

**GIS REGISTRY**  
**Cover Sheet**

March, 2010  
(RR 5367)

**Source Property Information**

CLOSURE DATE: Jun 16, 2010

**BRRTS #:** 02-41-529998  
**ACTIVITY NAME:** 128th Air Refueling Wing – Site 8 – Vehicle Maintenance Shop Sump  
**PROPERTY ADDRESS:** 1919 E GRANGE AVE/MAIN GATE  
**MUNICIPALITY:** Milwaukee  
**PARCEL ID #:** 6758999000

**FID #:** 241496970  
**DATCP #:**  
**COMM #:**

**\*WTM COORDINATES:**

**WTM COORDINATES REPRESENT:**

X: 692227 Y: 276292

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

- 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)*

**Land Use Controls:**

- 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)*

**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 #: 02-41-529998 PARCEL ID #: \_\_\_\_\_

ACTIVITY NAME: WI Air National Guard, 128th ARW, Site 8 WTM COORDINATES: X: 692227 Y: 276292

**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.)
- 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 8.5 x 14 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 #: 1.1 & 1 Title: Base Location & Surr. Area; Base Map and ERP Site Locations

**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 #: 2 Title: Site 8 - Site Investigation Sample Locations (2004)

**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 #: 3 Title: Site 8 - TPH-DRO Concentrations in Soil, Remedial Investigation (2006)

BRRTS #: 02-41-529998

ACTIVITY NAME: WI Air National Guard, 128th ARW, Site 8

**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 #: Title:

Figure #: Title:

**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 8.5 x 14 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 #: 1,3,4,5,6 Title: 2004 SI, 2006 RI VOCs, 2006 RI TPH, 2006 RI Arsenic, 2004 SI Arsenic w/ 2006 RCL

**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 #: 2 Title: Groundwater Screening Results from Site Investigation, 2004

**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 #: 02-41-529998

ACTIVITY NAME: WI Air National Guard, 128th ARW, Site 8

## NOTIFICATIONS

### Source Property

- 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.

- 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.*
- 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:



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Matthew J. Frank, Secretary  
Gloria L. McCutcheon, Regional Director

Southeast Region Headquarters  
2300 N. Dr. Martin Luther King, Jr. Drive  
Milwaukee, Wisconsin 53212-3128  
FAX 414-263-8606  
Telephone 414-263-8500  
TTY Access via relay - 711

June 16, 2010

In Reply Refer To: FID# 241496970  
County of Milwaukee  
BRRTS# 02-41-529998

Mr. Stanley Moore  
Air National Guard – National Guard Bureau / A7OR  
3500 Fetchet Ave  
Andrews Air Force Base, MD 20762

Subject: Final Case Closure with Continuing Obligation, WI Air National Guard – 128<sup>th</sup> Air Refueling Wing – Site 8 – Vehicle Maintenance Shop Sump, 1919 E Grange Ave (Main Gate), Milwaukee, WI 53207

Dear Mr. Moore:

On June 16, 2010, the Wisconsin Department of Natural Resources (WDNR) reviewed your request for closure of the case described above. The WDNR reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases.

Based on the correspondence and data provided, it appears that your case meets the closure requirements in ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time, however, you and future property owners must comply with certain continuing obligations as explained in this letter.

### GIS Registry

This site will be listed on the Remediation and Redevelopment Program's GIS Registry. The specific reasons are summarized below:

- Residual soil contamination exists that must be properly managed should it be excavated or removed
- The fence around the property must be maintained as a barrier to limit the public from accessing the contaminated soil

This letter and information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at <http://dnr.wi.gov/org/aw/rr/gis/index.htm>. If the property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4)(w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line <http://dnr.wi.gov/org/water/dwg/3300254.pdf> or at the web address listed above for the GIS Registry.

### Closure Conditions

Please be aware that pursuant to s. 292.12 Wisconsin Statutes, compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. You must pass on the information about these continuing obligations to the next property owner or owners. If these requirements are not followed or if additional information regarding site conditions

indicates that contamination on or from the site poses a threat to public health, safety, welfare, or the environment, the Department 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 or this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code. The Department intends to conduct inspections in the future to ensure that the conditions included in this letter are met.

#### Barrier

Pursuant to s. 292.12(2)(a), Wis. Stats., the fence that currently exists around the property shall be maintained in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. If soil in the specific locations described in the GIS packet is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual 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 statutes 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 during excavation activities to prevent a health threat to humans.

#### Post-Closure Notification Requirements

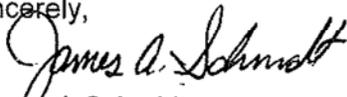
In accordance with ss. 292.12 and 292.13, Wis. Stats., you must notify the Department before making changes that affect or relate to the conditions of closure in this letter. For this case, examples of changed conditions requiring prior notification include, but are not limited to:

- Development, construction or other changes, including zoning changes, that change the land use from military
- Disturbance or removal in whole or part of the fencing that must be maintained around the facility

Please send any written notifications in accordance with the above requirements to the Southeast Region Remediation & Redevelopment Program, to the attention of the Environmental Program Associate.

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 Andy Boettcher at (414) 263-8541.

Sincerely,



James A Schmidt  
SER Remediation & Redevelopment Team Supervisor

cc: Clair Breckenridge, 128ARW/CEV, 1685 East Grange Ave, Milwaukee, WI 53207  
Deborah Hines, PEER Consultants, 7325 Oak Ridge Hwy, Ste 100, Knoxville, TN 37931  
Case File

REFL 428 IMAG 1925

This Indenture Made by Wisconsin State Armory Board, a corporation existing under section 21.615, Stats., located at Madison, Wisconsin, by Ralph J. Olson, Chairman, and John L. Downing, Jr., Secretary-Treasurer, grantor, of  
hereby quitclaims to The State of Wisconsin  
Dane County, Wisconsin,

sum of One Dollar  
grantee  
County of Wisconsin for the

the following tract of land in Milwaukee County, State of Wisconsin:  
Lands lying in the N.W. 1/4 Section 34 and the N.E. 1/4 Section 33, T 6 N, R 22 E, described as follows:

Commencing at the S.E. corner of the N.E. 1/4 Section 33, T 6 N, R 22 E, thence westerly along the South line of said 1/4 Section, 81.75 feet to a point, said point being 1,660 feet East of, measured at right angles, the centerline of Runway 1L-19R as said runway is now established and constructed at General Mitchell Field; thence northerly and parallel to the said centerline of said Runway 1L-19R to a point in the N.W. 1/4 Section 34, T 6 N, R 22 E, which point is 660 feet Southeasterly of, measured at right angles to, the centerline of Runway 7R-25L as said runway is now established and constructed at General Mitchell Field; thence Northeasterly and parallel to the said centerline of said Runway 7R-25L to a point which lies on the North Line of the N.W. 1/4 of Section 34, T 6 N, R 22 E, said point being 683.73 feet east of the N.W. corner of said 1/4 Section; thence Easterly on and along the North line of said 1/4 Section to a point which is 100 feet Westerly of the West right-of-way line of the Chicago and Northwestern Railroad, as said railroad right-of-way is laid out through the said 1/4 Section; thence Southerly and parallel to the said West right-of-way line 50 feet to a point; thence Easterly and parallel to the North line of said 1/4

In Witness Whereof, the said grantor has caused these presents to be signed by Ralph J. Olson, its Chairman, Treasurer, and countersigned by John L. Downing, Jr., its Secretary, at  
This Board has no corporate seal  
Signed and Sealed in Presence of  
24TH day of JUNE, A.D., 1968

WISCONSIN STATE ARMORY BOARD  
Corporate Name  
Ralph J. Olson, Chairman  
Countersigned: John L. Downing, Jr., Secretary-Treasurer

REGISTERS OFFICE  
Milwaukee County, Wis.  
RECORDED AT 2:15 PM M 4401170

on JUN 27 1968 in  
Reel # 22 Image 1725-1926

Melan Potter  
Registrar of Deeds  
State of Wisconsin,  
DANE County, Wis.

