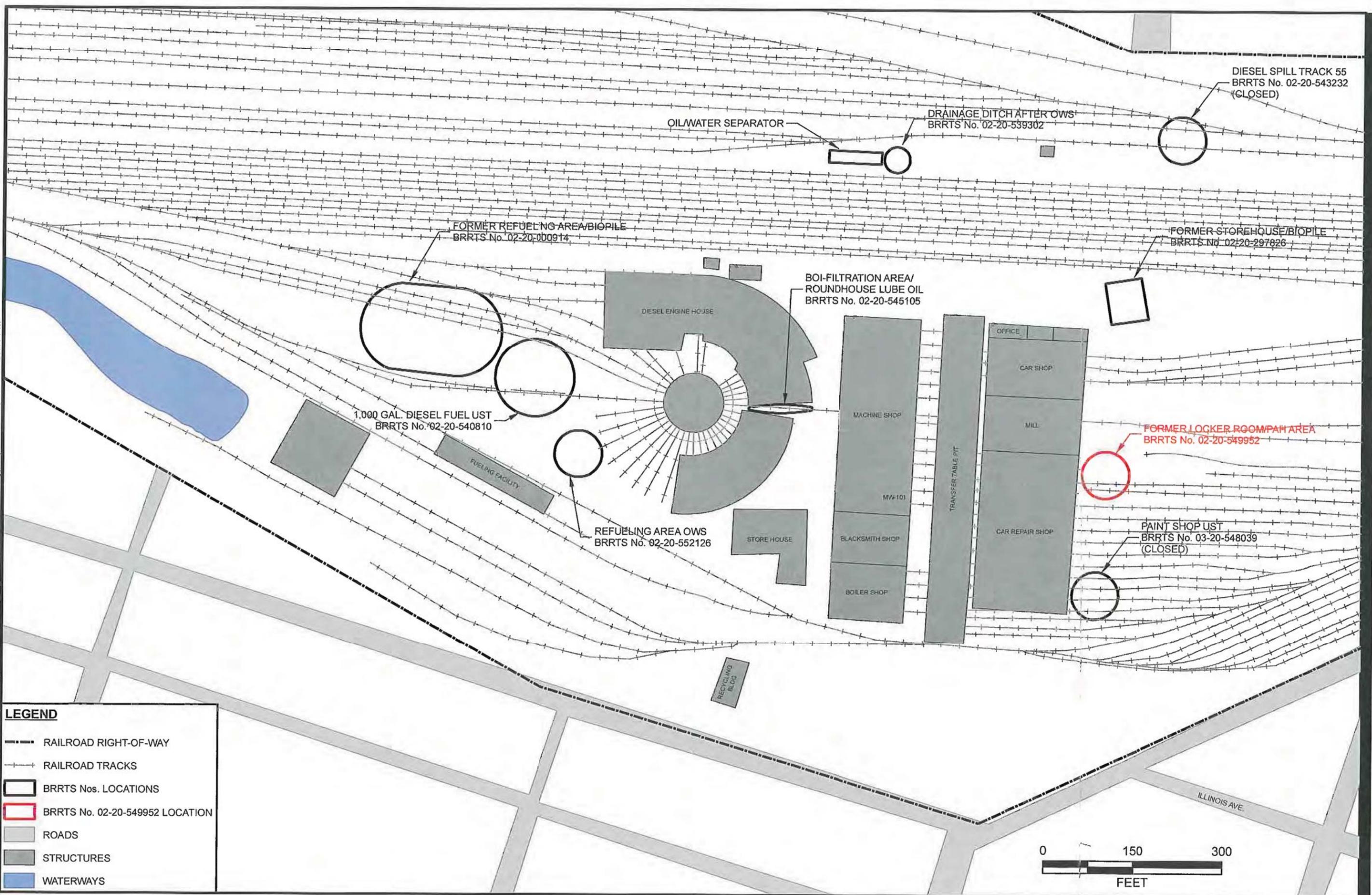
MAP SOURCE: FOND DU LAC, WI USGS TOPO QUADRANGLE, DATED 1992.

