

# GIS REGISTRY

## Cover Sheet

July, 2008  
(RR 5367)

### Source Property Information

**BRRTS #:**

**ACTIVITY NAME:**

**PROPERTY ADDRESS:**

**MUNICIPALITY:**

**PARCEL ID #:**

**CLOSURE DATE:**

**FID #:**

**DATCP #:**

**COMM #:**

#### \*WTM COORDINATES:

X:  Y:

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

#### WTM COORDINATES REPRESENT:

- Approximate Center Of Contaminant Source
- Approximate Source Parcel Center

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

#### Contaminated Media:

Groundwater Contamination > ES (236)

Contamination in ROW

Off-Source Contamination

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

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

Contamination in ROW

Off-Source Contamination

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

#### Land Use Controls:

Soil: maintain industrial zoning (220)

*(note: soil contamination concentrations  
between residential 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 or economic  
development corporation)*

**Monitoring wells properly abandoned? (234)**

Yes  No  N/A

*\* Residual Contaminant Level*

*\*\*Site Specific Residual Contaminant Level*



BRRTS #: 03-27-257644

ACTIVITY NAME: Nortman Oil (Former)

**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: Cross Section**

**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 Data August 2006**

- 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: Round 4 Groundwater Flow Map**

**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 #:**                      **Title: Soil Analytical Results (5 pages)**

- 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: Analytical Results - Groundwater (11 pages)**

- 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 #: 03-27-257644

ACTIVITY NAME: Nortman Oil (Former)

## 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  
Scott Humrickhouse, Regional Director

West Central Region Headquarters  
1300 W. Clairemont Avenue  
PO Box 4001  
Eau Claire, Wisconsin 54702-4001  
Telephone 715-839-3700  
FAX 715-839-6076  
TTY Access via relay - 711

October 23, 2008

Mr. John Nortman  
N6403 Rose Hill Road  
Black River Falls, WI 54615

**SUBJECT:** Final Case Closure with Land Use Limitations or Conditions, Petroleum Contamination at Former Nortman Oil Co, N5999 State Highway 54, Black River Falls, Jackson County, Wisconsin, WDNR #03-27-257644

Dear Mr. Nortmann:

On May 30, 2007, the West Central Region Remediation & Redevelopment Program Closure Committee reviewed the above referenced case for closure. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. On October 31, 2007, you were notified that the Closure Committee had granted conditional closure to this case.

The Department has received correspondence indicating that you have complied with the requirements of closure. Monitoring well abandonment forms were submitted and your consultant has verified that no investigative waste remains at the site. Based on the correspondence and data provided, it appears that your case meets the requirements of ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time.

### GIS Registry

The conditions of case closure set out below in this letter require that your 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
- Pavement and an existing garage with concrete floor must be maintained over contaminated soil and the state must approve any changes to this barrier
- Groundwater contamination is present above Chapter NR 140 enforcement standards

Information that was submitted with your closure 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 an owner of the property intends to construct or reconstruct a well on the property, he or she 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 the current and any subsequent property owners must adhere. 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. It is the Department's intent to conduct inspections in the future to ensure that the conditions included in this letter including compliance with referenced maintenance plans are met.

### Cover or Barrier

Pursuant to s. 292.12(2)(a), Wis. Stats., the pavement and garage slab that currently exist in the location shown on the attached map shall be maintained in compliance with the attached maintenance plan in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code, and to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. 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 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 would be 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.

The attached maintenance plan and inspection log are to be kept up-to-date and on-site, and the inspection log need only be submitted to the Department upon request.

### Prohibited Activities

The following activities are prohibited on any portion of the property where pavement or a building foundation is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; or 6) construction or placement of a building or other structure.

### Residual Groundwater Contamination

Groundwater impacted by petroleum contamination greater than enforcement standards set forth in ch. NR140, Wis. Adm. Code, is present on the contaminated property. For more detailed information regarding the locations where groundwater samples have been collected (i.e., monitoring well locations) and the associated contaminant concentrations, refer to the case file at the WCR Service Center or the Remediation and Redevelopment Program's GIS Registry at the RR Sites Map page at <http://dnr.wi.gov/org/aw/rr/gis/index.htm>.

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 Eileen Kramer at 715-839-3824, by e-mail at [eileen.kramer@wisconsin.gov](mailto:eileen.kramer@wisconsin.gov) or by mail at the letterhead address.

Sincerely,



William J. Evans, Supervisor  
West Central Region Remediation & Redevelopment Program

cc: Michael Neal, Tetra Tech, 1837 CH "OO", Chippewa Falls, WI 54729-6519  
Scott Heller, Highway 54 Towing, N5999 State Highway 54, Black River Falls, WI 54615



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Matthew J. Frank, Secretary  
Scott Humrickhouse, Regional Director

West Central Region Headquarters  
1300 W. Clairemont Avenue  
PO Box 4001  
Eau Claire, Wisconsin 54702-4001  
Telephone 715-839-3700  
FAX 715-839-6076  
TTY Access via relay - 711

October 23, 2008

Mr. Scott Heller  
Highway 54 Towing  
N5999 State Highway 54  
Black River Falls, WI 54615

SUBJECT: Land Use Conditions and Requirements for Your Property at N5999 State Highway 54,  
Black River Falls, Jackson County Parcel ID Number 004-0630-0005; Final Case  
Closure for Petroleum Contamination, WDNR #03-27-257644

Dear Mr. Heller:

This letter is to notify you of the Department of Natural Resources' approval of the case closure request for the petroleum contamination cleanup on the property described above. The approval carries with it continuing long term obligations with which you and any future owners of the subject property must comply.

The response to the petroleum contamination was conducted by John Nortman, the former owner of this property and operator of a bulk petroleum facility at this property. In correspondence dated March 30, 2007, from Mr. Nortman's environmental consultant you were advised that he would be requesting closure based on the conditions described in this letter.

Based on the Department's review and approval of the case closure request and Department file on the actions taken to address the petroleum contamination observed in soil and groundwater at this property, the Department considers this case closed. No further investigation or remediation is required at this time. However, you and any future owners are responsible for long-term compliance with certain conditions, described below, as part of the case closure decision.

**Conditions Applicable to Your Property**

The following conditions, as described in the attached October 23, case closure letter addressed to Mr. Nortman, apply to your property.

**Cover or Barrier**

Pursuant to s. 292.12(2)(a), Wis. Stats., the pavement and garage slab that currently exist in the location shown on the attached map shall be maintained in compliance with the attached maintenance plan in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code, and to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. 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 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 would be 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.

The attached maintenance plan and inspection log are to be kept up-to-date and on-site. The inspection log need only be submitted to the Department upon request.

#### Prohibited Activities

The following activities are prohibited on any portion of the property where pavement or a building foundation is required as shown on the attached map, unless prior written approval has been obtained from the Wisconsin Department of Natural Resources: 1) removal of the existing barrier; 2) replacement with another barrier; 3) excavating or grading of the land surface; 4) filling on capped or paved areas; 5) plowing for agricultural cultivation; or 6) construction or placement of a building or other structure.

This condition is in accordance with the requirements in s. 292.12, Wis. Stats. The property owner (you and any subsequent property owners), is responsible for compliance with this condition, and for notifying the Department before making any changes to the property that would affect any of the conditions applied to the property. This responsibility is the property owner's (current and future), unless the property owner enters into a legally binding agreement (such as a contract) with someone else to take responsibility for compliance with the conditions.

Send all written notifications in accordance with the above requirements to the West Central Region Remediation & Redevelopment Program, to the attention of the Jackson County project manager.

In addition to the condition described above, groundwater contamination is present above Chapter NR 140 enforcement standards on your property. Any construction or reconstruction of a well on the property, 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 below for the GIS Registry.

The conditions of case closure set out above in this letter require that your property be listed on the Remediation and Redevelopment Program's GIS Registry. Information that was submitted with the closure 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>.

Thank you for your attention to this matter. For any questions regarding the conditions and requirements outlined in this letter, you may contact Eileen Kramer at 715-839-3824, by e-mail at [eileen.kramer@wisconsin.gov](mailto:eileen.kramer@wisconsin.gov), or by mail at the letterhead address.

Sincerely,



William J. Evans, Supervisor  
West Central Region Remediation & Redevelopment Program

#### Attachments

cc: John Nortman, N6403 Rose Hill Rd., Black River Falls, WI 54615  
Mike Neal, Tetra Tech, 1837 Co. Hwy. "OO", Chippewa Falls, WI 54729-6519

## PAVEMENT COVER AND BUILDING CAP MAINTENANCE PLAN

March 9, 2007

Property Located at: N5999 State Highway 54  
Black River Falls, WI 54615  
WDNR BRRTS #03-27-257644

RECEIVED

APR - 4 2007

DNR-WCH

Legal Description: "That part of the South West Quarter of the North East Quarter of Section Twenty-one, Township Twenty-one North, Range Four West described as follows: Commencing on the east line thereof 16.5 feet south from the northeast corner of said quarter-quarter; thence South 0°06' East on the said east line 310.2 feet; thence North 74°54' West 339.85 feet; thence South 0°06' West parallel with the east line of said quarter-quarter 221.7 feet to a point 16.5 feet south from the North line of the said quarter-quarter; thence east parallel to and 16.5 feet south from the north line thereof to the east line of said quarter-quarter, being the place of beginning. Subject to the right of way of State Highway 54 over the East side thereof, and to the driveway easement as shown in the Land Contract recorded in Volume 185 of Records on page 458, as Document 193499, subject to existing highways, easements, and rights of way of record.

Tax Parcel No.: 004-0630-0005

### Introduction

This document is the Maintenance Plan for a pavement cover and building barrier at the above-referenced property in accordance with the requirements of s. NR 724.13(2), Wisconsin Administrative Code. The maintenance activities relate to the existing garage building and the asphalt parking lot surface to the east of the garage occupying the area over the contaminated soil on-site. Shallow soil is contaminated with polynuclear aromatic hydrocarbons (PAHs). The location of the paved surfaces and building to be maintained in accordance with this Maintenance Plan, as well as the contaminated soil are identified in the attached map (Exhibit A).

### Cover and Building Barrier Purpose

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

### Annual Inspection

The paved surfaces and building foundation overlying the contaminated soil and as depicted in Exhibit A will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause the exposure to underlying soils. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented. A log of the inspections and any repairs will be maintained by the property owner and is included as Exhibit B, Cap Inspection Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed. Once repairs are completed, they will be documented in the inspection log. A copy of the inspection log will be sent to the Wisconsin Department of Natural Resources (WDNR) at least annually after every inspection, unless otherwise directed in the case closure letter.