Personally came before me this twenty-fourth day of June, A.D., 1968.  
Ralph J. Olson, Chairman, and John L. Downing, Jr., Secretary-Treasurer of the above named Corporation, to me known to be the persons who executed the foregoing instrument, and to me known to be such Chairman, Treasurer and Secretary of said Corporation, and acknowledged that they executed the foregoing instrument as such officers as the deed of said Corporation, by its authority.

Notary Public, Dane County, Wis.  
My commission expires 1:00 P.M., A.D., 1970

Exhibit "A"

No. _____
Wisconsin State Armory Board
To _____
The State of Wisconsin
_____
_____
QUITCLAIM DEED WARREN WOODHEAD
REGISTRAR'S OFFICE, State of Wisconsin, _____ County.
Received for Record this _____ day of _____ 19____
at _____ o'clock _____ M., and recorded in _____
Vol _____ of Deeds on page _____
_____ Register of Deeds.
WIS. STATE ARMORY BOARD Deputy, P.O. BOX 372 MADISON, WIS. 53701

(description continued from opposite side)

Section to a point which lies on the West right-of-way line of the Chicago and Northwestern Railroad; thence Southerly on and along said West right-of-way line to a point which lies on the South line of said N.W. 1/4 Section 34, T 6 N, R 22 E; thence Westerly on and along said South line of said 1/4 Section to the place of beginning, and containing 58-1/2 acres of land more or less, excepting and reserving to grantor, its successors and assigns, for the benefit of the general public at large, the right of way for the free and unobstructed passage of aircraft, by whomsoever owned or operated, in and through the air space, over, across, and above the land hereinabove described, and excepting the interest of the West Shore Pipe Line Company in the above-described premises.

Exhibit 4911

CLIENT: WISCONSIN AIR NATIONAL GUARD

# LEASE LAND MAP

## LEASE DESCRIPTION B

A parcel of land located in the NW1/4-NW1/4 and the SW1/4-NW1/4, Section 34, T6N, R22E, Milwaukee County, Wisconsin, more fully described as follows:

Commencing at the Northwest corner of said Section 34; thence N88°54'27"E, along the north line of said NW1/4, 226.51 feet; thence S5°40'30"W, 262.95 feet to the point of beginning; thence continuing S5°40'30"W, 1130.90 feet; thence N84°19'30"W, 210.00 feet; thence N5°40'30"E, 1030.47 feet; thence N70°07'00"E, 232.78 feet to the point of beginning.

This description contains 226,944 square feet, (5.210 acres) more or less.

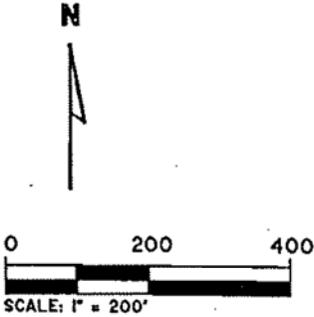
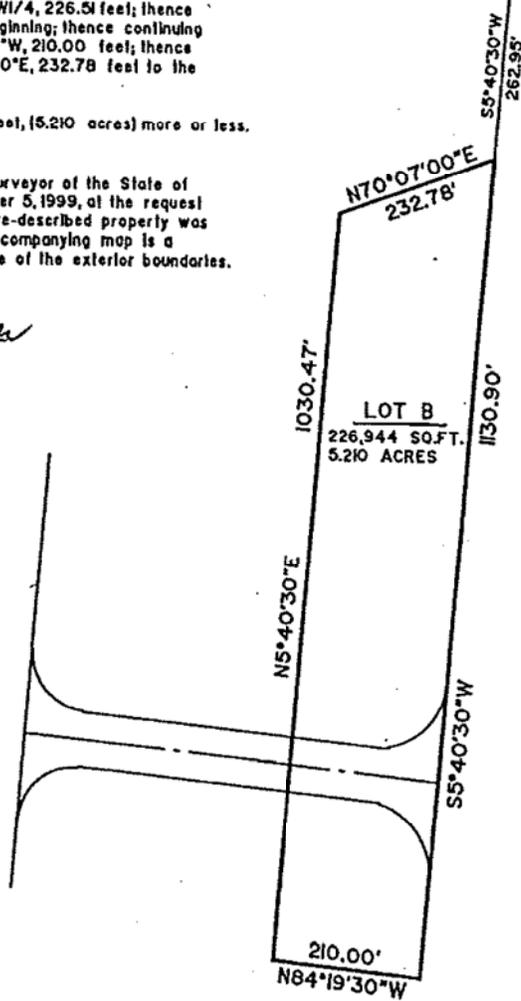
I, Roger D. Schneeberger, a registered land surveyor of the State of Wisconsin, do hereby certify that on November 5, 1999, at the request of the Wisconsin Air National Guard, the above-described property was surveyed under my direction and that the accompanying map is a correctly-dimensioned representation to scale of the exterior boundaries.

*Roger D. Schneeberger*  
Roger D. Schneeberger, S-1096

NW CORNER  
SECTION 34  
T6N, R22E

N1/4 CORNER  
SECTION 34  
T6N, R22E

⊕ N88°54'27"E 262.51' ⊕ N70°07'00"E 232.78'



LEGEND  
⊕ ALUMINUM MONUMENT FOUND



# MEAD & HUNT

Mead & Hunt, Inc.  
6501 Watts Road, Suite 101  
Madison, Wisconsin 53719-2700  
Phone: 608-273-6380  
Fax: 608-273-6391

Dwg. No. N 9304 S  
Sheet 1 of 1  
Job No. W77-20-99G

h:\survey\99\w77-99g\w772099b.dgn

3. Parcel Identification Number-6758999000, Owner is WI Dept of Military Affairs

Geographic position data (for center of concrete apron/cap):  $x = 692300.9$ ;  $y = 276583.38$   
(meters--Wisconsin Transverse Mercator 1991 coordinate system.



**DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 128<sup>th</sup> AIR REFUELING WING (ANG)**

18 August 2005

MEMORANDUM FOR : WISCONSIN DEPARTMENT OF NATURAL RESOURCES

FROM: 128 ARW/CES

SUBJECT: Status Update, Wisconsin ANG, 128<sup>th</sup> ARW Apron Project, Close-out responsible party statement

To Whom It May Concern:

We the undersigned believe that the enclosed package contains the correct legal property descriptions required to close the Wisconsin ANG, 128<sup>th</sup> ARW Apron Project.

FID: 241895500  
BRRTS: 02-41-233741

The attached material contains all documented testing, deeds, and limitations associated with the contaminated site boundary. Any further questions, feel free to contact us.

