

GIS Registry Disclaimer

This case was closed by the DNR prior to August 1, 2002, when DNR began adding approved cleanups with residual soil contamination into the GIS Registry. Certain documents that are currently required by ch. NR 726, Wis. Adm. Code may therefore not be included in this packet as they were unavailable at the time the original case was closed.

The information contained in this document was assembled by DNR from a previously closed case file, and added to the GIS Registry to provide the public with information on closed sites with residual soil and/or groundwater contamination remaining above applicable state standards.

GIS REGISTRY

Cover Sheet

March, 2010
(RR 5367)

Source Property Information

BRRTS #:

03-13-001706

ACTIVITY NAME:

MT HOREB SCHOOL BUS GARAGE

PROPERTY ADDRESS:

102 S Grove St

MUNICIPALITY:

Mount Horeb

PARCEL ID #:

51-0606-114-0364-0

CLOSURE DATE: May 23, 1995

FID #:

DATCP #:

COMM #: 53572191102

*WTM COORDINATES:

X: 541121

Y: 281771

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

WTM COORDINATES REPRESENT:

Approximate Center Of Contaminant Source

Approximate Source Parcel Center

Please check as appropriate: (BRRTS Action Code)

Contaminated Media:

Groundwater Contamination > ES (236)

Contamination in ROW

Off-Source Contamination

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

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

Contamination in ROW

Off-Source Contamination

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

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 #: (No Dashes) PARCEL ID #:
ACTIVITY NAME: WTM COORDINATES: X: Y:

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 #: **A-2** **Title:** **Site Location**
- 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 #: **A-3** **Title:** **Site Plan**
- 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 #: **D-1** **Title:** **Site Plan – Post Remediation**

BRRTS #: 0313001706

ACTIVITY NAME: Remediation

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 #:	C-1	Title:	Soil Analytical Results Summary – Waste Characterization
	C-2		Soil Analytical Results Summary – Gasoline UST Exc.
	C-3		Soil Analytical Results Summary – Fuel Oil UST Exc.
	C-4		Soil Analytical Results Summary – PAHs – Fuel Oil UST Exc.

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

Table #: **Title:**

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

Table #: **Title:**

IMPROPERLY ABANDONED MONITORING WELLS

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

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

Not Applicable

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

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

Figure #: **Title:**

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

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

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

State of Wisconsin
Department of Natural Resources
<http://dnr.wi.gov>

GIS Registry Checklist

Form 4400-245 (R 4/08) Page 3 of 3

BRRTS #: 0313001706

ACTIVITY NAME: Remediation

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
Lloyd L. Eagan, Regional Director

South Central Region Headquarters
3911 Fish Hatchery Road
Fitchburg, Wisconsin 53711-5397
Telephone 608-275-3266
FAX 608-275-3338
TTY Access via relay - 711

April 26, 2010

Mr. Gary Wilkinson
Mount Horeb Area School District
421 West Garfield Street
Mount Horeb, WI 53572

SUBJECT: Final Case Closure Mt. Horeb School Bus Garage, 102 S. Grove St. Mt. Horeb, WI
WDNR BRRTS Activity #: 03-13-001706

Dear Mr. Wilkinson:

In April 2010, the South Central Region Closure Committee reviewed your request for closure of the case described above. The South Central Region Closure Committee 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.

Please be aware that this case 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.

GIS Registry

The conditions of case closure set out below in this letter require that this site 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

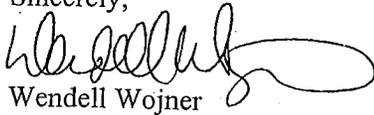
This letter and information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at: <http://dnr.wi.gov/org/aw/rr/gis/index.htm>. If the property is listed on the GIS Registry because 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.

Residual Soil Contamination

Residual soil contamination remains at the base of the former fuel oil tank excavation and near the gasoline tank dispenser pipe area as indicated **on the attached map Figure D-1** in the information submitted to the Department of Natural Resources. If soil in the specific locations described above is excavated in the future, then pursuant to ch. NR 718 or, if applicable, ch. 289, Stats., and chs. 500 to 536, 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 standards and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

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 at (608) 275-3297.

Sincerely,



Wendell Wojner

Hydrogeologist

Bureau for Remediation & Redevelopment

Attachment – Site Map for remaining soil contamination

cc: Mark Tusler, BT2 Inc. 2830 Dairy Drive, Madison, WI 53718-6751



George E. Meyer
Secretary

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Southern District Headquarters
3911 Fish Hatchery Road
Fitchburg, Wisconsin 53711
TELEPHONE 608-275-3266
TELEFAX 608-275-3338

May 23, 1995

LUST File Ref: 1706
(Dane County)

Mr. Michael Harris
Mt. Horeb Area School District
P.O. Box 87
Mt. Horeb, WI 53572

SUBJECT: Closure, Mt. Horeb School Bus Garage, 102 South Grove Street, Mt. Horeb,
Wisconsin

Dear Harris:

The Department has received a copy of the completed Deed Restriction for the above property. There is proof of filing this record with the Dane County Register of Deeds. Therefore, closure of this site has been granted and no further action is necessary at this time. If in the future the Department receives information which demonstrates that additional work is necessary and feasible, the Department has the authority to require further action.