### **Maintenance Activities**

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling operations or they can include larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment ("PPE"). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law. In the event the paved surfaces and/or the building overlying the contaminated soil are removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR or its successor. The property owner, in order to maintain the integrity of the paved surfaces and/or the building, will maintain a copy of this Maintenance Plan on-site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

### **Amendment or Withdrawal of Maintenance Plan**

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

Contact Information March 2007.

#### **Current Owner & Operator:**

Scott Heller  
Hwy 54 Towing  
N5999 State Highway 54 W  
Black River Falls, WI 54615  
715-284-2511

#### **Former Property Owner & Operator of Nortman Oil Company:**

John Nortman  
N6403 Rose Hill Road  
Black River Falls, WI 54615  
715-284-7504

#### **Consultant:**

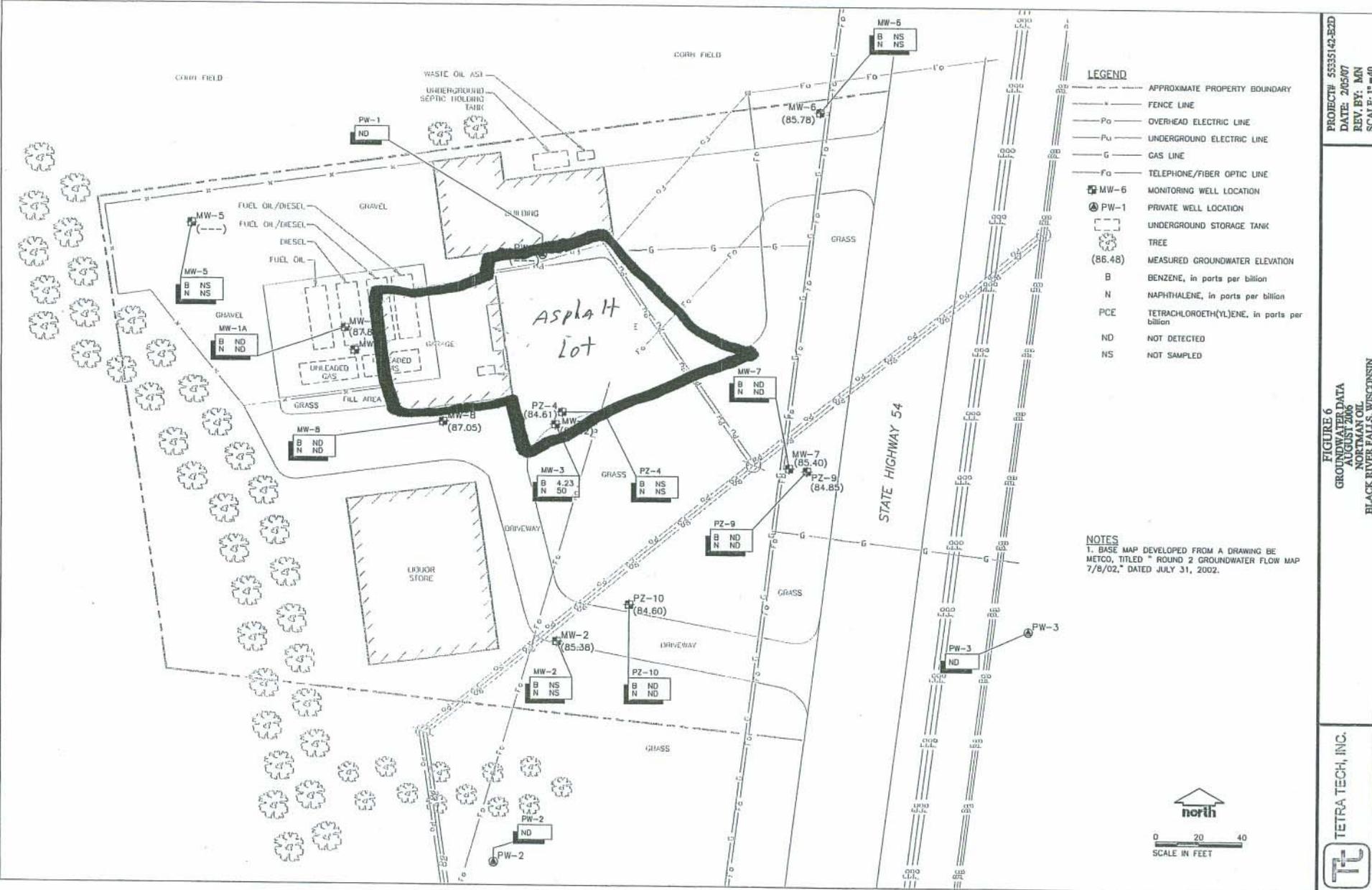
Tetra Tech  
1837 County Highway OO  
Chippewa Falls, WI 54729-6519  
715-832-0282

#### **WDNR**

#### **Project**

#### **Manager:**

Eileen Kramer  
WDNR  
P.O. Box 4001  
Eau Claire, WI 54702-4001  
715-839-3824



- LEGEND**
- APPROXIMATE PROPERTY BOUNDARY
  - - - FENCE LINE
  - Po OVERHEAD ELECTRIC LINE
  - Pu UNDERGROUND ELECTRIC LINE
  - G GAS LINE
  - Fo TELEPHONE/FIBER OPTIC LINE
  - MW-6 MONITORING WELL LOCATION
  - ⊙ PW-1 PRIVATE WELL LOCATION
  - UNDERGROUND STORAGE TANK
  - ⊗ TREE
  - (86.48) MEASURED GROUNDWATER ELEVATION
  - B BENZENE, in parts per billion
  - N NAPHTHALENE, in parts per billion
  - PCE TETRACHLOROETH(Y)LENE, in parts per billion
  - ND NOT DETECTED
  - NS NOT SAMPLED

**NOTES**  
 1. BASE MAP DEVELOPED FROM A DRAWING BY METCO, TITLED "ROUND 2 GROUNDWATER FLOW MAP 7/8/02," DATED JULY 31, 2002.

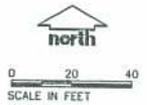


Exhibit A

**Exhibit B  
CAP INSPECTION LOG**

Inspection Date	Inspector	Condition of Cap	Recommendations	Have Recommendations from previous Inspection been Implemented?



## State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor  
Matthew J. Frank, Secretary  
Scott Humrickhouse, Regional Director

West Central Region Headquarters  
1300 W. Clairemont Avenue  
PO Box 4001  
Eau Claire, Wisconsin 54702-4001  
Telephone 715-839-3700  
FAX 715-839-6076  
TTY Access via relay - 711

October 31, 2007

Mr. John Nortman  
N6403 Rose Hill Rd.  
Black River Falls, WI 54615

Subject: Former Nortman Oil Co. Property, N5999 State Highway 54, Black River Falls Jackson County, Wisconsin, Conditional Case Closure of Petroleum Cleanup With Requirements for Final Closure, DNR #03-27-257644

Dear Mr. Nortman:

On May 30, 2007, the Department of Natural Resources West Central Region remediation program case closeout committee reviewed your request for closure of the case described above. The committee reviews environmental remediation cases for compliance with state rules and statutes to maintain consistency in the closure of these cases. After careful review of the closure request, the committee has determined that the petroleum contamination on the site from the former bulk petroleum product storage and dispensing facility appears to have been investigated and remediated to the extent practicable under site conditions. Your case has been remediated to Department standards in accordance with s. NR 726.05, Wis. Adm. Code and will be closed if the following conditions are satisfied:

The monitoring wells at the site must be properly abandoned in compliance with ch. NR 141, Wis. Adm. Code. Documentation of well abandonment must be submitted to me on Form 3300-5B provided by the Department of Natural Resources.

Any remaining purge water, waste and/or soil piles generated as part of site investigation or remediation activities must be removed from the site and disposed of or treated in accordance with Department of Natural Resources' rules. Please verify in writing that all remaining purge water, waste and/or soil piles, if any, have been properly disposed of.

When the above conditions have been satisfied, please submit the appropriate documentation (for example, well abandonment forms, disposal receipts, copies of correspondence, etc.) to verify that applicable conditions have been met, and your case will be closed. Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the GIS Registry. To review the site on the GIS Registry web page, visit <http://maps.dnr.state.wi.us/brrts>.

Section 101.143, Wis. Stats., requires that PECFA claimants seeking reimbursement of interest costs, for sites with petroleum contamination, submit a final reimbursement claim within 120 days after they receive a closure letter on their site. For claims not received by the PECFA Program within 120 days of the date of this letter, interest costs after 60 days of the date of this letter will not be eligible for

PECFA reimbursement. If there is equipment purchased with PECFA funds remaining at the site, contact the Commerce PECFA Program to determine the method for salvaging the equipment.

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

We appreciate your efforts to restore the environment at this site. If you have any questions regarding this letter, please contact me at 715-839-3824, via e-mail at [eileen.kramer@wisconsin.gov](mailto:eileen.kramer@wisconsin.gov) or by mail at the letterhead address.

Sincerely,

A handwritten signature in cursive script, appearing to read "E. Kramer".

Eileen Kramer, P.H.  
Hydrogeologist  
West Central Region  
Bureau for Remediation & Redevelopment

cc: Mike Neal, Tetra Tech, 1837 Co. Highway "OO", Chippewa Falls, WI 54729-6519

DOCUMENT NO.

