State of Wisconsin
Department of Natural Resources
P.O. Box 7921, Madison, WI 53707-7921

GIS REGISTRY (Cover Sheet)

Form 4400-280 (R 7/12)

Source Property Information

CLOSURE DATE: Jun 12, 2013

BRRTS #: **02-57-560430** (No Dashes)

FID #: 157005530

ACTIVITY NAME: BAAP PARCEL S5

DATCP #:

PROPERTY ADDRESS: S7560 Sth 12

PECFA#:

MUNICIPALITY: Sumpter

PARCEL ID #: Badger Parcel S5

***WTM COORDINATES:**

X: **539677** Y: **320882**

** 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)*

- [x] 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:

- [x] 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*

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
3911 Fish Hatchery Road
Fitchburg WI 53711-5397

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711

June 12, 2013

Ms. Joan Kenney
Commander's Representative
Badger Army Ammunition Plant
S7560 USH 12
North Freedom, WI 53951-9540

Subject: Final Case Closure and No-Action-Required Determinations for Badger Army Ammunition Plant Parcel S5 Remedial Investigation/Remedial Action/Sewer Removal Projects; S7560 USH 12, North Freedom, Sauk County; BRRTS Number 02-57-560430

Dear Ms. Kenney:

The Wisconsin Department of Natural Resources (WDNR) considers the Parcel S5 Remedial Investigation/Remedial Action/Sewer Removal case closed. No further investigation or remediation is required at this time. At the time of ownership transfer of this property, please provide this letter to the subsequent owner.

This final closure decision is based on the correspondence and data provided and is issued under ch. NR 726, Wisconsin Administrative Code. The South Central Region Closure Committee reviewed the request for closure on May 2, 2013. The review was paused on this date, pending the submittal of requested additional information. The committee again reviewed the request and the additional information on June 6, 2013. The committee reviews environmental remediation cases for compliance with State laws and standards to maintain consistency in the closure of these cases. The committee's review considered the future use of these parcels that may include recreation or the grazing of animals or both.

The projects completed by the Army in property transfer Parcel S5 are described in the "Parcel S5 – Wisconsin Department of Natural Resources Closure Request" from the Army, dated April 15, 2013. In addition, your closure request letter includes the conclusions of a facility-wide Environmental Baseline Survey and a follow-on Environmental Site Assessment that were completed in 1999 and 2004, respectively. The letter contains a statement that these were completed in accordance with Army Regulation 200-1 and ASTM standards. Based on interviews and records reviews, no evidence was found of any releases of PCBs in Parcel S5. Structures, buildings, sewers, and slabs/foundations have been removed from this parcel and inspected along with a visual reconnaissance of the parcel. No hazardous conditions were identified that present an unacceptable risk to human health and the environment in this parcel, other than those that have been investigated and remediated as described in the report listed above.

Case closure applies to the soil removed from the areas of demolished buildings at which soil was excavated because of exceedances of clean-up objectives and from the identified locations of soil that was removed from the vicinity of the sewer lines. These are the areas for which a remedial action (i.e., soil excavation) was completed.

In addition, no action is required for those areas of this parcel that were investigated but no remedial action is warranted and none was initiated: the soil around many of the demolished buildings and most of the soil of the

sewer lines removal project. Also note that no action is required for the remainder of Parcel S5 outside of the areas discussed in this and the previous paragraph.

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.

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 soil contamination and of any continuing obligations.

All site information is on file at the South Central Regional DNR office, at 3911 Fish Hatchery Road, Fitchburg, WI 53711. This letter and information that was submitted with your closure request application 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://dnrmaps.wi.gov/imf.jsp?site=brrts2.

Closure Conditions

Compliance with the requirements of this letter is a responsibility to which the Army and any subsequent property owners must adhere. 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, or ch. 289, Stats.; chs. 500 to 536, Wis. Adm. Code)

Soil contamination remains in the vicinity of the western portion of account/building #9592A below a depth of 20 feet, as indicated on the attached Figure 2. If soil in the specific locations described above 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 must 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.

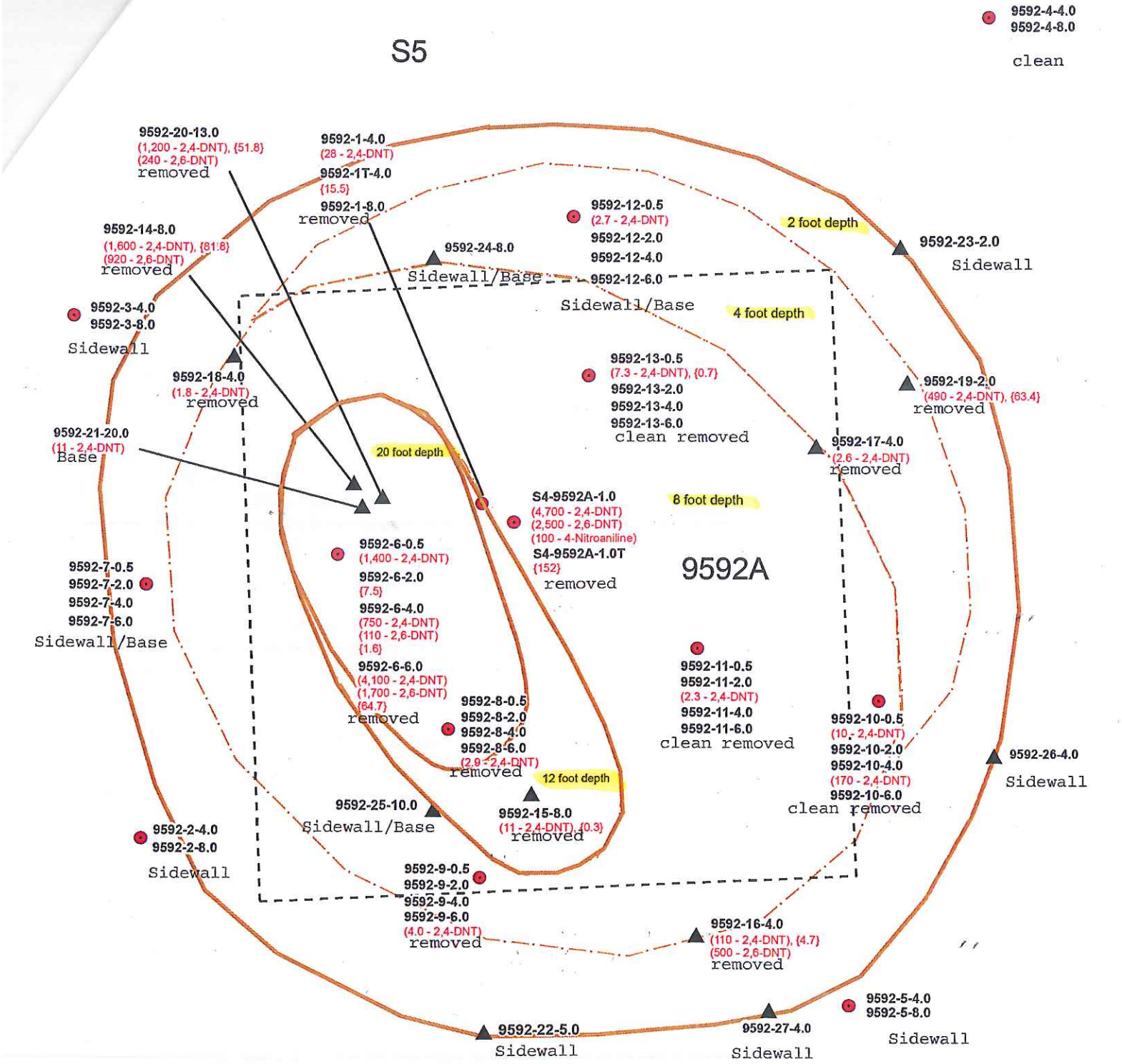
Please be aware that a case for Parcel S5 may be reopened pursuant to s. NR 726.09, Wisconsin Administrative Code, if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety or welfare, or the environment.

The Department 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 me as indicated below or at the following address: WDNR South Central Region, 3911 Fish Hatchery Road, Fitchburg, WI, 53711.

Sincerely,

Hank Kuehling, P.G.
Remediation & Redevelopment Program LTE Hydrogeologist
(608) 275-3286
harlan.kuehling@wisconsin.gov

c (via e-mail): Mike Sitton – U.S. Army
Clair Ruenger – BTS, Inc.
Laura Olah - CSWAB



Legend

- Excavation Extent (September 2012)
- Excavation Extent (July/August 2012)
- Remedial Soil Sample Location
- Soil Boring Location
- (28) Analytical Cleanup Value Exceedance (in milligrams per kilogram)
- {28} 2,4-DNT TCLP Analytical Result (in milligrams per liter)
- Former Building Footprint
- 592A Account #
- *S5* Parcel

Figure 2

Remedial Excavation & Sample Location Map
Parcel S5 - Solvent Extraction Storage Building
Supplemental Remedial Action Report
Badger Army Ammunition Plant

BTS
BADGER TECHNICAL SERVICES

1 inch = 5 feet

0 5 10 Feet

\\Pc-gis\maingis_disk\GIS_Projects\
BTS Projects\RA Projects\Parcel S5 Solv
Storage Bldg\Fig 2 Remedial Excavation Extents

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Case Closure - GIS Registry

SUBMIT AS UNBOUND PACKAGE IN THE ORDER SHOWN

Notice: Pursuant to ch. 292, Wis. Stats., and chs. NR 726 and 746, Wis. Adm. Code, this form is required to be completed for case closure requests. The closure of a case means that the Department of Natural Resources (DNR) has determined that no further response is required at that time based on the information that has been submitted to the DNR. All sections of this form must be completed unless otherwise directed by the Department. Incomplete forms will be considered "administratively incomplete" and processing of the request will stop until required information is provided. Any section of the form not relevant to the case closure request must be fully filled out or explained on a separate page and attached to the relevant section of this form. DNR will consider your request administratively complete when the form and all sections are completed, all attachments are included, and the applicable fees required under ch. NR 749, Wis. Adm. Code, are included, and sent to the proper destinations. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31 - 19.39, Wis. Stats.).

Site Information

BRRTS No.	Parcel ID No. S5		
BRRTS Activity (Site) Name: BAAP Parcel S5	WTM Coordinates X: 539677	Y: 320882	
Street Address: S7560 U.S Highway 12	City: North Freedom	State: WI	ZIP Code: 53591
Responsible Party (RP) Name: United States Army			
Company Name: -			
Street Address: S7560 U.S Highway 12	City: North Freedom	State: WI	ZIP Code: 53591
Phone Number: (608) 643-3361	Email: joan.m.kenney@us.army.mil		

☒ Check here if the RP is the owner of the source property.

Environmental Consultant Name: Clair Ruenger			
Consulting Firm: Badger Technical Services, LLC - BAAP			
Street Address: S7560 U.S Highway 12	City: North Freedom	State: WI	ZIP Code: 53591
Phone Number: (608) 643-3361	Email: clair.ruenger@specpro-inc.com		
Acres Ready For Use: 15.62	Voluntary Party Liability Exemption Site? ○ Yes ◉ No		

Fees and Mailing of Closure Request

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

1. **Send a copy of page one** of this form and the applicable ch. NR 749, Wis. Adm. Code, fee(s) to the DNR regional Environmental Program Associate at **http://dnr.wi.gov/topic/Brownfields/Contact.html**. Check all fees that apply:

   ☐ $750 Closure Fee

   ☐ $200 GIS Registry Fee for Soil

   ☐ $250 GIS Registry Fee for Groundwater Lost Well(s)

   Total Amount of Payment $ _____

2. **Send one paper copy and one e-copy on compact disk of the entire closure package** to the Regional Project Manager assigned to your site. Submit as *unbound, separate documents* in the order and with the titles prescribed by this form. For electronic document submittal requirements, see **http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf.**

Site Summary

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

1. General Site Information and Site History

A. **Site Location**: Describe the physical location of the site, both generally and specific to its immediate surroundings.
Located in the west-central portion of BAAP, Parcel S5 is open prairie grassland and is surrounded by same.

B. **Prior and current site usage**: Specifically describe the current and historic occupancy and types of use.
Parcel S5 is part of the Ball Powder area of BAAP. Constructed in the early 1950s, the area produced single- and double-base Ball Powder propellant. The area is scheduled for property transfer to WDNR.

C. Describe how and when site contamination was discovered.
Contaminants were identified during the 2011 sewer removal and building/account demolition operations remedial investigation sampling.

D. Describe the type(s) and source(s) or suspected source(s) of contamination.
VOCs, BNAs, PCBs, and/or Metals resulting from former propellant manufacturing operations and building/account-related materials.

E. Other relevant site description information (or enter Not Applicable).
Not applicable.

F. List BRRTS activity site name and number for all other BRRTS activities at this property, including closed cases.
BAAP - Parcel S5. There are no other BRRTS activities at the property.

G. List BRRTS activity/site name(s) and number(s) for all properties immediately adjacent to this site, and those impacted by contamination from this site.
BAAP Parcel S1 (#0257560031), BAAP Parcel U3 (#0257559615), and BAAP Parcel Y (#0257559831).