If you have any questions regarding this determination, you may contact me at the number shown below.

Sincerely,

Mathew A. Laak

Mathew A. Laak, E.I.T.
Hydrogeologist
Telephone: (608) 275-3224

xc: Stephen Terhaar Braun Intertec Corporation 1345 Northland Drive Mendota Heights MN 55120-1141

FILE



Printed on
Recycled
Paper

DANE COUNTY
REGISTER OF DEEDS

Doc No 2676136

1995-05-17 08:24 AM
Transfer Fee 0.00
Recording Fee 14.00
No of pages 3

V29858P 21

FILED

Record this document with the Register of Deeds

Name and return address:

MIKE HARRIS
P.O. Box 87
MT. HOREB, WI 53572

Parcel No. _____

3/14

Declaration of Restrictions and Covenants

In Re: Lots Four (4) and Five (5), and the South Four (4) feet of Lot Six (6), Block One (1), Ole Petersson's Survey and Plat of Mount Horeb Station

STATE OF WISCONSIN

COUNTY OF DANE

)
) ss
)

51-0606-114-0364-0 ll

V29858P 22

WHEREAS, Mount Horeb Area School District is the owner of the above-described property; and

WHEREAS, it is the desire and intention of the property owner to impose on the property restrictions which will make it unnecessary to conduct further soil remediation activities on the property at the present time;

NOW THEREFORE, the owner hereby declares that all of the property described above is held and shall be held, conveyed or encumbered, leased, rented, used, occupied and improved subject to the following limitation and restrictions:

One or more gasoline and fuel oil discharges have occurred at this property. Structural impediments existing at the time of cleanup made complete remediation of the contamination impracticable. Gasoline contaminated soil may remain on this property at the following locations: under the southeast corner of the building, in the area where the former gasoline tank and dispenser existed. Fuel oil contaminated soil may remain on this property at the following locations: under the northeast corner of the building west of the office, in the area where the former fuel oil tank existed. The areas of contaminated soil are shown on the attached figure. Pursuant to the requirements of s. 144.76, Stats., any future subsurface work on this property which removes the structural impediments which currently exist shall provide for an investigation of the degree and extent of gasoline and fuel oil contamination. To the extent that contamination is found at that time, the Wisconsin Department of Natural Resources shall be immediately notified and the contamination shall be properly treated or disposed of in accordance with applicable laws.

This restriction is hereby declared to be a covenant running with the land and shall be fully binding upon all persons acquiring the above-described property whether by descent, devise, purchase or otherwise. This restriction inures to the benefit of and is enforceable by the Wisconsin Department of Natural Resources, its successors or assigns. The Department, its successors or assigns, may initiate proceedings at law or in equity against any person or persons who violate or are proposing to violate this covenant, to prevent the proposed violation or to recover damages for such violation.