296703

STATE BAR OF WISCONSIN FORM 11 - 1988  
LAND CONTRACT  
(TO BE USED FOR ALL TRANSACTIONS WHERE OVER  
\$10,000 IS FINANCED AND IN OTHER NON-CONSUMER  
ACT TRANSACTIONS)

THIS SPACE RESERVED FOR RECORDING DATA

379 815

RECEIVED FOR RECORD  
AT 4:58 P M  
Vol 379 Page 815

DEC 28 1999

SHARI MARG  
REGISTER OF DEEDS  
JACKSON COUNTY, WI

14.00

RETURN TO Atty. Robert A. Olsner  
104 Main Street, P.O. Box 487  
Black River Falls, WI 54615

Contract, by and between Nortman's Oil Co., Inc., a  
Wisconsin Domestic Corporation  
..... ("Vendor",  
whether one or more) and Scott J. Halick, a single person  
..... ("Purchaser", whether one or more).  
Vendor sells and agrees to convey to Purchaser, upon the prompt and full per-  
formance of this contract by Purchaser, the following property, together with the  
rents, profits, fixtures and other appurtenant interests (all called the "Property"),  
in JACKSON County, State of Wisconsin:

See Attached Exhibit "A"

Tax Parcel No. 004-0630-0005

TRANSFER  
\$ 270.00  
FEE

This is not homestead property.  
(is) (is not)

Purchaser agrees to purchase the Property and to pay to Vendor at Vendor's residence  
the sum of \$20,000 in the following manner: (a) \$None  
at the execution of this Contract; and (b) the balance of \$20,000, together with interest from date  
hereof on the balance outstanding from time to time at the rate of 7% per cent per annum  
until paid in full, as follows:

Equal monthly payments of principal and interest in the amount  
of one thousand dollars (\$1,000) commencing on January 21, 2000,  
and on the 21st day each month thereafter.

Provided, however, the entire outstanding balance shall be paid in full on or before the 21st day of  
December, 1999 (the maturity date).

Following any default in payment, interest shall accrue at the rate of 12% per annum on the entire amount  
in default (which shall include, without limitation, delinquent interest and, upon acceleration or maturity, the entire  
principal balance).

Purchaser, unless excused by Vendor, agrees to pay monthly to Vendor amounts sufficient to pay reasonably antici-  
pated annual taxes, special assessments, fire and required insurance premiums when due. To the extent received by Vendor,  
Vendor agrees to apply payments to these obligations when due. Such amounts received by the Vendor for payment of  
taxes, assessments and insurance will be deposited into an escrow fund or trustee account, but shall not bear interest  
unless otherwise required by law.

Payments shall be applied first to interest on the unpaid balance at the rate specified and then to principal. ~~any~~  
~~amounts received by Vendor shall be applied to the payment of interest on the unpaid balance until the interest is paid in full~~  
there may be no prepayment of principal without permission of Vendor.

In the event of any prepayment, this contract shall not be treated as in default with respect to payment so long  
as the unpaid balance of principal, and interest (and in such case accruing interest from month to month shall be treated  
as unpaid principal) is less than the amount that said indebtedness would have been had the monthly payments been  
made as first specified above; provided that monthly payments shall be continued in the event of credit of any proceeds  
of insurance or condemnation, the condemned premises being thereafter excluded herefrom.

Purchaser states that Purchaser is satisfied with the title as shown by the title evidence submitted to Purchaser  
for examination except: None

Purchaser agrees to pay the cost of future title evidence. If title evidence is in the form of an abstract, it shall  
be retained by Vendor until the full purchase price is paid.

Purchaser shall be entitled to take possession of the Property on December 21, 1999.

\*Cross Out One

**379 817**

**Exhibit "A"**

That part of the South West Quarter of the North East Quarter of Section Twenty-one, Township Twenty-one North, Range Four West described as follows: Commencing on the east line thereof 16.5 feet south from the northeast corner of said quarter-quarter; thence South 0°06' East on the said east line 310.2 feet; thence North 74°54' West 339.85 feet; thence North 0°06' West parallel with the east line of said quarter-quarter 221.7 feet to a point 16.5 feet south from the North line of the said quarter-quarter; thence east parallel to and 16.5 feet south from the north line thereof to the east line of said quarter-quarter, being the place of beginning. Subject to the right of way of State Highway 54 over the East side thereof, and to the driveway easement as shown in the Land Contract recorded in Volume 185 of Records on page 458, as Document 193499, subject to existing highways, easements, and rights of way of record.

Nothel01.dcs

### 2008 Property Record Jackson County, WI

2008 values not finalized until after Board of Review  
Years marked with \* have delinquent taxes

Property information is valid as of 10/15/08

<b>Owner</b>
Scott I Heller N6478 Stenulson Rd Black River Falls Wi 54615

<b>Co-Owner(s)</b>
No co-owners listed

<b>Property Information</b>																
Parcel ID: 00406300005																
School Districts: Bk River Fls Sd0476 Voc Dist-la Crosse																
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;">Section</td> <td style="text-align: left;">Township</td> <td style="text-align: left;">Range</td> <td style="text-align: left;">Qtr</td> <td style="text-align: left;">Qtr</td> <td style="text-align: left;">Section</td> <td style="text-align: left;">Qtr</td> <td style="text-align: left;">Section</td> </tr> <tr> <td style="text-align: center;">21</td> <td style="text-align: center;">21N</td> <td style="text-align: center;">4W</td> <td></td> <td></td> <td style="text-align: center;">SW</td> <td></td> <td style="text-align: center;">NE</td> </tr> </table>	Section	Township	Range	Qtr	Qtr	Section	Qtr	Section	21	21N	4W			SW		NE
Section	Township	Range	Qtr	Qtr	Section	Qtr	Section									
21	21N	4W			SW		NE									
Lot:																
Block:																
Plat Name:																

<b>Property Description</b>
Part Of Sw Ne Being Lot 1 Of Csm 1265
Property Address: N5999 State Hwy 54
Municipality: Town Of Albion

<b>Deed Information</b>		
Volume	Page	Document #
496	313	340169
379	815	
287	314	

<b>Tax Information</b>			
Net Tax Before Lottery Credit	.00		
Lottery Credit	.00		
Net Tax After	.00		
	Amt. Due	Amt. Paid	Balance
Tax	.00	.00	.00
Special Assessment	.00	.00	.00
Special Charges	.00	.00	.00
Delinquent Charges	.00	.00	.00
Woodland Tax	.00	.00	.00
Private Forest Crop	.00	.00	.00
Managed Forest Land	.00	.00	.00
Property Tax Interest		.00	.00
Special Tax Interest		.00	.00
Other Charges	.00	.00	.00
Total	.00	.00	.00
Over-Payment		.00	

<b>Land Valuation</b>				
Tax Code	Acres	Value	Improvements	Total
G2	1.530	41800.00	136300.00	178100.0
	1.530	\$41800.00	\$136300.00	\$178100.00
Total Acres:				1.530
Assessment Ratio:				0
Mill Rate:				0
Fair Market Value				\$.00

<b>Installments</b>					
Period	End Date	Amount	Period	End Date	Amount

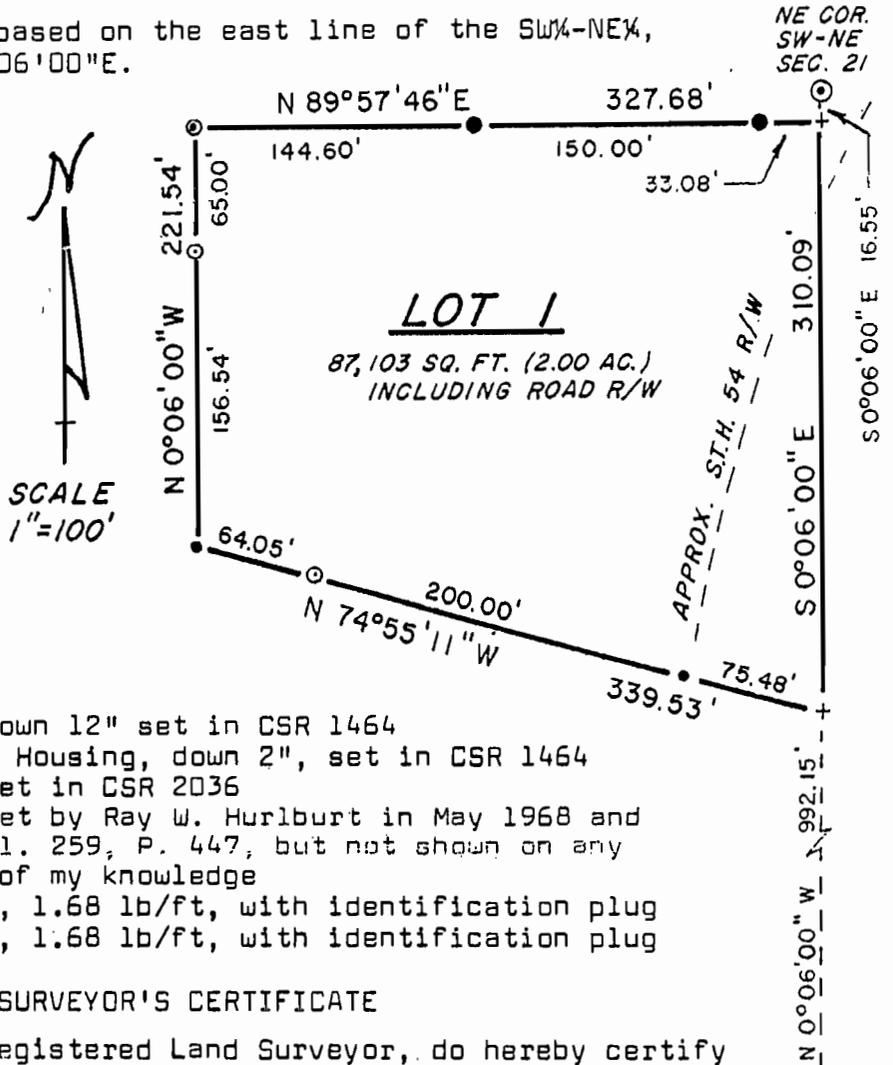
<b>Payment History (Posted Payments)</b>									
Date	Receipt #	Source	Type	Amount	Gen. Tax Balance	Spec. Assessment Balance	Intrest	Penalty	Total

268600

**JACKSON COUNTY CERTIFIED SURVEY MAP NO. 1265**

A part of the SW¼-NE¼ Sec. 21, T21N, R4W, Town of Albion, Jackson County, Wisconsin, for John Nortman.

BEARINGS in this survey are based on the east line of the SW¼-NE¼, which is assumed to bear N0°06'00"E.