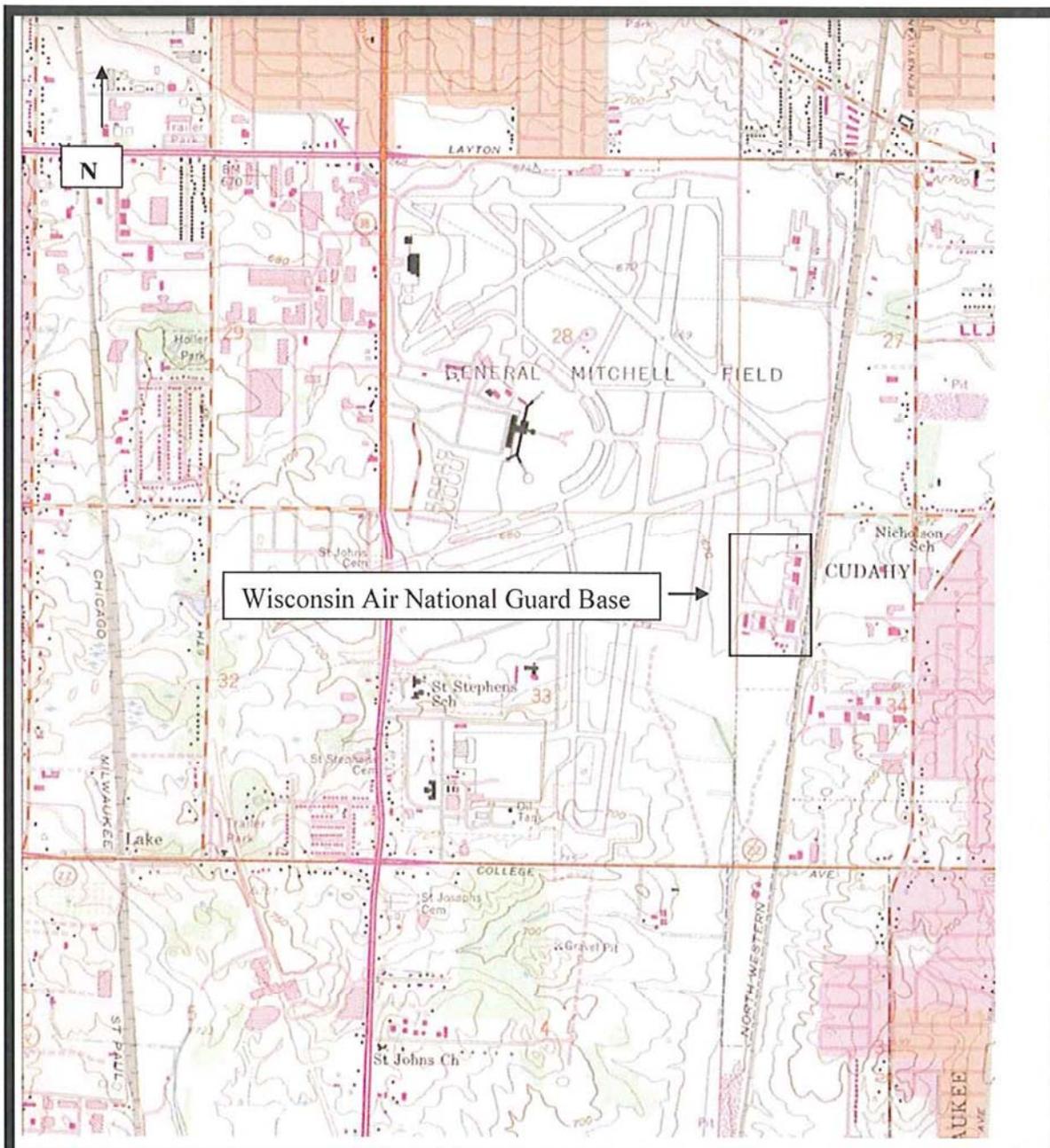
Sincerely,

A handwritten signature in black ink, appearing to read "Steven T. Ford", written over a horizontal line.

Steven T. Ford, Lt. Col, WIANG BSC  
Environmental & Bioenvironmental Engineer  
414.944.8414

A handwritten signature in black ink, appearing to read "William F. Jasinski", written over a horizontal line.

William F. Jasinski, Civilian, WIANG CES  
Real Property Manager  
414.944.8231



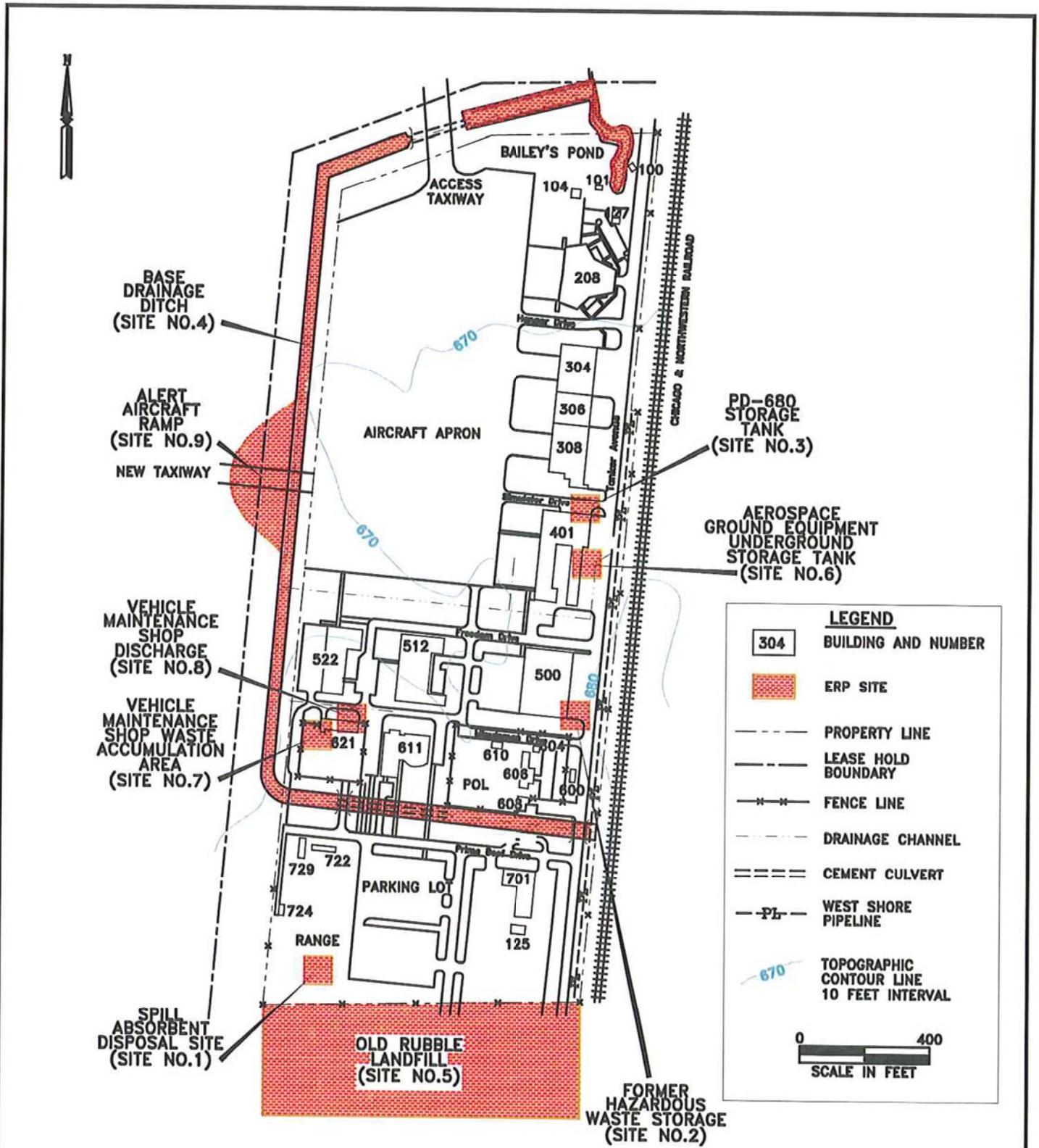
SOURCE: USGS GREENDALE QUADRANGLE, WI

SCALE 1:24,000

FIGURE 1.1

BASE LOCATION AND SURROUNDING AREA  
 128<sup>TH</sup> AIR REFUELING WING  
 BILLY MITCHELL FIELD  
 MILWAUKEE, WISCONSIN





SOURCE: DONOHUE ENGINEERS & ARCHITECTS, 1992. MODIFIED BY OPTECH, 1998.  
 MODIFIED BY PEER CONSULTANTS, 2003, 2004, 2008