**AECOM**  
60135737

FIGURE 1

**SITE LOCATION MAP**  
WISCONSIN CENTRAL NORTH FOND DU LAC RAIL YARD  
FORMER LOCKER ROOM/PAH AREA - BRRTS#02-20-549952  
NORTH FOND DU LAC, WISCONSIN

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**LEGEND**

- RAILROAD RIGHT-OF-WAY
- RAILROAD TRACKS
- BRRS Nos. LOCATIONS
- BRRS No. 02-20-549952 LOCATION
- ▭ ROADS
- ▭ STRUCTURES
- ▭ WATERWAYS

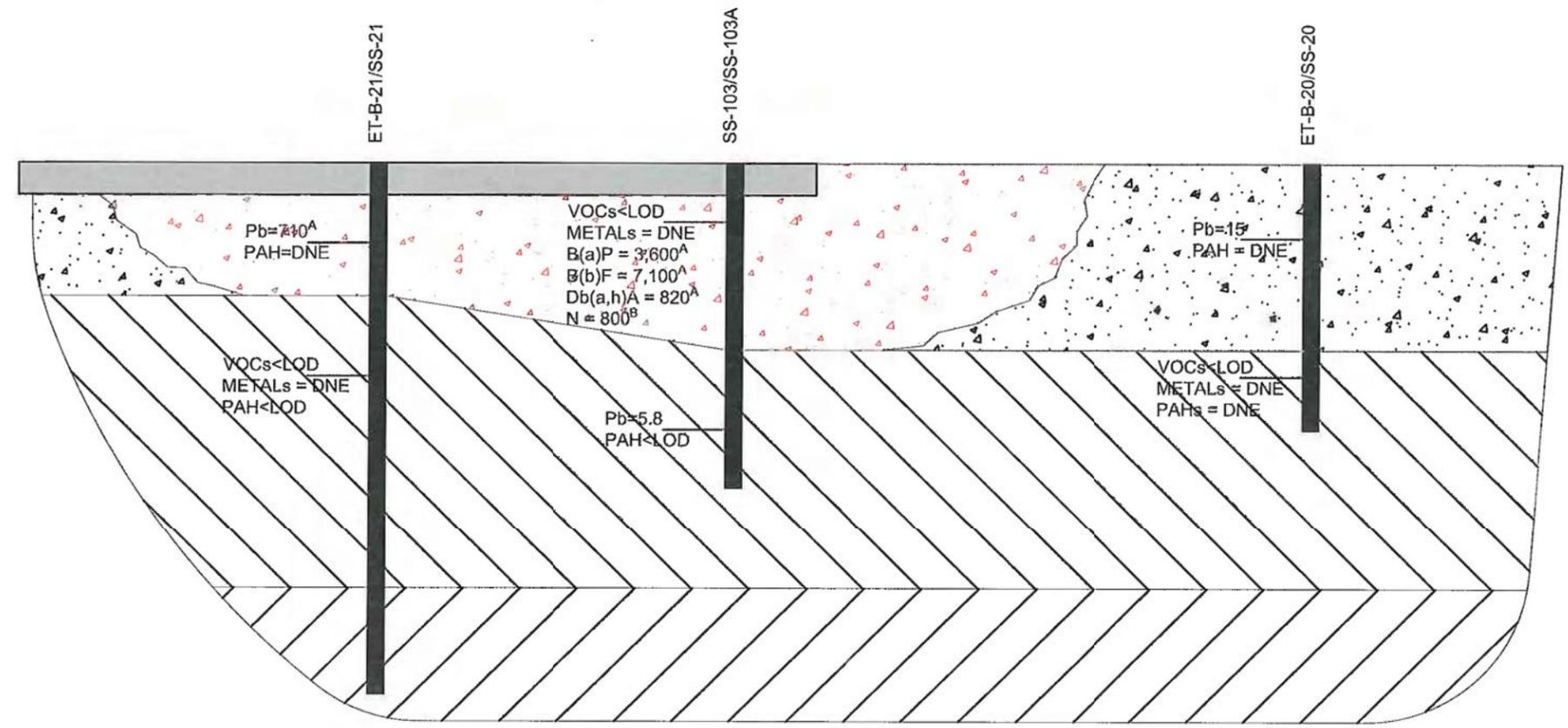
**LOCATION OF BRRS NUMBERS**  
 WISCONSIN CENTRAL NORTH FOND DU LAC RAIL YARD  
 FORMER LOCKER ROOM / PAH AREA - BRRS#02-20-549952  
 NORTH FOND DU LAC, WISCONSIN