H. **Current zoning** (e.g. industrial, commercial, residential) for the site and for neighboring properties, and how verified (Provide documentation in Attachment G).
The site and neighboring properties are zoned "governmental-agricultural conservation".

2. General Site Conditions

A. Soil/Geology

i. Describe soil type(s) and relevant physical properties, thickness of soil column across the site, vertical and lateral variations in soil types.
Soil - medium brown silty sands, sandy silts, and sandy clay. Geology - unconsolidated glacial sediments consisting of outwash sands, interlayered sand/gravel, with some inter-bedded till underlain by sandstone bedrock at 150' to 200'.

ii. Describe the composition, location and lateral extent, and depth of fill or waste deposits on the site.
Remedial excavations at Accounts #9592A and #9593-00 were filled to grade. The area does not contain waste deposits.

iii. Depth to bedrock, bedrock type, and whether or not it was encountered during the investigation.
150' to 200', Cambrian sandstone, not encountered during parcel remedial investigation.

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

B. Groundwater

i. **Discuss depth to groundwater and piezometric elevations**. Describe and explain depth variations, and whether free product affects measurement or water table elevation. Describe the stratigraphic unit(s) where water table was found or which were measured for piezometric levels.
Monitoring well RIM-1201 is the only well present within Parcel S5. This well is screened within the unconsolidated sand/gravel. The groundwater elevation was 782.85 ft msl on 12/15/12 (note: monitoring well RIM-1201 will managed/ abandoned as part of the facility-wide groundwater monitoring network).

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

Groundwater flow direction is to the southeast.

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

The average flow velocity and hydraulic conductivity at BAAP are 0.72 ft/day and 4x10E-2 cm/sec, respectively.

iv. Identify and describe locations/distance of potable and/or municipal Wells within 1200 feet of the site.

There are no potable or municipal wells within 1,200 feet of the parcel.

3. Site Investigation Summary

A. General

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

2003 soil gas survey/site assessment activities and 2011/2012 remedial investigation/action activities. See April 2013 BTS - Parcel S5 WDNR Closure Request report.

ii. Identify whether contamination extends beyond the source property boundary, describe the off-site media (e.g., soil, groundwater, etc.) impacted, and the vertical and horizontal extent of off-site impacts.

Soil contamination did not extend beyond the Parcel S5 boundary. Groundwater is not impacted.

iii. Identify any structural impediments to the completion of site investigation and/or remediation and whether these impediments are on the source property or off the source property. Identify the type and location of any structural impediment (e.g., structure) that also serves as the performance standard barrier for protection of the direct contact or the groundwater pathway.

Structural impediments were not encountered during the investigation/remediation activities and are not being used as an engineering control.

B. Soil

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

An estimated 30 to 40 cubic yards of 2,4-DNT-impacted soil (11 mg/kg) remain at a depth of approximately 20 ft bgs. See Figure 5 of the April 2013 BTS - Parcel S5 WDNR Closure Request report. Groundwater (a potential receptor) is not impacted.

ii. Describe the level and types of **soil contaminants** found in the upper four feet of the soil column.

All soil contaminants found within the upper four ft bgs have been removed (note that soil in the area of Account #9592A was excavated to a depth of 20 ft bgs). Table 1 of the April 2013 BTS - Parcel S5 WDNR Closure Request report.

iii. Identify the ch. NR 720, Wis. Adm. Code, method used to establish the soil cleanup standards for this site: for example, a Residual Contaminant Level (RCL) , a Site-Specific Residual Contaminant Level (SSRCL), or a Performance Standard as determined under ss NR 720.09, 720.11 and 720.19, Wis. Adm. Code. Identify the land use classification that was used to establish cleanup standards. Provide a copy of the supporting calculations/information in Attachment C.

Soil cleanup objectives are presented in Table 1 of the April 2013 BTS - Parcel S5 WDNR Closure Request report.

C. Groundwater

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

There is no groundwater contamination in Parcel S5.

ii. Describe the presence of free product at the site, including the thickness, depth, and locations.

Not applicable.

D. Vapor

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

The vapor pathway was not assessed due to localized, low contaminant concentrations, human occupancy is greater than 2,500 feet, and the absence of structures/basements in the parcel.

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

Not applicable.

E. Surface Water and Sediment

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

No surface water is present in or near the parcel.

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

Not applicable.

4. Remedial Actions Implemented and Residual Levels at Closure

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

Source removal (excavation) of non-hazardous and hazardous soil was conducted in 2011/2012. Non-hazardous soil was landfilled on-site and hazardous soil was incinerated at an off-site licensed facility. See associated remedial investigation/ action reports included on the Parcel S5 CD.

B. Describe any immediate or interim actions taken at the site under ch NR 708, Wis. Adm. Code.

See 4A above and the April 2013 BTS - Parcel S5 WDNR Closure Request report.

C. Describe the *active* remedial actions taken at the site, including: type of remedial system(s) used for each media impacted; the size and location of any excavation or in-situ treatment; the effectiveness of the systems to address the contaminated media and substances; operational history of the systems; and summarize the performance of the active remedial actions. Provide any system performance documentation in Attachment A.7.

Not applicable.

D. Provide a discussion of the nature, degree and extent of residual contamination that will remain at the site or on off-site affected properties after case closure.

An estimated 30 to 40 cubic yards of 2,4-DNT-impacted soil (11 mg/kg) remain at a depth of approximately 20 ft bgs. See Figure 5 of the April 2013 BTS - Parcel S5 WDNR Closure Request report. There are no groundwater impacts associated with Parcel S5.

E. Describe the remaining soil contamination within four feet of ground surface (direct contact zone) that attains or exceeds the ch. NR720, Wis. Adm. Code, standard(s) for direct contact.

All direct contact zone soils have been removed

F. Describe the remaining soil contamination in the vadose zone that attains or exceeds the soil standard(s) for the groundwater pathway.

See 4D above and the April 2013 BTS - Parcel S5 WDNR Closure Request report.

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

The remedial excavations have been backfilled with clean soil. Natural attenuation processes will reduce the residual soil contamination identified (see 4D above).

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

There are no known impacts to groundwater in the parcel.

I. Identify how all exposure pathways were removed and/or adequately addressed by immediate and/or remedial action(s) described above in paragraphs, B, C, D, E and F.

Source removal (soil excavation) of impacted soil limits potential migration of residual contaminants.

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

Not applicable (note: monitoring well RIM-1201 will managed/abandoned as part of the facility-wide groundwater monitoring network).

K. Identify the need for a ch. NR 140, Wis. Adm. Code, groundwater Preventive Action Limit (PAL) or Enforcement Standard (ES) exemption, and identify the affected monitoring points and applicable substances.
Not applicable.

L. If a DNR action level for vapor intrusion was exceeded (for indoor air, sub slab, or both) describe where it was exceeded and how the pathway was addressed.
Not applicable.

M. Describe the surface water and/or sediment contaminant concentrations and areas after remediation. If a DNR action level was exceeded, describe where it was exceeded and how the pathway was addressed.
Not applicable.

5. Continuing Obligations: Situations where a maintenance plan(s) and inclusion on DNR's GIS Registry are required.

Directions: Check all that apply to this case closure request:

	This scenario Applies to this Case Closure		Case Closure Scenario: Maintenance Plans and GIS Registry	Maintenance Plan (s) Required in Attachment D	GIS Registry Listing
	A. On-Site	B. Off-Site			
i.	☐	☐	Engineering Control/Barrier for Direct Contact	✓	✓
ii.	☐	☐	Engineering Control/Barrier for Groundwater Infiltration	✓	✓
iii.	☐	☐	Vapor Mitigation - post closure passive system	✓	✓
iv.	☐	☐	Vapor Mitigation - post closure active system	✓	✓
v.	☒	☒	None of the above scenarios apply to this case closure	NA	NA

6. Continuing Obligations: Situations where inclusion on DNR's GIS Registry is required.

Directions: Check all that apply to this case closure request:

	This scenario Applies to this Case Closure		Case Closure Scenario: GIS Registry Only	GIS Registry Listing
	A. On-Site	B. Off-Site		
i.	☒	☐	Residual soil contamination exceeds ch. NR 720 generic or site-specific RCLs	✓
ii.	☐	☐	Sites with groundwater contamination equal to or greater than the ch. NR 140, enforcement standards (ES)	✓
iii.	☒	☐	Monitoring wells: lost, transferred or remaining in use	✓
iv.	☐	☐	Structural Impediment (not as a performance standard)	✓
v.	☐	☐	Residual soil contamination remaining at ch. NR 720 Industrial Use levels	✓
vi.	☐	☐	Vapor intrusion may be future, post-closure issue if building use or land use changes	✓
vii.	☐	☒	None of the above scenarios apply to this case closure	NA

7. Underground Storage Tanks

A. Were any tanks, piping or other associated tank system components removed as part of the investigation or remedial action? ○ Yes ◉ No

B. Do any upgraded tanks meeting the requirements of ch. SPS 310, Wis. Adm. Code, exist on the property? ○ Yes ◉ No

C. If the answer to question 7b is yes, is the leak detection system currently being monitored? ○ Yes ○ No

Data Tables (Attachment A)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form.All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General directions for Data Tables:

- Use bold and italics font on information of importance on tables and figures. Use **bold font** for ch. NR 140, Wis. Adm. Code, groundwater enforcement standard (ES) attainments or exceedances, and *italicized font* for ch. NR 140, Wis. Adm. Code, groundwater preventive action limit (PAL) standard attainments or exceedances.
- Do not use shading or highlighting on the analytical tables.
- Include on Data Tables the level of detection for results which are below the detection level (i.e. do not just list as no detect (ND)).
- Include the units on data tables.
- Summaries of all data must include information collected by previous consultants.
- Do not submit lab data sheets unless these have not been submitted in a previous report. Tabulate all data required in s. NR 716.15 (2)(g)3, Wis. Adm. Code, in the format required in s. NR 716.15(2)(h)3, Wis. Adm. Code.
- Include in Attachment A all of the following tables, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: A.1. Groundwater Analytical Table; A.2. Pre-remedial Soil Analytical Table, etc).
- For required documents, each table (e.g., A.1., A.2., etc.,) should be a separate PDF.

A. Data Tables

A.1. **Groundwater Analytical Table(s):** Table(s) showing the analytical results and collection dates, for all groundwater sampling points e.g. monitoring wells, temporary wells, sumps, extraction wells, any potable wells and any other wells, extraction wells and any potable wells for which samples have been collected.

A.2. **Pre-remedial Soil Analytical Table(s):** Table(s) showing the soil analytical results and collection dates - prior to conducting the interim and/or remedial action. Indicate if sample was collected above or below the all-time low water table (unsaturated verses saturated).

A.3. **Post-remedial Soil Analytical Table(s):** Table(s) showing the post-remedial action soil analytical results and collection dates. Indicate if sample was collected above or below the all-time low water table (unsaturated verses saturated).

A.4. **Pre and Post Remaining Soil Contamination Soil Analytical Table(s):** Table(s) showing only the pre and post remedial action soil analytical results that exceed a Residual Contaminate Level (RCL) or a Site-Specific Residual Level (SSRCL).

A.5. **Vapor Analytical Table**: Table(s) showing type(s) of samples, sample collection methods, analytical method, sample results, date of sample collection, time period for sample collection, method and results of leak detection, and date, method and results of communication testing.

A.6. **Other Media of Concern (e.g., sediment or surface water)**: Table(s) showing type(s) of sample, sample collection method, analytical method, sample results, date of sample collection, time period for sample collection, method and results sampling.

A.7. **Water Level Elevations:** Table(s) showing all water level elevation measurements and dates from all monitoring wells. If present, free product should be noted on the table.

A.8. **Other:** This attachment should include: 1) any available tabulated natural attenuation data; 2) data tables pertaining to engineered remedial systems that document operational history, demonstrate system performance and effectiveness, and display emissions data; and (3) any other data tables relevant to case closure not otherwise noted above. If this section is not applicable, please explain the reasons why.

Maps and Figures (Attachment B)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions for all Maps and Figures:

- If any map or figure is not relevant to the case closure request, you must fully explain the reason(s) why and attach that explanation (properly labeled with the map/ figure title) in Attachment B.
- Provide on paper no larger than 11 x 17 inches, unless otherwise directed by the Department. Maps and figures may be submitted in a larger electronic size than 11x17 inches, in a portable document format (pdf) readable by the Adobe Acrobat Reader. However, those larger-size documents must be legible when printed.
- Prepare visual aids, including maps, plans, drawings, fence diagrams, tables and photographs according to the applicable portions of ss. NR 716.15(2)(h)1 and 726.05(3)(a)4.d, Wis Adm. Code.
- Do not use shading or highlights on any of the analytical tables.
- Include all sample locations.
- Contour lines should be clearly labeled and defined.
- Include in Attachment B all of the following maps and figures, in the order prescribed below, with the specific Closure Form titles

noted on the separate attachments (e.g., Title: B.1. Location Map; B.2. Detailed Site Map, etc).

- For the electronic copies that are required, each map (e.g., B.1.a., B.2.a, etc.,) should be a separate PDF.