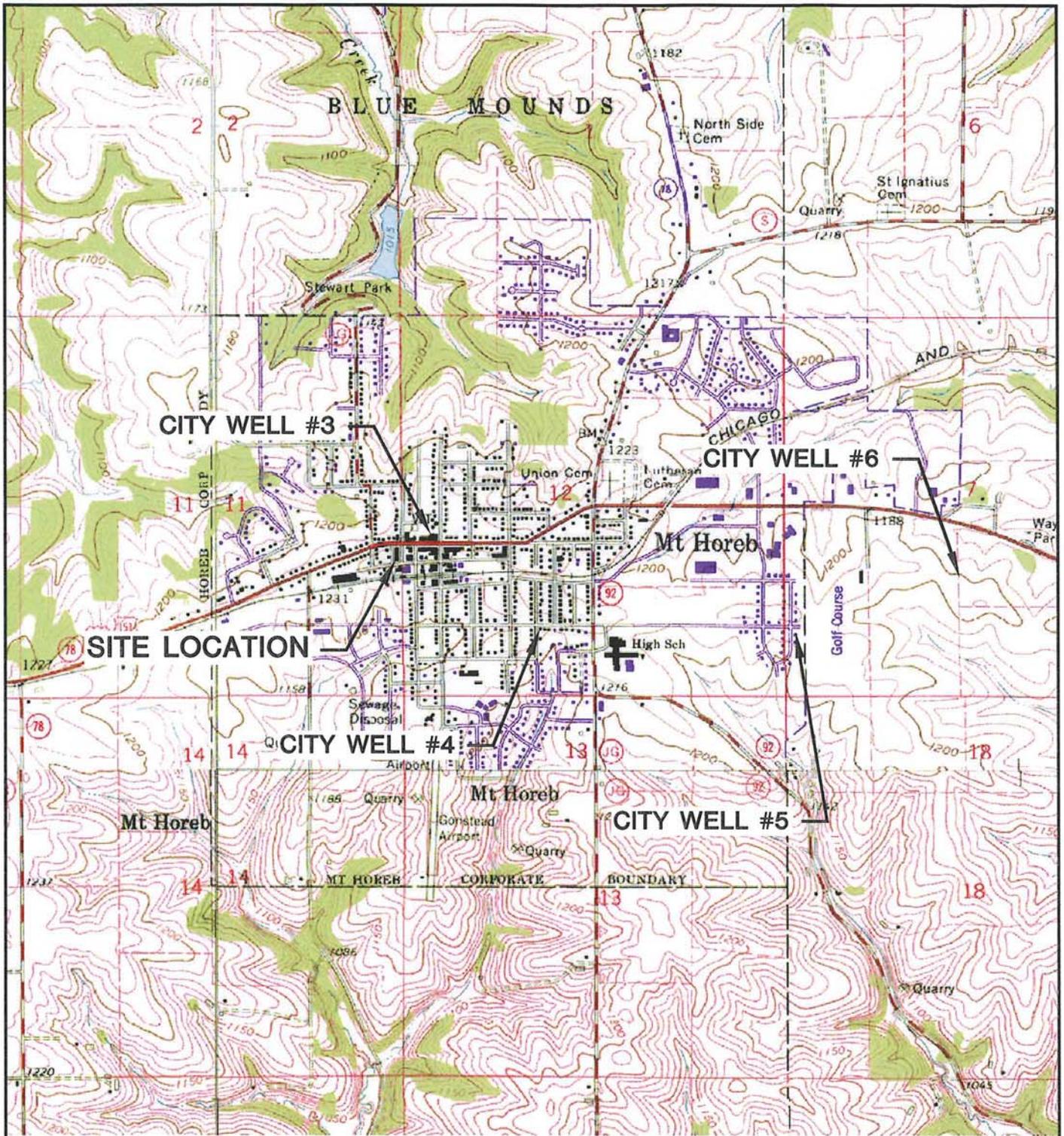
Any person who is or becomes owner of the property described above may request that the Wisconsin Department of Natural Resources or its successor issue a determination that one or more of the restrictions set forth in this covenant is no longer required. Upon the receipt of such a request, the Wisconsin Department of Natural Resources shall determine whether or not the restrictions contained herein can be extinguished.

IN WITNESS WHEREOF, the owner of the property has executed this Declaration of Restrictions and Covenants, this 16th day of May, 1995.

Signature: Raymond D. Waier

Printed Name: Raymond D. Waier

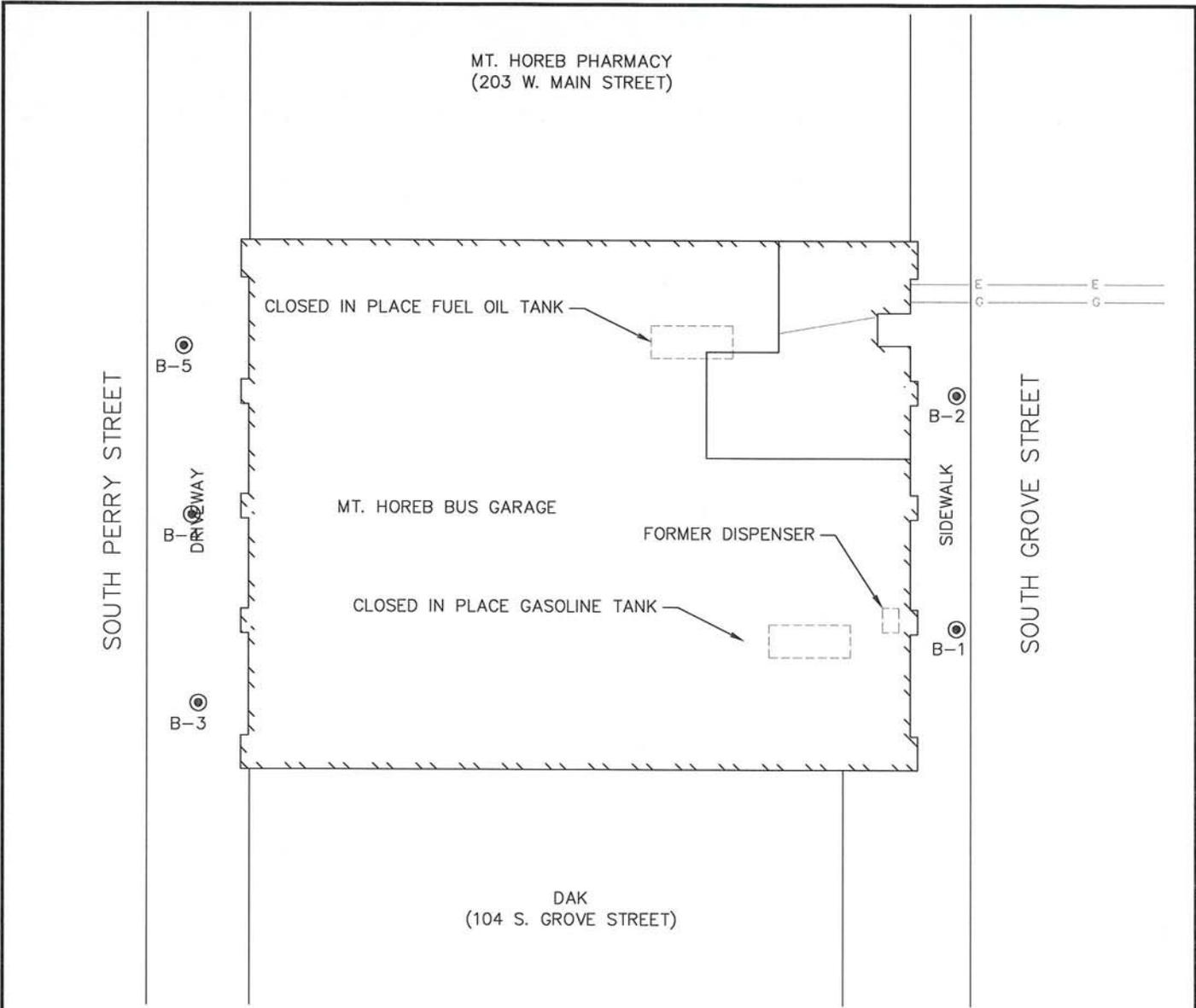
Subscribed and sworn to before me
this 16th day of May, 1995.