File name: L:\WORK\PROJECTS\130737000\_CAD\001\_DRAWINGS\SHEETS\60135737-FIGURE 5.DWG    Last saved by: WCP/E    Last Plot Date:     
 Project Management: Inhibits    Designer:    Checker:    Approver:    ANS: B 11" x 17"

# A      GEOLOGICAL CROSS-SECTION A-A'      A'

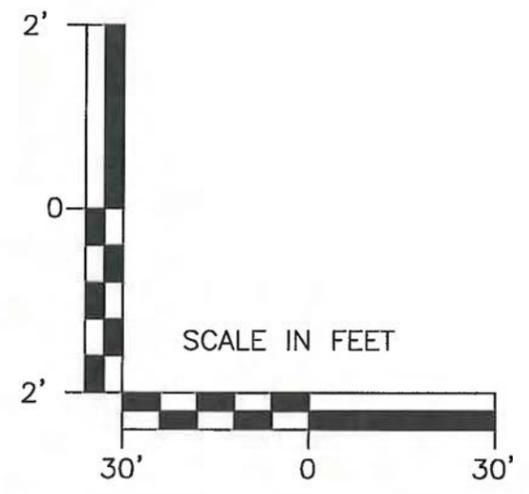


## LEGEND

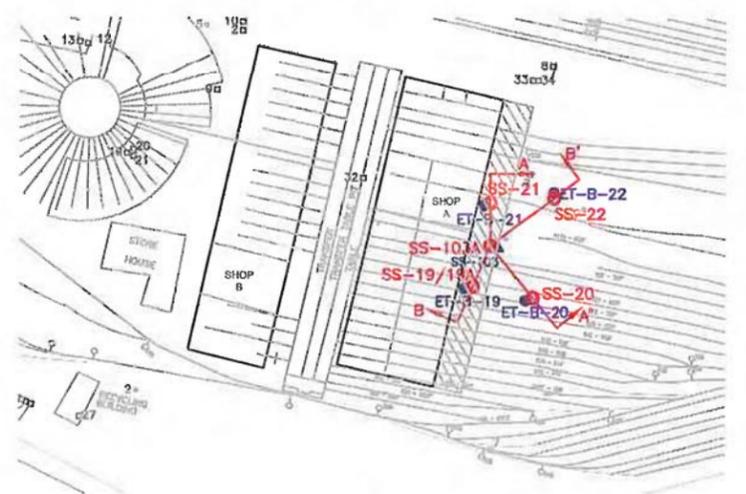
- ASPHALT
- ESTIMATED EXTENT OF PETROLEUM IMPACTED SOIL EXCEEDING NR 720 RCLs
- SILTY SAND & GRAVEL FILL
- RED BROWN SILTY CLAY
- GRAY SILTY CLAY

VOCs: VOLATILE ORGANIC COMPOUNDS  
 METALS: RCRA METALS  
 PAHs: POLYNUCLEAR AROMATIC HYDROCARBONS  
 B(a)P: BENZO (a) PYRENE  
 B(b)F: BENZO (b) FLUORANTHENE  
 Db(a,h)A: DIBENZ (a,h) ANTHRACENE  
 Pb: LEAD  
 Ace: ACENAPHTHYLENE  
 B(a)A: BENZO (a) ANTHRACENE  
 IP: INDENO (1,2,3-cd) PYRENE  
 N: NAPHTHALENE  
 LOD: LABORATORY LIMIT OF DETECTION  
 DNE: DETECTED WITH NO EXCEEDANCES

METAL RESULTS EXPRESSED IN MILLIGRAMS PER KILOGRAM.  
 VOCs AND PAH RESULTS EXPRESSED IN MICROGRAMS PER KILOGRAM.  
 A : EXCEEDS NR720 INDUSTRIAL DIRECT CONTACT RCL.  
 B : EXCEEDS NR720 GROUNDWATER PATHWAY RCL.