B.1. Location Maps

B.1.a. **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 impacted and/or adjacent parcels. If groundwater standards are exceeded, include the location of all potable wells, including municipal wells, within 1200 feet of the area of contamination.

B.1.b. **Detailed Site Map:** A map that shows all relevant features (buildings, roads, current ground surface cover, individual property boundaries for on-site and applicable off-site properties, contaminant sources, utility lines, monitoring wells and potable wells) within the contaminated area. This map is to show the location of all contaminated public streets, and highway and railroad rights-of-way in relation to the source property and in relation to the boundaries of groundwater contamination 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 ss. NR 720.09, 720.11 and 720.19, Wis. Adm. Code.

B.1.c. **RR Site Map:** From RR Sites Map (http://dnrmaps.wi.gov/imf/imf.jsp?site=brrts2) attach a map depicting the source property, and all open and closed BRRTS sites within a half-mile radius or less of the property.

B.2. Soil Figures

B.2.a. **Pre-remedial Soil Contamination:** Figure(s) showing the sample location of all pre-remedial, unsaturated contaminated soil and a <u>single contour</u> showing the horizontal extent of each area of contiguous residual soil contamination that exceeded a Residual Contaminant Level (RCL) or a Site-Specific Residual Contaminant Level (SSRCL) as determined under ss. NR 720.09, 720.11 and 720.19, Wis. Adm. Code.

B.2.b. **Post-remedial Soil Contamination :** Figure(s) showing the sample location of all post-remedial, unsaturated contaminated soil and a <u>single contour</u> 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 ss. NR 720.09, 720.11 and 720.19, Wis. Adm. Code. A separate contour line should be used to indicate the extent of residual direct contact exceedances.

B.2.c. **Pre/Post Remaining Soil Contamination:** Figure(s) showing the only location of all pre and post remedial residual soil sample location(s) where unsaturated contaminated soil remains after remediation and a single contour showing the horizontal extent of each area of contiguous residual soil contamination that exceeds a Residual Contaminate Level (RCL) or a Site-Specific Residual Level (SSRCL) as determined under ss. NR 720.09, 720.11 and 720.19, Wis. Admin. Code. A separate contour line should be used to indicate the extent of residual direct contact exceedances.

B.3. Groundwater Figures

B.3.a. **Geologic Cross-Section Figure(s):** One or more cross-section diagrams showing soil types and correlations across the site, water table and piezometric elevations, and locations and elevations of geologic rock units, if encountered. Display on one or more figures all of the following:

- Source location(s) and vertical extent of residual soil contamination exceeding a Residual Contaminant Level (RCL) or a Site Specific Residual Contaminant Level (SSRCL).
- Source location(s) and lateral and vertical extent if groundwater contamination exceeds a ch. NR 140 Enforcement Standard (ES)
- Surface features, including buildings and basements, and show surface elevation changes.
- Any areas of active remediation within the cross section path, such as excavations or treatment zones.
- Include a map displaying the cross-section location(s), if they are not displayed on the Detailed Site Map (Map B.1b)

B.3.b. **Groundwater Isoconcentration:** Figure(s) showing the horizontal extent of the post-remedial groundwater contamination exceeding a ch. NR 140, Wis. Adm. Code, Preventive Action Limit (PAL) and/or an Enforcement Standard (ES). Indicate the date and direction of groundwater flow based on the most recent sampling data.

B.3.c. **Groundwater Flow Direction:** Figure(s) representing groundwater movement at the site. If the flow direction varies by more than 20° over the history of the site, submit two groundwater flow maps showing the maximum variation in flow direction.

B.3.d. **Monitoring Wells:** Figure(s) showing all monitoring wells, with well identification number. Clearly designate any wells that: (1) are proposed to be abandoned; (2) cannot be located; (3) are being transferred; (4) will be retained for further sampling, or (5) have been previously abandoned.

B.4. Vapor Maps and Other Media

B.4.a. **Vapor Intrusion Map:** Map(s) showing all locations and results for samples taken to investigate the vapor intrusion pathway, in relation to remaining soil and groundwater contamination, including sub-slab, indoor air, soil vapor, ambient air, and communication testing. Show locations and footprints of affected structures and utility corridors, and/or where residual contamination poses a future risk of vapor intrusion.

B.4.b. **Other media of concern (e.g., sediment or surface water**): Map(s) showing all sampling locations and results for

other media investigation. Include the date of sample collection and identify where any standards are exceeded.

B.4.c. **Other:** Include any other relevant maps and figures not otherwise noted above. (This section may remain blank)

Documentation of Remedial Action (Attachment C)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

- Include in Attachment C all of the following documentation, in the order prescribed below, with the specific Closure Form titles noted on the separate attachments (e.g., Title: C.1. Site Investigation Documentation; C.2. Investigative Waste, etc).
- If the documentation requested below is "not applicable" to the site-specific circumstances, include a brief explanation to support that conclusion.
- If the documentation requested below has already been submitted to the Department, please note the title and date of the report for that particular document requested.

C.1. **Site investigation documentation,** that has not otherwise been previously submitted.

C.2. **Investigative waste** disposal documentation.

C.3. **NR 720.19 analysis**, assumptions and calculations for site specific RCLs (SSRCLs) , with justification, including EPA Soil Screening Level Model Calculations and results.

C.4. **Construction documentation** or as-built report for any constructed remedial action or portion of, or interim action specified in s. NR 724.02(1), Wis. Adm. Code.

C.5. **Decommissioning of Remedial Systems.** Include plans to properly abandon any systems or equipment upon receiving conditional closure.

C.6. **Photos.** For sites or facilities with a cover or other performance standard, a structural impediment or a vapor mitigation system. Include one or more photographs documenting the condition and extent of the feature at the time of the closure request. Pertinent features should be visible and discernible. Photographs must be labeled with the site name, the features shown, location and the date on which the photograph was taken.

C.7. **Other**. Include any other relevant documentation not otherwise noted above. (This section may remain blank)

Maintenance Plan(s) (Attachment D)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

When one or more "maintenance plans" are required for a site closure, include in each maintenance plan all required information in sections D.1. through D.5. below, and attach the plan(s) in Attachment D. The following "model" maintenance plans can be located at: (1) Maintenance plan for a engineering control or cover: http://dnr.wi.gov/topic/Brownfields/documents/maintenance-plan.pdf; and (2) Maintenance plan for vapor intrusion: http://dnr.wi.gov/topic/Brownfields/documents/appendix5_606.pdf.

D.1. **Location map(s)** which show(s): (1) the feature that requires maintenance; (2) the location of the feature(s) that require(s) maintenance - on and off the source property; (3) the extent of the structure or feature(s) to be maintained, in relation to other structures or features on the site; (4) the extent and type of residual contamination; and (5) and all property boundaries.

D.2. **Brief descriptions** of the type, depth and location of residual contamination.

D.3. **Description of maintenance action(s)** required for maximizing effectiveness of the engineered control, vapor mitigation system, feature or other action for which maintenance is required.

D.4. **Inspection log**, to be maintained on site, or at a location specified in the maintenance plan or approval letter.

D.5. **Contact information,** including the name, address and phone number of the individual or facility who will be conducting the maintenance.

Monitoring Well Information (Attachment E)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

Attach monitoring well construction and development forms (DNR FORM 4400-113 A and B: http://dnr.wi.gov/topic/groundwater/documents/forms/4400_113_1_2.pdf) for all wells that will remain in-use, be transferred to another party or that could not be located. A figure of these wells should be included in Attachment B.3.d.

Select One:

○ No monitoring wells were required as part of this response action.

○ All monitoring wells have been located and will be properly abandoned upon the DNR granting conditional closure to the site

◉ ***Select One or More:***

☐ Not all monitoring wells can be located, despite good faith efforts. Attachment E must include description of efforts made to locate the "lost" wells.

☐ One or more wells will be transferred to another owner upon case closure being granted. Attachment E should include documentation identifying the name, address and email for the new owner(s).

☒ One or more wells will remain in use at the site after this closure. Attachment E must include documentation as to the reason(s) the well(s) will remain in use.

Notifications to Owners of Impacted Properties (Attachment F)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

General Directions:

- State law requires that the responsible party provide a 30-day, written advance notice (i.e., a letter) to certain persons prior to applying for case closure. This requirement applies if: (1) the person conducting the response action does not own the source property; (2) the contamination has migrated onto another property; and/or (3) one or more monitoring wells will not be abandoned.
- A model "template letter" for these mandatory notifications can be downloaded at: http://dnr.wi.gov/files/PDF/pubs/rr/RR919.pdf.

Check all that apply to the site-specific circumstances of this case closure:

	A. Impacted Source Property and Owner is not Conducting Cleanup	B. Impacted Right of Way	C. Impacted Off-Site Property Owner	Impacted Property Notification Situations: Ch. NR 726 Appendix A Letter
1.	☐	☐	☐	Residual groundwater contamination exceeds Ch. NR 140 Wis. Administrative Code enforcement standards.
2.	☐	☐	☐	Residual soil contamination that attains or exceeds standards is present after the remedial action is complete, and must be properly managed should it be excavated or removed.
3.	☐	☐	☐	An engineered cover or a soil barrier (e.g. pavement) must be maintained over contaminated soil for direct contact or groundwater infiltration concerns.
4.	☐	☐	☐	Industrial land use soil standards were used for the clean-up standard.
5.	☐	☐	☐	A vapor mitigation system (or other specific vapor protection) must be operated and maintained.
6.	☐	☐	☐	Vapor assessment needed if use changes.
7.	☐	☐	☐	Structural impediment.
8.	☐	☐	☐	Lost, transferred or open monitoring wells.
9.	☒	☒	☒	Not Applicable.

If any of the previous boxes in rows 1 thru 8 were checked, include the following as part of Attachment F:

- FORM 4400-246;
- Copy of each letter sent, 30 days or more prior to requesting closure; and
- Proof of receipt for each letter.
- For this site closure, _____ (number) property (ies) has/have been impacted, the owners have been notified, and copies of the letters and receipts are included in Attachment F.

Source Legal Documents (Attachment G)

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form.All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

Include all of the following documents, in this order, in Attachment G:

G.1. **Deeds - Source Property and Other Impacted Properties:** The most recent deed with legal descriptions clearly labeled for (1) the **Source Property** (where the contamination originated) and (2) all **off-source** (off-site) properties where letters were required to be sent per the ch. NR 700, Wis. Adm. Code, rule series (e.g., off-site cover maintenance required, lost monitoring well, off-site cover property impacts to groundwater exceeding the ch. NR 140, Wis. Adm. Code.

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.*

G.2. ***Certified Survey Map:*** *A copy of the certified survey map or the relevant section of the recorded plat map for those properties where the legal description in the most recent deed refers to a certified survey map or a recorded plat map.* (Lots on subdivided or platted property (e.g. lot 2 of xyz subdivision)).

G.3. **Verification of Zoning**: Documentation (e.g., official zoning map or letter from municipality) of the property's or properties' current zoning status.

G.4. **Signed Statement:** A statement signed by the Responsible Party (RP), which states that he or she believes that the attached legal description(s) accurately describe(s) the correct contaminated property or properties.

Signatures and Findings for Closure Determination

If any section is not relevant to the case closure request, you must fully explain the reasons why and attach that explanation to the relevant section of the form. All information submitted shall be legible. Providing illegible information may result in a submittal being considered incomplete until corrected.

Check the correct signature block below for this case closure request, and have the proper environmental professional(s) sign this document, in accordance with the ch. NR 700 Wis. Adm. Code rule series. Both boxes may be checked if applicable to this case closure.

☐ A response action(s) for this site addresses groundwater contamination (including natural attenuation remedies). In this situation, the closure request must be prepared by, or under the supervision of, a professional engineer and a hydrogeologist, as defined in ch. NR 712, Wis. Adm. Code. Include both signatures provided below with the submittal.

☒ The response action(s) for this site addresses media other than groundwater. In this situation, the case closure request must be prepared by, or under the supervision of, a professional engineer, as defined in ch. NR 712, Wis. Adm. Code. The "engineering certification" language below, at a minimum, must be signed.

Engineering Certification

I _____ hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this case closure request has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this case closure request is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. All phases of work necessary to obtain data, develop conclusions, recommendations and prepare submittals for this case closure request have been prepared by me, or their preparation has been supervised by me. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

_____	_____
Printed Name	Title

_____	_____	_____
Signature	Date	P.E. Stamp and Number

Hydrogeologist Certification

I Clair Ruenger hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this case closure request is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code. All phases of work necessary to address groundwater contamination including obtaining data, developing conclusions, recommendations and preparing submittals for this case closure request have been prepared by me, or their preparation has been supervised by me. Specifically, with respect to compliance with the rules, in my professional opinion a site investigation has been conducted in accordance with ch. NR 716, Wis. Adm. Code, and all necessary remedial actions have been completed in accordance with chs. NR 140, NR 718, NR 720, NR 722, NR 724 and NR 726, Wis. Adm. Codes."

Clair Ruenger	Environmental Services Manager, BTS - BAAP
Printed Name	Title
Signature	April 10, 2013
	Date

ATTACHMENT A

DATA TABLES

Data Tables Not Relevant To Case Closure Request

A.1. Groundwater Analytical Table

Not applicable – Analytical results for the lone sample round collected from monitoring well RIM-1201 did not identify contaminants at concentrations above the method detection limit. RIM-1201 is the only monitoring well in Parcel S5.