**FIGURE**  
1

**BASE MAP AND ERP SITE LOCATIONS**  
**128TH AIR REFUELING WING**  
**BILLY MITCHELL FIELD**  
**MILWAUKEE, WISCONSIN**



**PEER**

PROJ./3005-035  
 WI ANG/FIG 1

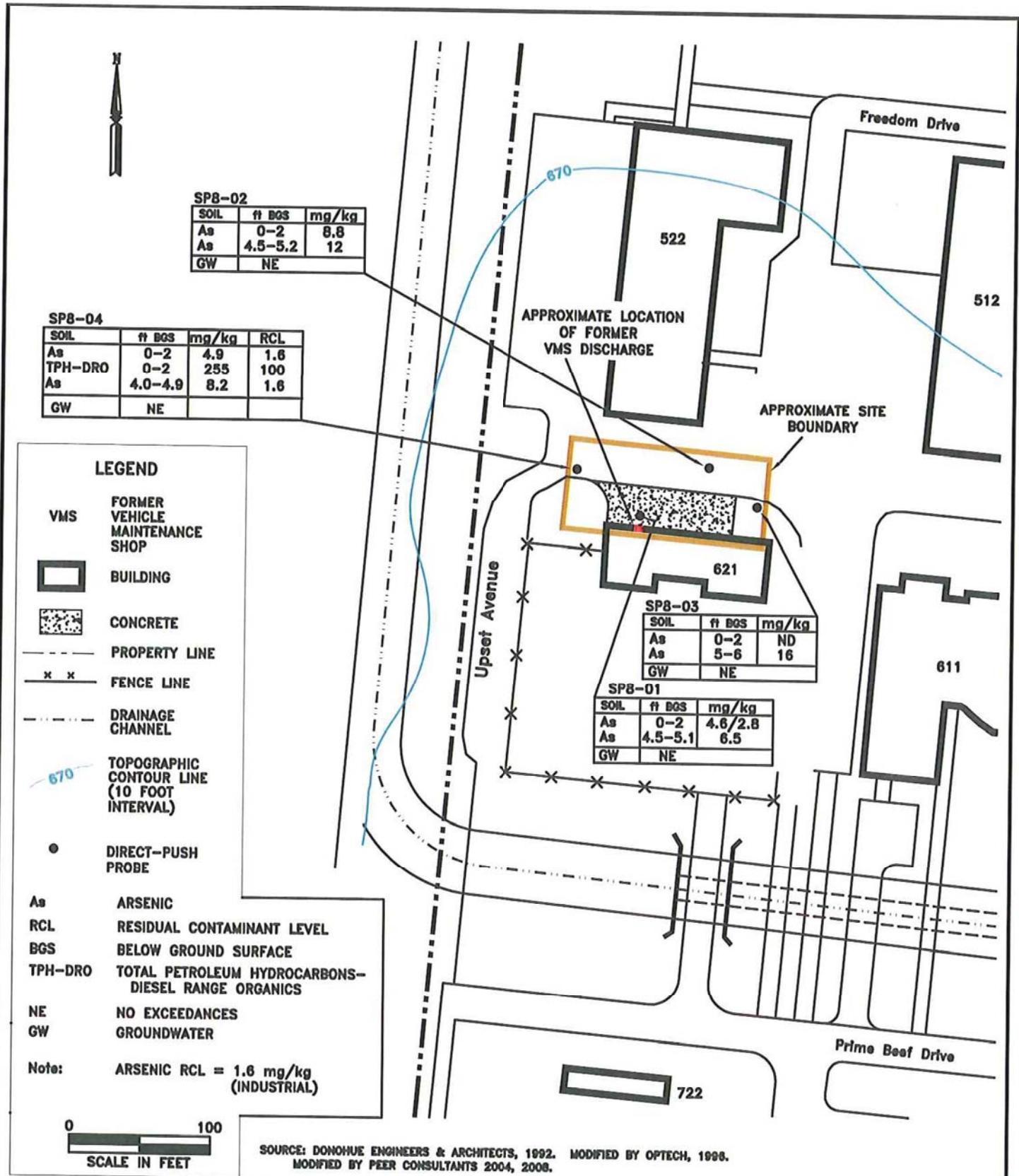
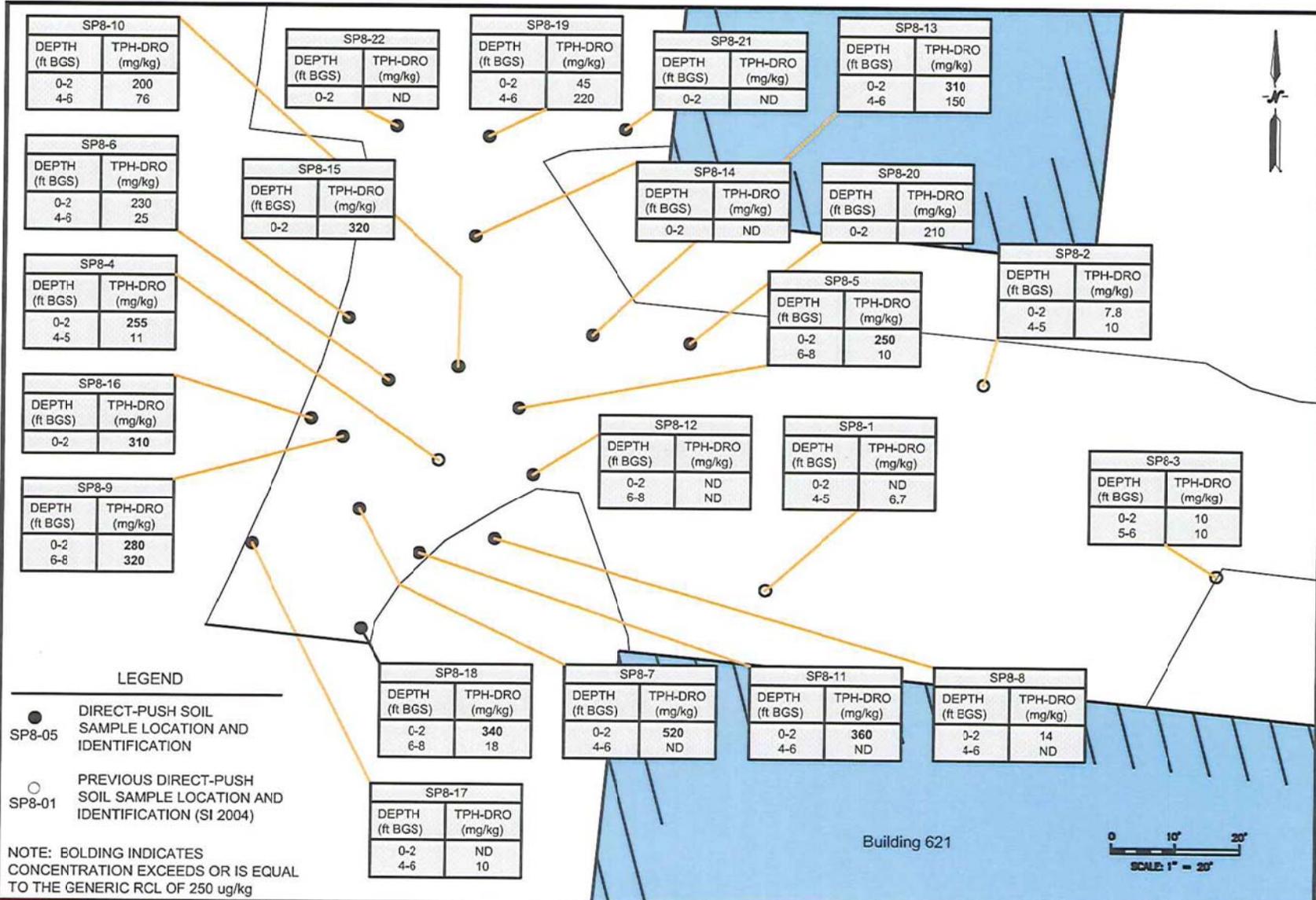