## KEY PLAN





**TABLE 1  
SOIL QUALITY DATA SUMMARY  
FORMER LOCKER ROOM - PAH AREA  
WISCONSIN CENTRAL, LTD. - NORTH FOND DU LAC YARD  
NORTH FOND DU LAC, WISCONSIN  
AECOM PROJECT NO. 60135737**

	Generic RCLs <sup>(1)(3)</sup>		NR 746 Criteria <sup>(2)</sup>		Sample Location:	SS-103	SS-103 Dup	ET-B-19	ET-B-20	ET-B-21	ET-B-22		SS-19A		SS-20	SS-21	SS-22	SS-103A
	Direct Contact	Groundwater	Table 1	Table 2	Sample Depth:	0.0-1.5	0.0-1.5	3.0-5.0	3.0-5.0	3.0-5.0	3.0-5.0	8.0-10.0	0.0-3.0	3.0-5.0	0.0-3.0	0.0-3.0	0.0-3.0	4.5-6.0
					Sample Date:	1/8/2004	1/8/2004	3/2/06	3/2/06	3/14/06	3/2/06	3/2/06	3/15/2011	3/15/2011	3/15/2011	3/15/2011	3/15/2011	3/15/2011
	Industrial (A)	(B)	Indicators of Residual Petroleum Product in Soil Pores (C)	Protection of Human Health from Direct Contact with Contaminated Soil (D)	Sampling Company:	TRC	TRC	Earth Tech	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM				
<b>Volatiles Organic Compounds (µg/kg):</b>																		
1,1,1,2-Tetrachloroethane					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,1,1-Trichloroethane					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,1,2,2-Tetrachloroethane					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,1,2-Trichloroethane					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,1-Dichloroethane					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,1-Dichloroethene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,2,3-Trichlorobenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,2,4-Trichlorobenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,2,4-Trimethylbenzene	51,100,000	7,573	83,000		µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,2-Dibromo-3-chloropropane					µg/kg	<10	<11	<25	<25	<25	<25							
1,2-Dibromoethane (EDB)					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,2-Dichlorobenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,2-Dichloroethane		4.9		540	µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,2-Dichloropropane					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,3,5-Trimethylbenzene	51,100,000	3,520	11,000		µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,3-Dichlorobenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,3-Dichloropropane					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
1,4-Dichlorobenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
2,2-Dichloropropane					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
2-Chlorotoluene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
4-Chlorotoluene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Benzene	52,000	5.5	8,500	1,100	µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Bromobenzene					µg/kg			<25	<25	<25	<25							
Bromochloromethane					µg/kg			<25	<25	<25	<25							
Bromodichloromethane					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Carbon tetrachloride					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Chlorobenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Chloroethane					µg/kg	<10	<11	<25	<25	<25	<25							
Chloroform					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Chloromethane					µg/kg	<10	<11	<25	<25	<25	<25							
cis-1,2-Dichloroethene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
cis-1,3-Dichloropropene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Dibromochloromethane					µg/kg	<5.2	<5.3											
Dibromomethane					µg/kg			<25	<25	<25	<25							
Dichlorodifluoromethane					µg/kg	<10	<11	<25	<25	<25	<25							
Ethylbenzene	102,000,000	2,900	4,600		µg/kg	<5	<5.3	<25	<25	<25	<25							
Hexachloro-1,3-butadiene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Isopropylbenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Methylene chloride					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Methyl-tert-butyl ether					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Naphthalene	110,000	400	2,700		µg/kg	<5.2	<5.3	<25	<25	<25	<25							
N-Butylbenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
n-Propylbenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
p-Isopropyltoluene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
sec-Butylbenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
tert-Butylbenzene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Tetrachloroethene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Toluene	204,000,000	1,500	38,000		µg/kg	<5.2	<5.3	<25	<25	<25	<25							
trans-1,2-Dichloroethene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Trichloroethene					µg/kg	<5.2	<5.3	<25	<25	<25	<25							
Trichlorofluoromethane					µg/kg	<10	<11											
Vinyl chloride					µg/kg	<10	<11	<25	<25	<25	<25							
Xylene, o					µg/kg			<25	<25	<25	<25							
Xylenes, m + p					µg/kg			<50	<50	<50	<50							
Xylene (Total)	204,000,000	4,100	42,000		µg/kg	<15	<16	<50	<50	<50	<50							
<b>Petroleum Hydrocarbons (mg/kg):</b>					µg/kg													
Diesel Range Organics		250			mg/kg													