A.2 Pre-remedial Soil Analytical Table

See A.4 – Pre and Post Remaining Soil Contamination Soil Analytical Table

A.3 Post –remedial Soil Analytical Table

See A.4 – Pre and Post Remaining Soil Contamination Soil Analytical Table

A.5. Vapor Analytical Table

Not applicable. Vapor pathway not assessed due to localized, low contaminant concentrations, human occupancy greater than 2,500 feet from residual contaminant location, absence of structures/basements within property.

A.6. Other Media of Concern

Not applicable. No surface water present at or adjacent to property.

A.7. Water Level Elevations

Not applicable. No table was prepared due to limited data. Other than the 782.85' elevation at monitoring well RIM-1201 (on 12/15/12), no other data is available.

A.8. Other

Not applicable

A.4. Pre and Post Remaining Soil Contamination Soil Analytical Tables

Table 2

Preliminary Surface Soil/Sewer Removal/Remedial Investigation Exceedance and Remedial Action Results

Parcel S5 - Wisconsin Department of Natural Resources Closure Request

Badger Army Ammunition Plant

Sample ID	Status	Date Sampled	Depth (feet bgs)	Benzene, total (mg/kg)	Benzene, TCLP (mg/l)	2,4-DNT, total (mg/kg)	2,4-DNT, TCLP (mg/l)	Lead, total (mg/kg)	Nitroglycerin (mg/kg)	PCB-1254 (mg/kg)	PCB-1254 [2C] (mg/kg)
Preliminary Surface Soil Sewer and Remedial Action Samples											
BP-SOB15-0.5	Removed	05/10/11	0.5	<0.101 (J)	NA	<0.07	NA	**62.8 (D)**	<0.361 (SH)	**2.23**	**2.02**
BP-SOB15-4.0	Remaining	09/14/11	4.0	NA	NA	NA	NA	16.3 (D)	NA	<0.115	<0.115
BP-POB39-0.5	Removed	05/10/11	0.5	<0.057	NA	**8.4 (D)**	NA	16.0 (D)	<0.377	<0.113	<0.113
BP-POB39T-0.5	Removed	06/29/11	0.5	NA	NA	NA	<0.0005	NA	NA	NA	NA
BP-POB39-4.0	Remaining	09/12/11	4.0	NA	NA	<0.03	NA	NA	NA	NA	NA
Sewer Removal and Remedial Action Samples											
BP-PS2-6.0	Removed	09/12/11	6.0	0.269	NA	**3.4**	NA	NA	NA	NA	NA
BP-PS2-6.0T	Removed	01/12/12	6.0	NA	NA	NA	<0.0006 (D)	NA	NA	NA	NA
BP-PS2R1-10.0	Remaining	01/12/12	10.0	NA	NA	<0.03	NA	NA	NA	NA	NA
BP-PS2R2-6.0	Remaining	01/12/12	6.0	NA	NA	0.70	NA	NA	NA	NA	NA
BP-PS2R3-6.0	Removed	01/12/12	6.0	NA	NA	**2.3**	NA	NA	NA	NA	NA
BP-PS2R4-6.0	Remaining	02/15/12	6.0	NA	NA	0.59	NA	NA	NA	NA	NA
BP-PS2R5-10.0	Remaining	02/15/12	10.0	NA	NA	<0.03	NA	NA	NA	NA	NA
Demolition/Follow-on Remedial Investigation and Remedial Action Samples											
959300-1-4.0	Removed	08/14/12	4.0	**94.7 (D)**	NA	NA	NA	NA	NA	NA	NA
959300-1-4.0T	Removed	09/12/12	4.0	NA	<0.03 (a)	NA	NA	NA	NA	NA	NA
959300-1B1-6.0	Removed	10/16/12	6.0	**22.6 (D)**	NA	NA	NA	NA	NA	NA	NA
959300-1C1-6.0	Removed	10/16/12	6.0	**14.3 (D)**	NA	NA	NA	NA	NA	NA	NA
959300-1B3-8.0	Remaining	10/31/12	8.0	<0.065	NA	NA	NA	NA	NA	NA	NA
959300-1B2-4.0	Remaining	10/31/12	4.0	0.192 (J)	NA	NA	NA	NA	NA	NA	NA
959300-1B4-4.0	Remaining	10/31/12	4.0	<0.070	NA	NA	NA	NA	NA	NA	NA
959300-1C2-4.0	Remaining	10/31/12	4.0	<0.06	NA	NA	NA	NA	NA	NA	NA
959300-1C3-8.0	Remaining	10/31/12	8.0	<0.055	NA	NA	NA	NA	NA	NA	NA
959300-1C4-4.0	Remaining	10/31/12	4.0	<0.075	NA	NA	NA	NA	NA	NA	NA
959300-2-0.5	Removed	08/14/12	0.5	**1.36**	NA	NA	NA	NA	NA	NA	NA
959300-2A-0.5	Remaining	09/12/12	0.5	0.062	NA	NA	NA	NA	NA	NA	NA
959300-2B-0.5	Remaining	09/12/12	0.5	<0.053	NA	NA	NA	NA	NA	NA	NA
959300-2C-0.5	Removed	09/12/12	0.5	**8.71 (D)**	NA	NA	NA	NA	NA	NA	NA
959300-2D-4.0	Remaining	09/12/12	4.0	0.142 (J)	NA	NA	NA	NA	NA	NA	NA
Cleanup Objective†				**1.1**	**0.5**	**1.6**	**0.13**	**50/250***	**6.1**	**0.22**	**0.22**

bgs - Below ground surface
mg/kg - Milligrams per kilogram
mg/l - Milligrams per liter
Bold text identifies a Cleanup Objective exceedance.
a - When used as a suffix, indicates a qualifier applied for a subcontract lab.
D - Elevated Limit of Detection (LOD) and Limit of Quantitation (LOQ) are due to dilution/volume of the sample.
J - Analytical result is between the LOD and LOQ.
MH - Matrix Spike and/or Marix Spike Duplicate recovery exceeded the upper control limit.
ML - Matrix Spike and/or Matrix Spike Duplicate recovery was below the lower control limit.
R - Relative percent difference for the matrix spike/matrix spike duplicate exceeded the upper control limit.
SH - Surrogate recovery exceeded the upper control limit. Analytical results for the parameter should be considered estimates.
SL - Surrogate recovery was below the lower control limit. Analytical results for this parameter should be considered estimates.
† Cleanup Objective - Chapter NR 720, Wisconsin Administrative Code, Soil Cleanup Standards; and USEPA Regional Screening Levels.
*When lead is the only contaminant of concern.
NA - Not analyzed

Table 3
Soil Sample Analytical Results - Account #9592A
Parcel S5 - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

Sample ID	Date Sampled	Status	Sample Depth (feet bgs)	2,4-DNT, total (mg/kg)	2,6-DNT, total (mg/kg)	2,4-DNT, TCLP (mg/l)	4-Nitroaniline, total (mg/kg)
S4-9592A-1.0	11/14/2011	Removed	1.0	**4,700** (D, SH)	**2,500** (D, SH)	NA	**100** (D, SH)
S4-9592A-1.0T	01/26/2012	Removed	1.0	NA	NA	**152** (B,D,MH,ML,SH)	NA
9592-1-4.0	01/26/2012	Removed	4.0	**28** (D)	19 (D)	NA	0.22 (J)
9592-1-8.0	01/26/2012	Removed	8.0	0.12 (J)	<0.03	NA	<0.06
9592-2-4.0	01/26/2012	Remaining	4.0	0.19	<0.04	NA	<0.07
9592-2-8.0	01/26/2012	Remaining	8.0	<0.03	<0.03	NA	<0.06
9592-3-4.0	01/26/2012	Remaining	4.0	<0.04	<0.04	NA	<0.07
9592-3-8.0	01/26/2012	Remaining	8.0	<0.03	<0.03	NA	<0.06
9592-4-4.0	01/26/2012	Remaining	4.0	<0.04	<0.04	NA	<0.07
9592-4-8.0	01/26/2012	Remaining	8.0	0.10 (J)	<0.03	NA	<0.06
9592-5-4.0	01/26/2012	Remaining	4.0	0.05 (J)	<0.04	NA	<0.07
9592-5-8.0	01/26/2012	Remaining	8.0	<0.03	<0.03	NA	<0.06
9592-1T-4.0	04/18/2012	Removed	4.0	0.17 (J, LH)	1.2	**15.5** (D, MH, ML, R)	<0.14
9592-6-0.5	04/18/2012	Removed	0.5	**1,400** (LH)	34.0	0.05	<0.13
9592-6-2.0	04/18/2012	Removed	2.0	0.77 (LH)	4.3	**7.5** (D)	<0.14
9592-6-4.0	04/18/2012	Removed	4.0	**750**	**110**	**1.6** (D)	0.51 (J)
9592-6-6.0	04/18/2012	Removed	6.0	**4,100** (LH, SL)	**1,700** (SL)	**64.7** (D)	<0.13 (SL)
9592-7-0.5	04/18/2012	Remaining	0.5	0.64 (J, LH)	0.22 (J)	0.01	<0.15
9592-7-2.0	04/18/2012	Remaining	2.0	<0.15 (LH)	<0.08	0.006	<0.15
9592-7-4.0	04/18/2012	Remaining	4.0	0.24 (J, LH)	<0.08	0.01	<0.14
9592-7-6.0	04/18/2012	Remaining	6.0	0.14 (LH)	<0.07	0.002 (J)	<0.14
9592-8-0.5	04/18/2012	Removed	0.5	1.4 (LH)	0.18 (J)	0.002 (J, D)	<0.14
9592-8-2.0	04/18/2012	Removed	2.0	<0.14 (LH)	<0.07	0.002 (J)	<0.14
9592-8-4.0	04/18/2012	Removed	4.0	0.60 (J, LH)	0.22 (J)	0.01	<0.16
9592-8-6.0	04/18/2012	Removed	6.0	**2.9** (LH)	55	0.04	1.0
9592-9-0.5	04/18/2012	Removed	0.5	0.19 (J, LH)	<0.08	0.0009 (J)	<0.15
9592-9-2.0	04/18/2012	Removed	2.0	<0.16 (LH, SL)	<0.08	<0.0005	<0.16 (SL)
9592-9-4.0	04/18/2012	Removed	4.0	<0.15 (LH)	<0.08	0.02	<0.15
9592-9-6.0	04/18/2012	Removed	6.0	**4.0** (LH)	4.9	0.08	<0.14
9592-10-0.5	04/18/2012	Removed	0.5	**10** (LH)	0.11 (J)	0.02 (D, B)	<0.16
9592-10-2.0	04/18/2012	Removed	2.0	0.31 (J, LH)	<0.08	0.04 (B)	<0.15
9592-10-4.0	04/18/2012	Removed	4.0	**170** (LH)	1.4	0.09 (B)	0.33 (J)
9592-10-6.0	04/18/2012	Removed	6.0	<0.14	0.10 (J)	0.0006 (B, J)	<0.14