FIGURE 2

SITE 8 - SITE INVESTIGATION SAMPLE LOCATIONS (2004)  
 128th AIR REFUELING WING  
 WISCONSIN AIR NATIONAL GUARD  
 MILWAUKEE, WISCONSIN



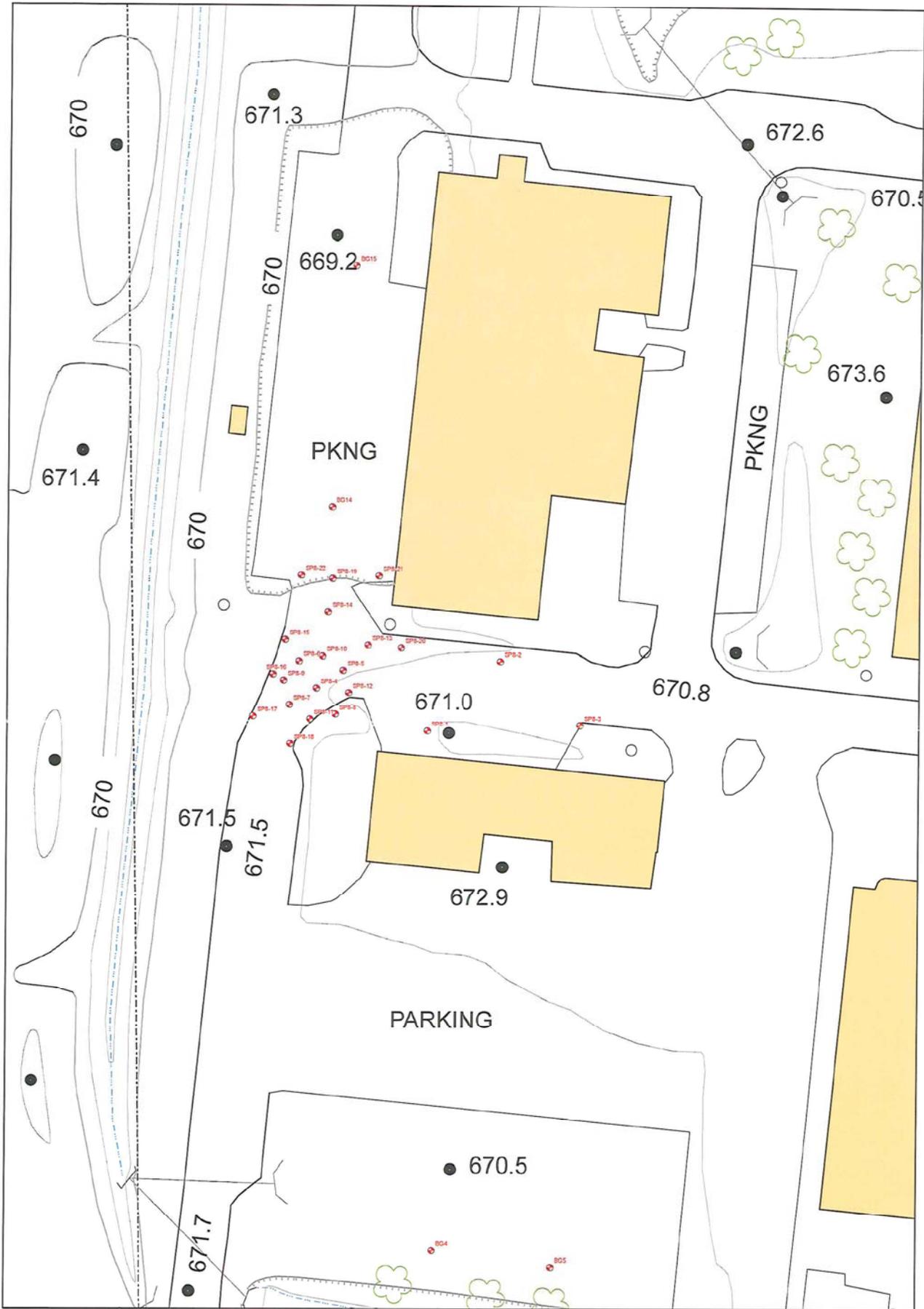
PROJ./3005-035  
 WI ANG/FIG 2




**PEER**  
 PROJ./3005-035  
 WS/FIG 3

**SITE 8 - TPH-DRO CONCENTRATIONS IN SOIL, REMEDIAL INVESTIGATION, 2006**  
 128th AIR REFUELING WING  
 MILWAUKEE, WISCONSIN

**FIGURE 3**

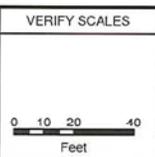


PROJECT NO.  
07657.924  
SHEET NO.  
1

**BORING LOCATIONS AT  
MITCHEL FIELD, SITES 1 AND 8  
MILWAUKEE, WISCONSIN**

COMBINATION SCALE AND SEA LEVEL REDUCTION FACTOR: 0.99993093  
HORIZONTAL DATUM IS THE WISCONSIN STATE PLANE COORDINATE  
SYSTEM, SOUTH ZONE (NORTH AMERICAN DATUM 1927)  
VERTICAL DATUM IS NATIONAL GEODETIC VERTICAL DATUM OF 1929,  
COMPLIED TO NATIONAL ACCURACY STANDARDS UTILIZING STEREO  
PHOTOGRAMMETRIC METHODS.  
DATE OF PHOTOGRAPHY: MARCH 26, 1999

**KAPUR & ASSOCIATES, INC.**  
CONSULTING ENGINEERS  
MILWAUKEE, WISCONSIN  
414.351.6668



DESIGNED BY:	NO.	REVISIONS	DATE
DRAWN BY:			
CHECKED BY:			
APPROVED BY:			
DATE:	11/5/2006		
SCALE:	1 : 2400	ACAD F:	

**SURVEY LOCATIONS, WI ANG, 128th ARW**

**SITE 8 AND BACKGROUND ARSENIC - OCTOBER 2006**

LOCATION	EASTING	NORTHING	ELEVATION
SP1-01	2565125.71	348855.32	680.3
SP1-02	2565167.20	348882.99	680.6
SP1-03	2565127.70	348915.44	680.7
SP1-04	2565091.41	348887.73	680.2
BG5	2565201.61	349411.56	670.7
BG4	2565146.89	349419.03	670.2
BG6	2565415.38	349400.07	672.9
SP8-3	2565213.63	349661.40	672.4
SP8-2	2565177.03	349690.95	672.3
SP8-1	2565143.35	349658.67	672.4
SP8-12	2565107.19	349676.53	671.3
SP8-5	2565104.77	349686.90	671.1
SP8-10	2565095.31	349693.33	670.8
SP8-6	2565084.41	349691.15	670.7
SP8-9	2565077.33	349682.32	670.9
SP8-7	2565080.02	349670.95	671.0
SP8-11	2565089.56	349664.16	671.1
SP8-8	2565101.18	349666.45	672.0
SP8-4	2565092.42	349678.74	671.0
BG14	2565099.19	349762.00	669.4
BG15	2565109.58	349872.87	669.3
BG8	2565700.97	349677.72	673.0
BG9	2565670.06	349846.66	671.6
BG10	2565932.62	349742.77	674.1
BG11	2566011.41	350501.98	673.3
BG3	2566032.91	351245.08	668.3
BG2	2565991.29	351245.39	668.9
BG1	2565991.81	351201.02	670.2
BG13	2566984.41	351289.04	671.1
BG12	2566895.64	351182.53	671.3
BG7	2565468.02	349615.89	673.1

**SITE 8 - DECEMBER 2006**

NORTHING	EASTING	ELEVATION	LOCATION
349698.32	2565116.04	671.1	SP8-13
349697.09	2565131.25	671.5	SP8-20
349652.40	2565080.47	671.0	SP8-18
349665.55	2565063.39	670.9	SP8-17
349685.15	2565072.50	670.8	SP8-16
349700.80	2565078.08	670.5	SP8-15
349713.60	2565097.72	670.3	SP8-14
349730.63	2565085.30	669.9	SP8-22
349729.09	2565099.64	670.0	SP8-19
349730.27	2565120.92	670.0	SP8-21