CROSS PLAINS QUADRANGLE
 WISCONSIN-DANE CO.
 7.5 MINUTE SERIES (TOPOGRAPHIC)
 SW/4 CROSS PLAINS 15' QUADRANGLE
 1982
 SCALE: 1" = 2,000'



CLIENT	MT. HOREB AREA SCHOOL DISTRICT 421 W. GARFIELD STREET MT. HOREB, WI 53572		SITE	MT. HOREB SCHOOL BUS GARAGE 102 S. GROVE STREET MT. HOREB, WISCONSIN		SITE LOCATION MAP
	PROJECT NO.	3987		DRAWN BY:	KP	
DRAWN:	03/25/10	CHECKED BY:	TM			
REVISED:	03/25/10	APPROVED BY:				



LEGEND

- E — BURIED ELECTRIC
- G — GAS MAIN
- P — PRODUCT/FILL PIPE

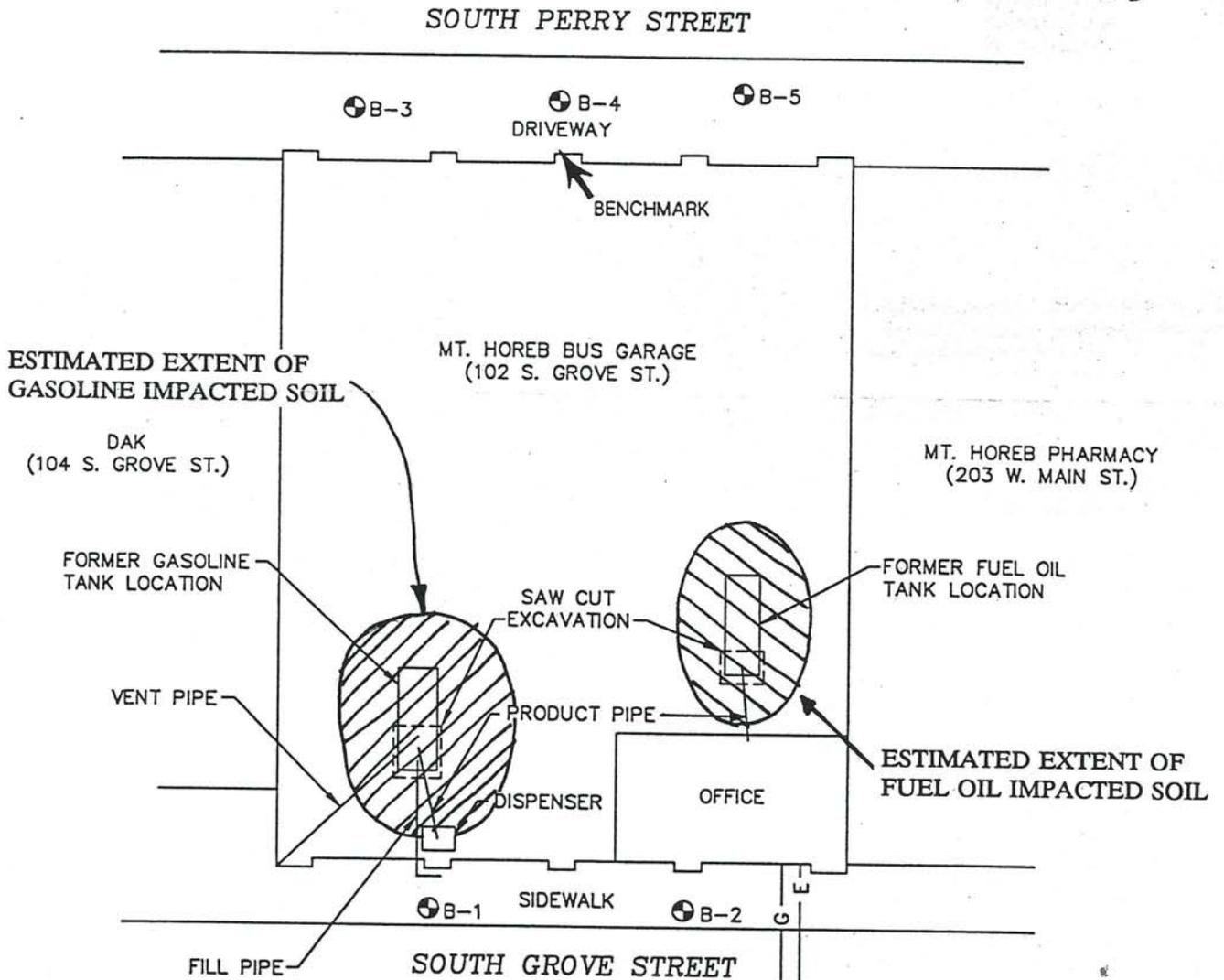
NOTES:

1. SITE PLAN BASED ON SITE INVESTIGATION DRAWING PREPARED BY BRAUN INTERTEC, DECEMBER 1994.



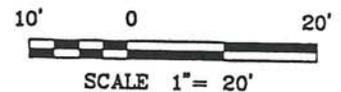
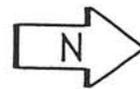
SCALE: 1" = 20'

CLIENT	MT. HOREB AREA SCHOOL DISTRICT 421 W. GARFIELD STREET MT. HOREB, WI 53572		SITE	MT. HOREB SCHOOL BUS GARAGE 102 S. GROVE STREET MT. HOREB, WISCONSIN		ENGINEER	SITE PLAN		FIGURE A-3
	PROJECT NO.	3987		DRAWN BY:	KP		BT SQUARED 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830		
DRAWN:	03/25/10	CHECKED BY:	TM						
REVISED:	03/25/10	APPROVED BY:							



LEGEND

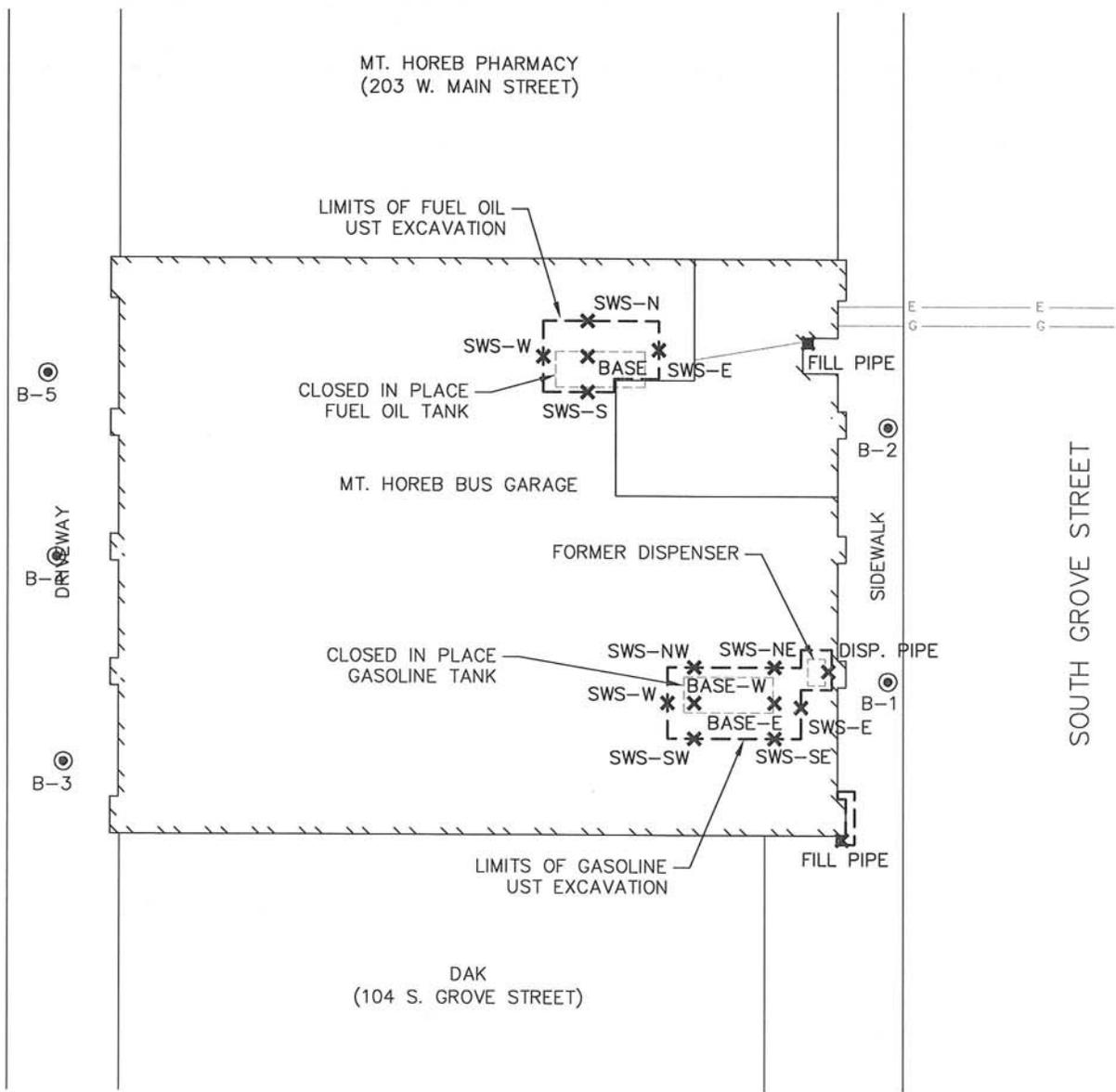
- SOIL BORING LOCATION
- G- GAS LINE
- E- ELECTRICAL (BURIED)