**TABLE 1  
SOIL QUALITY DATA SUMMARY  
FORMER LOCKER ROOM - PAH AREA  
WISCONSIN CENTRAL, LTD. - NORTH FOND DU LAC YARD  
NORTH FOND DU LAC, WISCONSIN  
AECOM PROJECT NO. 60135737**

	Generic RCLs <sup>(1)(3)</sup>		NR 746 Criteria <sup>(2)</sup>		Sample Location:	SS-103	SS-103 Dup	ET-B-19	ET-B-20	ET-B-21	ET-B-22		SS-19A		SS-20	SS-21	SS-22	SS-103A
	Direct Contact	Groundwater	Table 1	Table 2	Sample Depth:	0.0-1.5	0.0-1.5	3.0-5.0	3.0-5.0	3.0-5.0	3.0-5.0	8.0-10.0	0.0-3.0	3.0-5.0	0.0-3.0	0.0-3.0	0.0-3.0	4.5-6.0
	Industrial (A)	(B)	Indicators of Residual Petroleum Product in Soil Pores (C)	Protection of Human Health from Direct Contact with Contaminated Soil (D)	Sample Date:	1/8/2004	1/8/2004	3/2/06	3/2/06	3/14/06	3/2/06	3/2/06	3/15/2011	3/15/2011	3/15/2011	3/15/2011	3/15/2011	3/15/2011
				Sampling Company:	TRC	TRC	Earth Tech	Earth Tech	Earth Tech	Earth Tech	Earth Tech	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM	AECOM
<b>Metals (mg/kg):<sup>(3)</sup></b>																		
Arsenic	1.6				mg/kg	7.33 <sup>A</sup>	4.84 <sup>A</sup>	5.1 <sup>A</sup>	5.2 <sup>A</sup>	4.8 <sup>A</sup>	5.4 <sup>A</sup>	--	--	--	--	--	--	--
Barium					mg/kg	42	83.4	65	78	150	170	--	--	--	--	--	--	--
Cadmium	510				mg/kg	0.31	0.33	1.3	<0.064	<0.064	<0.065	--	--	--	--	--	--	--
Chromium					mg/kg	8.77	7.43	20	24	27	49	--	--	--	--	--	--	--
Lead	500				mg/kg	34.4	37.3	170	21	10	12	5.4	150	5.9	18.1	710 <sup>A</sup>	224	5.8
Selenium					mg/kg	4.17	<3.76	1.2	<1.0	1.4	1.9	--	--	--	--	--	--	--
Silver					mg/kg	<2.57	<2.51	<0.30	<0.30	<0.30	<0.31	--	--	--	--	--	--	--
Chromium, Hexavalent	200				mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--
Mercury					mg/kg	<0.0158	<0.02	0.060	0.018	0.016	0.021	--	--	--	--	--	--	--
Total Organic Carbon					mg/kg	--	--	--	--	--	--	--	--	--	--	--	--	--
<b>Polynuclear Aromatic Hydrocarbons (µg/kg):<sup>(2)</sup></b>																		
1-Methylnaphthalene	70,000,000	23,000			µg/kg	--	--	15	3.9	<3.8	<3.9	--	409	--	13.5J	<2.8	1,440	<3.0
2-Methylnaphthalene	40,000,000	20,000			µg/kg	560	340	18	7.6	<4.0	<4.0	--	480	--	15.1J	3.2J	2,580	<3.0
Acenaphthene	60,000,000	38,000			µg/kg	200	190	<3.7	<3.7	<3.8	<3.8	--	12.2J	--	5.1J	<2.5	761J	<2.8
Acenaphthylene	360,000	700			µg/kg	500	1,100 <sup>B</sup>	4.0	<3.6	<3.6	<3.7	--	33.3J	--	<3.0	<2.9	1,610 <sup>B</sup>	<3.1
Anthracene	300,000,000	3,000,000			µg/kg	2,400	5,900	6.1	<4.5	<4.5	<4.6	--	55.3	--	14.6J	<4.2	4,450	<4.6
Benzo(a)anthracene	3,900	17,000			µg/kg	2,900	6,300 <sup>A</sup>	15	<6.7	<6.7	<6.8	--	148	--	34.1	2.7J	11,600 <sup>A</sup>	<2.8
Benzo(a)pyrene	390	48,000			µg/kg	3,600 <sup>A</sup>	7,900 <sup>A</sup>	18	<3.6	<3.6	<3.7	--	159	--	35.4	<3.0	11,800 <sup>A</sup>	<3.2
Benzo(b)fluoranthene	3,900	360,000			µg/kg	7,100 <sup>A</sup>	14,000 <sup>A</sup>	14	<3.5	<3.6	<3.6	--	159	--	26.1	3.3J	11,500 <sup>A</sup>	<3.4
Benzo(ghi)perylene	39,000	6,800,000			µg/kg	2,500	5,700	8.9	<4.5	<4.5	<4.6	--	59.2	--	22.4	3.0J	4,480	<2.6
Benzo(k)fluoranthene	39,000	870,000			µg/kg	2,100	5,200	15	<3.8	<3.9	<3.9	--	168	--	35.2	<3.4	9,130	<3.6
Chrysene	390,000	37,000			µg/kg	5,300	12,000	19	<5.5	<5.5	<5.6	--	186	--	36.7	5.1J	11,300	<3.6
Dibenz(a,h)anthracene	390	38,000			µg/kg	820 <sup>A</sup>	1,600 <sup>A</sup>	<3.4	<3.5	<3.5	<3.5	--	21.7J	--	6.0J	<4.9	1,730 <sup>A</sup>	<5.3
Fluoranthene	40,000,000	500,000			µg/kg	4,800	7,600	24	4.4	<3.7	<3.7	--	255	--	76.4	<9.0	25,700	<9.8
Fluorene	40,000,000	100,000			µg/kg	89	140	<4.2	<4.3	<4.3	<4.4	--	12.5J	--	6.2J	<4.5	1,040J	<4.9
Indeno(1,2,3-cd)pyrene	3,900	680,000			µg/kg	2,000	5,300 <sup>A</sup>	10	<3.2	<3.2	<3.2	--	55.3	--	18.5J	<2.6	4,470 <sup>A</sup>	<2.8
Naphthalene	110,000	400	2,700	2,700	µg/kg	800 <sup>B</sup>	470 <sup>B</sup>	12	11	<5.1	<5.2	--	300	--	12.6J	<3.2	3,530 <sup>B,C,D</sup>	<3.4
Phenanthrene	390,000	1,800			µg/kg	1,600	2,100 <sup>B</sup>	25	3.8	<3.7	<3.8	--	349	--	64.8	5.7J	15,200	<4.3
Pyrene	30,000,000	8,700,000			µg/kg	5,000	8,300	32	4.2	<3.1	<3.2	--	277	--	68	6.6J	28,900	<3.6
<b>pH (pH units)</b>																		
pH						--	--	--	--	--	--	--	--	--	--	--	--	--