HSE File 89N-039

**LEGEND**

- ⊙ - Existing 2" Iron Pipe, down 12" set in CSR 1464
- - Existing 1½" Drive Shaft Housing, down 2", set in CSR 1464
- - Existing 1" Iron Pipe, set in CSR 2036
- - Existing ¾" Iron Pipe, set by Ray W. Hurlburt in May 1968 and called for in deed in Vol. 259, P. 447, but not shown on any survey map, to the best of my knowledge
- ⊙ - Drove 1" x 36" Iron Pipe, 1.68 lb/ft, with identification plug
- ⊙ - Drove 1" x 30" Iron Pipe, 1.68 lb/ft, with identification plug

**SURVEYOR'S CERTIFICATE**

I, Norman R. Hurlburt, Registered Land Surveyor, do hereby certify that, by the order and under the direction of John Nortman, I have surveyed and mapped a part of the Southwest quarter of the Northeast quarter of Section 21 in Township 21 North of Range 4 West, Town of Albion, Jackson County, Wisconsin, described as follows:

SE COR.  
SW-NE  
SEC. 21

Beginning at a point on the east line of said quarter-quarter, South 0°06'00" East 16.55 feet from the Northeast corner thereof; thence continuing South 0°06'00" East 310.09 feet; thence North 74°55'11" West 339.53 feet; thence North 0°06'00" West 221.54 feet; thence North 89°57'46" East 327.68 feet, to the point of beginning.

I further certify that this Certified Survey Map is a true and correct representation of the exterior boundaries of the land surveyed, and that I have complied with the provisions of Section 236.34 of Wisconsin Statutes, to the best of my knowledge and belief.

Dated this 19<sup>TH</sup> day of FEB, 1994

*Norman R. Hurlburt*  
 Norman R. Hurlburt S-1104  
 Hurlburt Surveying & Engr., Inc.  
 Black River Falls, Wisconsin



RECEIVED FOR RECORD  
 AT 8:00 A.M.  
 Vol 55 Page 282

FEB 24 1994

SHARI MARG  
 REGISTER OF DEEDS  
 JACKSON COUNTY W

V5 P282

10:00  
filed

WDNR BRRTS Case #: 03-27-257644

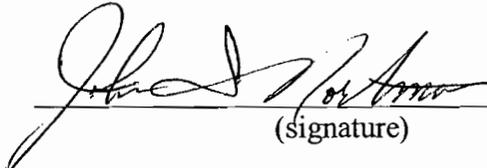
WDNR Site Name: Nortman Oil

### Geographic Information System (GIS) Registry of Closed Remediation Sites

In compliance with the revisions to the NR 700 rule series requiring certain closed sites to be listed on the Geographic Information System (GIS) Registry of Closed Remediation Sites (Registry) effective Nov., 2001, I have provided the following information.

To the best of my knowledge the legal descriptions provided and attached to this statement are complete and accurate.

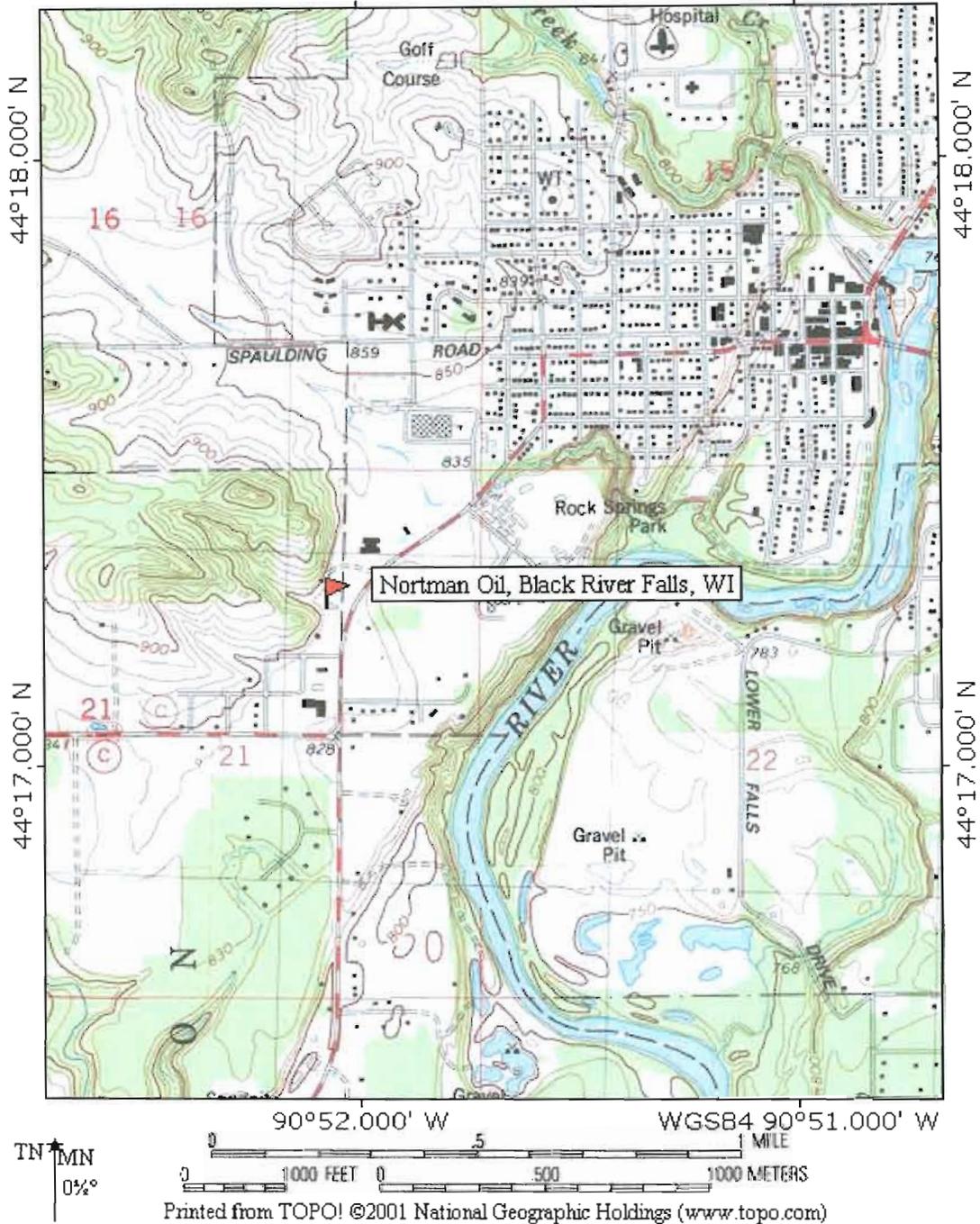
Responsible Party: JOHN I. NORTMAN president  
(print name/title)

 5/20/2003  
(signature) (date)

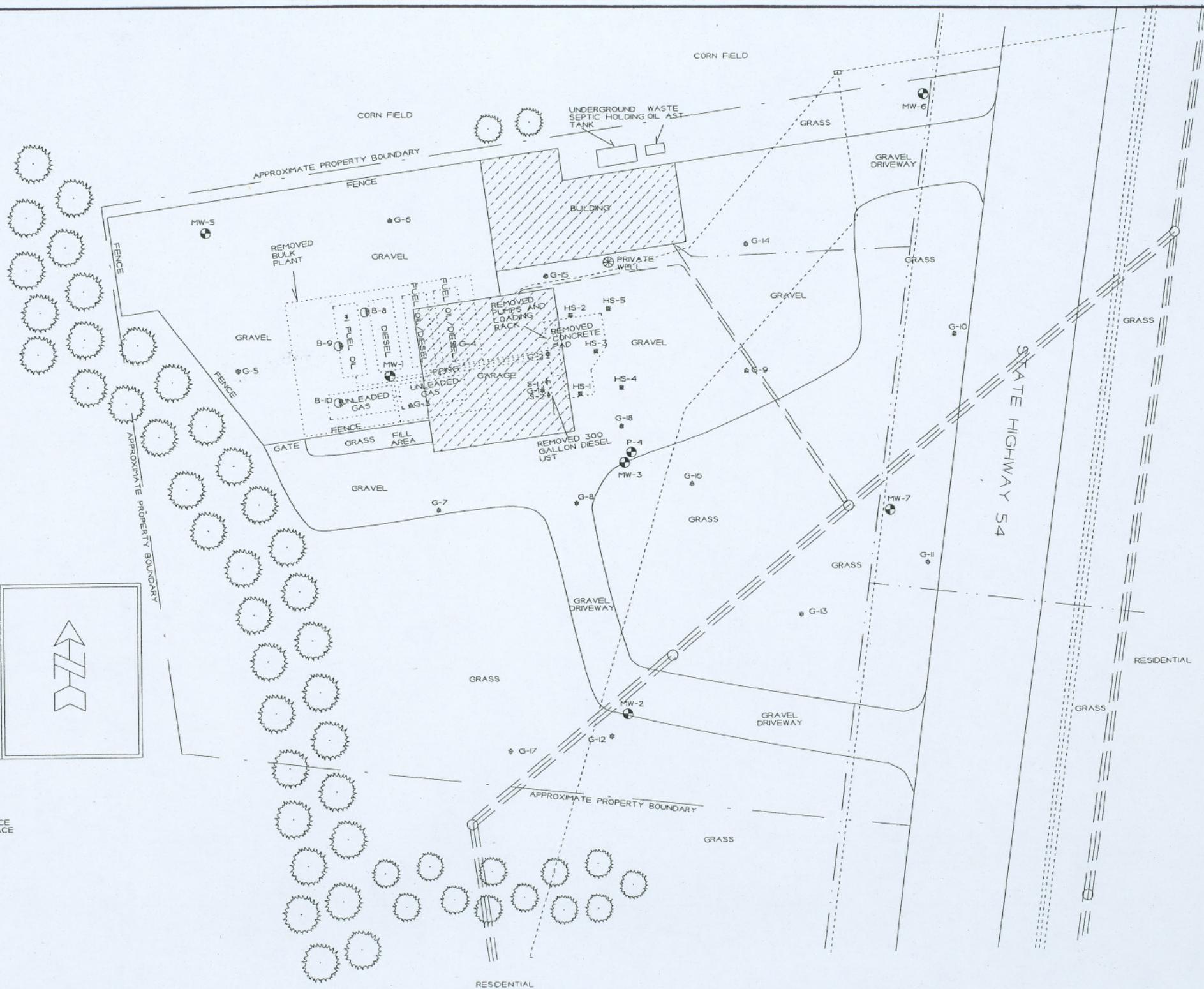
**METCO**

Environmental Consulting, Fuel System Design, Installation and Service  
2956 Airport Road – La Crosse, WI 54603 608-781-8879

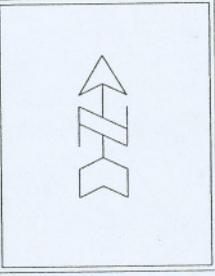
TOPO! map printed on 05/12/03 from "Wisconsin.tpo" and "Untitled.tpg"  
90°52.000' W WGS84 90°51.000' W