This figure was originally created by Braun Intertec Corporation. The delineation of the estimated extent of remaining soil contamination, denoted by the hatched area, was added by the Wisconsin Department of Natural Resources for the purpose of this declaration of restrictions.

SOUTH PERRY STREET

SOUTH GROVE STREET



LEGEND

- E — BURIED ELECTRIC
- G — GAS MAIN
- P — PRODUCT/FILL PIPE
- - - - - LIMITS OF EXCAVATION (MARCH 2010)
- ✕ EXCAVATION SOIL SAMPLE (MARCH 2010)
- ⊙ 1994 SITE INVESTIGATION SOIL BORING

NOTES:

1. SITE PLAN BASED ON SITE INVESTIGATION DRAWING PREPARED BY BRAUN INTERTEC, DECEMBER 1994.

N



SCALE: 1" = 20'

CLIENT	MT. HOREB AREA SCHOOL DISTRICT 421 W. GARFIELD STREET MT. HOREB, WI 53572		SITE	MT. HOREB SCHOOL BUS GARAGE 102 S. GROVE STREET MT. HOREB, WISCONSIN		ENGINEER	BT SQUARED 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830		FIGURE D-1
	PROJECT NO.	3987		DRAWN BY:	KP		APPROVED BY:		
	DRAWN:	03/25/10	CHECKED BY:	TM					
	REVISED:	04/01/10							

Attachment C-1
Soil Analytical Results Summary - Waste Characterization
Mount Horeb Area School District / BT Squared Project #3987
(Results are in µg/kg, except where noted otherwise)

Sample	Date	PID (ppm)	DRO (mg/kg)	GRO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE	Naphthalene	TCLP Lead (mg/l)
Waste Char	3/8/2010	9.8	<u>259</u> ^{D1} _{D2A}	17.8 ^{G3} _{G6}	<u>70</u>	113	273	698	747	256	<11	<u>684</u>	0.331
NR 720 Residual Contaminant Level (RCL)			100	100	5.5	2,900	1,500	4,100	NE	NE	NE	NE	--
NR 746 Table 1			NE	NE	8,500	4,600	38,000	42,000	83,000	11,000	NE	2,700	--
NR 746 Table 2			NE	NE	1,100	NE	NE	NE	NE	NE	NE	NE	--

ABBREVIATIONS:

µg/kg = micrograms per kilogram
mg/l = milligrams per liter
DRO = Diesel Range Organics
TCLP = Toxic Characteristic Leaching Procedure

mg/kg - milligrams per kilogram
PID = Photo-Ionization Detector
GRO = Gasoline Range Organics
-- = Not Applicable

ppm = PID measured in ppm as isobutylene
TMB = Trimethylbenzene
MTBE = Methyl-tert-butyl ether
NE = Not Established

NOTES:

Bold+underlined values exceed NR 720 RCLs.
NR 720 RCL - Wisconsin Administrative Code (WAC), Chapter NR 720 Residual Contaminant Level.
NR 746 Table 1 - WAC, Chapter NR 746.06(2)(b) Table 1 - Indicators of Residual Petroleum Product in Soil Pores.
NR 746 Table 2 - WAC, Chapter NR 746.06(2)(b) Table 2 - Protection of Human Health from Direct Contact with Contaminated Soil.

LABORATORY NOTES/QUALIFIERS:

D1 - The chromatogram is characteristic for a fuel oil/diesel (i.e., #1 or #2 diesel, jet fuel, kerosene, weathered diesel, etc.).
D2A - The chromatogram is characteristic for alight petroleum product (i.e., gasoline, weathered gasoline, mineral spirits, etc.).
G3 - The chromatogram is not characteristic of either gasoline or weathered gasoline. It has reportable concentration of peaks within the GRO window.
G6 - The chromatogram contains significant number of peaks and a raised baseline outside the GRO window.