**Table 1**  
**Site 8 – Vehicle Maintenance Shop Sump Discharge**  
**2004 Site Investigation Soil Sample Results**  
**128<sup>th</sup> Air Refueling Wing**  
**Milwaukee, Wisconsin**

Analyte	Action Levels (mg/kg)	Sample Identification, Depth in ft BGS, and Concentration in mg/kg								
		WIS-08-SP01-SS01	WIS-08-SP01-SS1D (Duplicate)	WIS-08-SP01-SS02	WIS-08-SP02-SS01	WIS-08-SP02-SS02	WIS-08-SP03-SS01	WIS-08-SP03-SS02	WIS-08-SP04-SS01	WIS-08-SP04-SS02
		0 - 2	0 - 2	4.5 – 5.1	0 - 2	4.5 – 5.2	0 - 2	5 – 6	0 - 2	4.0 – 4.9
Arsenic	1.6 <sup>(a)</sup>	<b>4.6</b>	<b>2.8</b>	<b>6.5</b>	<b>8.8</b>	<b>12</b>	ND	<b>16</b>	<b>4.9</b>	<b>8.2</b>
Cadmium	510	5.0	5.4	8.2	9.2	8.5	8.0	9.3	11	1.2
Chromium (hex)	200 <sup>(a)</sup>	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chromium (tot)	N/A	19	18	12	10	17	15	16	6.6	16
Chromium (tri)	N/A	19	18	12	10	17	15	16	6.6	16
Lead	500 <sup>(a)</sup>	9.6	9.7	2.5	7.9	7.2	11	5.5	6.1	9.0
TPH-GRO	100 <sup>(b)</sup>	ND	ND	ND	ND	ND	ND	ND	ND	ND
TPH-DRO	100 <sup>(b)</sup>	ND	ND	6.7	7.8	10	10	10	<b>255</b>	11
Naphthalene	2.7 <sup>(c)</sup>	ND	ND	ND	ND	ND	ND	ND	0.138	ND
1,2,4-TMB	83 <sup>(c)</sup>	ND	ND	ND	ND	ND	ND	ND	0.065	ND
1,3,5-TMB	11 <sup>(c)</sup>	ND	ND	ND	ND	ND	ND	ND	0.117	ND

Notes:

- a) NR 720.11 (Table 2) Residual Contaminant Levels Based on Human Health Risk from Direct Contact Related to Land Use – Industrial
- b) NR 720.09(4)(a)
- c) NR 746.06 Soil Screening Levels (Petroleum Contamination)
- ND Not Detected
- TMB Trimethylbenzene
- TPH-GRO Total Petroleum Hydrocarbons – Gasoline Range Organics
- TPH-DRO Total Petroleum Hydrocarbons – Diesel Range Organics
- BGS Below Ground Surface

Bolding indicates concentrations above the Action Level

**Table 2**  
**Site 8 – Vehicle Maintenance Shop Sump Discharge**  
**2004 Site Investigation Groundwater Screening Sample Results**  
**128<sup>th</sup> Air Refueling Wing**  
**Milwaukee, Wisconsin**

Analyte	Action Level <sup>(1)</sup> (ug/L)	Sample ID, Depth in ft BGS, and Concentration in ug/L			
		WIS-08- SP01-GW	WIS-08- SP02-GW	WIS-08- SP03-GW	WIS-08- SP04-GW
		8 ft	8 ft	10 ft	8 ft
Benzene	5	ND	0.30	0.29	ND
Isopropylbenzene	--	ND	ND	0.39	ND
Toluene	700	0.20	0.77	0.42	ND
Xylenes (total)	10,000	ND	ND	0.73	ND
TPH-GRO	--	ND	ND	ND	ND

Notes:

- (1) NR 140.10 (Table 1) Groundwater Quality Standards
- BGS Below Ground Surface
- TPH-GRO Total Petroleum Hydrocarbons-Gasoline Range Organics
- ND Not Detected
- Action Level not established

**Table 3**  
**Site 8 - Direct-Push Soil Sample Results, Volatile Organic Compounds**  
**2006 Remedial Investigation**  
**128th Air Refueling Wing**  
**Milwaukee, Wisconsin**

Analytes	WDR Action Levels <sup>(1)</sup>		Sample Identification and Sample Interval <sup>(4)</sup>																	
	SSL <sup>(2)</sup>	RCL <sup>(3)</sup>	SP8-05		SP8-06		SP8-7		SP8-08		SP8-09			SP8-10			SP8-11		SP8-12	
	mg/kg	mg/kg	1.8-2.2 P	6-8 P	1.8-2.2 P	6-8 P	1.8-2.2 P	6-8 P	1.8-2.2 P	6-8 P	1.8-2.2 P2	1.8-2.2 D	6-8	1.8-2.2	1.8-2.2 D	6-8	1.8-2.2	6-8	1.8-2.2	6-8
<b>Volatile Organic Compounds 8260B (mg/kg)</b>																				
Benzene	8.5	0.0055	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Bromobenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Bromochloromethane	--	--	<0.039	<0.039	<0.040	<0.041	<0.038	<0.045	<0.043	<0.040	<0.054	<0.051	<0.040	<0.046	<0.046	<0.040	<0.045	<0.042	<0.043	<0.043
Bromodichloromethane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Bromoform	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Bromomethane	--	--	<0.110	<0.110	<0.110	<0.120	<0.110	<0.130	<0.120	<0.110	<0.160	<0.140	<0.110	<0.130	<0.130	<0.110	<0.130	<0.120	<0.120	<0.120
n-Butylbenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
sec-Butylbenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
tert-Butylbenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Carbon Tetrachloride	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Chlorobenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Chlorodibromomethane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Chloroethane	--	--	<0.056	<0.056	<0.057	<0.058	<0.054	<0.064	<0.062	<0.056	<0.078	<0.072	<0.057	<0.066	<0.066	<0.057	<0.064	<0.060	<0.062	<0.062
Chloroform	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Chloromethane	--	--	<0.056	<0.056	<0.057	<0.058	<0.054	<0.064	<0.062	<0.056	<0.078	<0.072	<0.057	<0.066	<0.066	<0.057	<0.064	<0.060	<0.062	<0.062
2-Chlorotoluene	--	--	<0.056	<0.056	<0.057	<0.058	<0.054	<0.064	<0.062	<0.056	<0.078	<0.072	<0.057	<0.066	<0.066	<0.057	<0.064	<0.060	<0.062	<0.062
4-Chlorotoluene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,2-Dibromo-3-Chloropropane	--	--	<0.110	<0.110	<0.110	<0.120	<0.110	<0.130	<0.120	<0.110	<0.160	<0.140	<0.110	<0.130	<0.130	<0.110	<0.064	<0.060	<0.062	<0.062
1,2-Dibromoethane (EDB)	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Dibromomethane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,2-Dichlorobenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,3-Dichlorobenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,4-Dichlorobenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Dichlorodifluoromethane	--	--	<0.056	<0.056	<0.057	<0.058	<0.054	<0.064	<0.062	<0.056	<0.078	<0.072	<0.057	<0.066	<0.066	<0.057	<0.064	<0.060	<0.062	<0.062
1,1-Dichloroethane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,2-Dichloroethane	0.6	0.0049	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,1-Dichloroethene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
cis-1,2-Dichloroethene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
trans-1,2-Dichloroethene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,2-Dichloropropane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,3-Dichloropropane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031

NOTES:

1. WDR Wisconsin Department of Natural Resources
2. SSL Soil Screening Level, WDR 746.06, Table 1
3. RCL Residual Contaminant Level, WDR 720.09, Table 1, Protection of Groundwater
4. Sample interval reported in ft below ground surface (BGS)
- D Duplicate sample
- < Analyte not detected at or above the method detection limit
- WDR Action level not established for specified compound
- \* Methylene chloride is a common laboratory solvent and contaminant compound (laboratory data qualifier is noted as "S2")
- P Laboratory qualifier -- the sample, as received, was not preserved in accordance to the referenced analytical method
- P2 Laboratory qualifier -- amount of sample in the container was outside the acceptable range as stated in the method

Table 3 (continued)  
 Site 8 - Direct-Push Soil Sample, Volatile Organic Compounds  
 2006 Remedial Investigation  
 128th Air Refueling Wing  
 Milwaukee, Wisconsin

Analytes	WDNR Action Levels <sup>(1)</sup>		Sample Identification and Sample Interval <sup>(4)</sup>																	
	SSL <sup>(2)</sup>	RCL <sup>(3)</sup>	SP8-05 P		SP8-06 P		SP8-07 P		SP8-08 P		SP8-09 P		SP8-10 P		SP8-11 P		SP8-12			
	mg/kg	mg/kg	1.8-2.2 P	6-8 P	1.8-2.2 P	6-8 P	1.8-2.2 P	6-8 P	1.8-2.2 P	6-8 P	1.8-2.2 P2	1.8-2.2 D	6-8	1.8-2.2	1.8-2.2 D	6-8	1.8-2.2	6-8	1.8-2.2	6-8
Volatile Organic Compounds S260B (mg/kg)																				
2,2-Dichloropropane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,1-Dichloropropene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
cis-1,3-Dichloropropene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
trans-1,3-Dichloropropene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
2,3-Dichloropropene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Isopropyl Ether	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Ethylbenzene	4.6	2.9	<0.028	0.057	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Hexachlorobutadiene	--	--	<0.039	<0.039	<0.040	<0.041	<0.038	<0.045	<0.043	<0.040	<0.054	<0.051	<0.040	<0.046	<0.046	<0.040	<0.045	<0.042	<0.043	<0.043
Isopropylbenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
p-Isopropyltoluene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Methylene Chloride	--	--	0.056*	<0.056	<0.057	<0.058	<0.054	<0.064	<0.062	<0.056	<0.078	0.110*	<0.057	<0.066	<0.066	0.160*	1.10*	0.210*	0.067*	0.530*
Methyl tert-butyl Ether	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Naphthalene	2.7	--	0.670	0.150	0.130	0.130	0.760	<0.064	<0.062	<0.056	<0.078	<0.072	<0.057	0.130	<0.066	<0.057	0.080	<0.060	<0.062	<0.062
n-Propylbenzene	--	--	<0.028	0.031	<0.029	0.032	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Styrene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,1,1,2-Tetrachloroethane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,1,2,2-Tetrachloroethane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Tetrachloroethene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Toluene	38	1.5	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	0.099	1.30	0.570	<0.033	<0.033	<0.029	0.050	<0.030	<0.031	<0.031
1,2,3-Trichlorobenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,2,4-Trichlorobenzene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,1,1-Trichloroethane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,1,2-Trichloroethane	--	--	<0.039	<0.039	<0.040	<0.041	<0.038	<0.045	<0.043	<0.040	<0.054	<0.051	<0.040	<0.046	<0.046	<0.040	<0.045	<0.042	<0.043	<0.043
Trichloroethene	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Trichlorofluoromethane	--	--	<0.028	<0.028	<0.029	<0.029	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,2,3-Trichloropropane	--	--	<0.056	<0.056	<0.057	<0.058	<0.054	<0.064	<0.062	<0.056	<0.078	<0.072	<0.057	<0.066	<0.066	<0.057	<0.064	<0.060	<0.062	<0.062
1,2,4-Trimethylbenzene	83	--	<0.028	0.160	<0.029	0.160	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
1,3,5-Trimethylbenzene	11	--	<0.028	0.059	<0.029	0.072	<0.027	<0.032	<0.031	<0.028	<0.039	<0.036	<0.029	<0.033	<0.033	<0.029	<0.032	<0.030	<0.031	<0.031
Vinyl Chloride	--	--	<0.039	<0.039	<0.040	<0.041	<0.038	<0.045	<0.043	<0.040	<0.054	<0.051	<0.040	<0.046	<0.046	<0.040	<0.045	<0.042	<0.043	<0.043
Xylenes, total	42	4.1	<0.095	0.30	<0.097	0.130	<0.093	<0.110	<0.110	<0.096	<0.130	<0.120	<0.097	<0.110	<0.110	<0.097	<0.110	<0.100	<0.100	<0.110

NOTES:

1. WDNR Wisconsin Department of Natural Resources
  2. SSL Soil Screening Level, WDNR 746.06, Table 1
  3. RCL Residual Contaminant Level, WDNR 720.09, Table 1, Protection of Groundwater
  4. Sample interval reported in ft below ground surface (BGS)
- D Duplicate sample  
 < Analyte not detected at or above the method detection limit  
 -- WDNR Action level not established for specified compound  
 \* Methylene chloride is a common laboratory solvent and contaminant compound (laboratory data qualifier is noted as "S2")  
 P Laboratory qualifier -- the sample, as received, was not preserved in accordance to the referenced analytical method  
 P2 Laboratory qualifier -- amount of sample in the container was outside the acceptable range as stated in the method

**Table 4**  
**Site 8 - Direct-Push Soil Sample Results for TPH-DRO/GRO**  
**2006 Remedial Investigation**  
**128th Air Refueling Wing**  
**Milwaukee, Wisconsin**

Analyte	Residual Contaminant Levels <sup>(1)</sup>		Sample Identification, Sample Interval <sup>(2)</sup> and Collection Date										
	Hydraulic Conductivity		SP8-05-01	SP8-05-02	SP8-06-01	SP8-06-02	SP8-07-01	SP8-07-02	SP8-08-01	SP8-08-02	SP8-09-01	SP8-09-01D	SP8-09-02
	> 1.0E-06 cm/s	≤ 1.0E-06 cm/s	0-2 ft	6-8 ft	0-2 ft	4-6 ft	0-2 ft	4-6 ft	0-2 ft	4-6 ft	0-2 ft	0-2 ft	6-8 ft
<b>Total Petroleum Hydrocarbons (TPH) (mg/kg)</b>													
TPH-DRO	100	250	<b>250</b>	10	230	25	520	<6.4	14	<5.6	280	320	320
TPH-GRO	100	250	<5.6	9.0	8.2	35	<5.4	<6.4	<6.2	<5.6	<7.8	8.3	8.3

Analyte	Residual Contaminant Levels <sup>(1)</sup>		Sample Identification, Sample Interval <sup>(2)</sup> and Collection Date										
	Hydraulic Conductivity		SP8-10-01	SP8-10-01D	SP8-10-02	SP8-11-01	SP8-11-02	SP8-12-01	SP8-12-02	SP8-13-01	SP8-13-02	SP8-14-01*	SP8-15-01*
	> 1.0E-06 cm/s	≤ 1.0E-06 cm/s	0-2 ft	0-2 ft	4-6 ft	0-2 ft	4-6 ft	0-2 ft	6-8 ft	0-2 ft	4-6 ft	0-2 ft	0-2 ft
<b>Total Petroleum Hydrocarbons (TPH) (mg/kg)</b>													
TPH-DRO	100	250	200	210	76	<b>360</b>	<6.0	<6.2	<6.2	310	150	<5.6	320
TPH-GRO	100	250	16	9.2	<5.7	<6.4	<6.0	<6.2	<6.2	NA	NA	NA	NA

Analyte	Residual Contaminant Levels <sup>(1)</sup>		Sample Identification, Sample Interval <sup>(2)</sup> and Collection Date										
	Hydraulic Conductivity		SP816-01*	SP8-17-01	SP8-17-02	SP8-18-01	SP8-18-02	SP8-19-01	SP8-19-02	SP8-20-01*	SP8-21-01*	SP8-22-01*	SP8-22-01D
	> 1.0E-06 cm/s	≤ 1.0E-06 cm/s	0-2 ft	0-2 ft	4-6 ft	0-2 ft	6-8 ft	0-2 ft	4-6 ft	0-2 ft	0-2 ft	0-2 ft	0-2 ft
<b>Total Petroleum Hydrocarbons (TPH)</b>													
TPH-DRO	100	250	<b>310</b>	<6.4	10	<b>340</b>	18	45	220	210	<6.1	<5.7	<6.7
TPH-GRO	100	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes:

- Residual Contaminant Levels, Wisconsin Department of Natural Resources (NR), NR 720.09, (4)(a).
- Sample interval reported in ft below ground surface (BGS).