Sample ID	Date Sampled	Status	Sample Depth (feet bgs)	2,4-DNT, total (mg/kg)	2,6-DNT, total (mg/kg)	2,4-DNT, TCLP (mg/l)	4-Nitroaniline, total (mg/kg)
9592-11-0.5	*04/18/2012*	*Removed*	*0.5*	*0.95*	*<0.08*	*0.005 (B)*	*<0.15*
9592-11-2.0	*04/18/2012*	*Removed*	*2.0*	***2.3***	*0.16 (J)*	*0.0009 (J)*	*0.37 (J)*
9592-11-4.0	*04/18/2012*	*Removed*	*4.0*	*0.34 (J)*	*<0.09*	*0.001 (B, J)*	*<0.16*
9592-11-6.0	*04/18/2012*	*Removed*	*6.0*	*0.20 (J)*	*0.24 (J)*	*0.0007 (B, J)*	*<0.13*
9592-12-0.5	*04/18/2012*	*Removed*	*0.5*	***2.7***	*<0.08*	*0.01 (B)*	*<0.15*
9592-12-2.0	*04/18/2012*	*Remaining*	*2.0*	*<0.15*	*<0.08*	*<0.0007 (D, B)*	*<0.15*
9592-12-4.0	*04/18/2012*	*Remaining*	*4.0*	*0.24 (J)*	*0.21 (J)*	*<0.0005 (B)*	*0.37 (J)*
9592-12-6.0	*04/18/2012*	*Remaining*	*6.0*	*<0.13*	*<0.07*	*<0.0005 (B)*	*<0.13*
9592-13-0.5	*04/18/2012*	*Removed*	*0.5*	***7.3***	*<0.09*	***0.7*** *(B, D)*	*<0.17*
9592-13-2.0	*04/18/2012*	*Remaining*	*2.0*	*1.3*	*0.15 (J)*	*0.004 (B)*	*0.50 (J)*
9592-13-4.0	*04/18/2012*	*Remaining*	*4.0*	*1.3*	*0.52*	*0.003 (B)*	*0.41 (J)*
9592-13-6.0	*04/18/2012*	*Remaining*	*6.0*	*<0.14 (MH)*	*<0.07*	*<0.0005 (B)*	*<0.14*
9592-14-8.0	*07/30/2012*	*Removed*	*8.0*	***1,600*** *(D,SH)*	***920*** *(D,SH)*	***81.8*** *(LL,B,D)*	*<0.13*
9592-15-8.0	*07/30/2012*	*Removed*	*8.0*	***11***	*7.1*	***0.3*** *(D,B,LL,ML,R)*	*<0.15*
9592-16-4.0	*07/30/2012*	*Removed*	*4.0*	***110*** *(D)*	***500*** *(D)*	***4.7*** *(B,D,LL,SL)*	*2.7*
9592-17-4.0	*07/30/2012*	*Removed*	*4.0*	***2.6***	*1.1*	*0.09 (B,LL)*	*<0.15*
9592-18-4.0	*07/30/2012*	*Removed*	*4.0*	***1.8***	*0.24 (J)*	*NA*	*<0.14*
9592-19-2.0	*07/30/2012*	*Removed*	*2.0*	***490*** *(D,SL)*	*11 (SL)*	***63.4*** *(B,D,LL,SL)*	*0.34 (J,SL)*
9592-20-13.0	*08/09/2012*	*Removed*	*13.0*	***1,200*** *(B,D,LH,MH,ML)*	***240*** *(D,MH,ML,R)*	***51.8*** *(B,D,LL)*	*<0.07 (MH)*
9592-21-20.0	09/25/2012	Remaining	20.0	**11** (MH,ML,R)	3.8 (ML,R)	NA	<0.13
9592-22-5.0	09/25/2012	Remaining	5.0	0.18 (J)	<0.07	NA	<0.14
9592-23-2.0	09/25/2012	Remaining	2.0	0.31 (J)	<0.07	NA	<0.14
9592-24-8.0	09/25/2012	Remaining	8.0	<0.07	<0.07	NA	<0.14
9592-25-10.0	09/25/2012	Remaining	10.0	<0.07	<0.07	NA	<0.13
9592-26-4.0	09/25/2012	Remaining	4.0	<0.08	<0.08	NA	<0.14
9592-27-4.0	09/25/2012	Remaining	4.0	<0.07	<0.07	NA	<0.13
Cleanup Objective - United States Environmental Protection Agency Regional Screening Level for Residential Soil				1.6	61	_	24
United States Environmental Protection Agency (USEPA) Maximum Concentration of Contaminants for Toxicity Characteristic				_	_	0.13	_

bgs - Below ground surface
mg/kg - Milligrams per kilogram
DNT - Dinitrotoluene
TCLP - Toxicity Characteristic Leaching Procedure
mg/l - Milligrams per liter
NA - Not Analyzed
Bold text identifies cleanup objective exceedance.
B - Analyte was detected in associated method blank
D - Elevated Limit of Detection and Limit of Quantitation are due to dilution/volume of the sample.
J - Analytical result is between the Limit of Detection and Limit of Quantitation.
LH - Laboratory Control Sample recovery exceeded the upper control limit.

MH - Matrix Spike and/or Matrix Spike Duplicate recovery exceeded the upper control limit.
ML - Matrix Spike and/or Matrix Spike Duplicate recovery was below the lower control limit.
R - Relative percent difference for the matrix spike / matrix spike duplicate exceeded the upper control limit.
SH - Surrogate recovery exceeded the upper control limit. Analytical results for the parameter should be considered estimates.
SL - Surrogate recovery was below the lower control limit. Analytical results for the parameter should be considered estimates.
Italicized data has been reported previously (*DNT Burner Remedial Investigation Report, (* BTS, March 2012); Parcel S5-DNT Burner Follow-up Remedial Investigation Report (BTS, May 2012); Parcel S5-Solvent Extraction Storage Building Remedial Action Report (BTS, October 2012); and Parcel S5-Solvent Exctraction Storage Building Supplemental Remedial Action Report (BTS, February 2013)).
LL - Laboratory Control Sample recovery was below the lower control limit.

ATTACHMENT B

MAPS AND FIGURES

Figures Not Relevant To Case Closure Request

B.2a. Pre-remedial Soil Contamination

See B.2c. – Pre/Post Remaining Soil Contamination

B.2b. Post-remedial Soil Contamination

See B.2c. – Pre/Post Remaining Soil Contamination

B.3a. Geologic Cross-Section Figure

Not applicable. Impacted groundwater not present beneath Parcel S5.

B.3b. Groundwater Isoconcentration

Not applicable. Impacted groundwater not present beneath Parcel S5.

B.3d. Monitoring Wells

See B.3c. – Groundwater Flow Direction

B.4a. Vapor Intrusion Map

Not applicable. Vapor pathway not assessed due to localized, low contaminant concentrations, human occupancy greater than 2,500 feet from residual contaminants, absence of structures/basements within property.

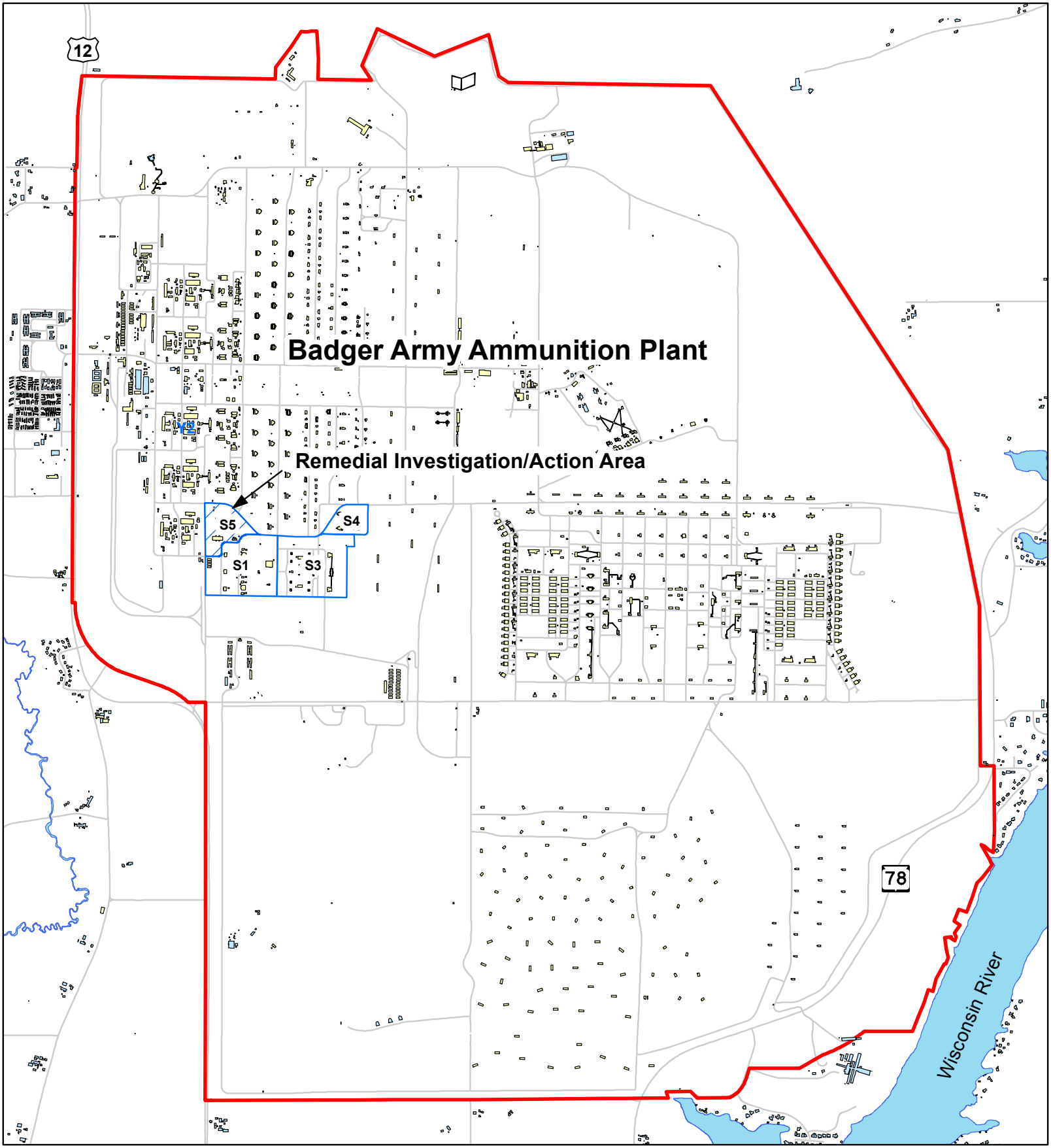
B.4b. Other Media of Concern

Not applicable

B.4c. Other

Not applicable

B.1.a. Location Map



Legend

- Badger Army Ammunition Plant Boundary
- Ball Powder Area
- Remedial Investigation/Action Area
- Paved Road
- Existing Building
- Former Building Footprint

Figure 1

Site Location Map
Parcel S5 - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 2,500 feet

0 3,300 6,600 Feet

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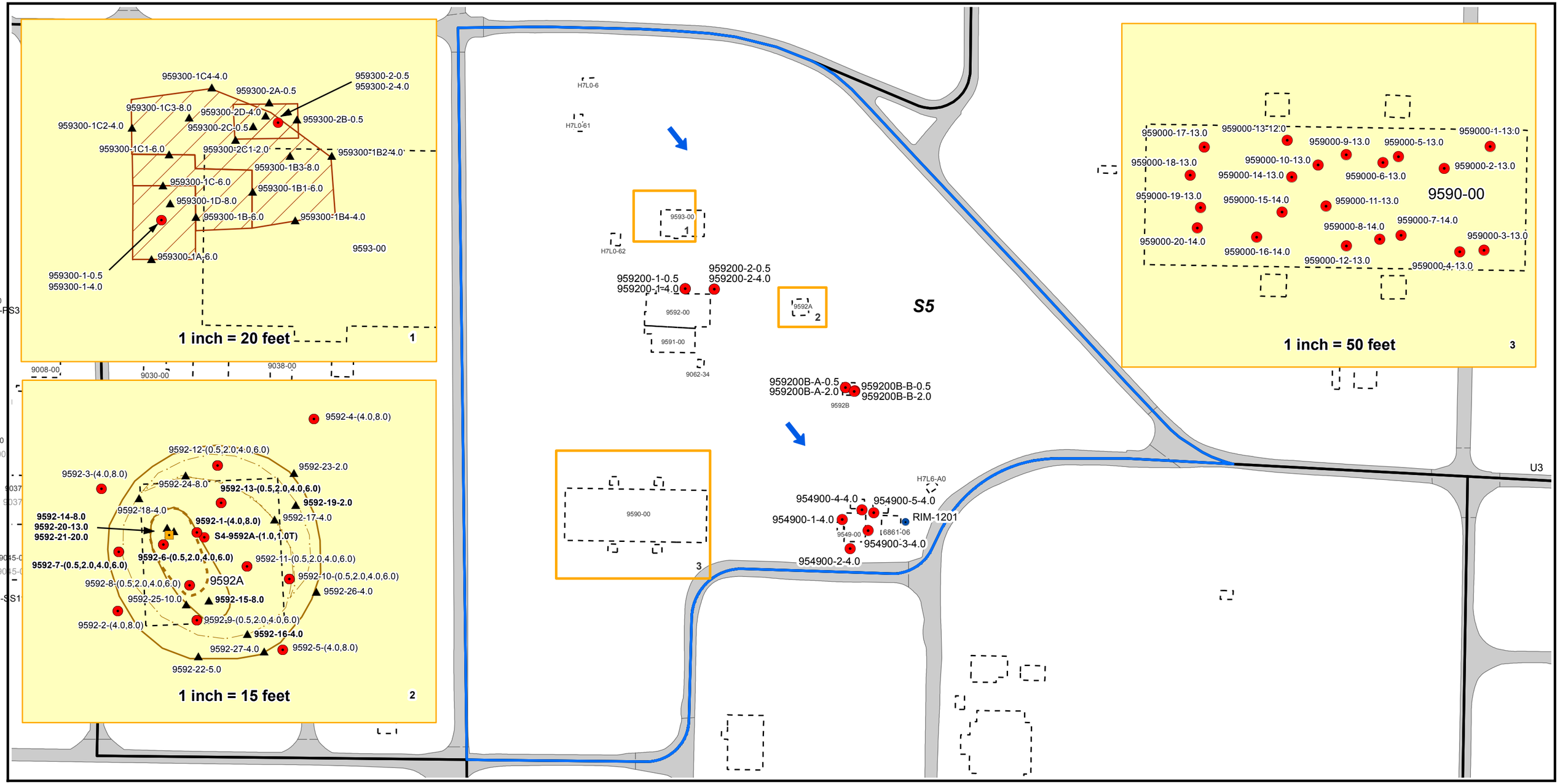
B.1.b. Detailed Site Map