SITE LOCATION MAP
NORTMAN OIL
BLACK RIVER FALLS QUADRANGLE - 7.5 MINUTES SERIES



<b>SITE LAYOUT MAP</b>	
NORTMAN OIL BLACK RIVER FALLS, WISCONSIN	
	<p>SCALE: 1 INCH = 50 FEET</p> <p>DRAWN BY: R/VED DATE: 7/31/00 JOB NO.: R-00-700</p>

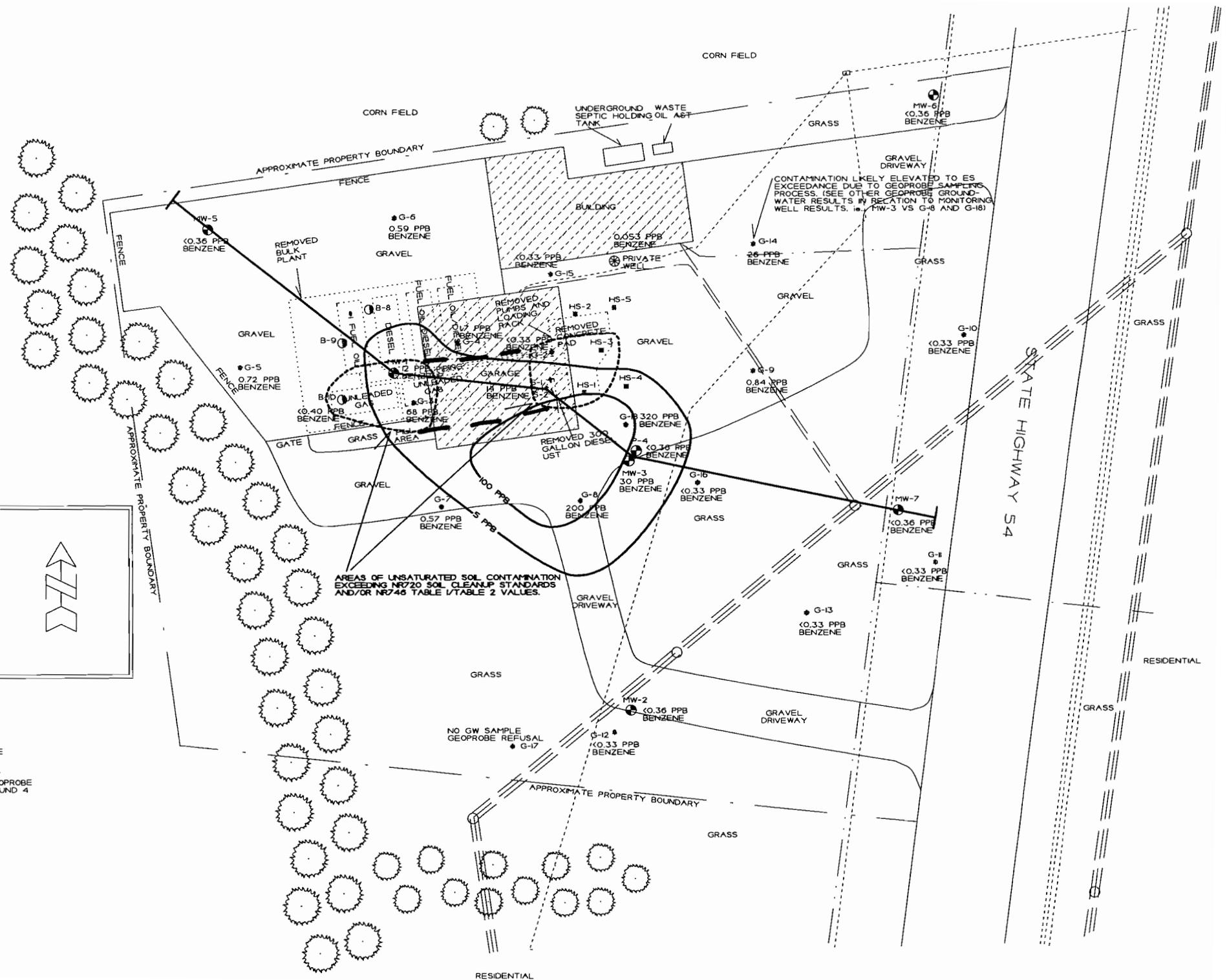


NOTE: INFORMATION BASED ON AVAILABLE DATA. ACTUAL CONDITIONS MAY DIFFER.

TANK CLOSURE SITE ASSESSMENT RESULTS (6/27/00)

S-1 - 3100 PPM DR0 AT 9'-10 FEET BELOW GROUND SURFACE  
S-2 - 1200 PPM DR0 AT 9'-10 FEET BELOW GROUND SURFACE

- † - SITE ASSESSMENT BORING LOCATION
- ⊕ - GEOPROBE BORING LOCATION
- - HAND SAMPLE LOCATION
- ⊙ - MONITORING WELL LOCATION
- ⊖ - SOIL BORING LOCATION
- ⊗ - PRIVATE WELL
- ≡≡≡ - OVERHEAD ELECTRIC
- — — - GAS LINE
- ⋯⋯⋯ - TELEPHONE/FIBER OPTIC LINE
- — — - BURIED ELECTRIC



### CROSS SECTION MAP

NORTMAN OIL  
BLACK RIVER FALLS, WISCONSIN



SCALE:  
1 INCH = 50 FEET  
DRAWN BY: RA/ED  
DATE: 7/31/00  
JOB NO.: R-00-700



NOTE: INFORMATION BASED ON AVAILABLE DATA. ACTUAL CONDITIONS MAY DIFFER.

TANK CLOSURE SITE ASSESSMENT RESULTS (6/27/00)

S-1 - 3100 PPM DRO AT 9-10 FEET BELOW GROUND SURFACE  
S-2 - 1200 PPM DRO AT 9-10 FEET BELOW GROUND SURFACE

NOTE: THE PRESENTED ISOCONCENTRATION LINES REPRESENT LEVELS OF BENZENE AT THE WATERTABLE DURING THE GEOPROBE PROJECT (9/17/01), DRILLING PROJECT (2/28-3/4/03) AND ROUND 4 GROUNDWATER SAMPLING (2/27/03).

- † - SITE ASSESSMENT BORING LOCATION
- - GEOPROBE BORING LOCATION
- - HAND SAMPLE LOCATION
- ⊕ - MONITORING WELL LOCATION
- ⊙ - SOIL BORING LOCATION
- ⊗ - PRIVATE WELL
- ≡≡≡ - OVER-HEAD ELECTRIC
- — — - GAS LINE
- - TELEPHONE/FIBER OPTIC LINE
- — — - BURIED ELECTRIC

**CROSS SECTION**

**NORTMAN OIL**

	BLACK RIVER FALLS, WISCONSIN
METCO 1200 W. WISCONSIN ST. MILWAUKEE, WI 53233-1000 TEL: 414.224.1000 FAX: 414.224.1001	DRAWN BY: ED DATE: 5/2/03 JOB NO.: R-00-700

HORIZONTAL SCALE: 1 INCH = 40 FEET  
 VERTICAL SCALE: 1 INCH = 13 FEET

INFORMATION BASED ON AVAILABLE DATA.  
 ACTUAL CONDITIONS MAY DIFFER.

VERTICAL DATA IS REFERENCED TO AN ON SITE  
 BENCHMARK. ASSUMED ELEVATION - 100 FEET.

SOIL SAMPLE RESULTS ARE PRESENTED IN  
 PARTS PER MILLION (PPM).

GROUNDWATER SAMPLE RESULTS ARE  
 PRESENTED IN PARTS PER BILLION (PPB).

GROUNDWATER FLOW IS GENERALLY TOWARD  
 THE SOUTHEAST

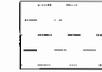
NOTE: SOIL AND GROUNDWATER SAMPLE  
 DATA IS BASED ON LABORATORY RESULTS  
 FROM SAMPLES COLLECTED DURING THE  
 FOLLOWING EVENTS:

TANK CLOSURE SITE ASSESSMENT (6/27/00)  
 GEOPROBE PROJECT (9/17-18/01)  
 DRILLING PROJECT (2/28 - 3/4/02)  
 ROUND 4 GROUNDWATER SAMPLING (2/27/03)

GRO - GASOLINE RANGE ORGANICS  
 DRO - DIESEL RANGE ORGANICS  
 B - BENZENE  
 E - ETHYLBENZENE  
 MTBE - METHYL TERT-BUTYL ETHER  
 T - TOLUENE  
 TMB - TRIMETHYLBENZENE  
 X - XYLENES  
 N - NAPHTHALENE  
 B(a)P - BENZO(a)PYRENE  
 D(a,h)a - DIBENZO(a,h)ANTHRACENE



SILT, SAND, AND GRAVEL  
 (BACKFILL MATERIAL)