Created by: TLR Date: 3/24/2010
Last revision by: TLR Date: 3/24/2010
Checked by: TM Date: 3/24/2010

I:\3987\Tables-General\Soil_VOCs_WC.xls\Soil VOCs

Attachment C-2
Soil Analytical Results Summary - Gasoline UST Exc.
Mount Horeb Area School District / BT Squared Project #3987
(Results are in µg/kg, except where noted otherwise)

Sample	Date	Depth (feet)	PID (ppm)	GRO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE	Naphthalene	Lead (mg/kg)
Base - E	3/8/2010	8	7.4	<5.0	<16	46	79	228	87	72	<11	115	17.3
Base - W	3/8/2010	9	0.5	<5.0	<16	<18	<17	<37	<13	<18	<11	<18	51
Disp - Pipe	3/8/2010	3.5	4	20.1 G8	214	409	1,450	2,456	926	294	<11	739	563
Fill - Pipe	3/8/2010	1	0.5	<5.0	<16	<18	<17	<37	<13	<18	<11	<18	11
SWS - NE	3/8/2010	5	0.5	<5.0	<16	51	104	240	82	56	<11	<18	41
SWS - NW	3/8/2010	5	0.5	<5.0	<16	<18	<17	<37	<13	<18	<11	<18	5.9
SWS - SE	3/8/2010	5	0.5	<5.0	<16	<18	<17	<37	<13	<18	<11	<18	10.5
SWS - SW	3/8/2010	5	0.5	<5.0	<16	<18	<17	<37	<13	<18	<11	<18	7.32
SWS - E	3/8/2010	5	0.5	<5.0	<16	<18	<17	<37	<13	<18	<11	<18	11.2
SWS - W	3/8/2010	5	0.5	<5.0	<16	<18	<17	<37	<13	<18	<11	<18	8.04
MeOH Blank	3/8/2010	--	--	<5.0	<16	<18	<17	<37	<13	<18	<11	<18	NA
NR 720 Residual Contaminant Level (RCL)				100	5.5	2,900	1,500	4,100	NE	NE	NE	NE	50
NR 746 Table 1				NE	8,500	4,600	38,000	42,000	83,000	11,000	NE	2,700	NE
NR 746 Table 2				NE	1,100	NE	NE	NE	NE	NE	NE	NE	NE

ABBREVIATIONS:

µg/kg = micrograms per kilogram or parts per billion (ppb)
PID = Photo-Ionization Detector
MTBE = Methyl-tert-butyl ether

mg/kg - milligrams per kilogram or parts per million (ppm)
GRO = Gasoline Range Organics
NE = Not Established

ppm = PID measured in ppm as isobutylene
TMB = Trimethylbenzene
-- = Not Applicable

NOTES:

Bold+underlined values exceed NR 720 RCLs.

NR 720 RCL - Wisconsin Administrative Code (WAC), Chapter NR 720 Residual Contaminant Level.

NR 746 Table 1 - WAC, Chapter NR 746.06(2)(b) Table 1 - Indicators of Residual Petroleum Product in Soil Pores.

NR 746 Table 2 - WAC, Chapter NR 746.06(2)(b) Table 2 - Protection of Human Health from Direct Contact with Contaminated Soil.

Attachment C-2
Soil Analytical Results Summary - Gasoline UST Exc.
Mount Horeb Area School District / BT Squared Project #3987

LABORATORY NOTES/QUALIFIERS:

G8 - The chromatogram is characteristic for weathered gasoline; however, either additional peaks are present or PVOC peaks are not proportional to weathered gasoline indicating the presence of additional compounds.

Created by:	<u>TLR</u>	Date:	<u>3/24/2010</u>
Last revision by:	<u>TLR</u>	Date:	<u>3/24/2010</u>
Checked by:	<u>TM</u>	Date:	<u>3/24/2010</u>

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Attachment C-3
Soil Analytical Results Summary - Fuel Oil UST Exc.
Mount Horeb Area School District / BT Squared Project #3987
(Results are in µg/kg, except where noted otherwise)

Sample	Date	Depth (feet)	PID (ppm)	DRO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE	Naphthalene
Base	3/8/2010	9	16.2	<u>4,720</u> D1	<16	101	<17	345	1,030	997	<11	<18
Fill - Pipe	3/8/2010	1	5.1	<u>226</u>	<16	51	<17	233	194	74	<11	226
SWS - E	3/8/2010	4	0.5	<4.25	<16	<18	<17	<37	<13	<18	<11	<18
SWS - N	3/8/2010	4	0.5	<3.99	<16	<18	<17	<37	<13	<18	<11	<18
SWS - S	3/8/2010	4	0.5	<4.37	<16	<18	<17	<37	<13	<18	<11	<18
SWS - W	3/8/2010	4	0.5	<u>649</u>	<16	<18	<17	<37	<13	<18	<11	1,100
MeOH Blank	3/8/2010	--	--	NA	<16	<18	<17	<37	<13	<18	<11	<18
NR 720 Residual Contaminant Level (RCL)				100	5.5	2,900	1,500	4,100	NE	NE	NE	NE
NR 746 Table 1				NE	8,500	4,600	38,000	42,000	83,000	11,000	NE	2,700
NR 746 Table 2				NE	1,100	NE	NE	NE	NE	NE	NE	NE