Legend

- Remedial Action Sample Location
- Remedial Investigation Sample Location
- Groundwater Monitoring Well Location
- Sample Location With Regulatory Exceedance
- Remedial Excavation Extent (July 2012)
- Remedial Excavation Extent (August/October 2012)
- Remedial Excavation Extent (August 2012)
- Remedial Excavation Extent / Regulatory Exceedance Area (September 2012)
- Groundwater Flow Direction
- Former Building Footprint
- Remedial Investigation/Action Area
- Parcel Boundary
- 9590-00 Account #
- Paved Road

Figure 5

Demolition Follow-on Remedial Investigation/Action Sample Location Map
Parcel S5 - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 134 feet

0 350 700 Feet

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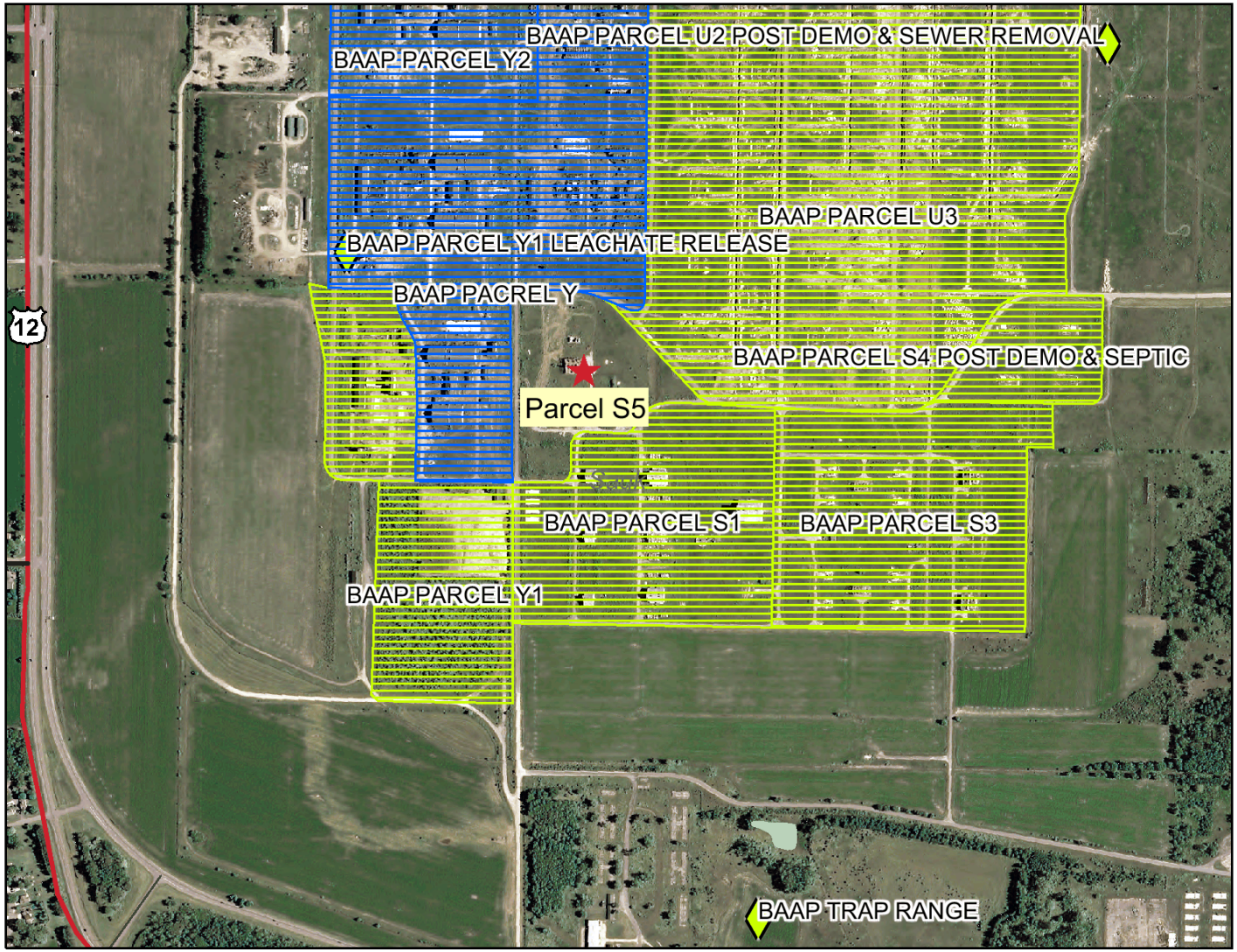
B.1.c. RR Site Map

RR Site Map



Legend

- Open Sites (ongoing cleanups)
- Open Sites (ongoing cleanups) - site boundaries shown
- Closed Sites (completed cleanups)
- Closed Sites (completed cleanups) - site boundaries shown
- County Boundary
- Railroads
- County Roads (WDOT)
- County Trunk Highway
- State and U.S. Highways (WDOT)
- State Trunk Highway
- US Highway
- Interstate Highways (WDOT)
- Interstate Highway
- Local Roads (WDOT)
- Civil Towns
- Civil Town
- 24K Open Water
- 24K Rivers and Shorelines
- Municipalities

0 1100 2200 3300 ft.

Map created on Feb 13, 2013

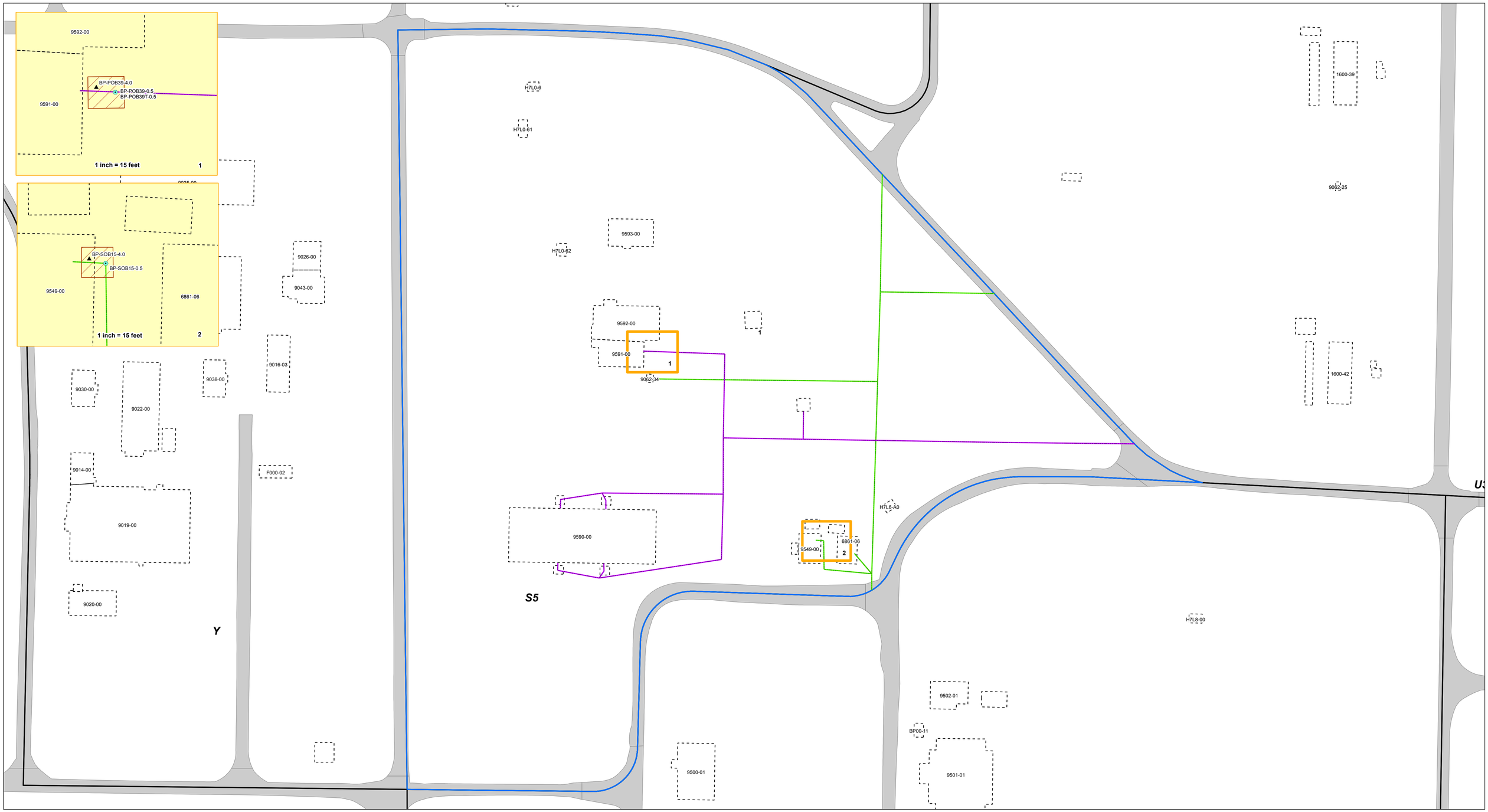
Note: Not all RR Sites have been geo-located yet.

N

Scale: 1:11,061

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.

B.2.c. Pre/Post Remaining Soil Contamination



Legend

- Preliminary Sewer Sample Location
- Remedial Action Sample Location
- Remedial Excavation Extent
- Former Building Footprint
- 9590-00 Account #
- Remedial Action Area
- Process Sewer Removed (2011)
- Sanitary Sewer Removed (2011)
- Paved Road
- Parcel Boundary
- *S5* Parcel

Figure 3

Preliminary Sewer and Remedial Action Sample Location Map
Parcel S5 - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 62 feet

0 100 200 Feet

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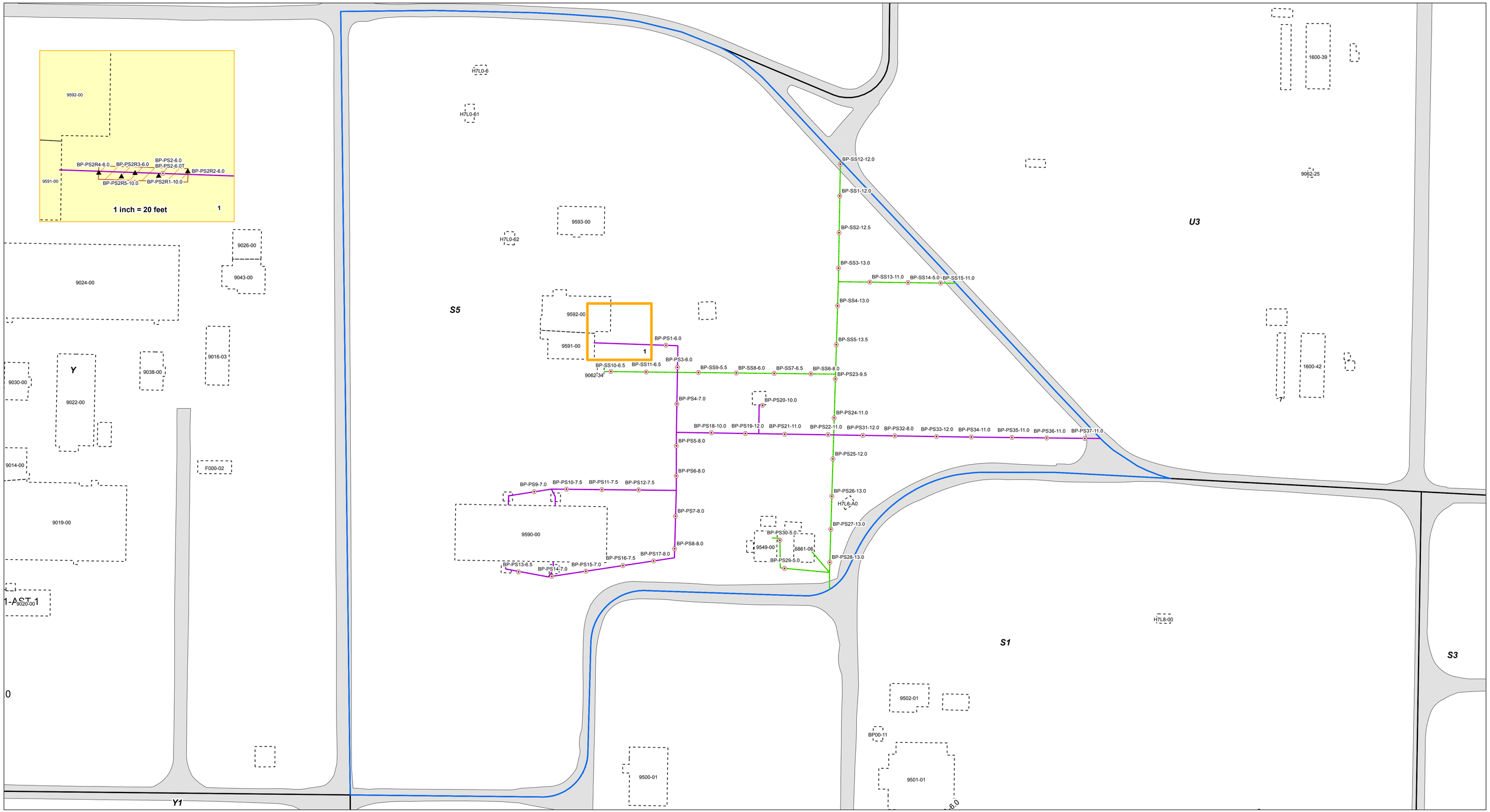