TAN TO BROWN TO GRAY TO  
 GREEN SANDY SILT/CLAY



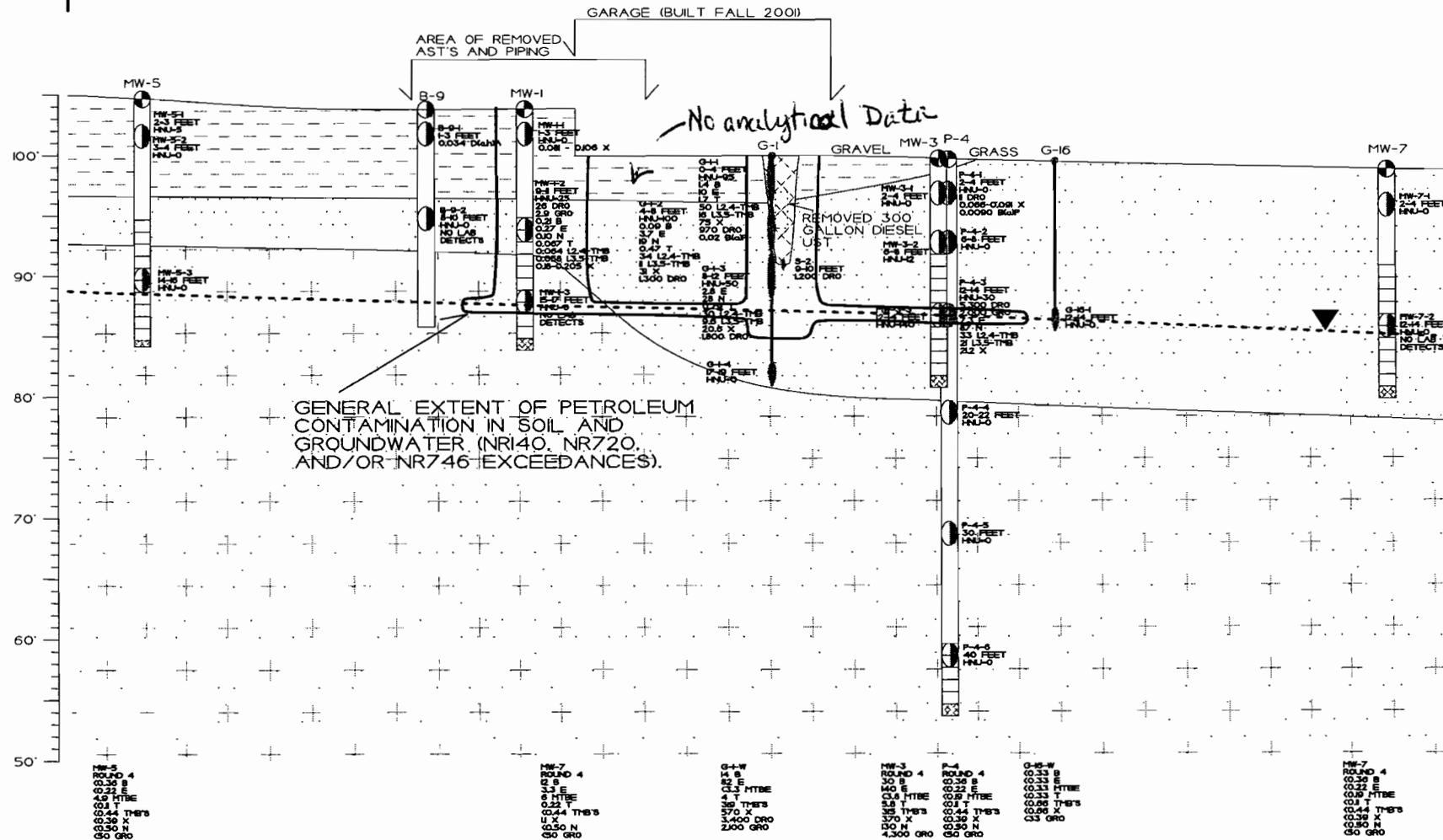
TAN TO ORANGE TO GRAY TO  
 WHITE, FINE TO VERY COARSE  
 GRAINED SAND TO SILTY SAND  
 AND GRAVEL

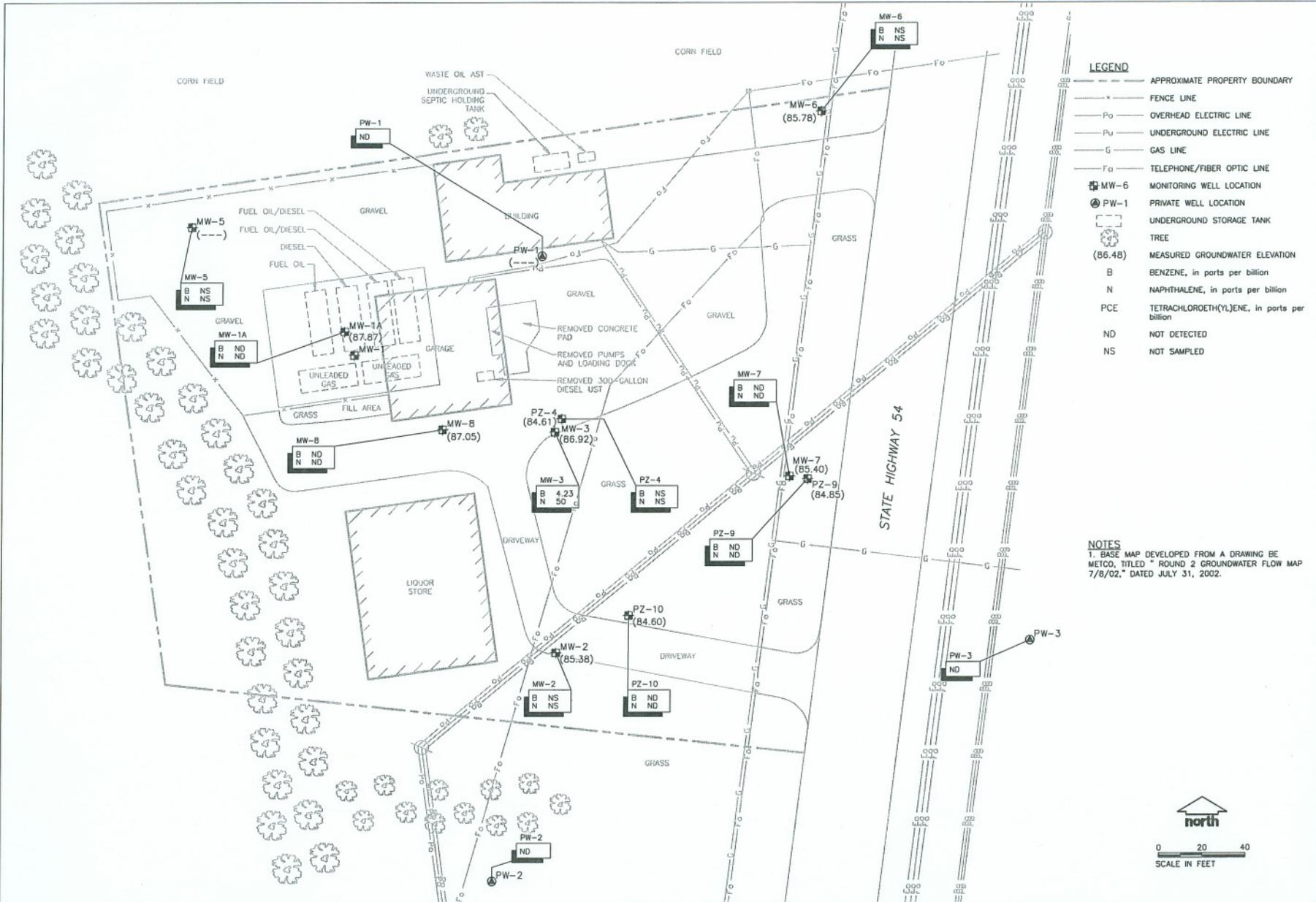


TAN TO WHITE, VERY FINE TO  
 COARSE GRAINED SANDSTONE  
 INTERBEDDED WITH SANDY  
 SHALE

- ◆ - SITE ASSESSMENT BORING LOCATION
- - GEOPROBE BORING LOCATION
- ⊙ - MONITORING WELL LOCATION
- - SOIL BORING LOCATION
- - GEOPROBE SOIL SAMPLE LOCATION (2 FOOT INTERVAL)
- - GEOPROBE SOIL SAMPLE LOCATION (4 FOOT INTERVAL)
- - SPLIT SPOON SOIL SAMPLE LOCATION
- ▽ - WATERTABLE

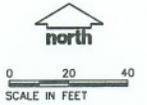
A NORTHWEST A' SOUTHEAST





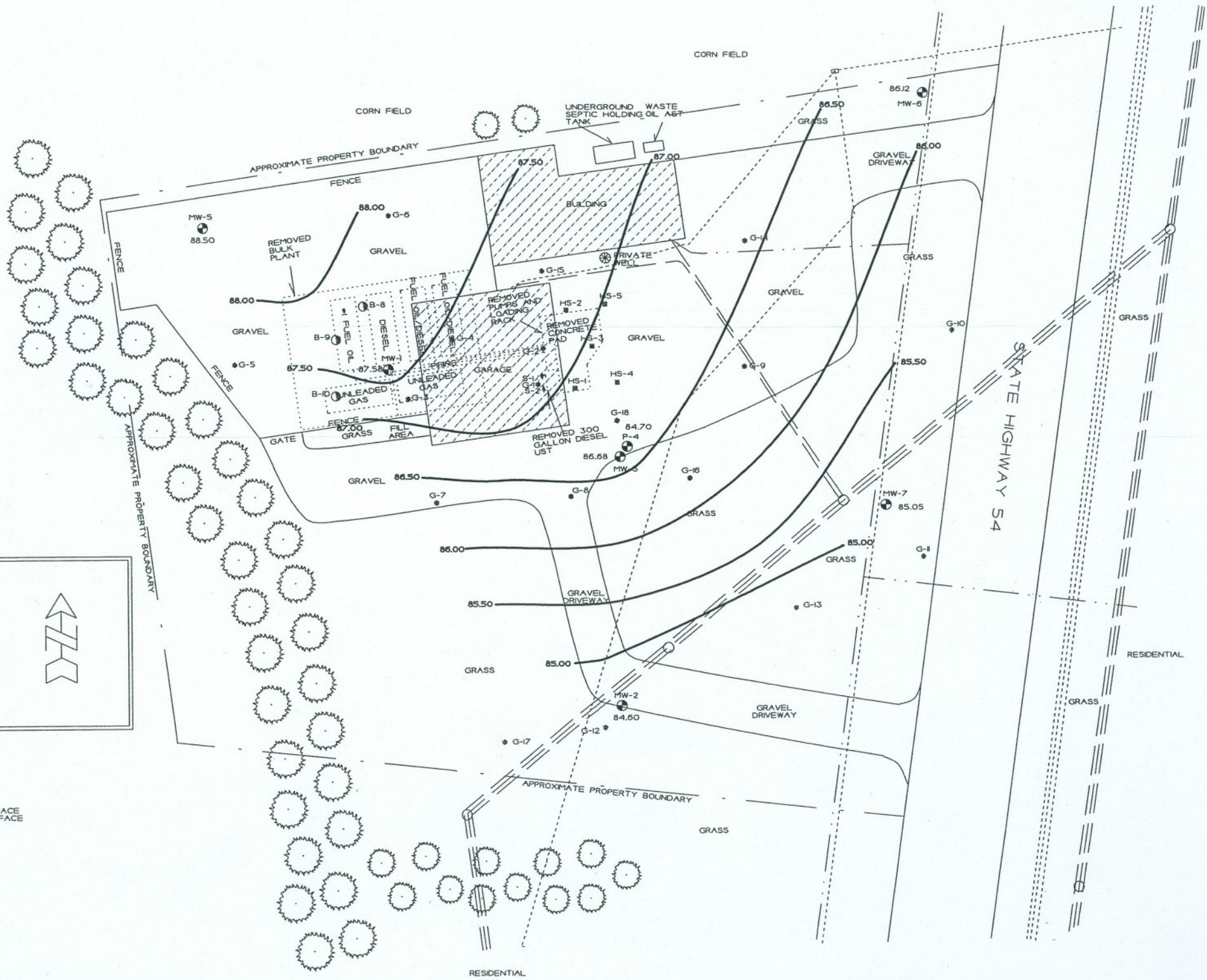
- LEGEND**
- APPROXIMATE PROPERTY BOUNDARY
  - x- FENCE LINE
  - Po- OVERHEAD ELECTRIC LINE
  - Pu- UNDERGROUND ELECTRIC LINE
  - G- GAS LINE
  - Fa- TELEPHONE/FIBER OPTIC LINE
  - ⊕ MW-6 MONITORING WELL LOCATION
  - ⊕ PW-1 PRIVATE WELL LOCATION
  - ⊕ UNDERGROUND STORAGE TANK
  - ⊕ TREE
  - (86.48) MEASURED GROUNDWATER ELEVATION
  - B BENZENE, in parts per billion
  - N NAPHTHALENE, in parts per billion
  - PCE TETRACHLOROETH(YL)ENE, in parts per billion
  - ND NOT DETECTED
  - NS NOT SAMPLED