D Duplicate sample  
DRO Diesel range organics  
GRO Gasoline range organics  
NA Not Analyzed

< Analyte not detected at or above the method detection limit.

\* Soil sample not collected from second interval due to groundwater saturation at 4 ft BGS.

Bolding indicates that the concentration exceeds the Residual Contaminant Level of 250 mg/kg.

Table 5  
Background Soil Sample Results for Arsenic  
2006 Remedial Investigation  
128th Air Refueling Wing  
Milwaukee, Wisconsin

Analyte	RCL <sup>(1)</sup> mg/kg	Sample Location, Sample Interval <sup>(2)</sup> and Collection Date												
		BG-1		BG-2		BG-3		BG-4		BG-5		BG-6		
		0-2 ft 10/24/06	19-20 ft 10/24/06	0-2 ft 10/24/06	12-14 ft 10/24/06	0-2 ft 10/24/06	6-8 ft 10/24/06	0-2 ft 10/25/06	4-6 ft 10/25/06	0-2 ft 10/25/06	4-6 ft 10/25/06	0-2 ft 10/25/06	0-2 ft D 10/25/06	4-6 ft 10/25/06
Arsenic (mg/kg)	1.6	10	6.2	6.6	5.6	4.3	3.3	9.2	7.6	9.5	3.4	4.0	5.8	2.8

Analyte	RCL <sup>(1)</sup> mg/kg	Sample Identification, Sample Interval <sup>(2)</sup> and Collection Date												
		BG-7		BG-8		BG-9		BG-10			BG-11		BG-12	
		0-2 ft 10/25/06	2-4 ft 10/25/06	0-2 ft 10/25/06	4-6 ft 10/25/06	0-2 ft 10/25/06	4-6 ft 10/25/06	0-2 ft 10/25/06	12-14 ft 10/25/06	12-14 ft D 10/25/06	0-2 ft 10/25/06	8-10 ft 10/25/06	0-2 ft 10/25/06	20-22 ft 10/25/06
Arsenic (mg/kg)	1.6	<2.3	<2.4	<2.5	4.4	<2.4	<2.4	4.5	4.8	5.0	3.6	4.8	4.9	10

Analyte	RCL <sup>(1)</sup> mg/kg	Sample Identification, Sample Interval <sup>(2)</sup> and Collection Date						
		BG-13		BG-14		BG-15		
		0-2 ft 10/25/06	12-14 ft 10/25/06	0-2 ft 10/25/06	4-6 ft 10/25/06	0-2 ft 10/25/06	2-4 ft 10/25/06	2-4 ft D 10/25/06
Arsenic (mg/kg)	1.6	8.0	6.6	9.4	4.5	19	5.8	7.8

Notes:

1. NR 720.11, Table 2, Residual Contaminant Levels (RCL) Based on Human Health Risk From Direct Contact Related to Land Use - Industrial.
2. Sample interval reported in ft below ground surface.

- D Duplicate sample  
< Analyte not detected at or above the method detection limit.

**Table 6**  
**Sites 1, 2 and 8 - 2004 Site Investigation Results for Arsenic**  
**128th Air Refueling Wing**  
**Milwaukee, Wisconsin**

Analyte	RCL <sup>(1)</sup> mg/kg	Background Conc. Range 0-2 ft bgs mg/kg	Site-Specific RCL <sup>(2)</sup> 0-2 ft bgs mg/kg	Background Conc. Range 4-22 ft bgs mg/kg	Site-Specific RCL <sup>(2)</sup> 4-22 ft bgs mg/kg	Sample Identification, Sample Interval <sup>(2)</sup> and Collection Date								
						SP1-01-01 0-2 ft 10/14/04	SP1-01-01D 0-2 ft 10/14/04	SP1-01-02 7-8 ft 10/14/04	SP1-02-01 0-2 ft 10/14/04	SP1-02-02 8.5-10 ft 10/14/04	SP1-03-01 0-2 ft 10/14/04	SP1-03-02 12.5-13 ft 10/14/04	SP1-04-01 0-2 ft 10/14/04	SP1-04-02 10.5-11.5 ft 10/14/04
<b>Site 1</b>														
Arsenic	1.6	3.6 - 19	10.5	2.8-10	7.8	11	8.0	6.9	<2.0	<2.0	3.2	9.0	<2.0	<2.0

Analyte	RCL <sup>(1)</sup> mg/kg	Background Conc. Range 0-2 ft bgs mg/kg	Site-Specific RCL <sup>(2)</sup> 0-2 ft bgs mg/kg	Site-Specific RCL <sup>(2)</sup> 4-22 ft bgs mg/kg	Site-Specific RCL <sup>(2)</sup> 4-22 ft bgs mg/kg	Sample Identification, Sample Interval <sup>(2)</sup> and Collection Date							
						SP2-01-01 0-2 ft 10/14/04	SP2-01-02 4-5 ft 10/14/04	SP2-02-01 0-2 ft 10/15/04	SP2-02-02 8.5-9.5 ft 10/15/04	SP2-03-01 0-2 ft 10/15/04	SP2-03-02 4.5-5.4 ft 10/15/04	SP2-04-01 0-2 ft 10/15/04	SP2-04-02 3-4 ft 10/15/04
<b>Site 2</b>													
Arsenic	1.6	3.6 - 19	10.5	2.8-10	7.8	10	7.0	10	<i>21</i>	12	<i>15</i>	8.7	<i>12</i>

Analyte	RCL <sup>(1)</sup> mg/kg	Background Conc. Range 0-2 ft bgs mg/kg	Site-Specific RCL <sup>(2)</sup> 0-2 ft bgs mg/kg	Background Conc. Range 4-22 ft bgs mg/kg	Site-Specific RCL <sup>(2)</sup> 4-22 ft bgs mg/kg	Sample Identification, Sample Interval <sup>(2)</sup> and Collection Date								
						SP8-01-01 0-2 ft 10/14/04	SP8-01-01D 0-2 ft 10/14/04	SP8-01-02 4.5-5.1 ft 10/14/04	SP8-02-01 0-2 ft 10/14/04	SP8-02-02 4.5-5.2 ft 10/14/04	SP8-03-01 0-2 ft 10/14/04	SP8-03-02 5-6 ft 10/14/04	SP8-04-01 0-2 ft 10/14/04	SP8-04-02 4-5 ft 10/14/04
<b>Site 8</b>														
Arsenic	1.6	3.6 - 19	10.5	2.8-10	7.8	4.6	2.8	6.5	8.8	<i>12</i>	<2.0	<i>16</i>	4.9	8.2

Notes:

1. NR 720.11, Table 1, Residual Contaminant Levels (RCL) Based on Protection of Groundwater.
  2. Sample interval reported in ft below ground surface.
  3. Site-Specific RCL derived from arithmetic mean of the 95% UCL.
- D Duplicate sample  
 < Analyte not detected at or above the method detection limit.

Bolded values indicate concentration exceeds the Site-Specific RCL.

Bolded and italic values indicate concentration exceeds the Site-Specific RCL and the range of background concentrations.