Legend

- Remedial Action Sample Location
- Sewer Removal Sample Location
- Remedial Excavation Extent
- Former Building Footprint
- 9590-00 Account #
- Parcel Boundary
- Remedial Investigation/Action Area
- *S5* Parcel
- Process Sewer Removed (2011)
- Sanitary Sewer Removed (2011)
- Paved Road

Figure 4

Sewer Removal and Remedial Action Sample Location Map
Parcel S5 - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 60 feet

0 100 200 Feet

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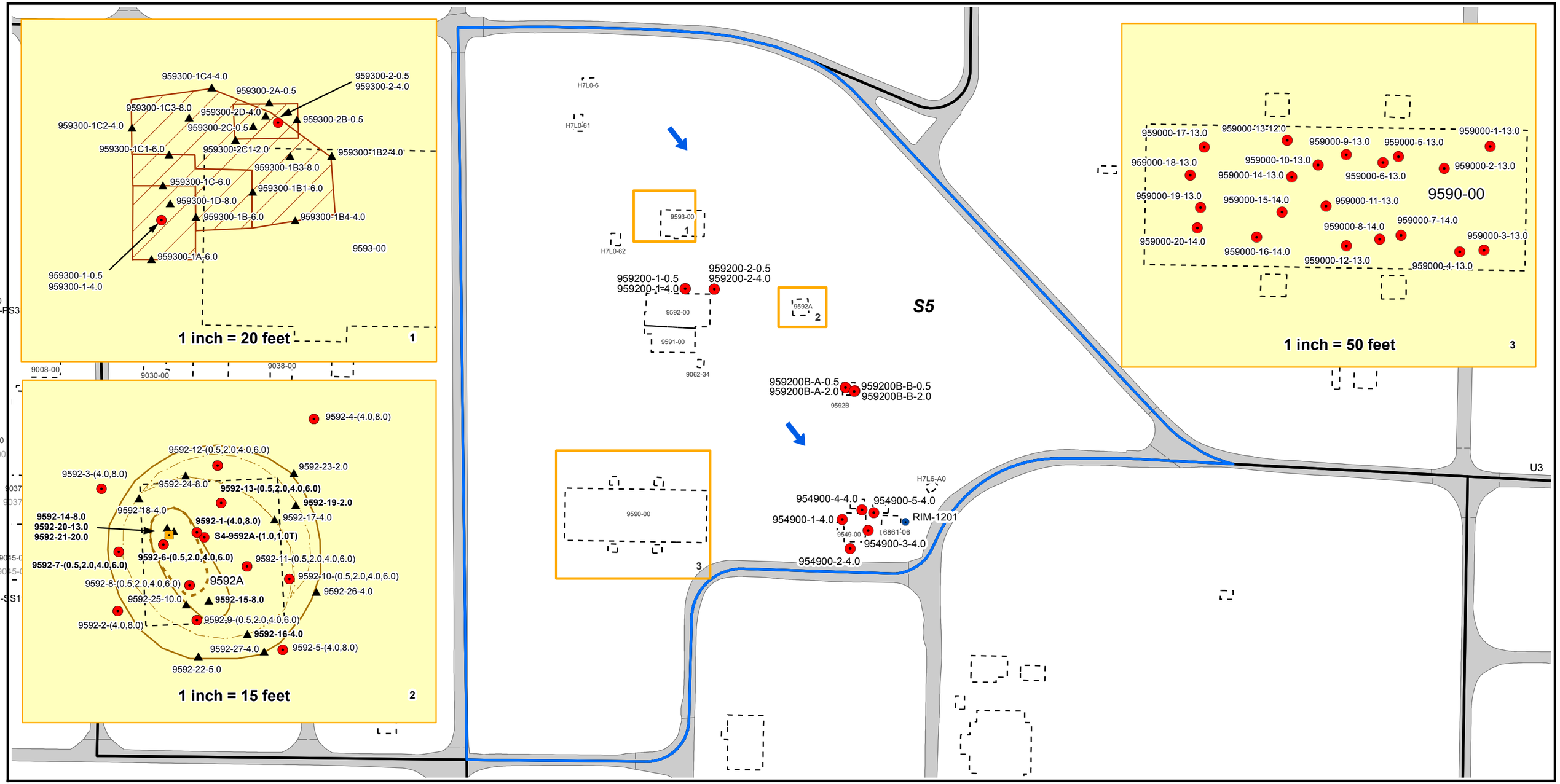

Legend

- Remedial Action Sample Location
- Remedial Investigation Sample Location
- Groundwater Monitoring Well Location
- Sample Location With Regulatory Exceedance
- Remedial Excavation Extent (July 2012)
- Remedial Excavation Extent (August/October 2012)
- Remedial Excavation Extent (August 2012)
- Remedial Excavation Extent / Regulatory Exceedance Area (September 2012)
- Groundwater Flow Direction
- Former Building Footprint
- Remedial Investigation/Action Area
- Parcel Boundary
- 9590-00 Account #
- Paved Road

Figure 5

Demolition Follow-on Remedial Investigation/Action Sample Location Map
Parcel S5 - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 134 feet

0 350 700 Feet

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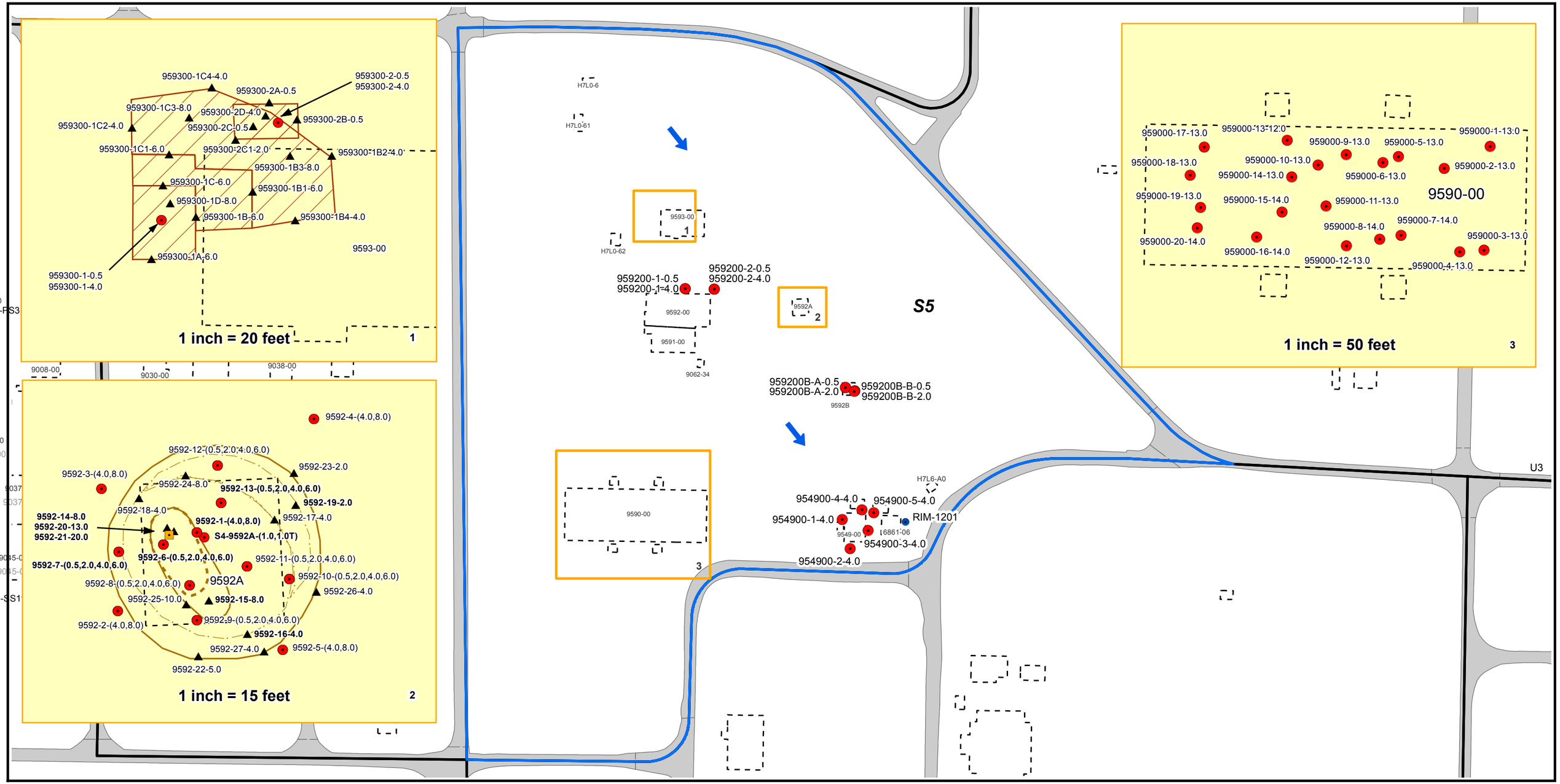
B.3.c. Groundwater Flow Direction



Legend

- Remedial Action Sample Location
- Remedial Investigation Sample Location
- Groundwater Monitoring Well Location
- Sample Location With Regulatory Exceedance
- Remedial Excavation Extent (July 2012)
- Remedial Excavation Extent (August/October 2012)
- Remedial Excavation Extent (August 2012)
- Remedial Excavation Extent / Regulatory Exceedance Area (September 2012)
- Groundwater Flow Direction
- Former Building Footprint
- Remedial Investigation/Action Area
- Parcel Boundary
- 9590-00 Account #
- Paved Road

Figure 5

Demolition Follow-on Remedial Investigation/Action Sample Location Map
Parcel S5 - Wisconsin Department of Natural Resources Closure Request
Badger Army Ammunition Plant

1 inch = 134 feet

0 350 700 Feet

BTS BADGER TECHNICAL SERVICES

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Documentation of Remedial Action (Attachment C)

DISCLAIMER

Attachment C of the Case Closure – GIS Registry (Form 4400-202) are not included in the electronic version of the Case Closure – GIS Registry packets to help limit file size.

Please contact the DNR Regional Environmental Program Associate (EPA) at http://dnr.wi.gov/topic/Brownfields/Contact.html for a copy or to review the file.

WISCONSIN
DEPT. OF NATURAL RESOURCES

ATTACHMENT D

MAINTENANCE PLAN(S)

Maintenance Plan Not Relevant To Case Closure Request

D.1. Location map(s)

Not applicable. Maintenance plan not required for closure.

D.2. NR720.19 Analysis

Not applicable.

D.3. Description of maintenance action(s)

Not applicable.

D.4. Inspection log

Not applicable.

D.5. Contact Information

Not applicable.

ATTACHMENT E

MONITORING WELL INFORMATION

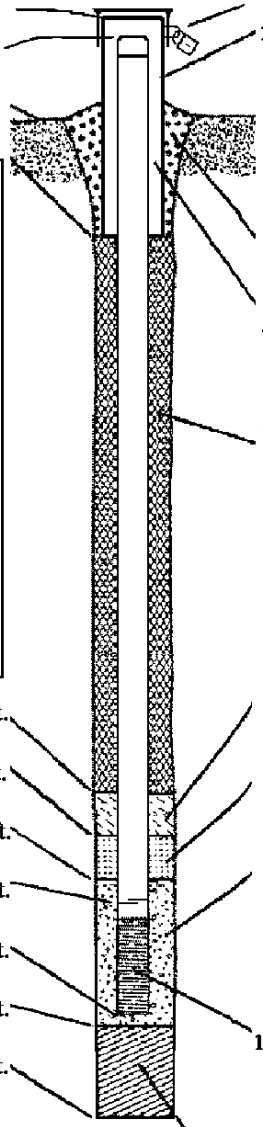
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐ Remediation/Redevelopment ☑ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name: Badger AAP	Local Grid Location of Well: ____ ft. ☐ N. ☐ S. ____ ft. ☐ E. ☐ W.	Well Name: RIM-1201
Facility License, Permit or Monitoring No.: 3487	Local Grid Origin ☐ (estimated: ☐) or Well Location ☐ Lat. (NAD 83)' ____ " Long. ____ ° ____ ' ____ " or	Wis. Unique Well No.: VX882 / DNR Well ID No.: 499
Facility ID: 157053930	St. Plane 495750.77 ft. N, 2033243.82 ft. E. (S)/C/N	Date Well Installed: 11 / 21 / 2012 (m m d d y y y y)
Type of Well: Well Code 11 / MW	Section Location of Waste/Source: ____ 1/4 of ____ 1/4 of Sec. ____, T. ____ N, R. ____ ☐ E. ☐ W.	Well Installed By: Name (first, last) and Firm: Michael Hanson; Layne Christensen Company
Distance from Waste/Source ____ ft. Enf. Stds. Apply ☑	Location of Well Relative to Waste/Source: u ☐ Upgradient s ☐ Sidegradient d ☑ Downgradient n ☐ Not Known; Gov. Lot Number ____	



A. Protective pipe, top elevation ____ ft. MSL

B. Well casing, top elevation 871.06 ft. MSL

C. Land surface elevation 868.52 ft. MSL

D. Surface seal, bottom ____ ft. MSL or 5.0 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☑
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☑ No

14. Drilling method used: Rotary ☐ 50; Hollow Stem Auger ☐ 41; Other ☑ Rotosonic

15. Drilling fluid used: Water ☑ 02; Air ☐ 01; Drilling Mud ☐ 03; None ☐ 99

16. Drilling additives used? ☐ Yes ☑ No

Describe _____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top ____ ft. MSL or 71.9 ft.