**NOTES**  
 1. BASE MAP DEVELOPED FROM A DRAWING BE METCO, TITLED "ROUND 2 GROUNDWATER FLOW MAP 7/8/02," DATED JULY 31, 2002.



PROJECT: 55353142-B2D  
 DATE: 2/05/07  
 REV. BY: MN  
 SCALE: 1" = 40'

**FIGURE 6**  
 GROUNDWATER DATA  
 AUGUST 2006  
 NORTMAN OIL  
 BLACK RIVER FALLS, WISCONSIN



<b>ROUND 4 GROUNDWATER FLOW MAP</b> 2/27/03	
NORTMAN OIL BLACK RIVER FALLS, WISCONSIN	
	<b>SCALE:</b> 1 INCH = 50 FEET
<small>         2000-2003          2004-2005          2006-2007          2008-2009          2010-2011          2012-2013          2014-2015          2016-2017          2018-2019          2020-2021          2022-2023          2024-2025       </small>	DRAWN BY: RAVED DATE: 7/31/00 JOB NO: R-00-700

NOTE: INFORMATION BASED ON AVAILABLE DATA. ACTUAL CONDITIONS MAY DIFFER.  
 NOTE: ELEVATION DATA IS REFERENCED TO AN ON-SITE BENCHMARK. ASSUMED ELEVATION: 100 FEET.

TANK CLOSURE SITE ASSESSMENT RESULTS (6/27/00)  
 S-1 - 3,100 PPM DRO AT 9-10 FEET BELOW GROUND SURFACE  
 S-2 - 1,200 PPM DRO AT 9-10 FEET BELOW GROUND SURFACE

- ↓ - SITE ASSESSMENT BORING LOCATION
- ◆ - GEOPROBE BORING LOCATION
- - HAND SAMPLE LOCATION
- ⊕ - MONITORING WELL LOCATION
- ⊙ - SOIL BORING LOCATION
- ⊗ - PRIVATE WELL
- ≡≡≡ - OVERHEAD ELECTRIC
- — — - GAS LINE
- - - - - TELEPHONE/FIBER OPTIC LINE
- — — - BURIED ELECTRIC

GEOPROBE DATA TABLE FOR THE NORTMAN OIL LUST INVESTIGATION  
BY METCO

SAMPLING CONDUCTED ON SEPTEMBER 17-18, 2001

SOIL SAMPLES

Sample Location Number	G-1-1	G-1-2	G-1-3	G-1-4	G-2-1	G-2-2	G-2-3	G-2-4	G-3-1	G-3-2
Sample Depth in Feet	0-4	4-8	8-12	17-19	0-4	4-8	8-12	12-16	0-4	4-8
Soil Type	Sandy Silt	Sand	Sand/Gravel	Sand/Gravel	Silt/Clay	Sand	Sand	Sand	Silt/Clay	Sandy Silt/Clay
Petroleum Odors	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Petroleum Staining	Yes	Yes	No	No	Yes	No	No	No	Yes	Yes
Moisture	Moist	Moist	Moist	Wet	Moist	Moist	Moist	Wet	Moist	Moist
HNU in Units	95	100	50	0	100	95	85	35	100	90
Lab Sample Collected?	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes
Diesel Range Organics/ppm	970	1300	1800	ns	5500	4100	1400	1500	ns	ns
Gasoline Range Organics/ppm	ns	ns	ns	ns	1800	2200	40	170	1300	400
Total Lead/ppm	ns	ns	ns	ns	6.8	ns	ns	ns	8.5	ns
Total Solids/%	84	85	96	ns	79	84	95	90	78	84
Acenaphthylene/ppm	0.11	ns	ns	ns	<0.020	ns	ns	ns	ns	ns
Acenaphthene/ppm	<0.040	ns	ns	ns	<0.040	ns	ns	ns	ns	ns
Anthracene/ppm	0.02	ns	ns	ns	0.08	ns	ns	ns	ns	ns
Benzo(a)anthracene/ppm	<0.010	ns	ns	ns	<0.010	ns	ns	ns	ns	ns
Benzo(b)fluoranthene/ppm	<0.0068	ns	ns	ns	<0.0066	ns	ns	ns	ns	ns
Benzo(k)fluoranthene/ppm	0.01	ns	ns	ns	0.02	ns	ns	ns	ns	ns
Benzo(g,h,i)perylene/ppm	<0.0167	ns	ns	ns	<0.0167	ns	ns	ns	ns	ns
Benzo(a)pyrene/ppm	0.02	ns	ns	ns	<0.0666	ns	ns	ns	ns	ns
Chrysene/ppm	<0.20	ns	ns	ns	<0.20	ns	ns	ns	ns	ns
Dibenz(a,h)anthracene/ppm	<0.010	ns	ns	ns	<0.010	ns	ns	ns	ns	ns
Fluoranthene/ppm	0.11	ns	ns	ns	0.34	ns	ns	ns	ns	ns
Fluorene/ppm	0.07	ns	ns	ns	0.44	ns	ns	ns	ns	ns
Indeno(1,2,3-cd)pyrene/ppm	<0.0666	ns	ns	ns	<0.0666	ns	ns	ns	ns	ns
1-Methylnaphthalene/ppm	0.57	ns	ns	ns	11	ns	ns	ns	ns	ns
2-Methylnaphthalene/ppm	0.38	ns	ns	ns	5	ns	ns	ns	ns	ns
Naphthalene/ppm	<0.020	ns	ns	ns	0.71	ns	ns	ns	ns	ns
Phenanthrene/ppm	0.16	ns	ns	ns	0.91	ns	ns	ns	ns	ns
Pyrene/ppm	0.32	ns	ns	ns	0.65	ns	ns	ns	ns	ns
Dichlorodifluoromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Chloromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	0.24	ns
Vinyl Chloride/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Bromomethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Chloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Trichlorofluoromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Acetone/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<3.80	ns
Ethyl Ether/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,1-Dichloroethylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Iodomethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Methylene Chloride/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<1.0	ns
Allyl Chloride (3-Chloropropylene)/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Carbon Disulfide/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
trans-1,2-Dichloroethylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Methyl-tert-Butyl Ether/ppm	0.16	<0.083	<0.083	ns	<0.0030	<0.083	<0.0083	<0.0083	<0.20	0.14
1,1-Dichloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Vinyl Acetate/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<1.0	ns
Chloroprene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Methyl Ethyl Ketone (2-Butanone)/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<1.90	ns
Bromochloromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Chloroform/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,2-Dichloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,1,1-Trichloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Carbon Tetrachloride/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Benzene/ppm	1.4	0.09	<0.083	ns	<0.0020	<0.083	<0.0083	0.02	<0.20	0.53
Dibromomethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,2-Dichloropropane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,1,2-Trichloroethylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Bromodichloromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Methylmethacrylate/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
cis-1,3-Dichloropropylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Methyl isobutyl Ketone/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<1.0	ns
trans-1,3-Dichloropropylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,1,2-Trichloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Toluene/ppm	1.7	0.47	0.29	ns	<0.0010	0.54	0.03	0.07	0.32	1.3
Ethyl Methacrylate/ppm	ns	ns	ns	ns	ns	ns	ns	ns	0.57	ns
Methyl Butyl Ketone (2-Hexanone)/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<1.0	ns
Dibromochloromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,2-Dibromoethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,1,2,2-Tetrachloroethylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.40	ns
1,1,1,2-Tetrachloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Chlorobenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Ethyl Benzene/ppm	10	3.7	2.8	ns	4.5	5.2	0.03	0.55	2	4.8
m,p-Xylenes/ppm	52	21	14	ns	26	27	0.15	2	5.8	11
Bromoform/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<1.0	ns
Styrene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,1,2,2-Tetrachloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
o-Xylenes/ppm	23	10	6.6	ns	15	13	0.08	0.96	0.39	0.76
1,2,3-Trichloropropane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Isopropylbenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	0.55	ns
1,3-Dichlorobenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,4-Dichlorobenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,2-Dichlorobenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,2-Dibromo-3-Chloropropane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,2,4-Trichlorobenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
Naphthalene/ppm	ns	19	28	ns	ns	83	1.9	3.6	1.2	4.2
Hexachlorobutadiene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	<0.20	ns
1,2,4-Trimethylbenzene/ppm	50	34	30	ns	69	61	0.74	3.7	9	13
1,3,5-Trimethylbenzene/ppm	16	11	9.6	ns	22	20	1.2	1.2	6.2	5.1