**NOTES:**

<sup>(1)</sup> Wisconsin Administrative Code Chapter NR 720, September 2007 - RCLs based on Table 1 (groundwater protection) or Table 2 (direct contact) values

<sup>(2)</sup> NR 746 - Wisconsin Administrative Code Chapter NR 746, September 2007.

<sup>(3)</sup> Interim PAH RCLs from "Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance," Wisconsin Department of Natural Resources, April 1997 (corrected).

Generic RCLs not included in Wisconsin Administrative Code or Guidance are calculated from the US EPA Soil Screening Level Web Page and the default values contained in *Determining Residual Contaminant Levels using the EPA Soil Screening Level Web Site* - WDNR PUB-RR-682, dated May 12, 2006

Blank cell indicates regulatory criteria have not been established.

--: Not analyzed.

mg/kg - milligrams per kilogram.

µg/kg - micrograms per kilogram.

PAH - Polynuclear Aromatic Hydrocarbons

RCL - Residual Contaminant Level

J - The analyte has been detected between the limit of detection and limit of quantitation. The results are qualified due to the uncertainty of concentrations in this range.

**Bold** indicates a regulatory standard has been exceeded.

Earth Tech samples "<x" are less than the limit of detection

TRC samples "<x" are less than the reporting limit

<sup>A</sup> = Exceeds NR 720 Industrial Direct Contact RCL

<sup>B</sup> = Exceeds NR 720 Groundwater Pathway RCL

<sup>C</sup> = Exceeds NR 746 Table 1 Indicator of Residual Petroleum Product in Soil Pores Screening Levels

<sup>D</sup> = Exceeds NR 746 Human Health from Direct Contact with Contaminated Soil RCL