ABBREVIATIONS:

µg/kg = micrograms per kilogram or parts per billion (ppb)
ppm = PID measured in ppm as isobutylene
TMB = Trimethylbenzene
-- Not Applicable

mg/kg - milligrams per kilogram or parts per million (ppm)
PID = Photo-Ionization Detector
NA = Not Analyzed

DRO = Diesel Range Organics
MTBE = Methyl-tert-butyl ether
NE = Not Established

NOTES:

Bold+underlined values exceed NR 720 RCLs.

NR 720 RCL - Wisconsin Administrative Code (WAC), Chapter NR 720 Residual Contaminant Level.

NR 746 Table 1 - WAC, Chapter NR 746.06(2)(b) Table 1 - Indicators of Residual Petroleum Product in Soil Pores.

NR 746 Table 2 - WAC, Chapter NR 746.06(2)(b) Table 2 - Protection of Human Health from Direct Contact with Contaminated Soil.

LABORATORY NOTES/QUALIFIERS:

D1 - The chromatogram is characteristic for a fuel oil/diesel (i.e., #1 or #2 diesel, jet fuel, kerosene, weathered diesel, etc.).

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Attachment C-4
Soil Analytical Results Summary - PAHs - Fuel Oil UST Exc.
Mount Horeb Area School District / BT Squared Project #3987
 (Results are in µg/kg, except where noted otherwise)

Sample	Date	Depth (feet)	PID (ppm)	Acenaph-thene	Acenaph-thylene	Anthracene	Benzo(a) anthracene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Benzo(a) pyrene	Benzo(ghi) perylene	Chrysene	Dibenzo(a,h) anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	1-Methyl-naphthalene	2-Methyl-naphthalene	Naphthalene	Phenanthrene	Pyrene
Base	3/8/2010	9	16.2	<48.9	<68.7	<33.3	<42.7	<21.9	<30.2	<23.9	<41.6	<23.9	<28.1	<27.1	<34.3	<22.9	10,900	10,400	<47.9	<42.7	<29.3
Fill - Pipe	3/8/2010	1	5.1	<50.8	<71.3	<34.6	<44.3	<22.7	<31.3	<24.8	<43.2	<24.8	<29.2	<28.1	<35.6	<23.8	<40	<44.3	<49.7	<44.3	<30.5
Fill - Pipe*	3/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-	--	--	*226	--	--
SWS - W	3/8/2010	4	0.5	<47.7 S1L S2L	<66.9 DUP S1H S2H	<32.5 DUP S1H S2H	<41.6 DUP S1H S2H	<21.3	<29.4	<23.3	<40.6	<23.3	<27.4	<26.4 DUP S1H S2H	<33.5 DUP S1H S2H	<22.3	1,250 S1L S2H	1,320 S1L S2H	<46.7 DUP S1H S2H	<41.6 DUP S1H S2H	<28.6 DUP S1H S2H
SWS - W*	3/8/2010	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	*1,100	--	--
WDNR PAH Soil Generic Residual Contaminant Levels (RCLs) (Interim Guidance - April 1997)																					
Groundwater Pathway				38,000	700	3,000,000	17,000	360,000	870,000	48,000	6,800,000	37,000	38,000	500,000	100,000	680,000	23,000	20,000	400	1,800	8,700,000
Non-Industrial Direct Contact				900,000	18,000	5,000,000	88	88	880	8.8	1,800	8,800	8.8	600,000	600,000	88	1,100,000	600,000	20,000	18,000	500,000
Industrial Direct Contact				60,000,000	360,000	300,000,000	3,900	3,900	39,000	390	39,000	390,000	390	40,000,000	40,000,000	3,900	70,000,000	40,000,000	110,000	390,000	30,000,000

ABBREVIATIONS:

µg/kg = micrograms per kilogram or parts per billion (ppb)
 PAHs = Polynuclear Aromatic Hydrocarbons

PID = Photo-ionization detector
 WDNR = Wisconsin Department of Natural Resources

ppm = PID measured in ppm as isobutylene
 -- = Not Applicable

NOTES:

* - From EPA 8021B Method

LABORATORY NOTES/QUALIFIERS:

DUP - Result of duplicate analysis in this quality assurance batch exceeds the limits for precision.
 S1H - First sample matrix spike recovery was high.
 S2H - Second sample matrix spike recovery was high.
 S1L - First sample matrix spike recovery was low.
 S2L - Second sample matrix spike recovery was low.

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