F. Fine sand, top ____ ft. MSL or ____ ft.

G. Filter pack, top ____ ft. MSL or 76.9 ft.

H. Screen joint, top ____ ft. MSL or 78.9 ft.

I. Well bottom ____ ft. MSL or 93.9 ft.

J. Filter pack, bottom ____ ft. MSL or 93.9 ft.

K. Borehole, bottom ____ ft. MSL or 93.9 ft.

L. Borehole, diameter 7.0 in.

M. O.D. well casing 2.9 in.

N. I.D. well casing 2.3 in.

1. Cap and lock? ☑ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 8.0 in.
b. Length: 7.0 ft.
c. Material: Steel ☑ 04; Other ☐
d. Additional protection? ☐ Yes ☑ No
If yes, describe: _____

3. Surface seal: Bentonite ☐ 30; Concrete ☑ 01; Other ☐

4. Material between well casing and protective pipe: Bentonite ☐ 30; Other ☑ sand

5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. ____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. 3.5 Lbs/gal mud weight . . . . . Bentonite slurry ☑ 31
d. ____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 110 Ft^3 volume added for any of the above
f. How installed: Tremie ☑ 01; Tremie pumped ☐ 02; Gravity ☐ 08

6. Bentonite seal: a. Bentonite granules ☐ 33
b. ☐1/4 in. ☑3/8 in. ☐1/2 in. Bentonite chips ☑ 32
c. _____ Other ☐

7. Fine sand material: Manufacturer, product name & mesh size
a. _____
b. Volume added ____ ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #15
b. Volume added 4 bags ft^3

9. Well casing: Flush threaded PVC schedule 40 ☐ 23; Flush threaded PVC schedule 80 ☑ 24; Other ☐

10. Screen material: same as above
a. Screen type: Factory cut ☑ 11; Continuous slot ☐ 01; Other ☐
b. Manufacturer Campbell Monoflex
c. Slot size: 0.010 in.
d. Slotted length: 15.0 ft.

11. Backfill material (below filter pack): None ☑ 14; Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature: Joel Janssen	Firm: BTS, LLC

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☑ Other ☐ _____

Facility/Project Name	County Name	Well Name
Badger AAP	Sauk	RIM-1201

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
3487	57	VX882	499

1. Can this well be purged dry? ☐ Yes ☑ No

2. Well development method
   - surged with bailer and bailed ☐ 41
   - surged with bailer and pumped ☐ 61
   - surged with block and bailed ☐ 42
   - surged with block and pumped ☐ 62
   - surged with block, bailed and pumped ☐ 70
   - compressed air ☐ 20
   - bailed only ☐ 10
   - pumped only ☑ 51
   - pumped slowly ☐ 50
   - Other _____ ☐

3. Time spent developing well 60 min.

4. Depth of well (from top of well casisng) 961 ft.

5. Inside diameter of well 2.30 in.

6. Volume of water in filter pack and well casing 8.0 gal.

7. Volume of water removed from well 1000.0 gal.

8. Volume of water added (if any) 0.0 gal.

9. Source of water added None

10. Analysis performed on water added? ☐ Yes ☑ No
(If yes, attach results)

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 88.10 ft.	88.10 ft.
Date	b. 11 / 27 / 2012 (m m d d y y y y)	11 / 27 / 2012 (m m d d y y y y)
Time	c. : ☐ a.m. ☐ p.m.	: ☐ a.m. ☐ p.m.
12. Sediment in well bottom	inches	inches
13. Water clarity	Clear ☐ 10 Turbid ☑ 15 (Describe)	Clear ☑ 20 Turbid ☐ 25 (Describe)
14. Total suspended solids	mg/l	mg/l
15. COD	mg/l	mg/l

Fill in if drilling fluids were used and well is at solid waste facility:

16. Well developed by: Name (first, last) and Firm
First Name: Michael Last Name: Hanson
Firm: Layne Christensen Company

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: Joan Last Name: Kenney
Facility/Firm: Department of the Army
Street: S7560 Hwy 12
City/State/Zip: North Freedom, Wisconsin 53951

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: Joel Janssen
Print Name: Joel Janssen
Firm: BTS, LLC

NOTE: See instructions for more information including a list of county codes and well type codes.

Monitoring Well Information

Monitoring well RIM-1201 will remain in use at the site as it may be used as part of BAAPs on-going groundwater monitoring program.

ATTACHMENT F

NOTIFICATIONS TO OWNERS OF IMPACTED PROPERTIES

Notifications to Owners of Impacted Properties

Not applicable. The source has not impacted off-site properties. The United States Army is conducting the cleanup and owns the source property.

ATTACHMENT G

SOURCE LEGAL DOCUMENTS

G.2. Certified Survey Map

PARCEL "S5"

A parcel of land located in the SE1/4 of the NE1/4 of Section 10 and in the SW1/4 of the NW1/4 of Section 11, all in T10N, R6E, Town of Sumpter, Sauk County, Wisconsin more particularly described as follows:
Commencing at a Harrison monument at the southwest corner of the SW1/4 of the NW1/4 of said Section 11; thence N00°00'50"W along the west line of said SW1/4 of the NW1/4, 260.23 ft. to the point of beginning; thence N00°37'25"W, 1,055.20 ft.; thence N89°27'22"E, 93.00 ft. to the point of curvature of a curve to the right having a central angle of 04°39'00" and a radius of 3,034.32 ft.; thence easterly along the arc of said curve, 246.26 ft. to the point of tangency thereof, said curve having a long chord bearing S88°13'08"E, 246.19 ft.; thence S85°53'38"E, 18.07 ft. to the point of curvature of a curve to the right having a central angle of 21°20'10" and a radius of 425.05 ft.; thence southeasterly along the arc of said curve, 158.28 ft. to the point of compound curvature thereof, said curve having a long chord bearing S75°13'33"E, 157.36 ft.; thence southeasterly along the arc of a curve to the right having a central angle of 21°31'54" and a radius of 209.65 ft., 78.79 ft. to the point of tangency thereof, said curve having a long chord bearing S53°47'31"E, 78.33 ft.; thence S43°01'34"E, 654.23 ft. to the point of curvature of a curve to the left having a central angle of 32°54'34" and a radius of 200.02 ft.; thence southeasterly along the arc of said curve 114.89 ft. to the end of the curve, said curve having a long chord bearing S59°28'51"E, 113.32 ft.; thence N86°54'50"W, 154.88 ft. to a 3/4" solid round iron rod; thence N89°53'10"W, 96.40 ft. to a 3/4" solid round iron rod at the point of curvature of a curve to the left having a central angle of 64°36'08" and a radius of 189.00 ft., thence southerly along the arc of said curve, 213.10 ft. to a 3/4" solid round iron rod at the point of tangency thereof, said curve having a long chord bearing S57°48'46"W, 201.99 ft.; thence S25°30'42"W, 24.98 ft. to a 3/4" solid round iron rod at the point of curvature of a curve to the right having a central angle of 66°27'44" and a radius of 63.00 ft.; thence westerly along the arc of said curve, 73.08 ft. to 3/4" solid round iron rod at the point of tangency thereof, said curve having a long chord bearing S58°44'34"W, 69.05 ft.; thence N88°01'34"W, 214.61 ft. to a 3/4" solid round iron rod at the point of curvature of a curve to the left having a central angle of 90°21'06" and a radius of 72.00 ft.; thence southerly along the arc of said curve, 113.54 ft. to a 3/4" solid round iron rod at the point of tangency thereof, said curve having a long chord bearing S46°47'53"W, 102.14 ft.; thence S01°37'20"W, 148.74 ft. to a 3/4" solid round iron rod at the point of curvature of a curve to the right having a central angle of 89°03'28" and a radius of 61.00 ft.; thence westerly along the arc of said curve, 94.82 ft. to 3/4" solid round iron rod at the point of tangency thereof, said curve having a long chord bearing S46°09'04"W, 85.55 ft.; thence N89°19'12"W, 258.38 ft. to the point of beginning.

Containing 680,465 square feet or 15.62 acres

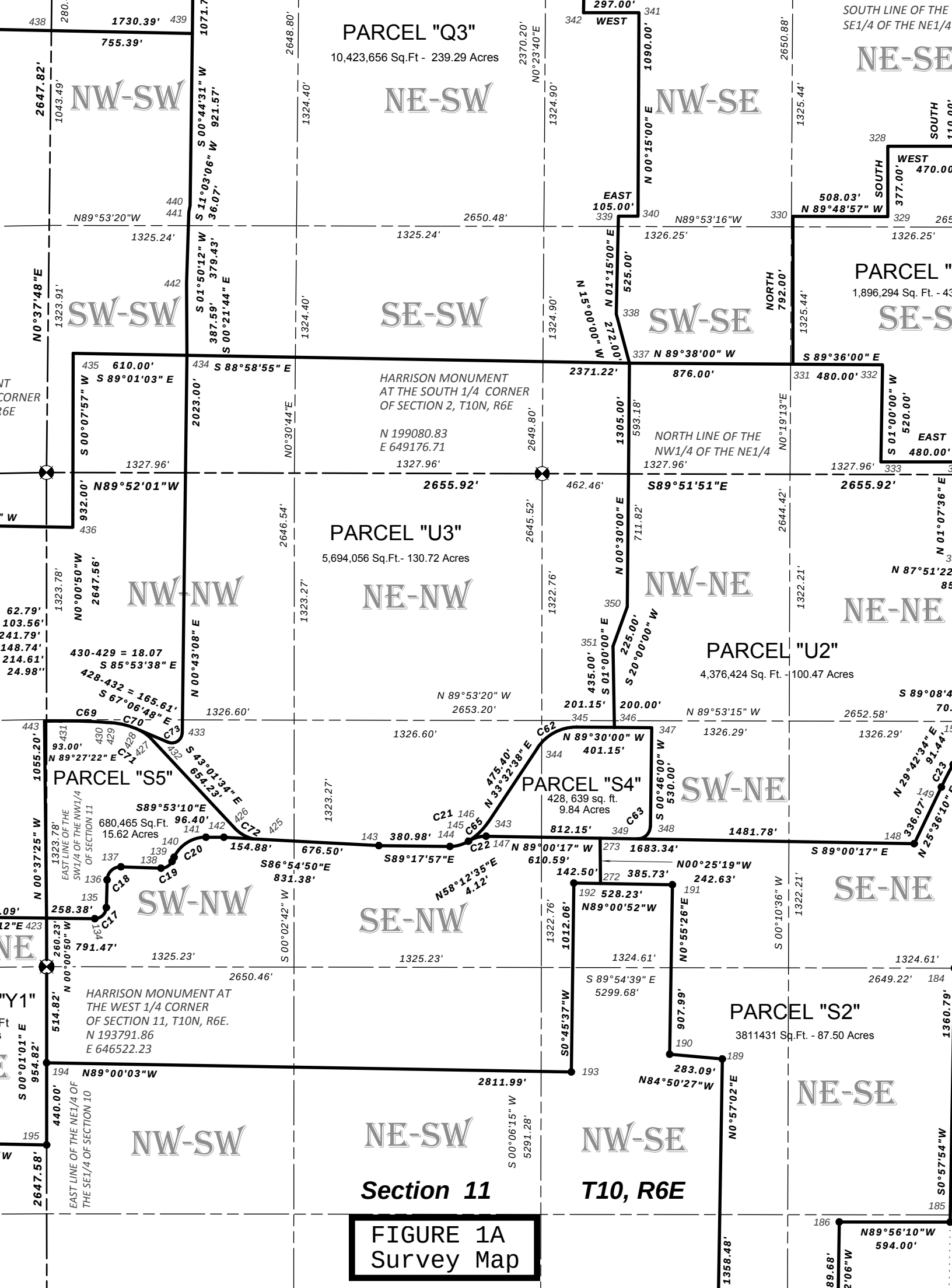


FIGURE 1A
Survey Map

G.4. Signed Statement

DEPARTMENT OF THE ARMY
BADGER ARMY AMMUNITION PLANT
S7560 U.S. HIGHWAY 12
NORTH FREEDOM, WISCONSIN 53951-9588

April 11, 2013

SUBJECT: Parcel S5 – Legal Description

Mr. Will Myers
Hydrogeologist
Wisconsin Department of Natural Resources
South Central Region
3911 Fish Hatchery Road
Fitchburg, WI 53711-5397

Dear Mr. Myers:

As a representative for the Responsible Party, I believe that the legal description, as provided in the Case Closure – GIS Registry (Form 4400-202) accurately describes the correct contaminated property for Parcel S5.

Please do not hesitate to contact me at 608-643-3361 if you have any questions.

Sincerely,

Joan M. Kenney

Joan M. Kenney
Commander's Representative

Copy furn: Badger Technical Services, LLC