NOTE: Bold = detects ns = not sampled

U = > 746 table 1

□ = > 746 table 2

GEOPROBE DATA TABLE FOR THE NORTMAN OIL LUST INVESTIGATION CONTINUED  
BY METCO

SAMPLING CONDUCTED ON SEPTEMBER 17-18, 2001

SOIL SAMPLES

Sample Location Number	G-3-3	G-3-4	G-4-1	G-4-2	G-4-3	G-4-4	G-5-1	G-6-1	G-7-1	G-8-1
Sample Depth In Feet	8-12	12-16	0-4	4-8	8-12	12-16	12-14	13-15	12-13.5	14-16
Soil Type	Silty Sand	Sandstone	Silt/Clay	Sandy Silt/Clay	Sand	Sand	Sand	Sand	Sandy Silt	Sand
Petroleum Odors	Yes	Yes	No	Slight	No	No	Slight	No	No	Yes
Petroleum Staining	Yes	Yes	No	No	No	No	No	No	No	Yes
Moisture	Moist	Wet	Moist	Moist	Moist	Wet	Wet	Wet	Wet	Wet
HNU In Units	150	15	0	0	5	0	0	0	0	0
Lab Sample Collected?	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
Diesel Range Organics/ppm	ns	ns	<3.3	3.4	<3.3	<3.3	ns	ns	ns	ns
Gasoline Range Organics/ppm	18	<10	ns	ns	ns	ns	ns	ns	ns	ns
Total Lead/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Total Solids/%	84	86	80	82	96	87	ns	ns	ns	ns
Acenaphthylene/ppm	ns	ns	<0.020	ns	ns	ns	ns	ns	ns	ns
Acenaphthene/ppm	ns	ns	<0.040	ns	ns	ns	ns	ns	ns	ns
Anthracene/ppm	ns	ns	<0.001033	ns	ns	ns	ns	ns	ns	ns
Benzo(a)anthracene/ppm	ns	ns	<0.010	ns	ns	ns	ns	ns	ns	ns
Benzo(b)fluoranthene/ppm	ns	ns	<0.0066	ns	ns	ns	ns	ns	ns	ns
Benzo(k)fluoranthene/ppm	ns	ns	<0.0017	ns	ns	ns	ns	ns	ns	ns
Benzo(g,h,i)perylene/ppm	ns	ns	<0.0167	ns	ns	ns	ns	ns	ns	ns
Benzo(a)pyrene/ppm	ns	ns	0.02	ns	ns	ns	ns	ns	ns	ns
Chrysene/ppm	ns	ns	0.20	ns	ns	ns	ns	ns	ns	ns
Dibenzo(a,h)anthracene/ppm	ns	ns	<0.010	ns	ns	ns	ns	ns	ns	ns
Fluoranthene/ppm	ns	ns	<0.017	ns	ns	ns	ns	ns	ns	ns
Fluorene/ppm	ns	ns	<0.0040	ns	ns	ns	ns	ns	ns	ns
Indeno(1,2,3-cd)pyrene/ppm	ns	ns	<0.0666	ns	ns	ns	ns	ns	ns	ns
1-Methylnaphthalene/ppm	ns	ns	<0.020	ns	ns	ns	ns	ns	ns	ns
2-Methylnaphthalene/ppm	ns	ns	<0.020	ns	ns	ns	ns	ns	ns	ns
Naphthalene/ppm	ns	ns	<0.020	ns	ns	ns	ns	ns	ns	ns
Phenanthrene/ppm	ns	ns	0.0068	ns	ns	ns	ns	ns	ns	ns
Pyrene/ppm	ns	ns	<0.10	ns	ns	ns	ns	ns	ns	ns
Dichlorodifluoromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Vinyl Chloride/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromomethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Trichlorofluoromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Acetone/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethyl Ether/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1-Dichloroethylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Iodomethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methylene Chloride/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Allyl Chloride (3-Chloropropylene)/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Carbon Disulfide/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,2-Dichloroethylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methyl-tert-Butyl Ether/ppm	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	<0.0083	ns	ns	ns	ns
1,1-Dichloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Vinyl Acetate/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroprene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methyl Ethyl Ketone (2-Butanone)/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromochloromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chloroform/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,1-Trichloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Carbon Tetrachloride/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Benzene/ppm	0.5	0.11	<0.0083	<0.0083	<0.0083	<0.0083	ns	ns	ns	ns
Dibromomethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichloropropane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2-Trichloroethylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Bromodichloromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methylmethacrylate/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
cis-1,3-Dichloropropylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methyl Isobutyl Ketone/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
trans-1,3-Dichloropropylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2-Trichloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Toluene/ppm	0.29	0.01	0.02	<0.0083	0.14	<0.0083	ns	ns	ns	ns
Ethyl Methacrylate/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Methyl Butyl Ketone (2-Hexanone)/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Dibromochloromethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromoethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2,2-Tetrachloroethylene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,1,2-Tetrachloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Chlorobenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Ethyl Benzene/ppm	0.6	0.12	<0.0083	<0.0090	<0.0090	<0.0090	ns	ns	ns	ns
m,p-Xylenes/ppm	1.3	0.09	<0.0083	<0.0083	<0.0083	<0.0083	ns	ns	ns	ns
Bromoform/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Styrene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,1,2,2-Tetrachloroethane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
o-Xylene/ppm	0.33	0.02	<0.0083	<0.0083	<0.0083	<0.0083	ns	ns	ns	ns
1,2,3-Trichloropropane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Isopropylbenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,3-Dichlorobenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,4-Dichlorobenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dichlorobenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2-Dibromo-3-Chloropropane/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trichlorobenzene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
Naphthalene/ppm	0.14	0.04	ns	<0.0083	<0.0083	<0.0083	ns	ns	ns	ns
Hexachlorobutadiene/ppm	ns	ns	ns	ns	ns	ns	ns	ns	ns	ns
1,2,4-Trimethylbenzene/ppm	0.43	0.08	<0.0083	<0.0083	<0.0083	<0.0083	ns	ns	ns	ns
1,3,5-Trimethylbenzene/ppm	0.66	0.06	0.08	0.03	0.84	0.03	ns	ns	ns	ns

NOTE: Bold = detecta ns = not sampled

☺ = > 746 folder 1  
☐ = > 746 " 2

SOIL BORING DATA TABLE FOR THE NORTMAN OIL LUST INVESTIGATION  
BY METCO

SAMPLING CONDUCTED ON FEBRUARY 28 - MARCH 4, 2002

SOIL SAMPLES

Sample Location Number	MW-1-1	MW-1-2	MW-1-3	MW-2-1	MW-2-2	MW-3-1	MW-3-2	MW-3-3	P-4-1	P-4-2	P-4-3	P-4-4	P-4-5	P-4-6
Sample Depth in Feet	1-3	9-11	15-17	2-4	12-14	2-4	6-8	12-14	2-4	6-8	12-14	20-22	30	40
Soil Type	Sandy Clay	Sandy Shale	Sandstone	Sand	Sand/Gravel	Sand	Sand/Gravel	Sand/Gravel	Sand/Gravel	Sand	Sand	Sand/Gravel	Sandstone	Sandstone
Petroleum Odors	Slight	Yes	No	No	No	No	No	Yes	No	No	Yes	No	No	No
Petroleum Staining	No	No	No	No	No	No	No	No	No	No	Yes	No	No	No
Moisture	Moist	Moist	Wet	Moist	Wet	Moist	Moist	Wet	Moist	Moist	Wet	Wet	Wet	Wet
HNU in Units	0	25	0	0	0	0	12	140	0	0	30	0	0	0
Lab Sample Collected?	Yes	Yes	Yes	No	No	No	No	No	Yes	No	Yes	No	No	No
Diesel Range Organics/ppm	<3.3	<b>26</b>	<3.6	ns	ns	ns	ns	ns	<b>11</b>	ns	<b>5300</b>	ns	ns	ns
Gasoline Range Organics/ppm	<1.6	<b>2.9</b>	<1.6	ns	ns	ns	ns	ns	<1.6	ns	<b>2000</b>	ns	ns	ns
LUST Total Percent Solids/%	81.9	81.1	74.7	ns	ns	ns	ns	ns	89.0	ns	75.5	ns	ns	ns
<b>1-Methylnaphthalene/ppm</b>	<0.020	ns	ns	ns	ns	ns	ns	ns	<0.018	ns	ns	ns	ns	ns
<b>2-Methylnaphthalene/ppm</b>	<0.018	ns	ns	ns	ns	ns	ns	ns	<0.017	ns	ns	ns	ns	ns
<b>Acenaphthene/ppm</b>	<0.021	ns	ns	ns	ns	ns	ns	ns	<0.019	ns	ns	ns	ns	ns
<b>Acenaphthylene/ppm</b>	<b>0.48</b>	ns	ns	ns	ns	ns	ns	ns	<b>1.5</b>	ns	ns	ns	ns	ns
<b>Anthracene/ppm</b>	<0.0032	ns	ns	ns	ns	ns	ns	ns	<0.0029	ns	ns	ns	ns	ns
<b>Benzo(a)anthracene/ppm</b>	<0.00068	ns	ns	ns	ns	ns	ns	ns	<b>0.0060</b>	ns	ns	ns	ns	ns
<b>Benzo(a)pyrene/ppm</b>	<b>0.0074</b>	ns	ns	ns	ns	ns	ns	ns	<b>0.0090</b>	ns	ns	ns	ns	ns
<b>Benzo(b)fluoranthene/ppm</b>	<b>0.0055</b>	ns	ns	ns	ns	ns	ns	ns	<b>0.0075</b>	ns	ns	ns	ns	ns
<b>Benzo(g,h,i)perylene/ppm</b>	<0.0016	ns	ns	ns	ns	ns	ns	ns	<0.0015	ns	ns	ns	ns	ns
<b>Benzo(k)fluoranthene/ppm</b>	<0.00088	ns	ns	ns	ns	ns	ns	ns	<b>0.0052</b>	ns	ns	ns	ns	ns
<b>Chrysene/ppm</b>	<0.0046	ns	ns	ns	ns	ns	ns	ns	<0.0043	ns	ns	ns	ns	ns
<b>Dibenzo(a,h)anthracene/ppm</b>	<0.0049	ns	ns	ns	ns	ns	ns	ns	<0.0045	ns	ns	ns	ns	ns
<b>Fluoranthene/ppm</b>	<0.00094	ns	ns	ns	ns	ns	ns	ns	<0.00087	ns	ns	ns	ns	ns
<b>Fluorene/ppm</b>	<0.0098	ns	ns	ns	ns	ns	ns	ns	<0.0090	ns	ns	ns	ns	ns
<b>Indeno(1,2,3-cd)pyrene/ppm</b>	<0.0017	ns	ns	ns	ns	ns	ns	ns	<0.0016	ns	ns	ns	ns	ns
<b>Naphthalene/ppm</b>	<0.018	ns	ns	ns	ns	ns	ns	ns	<0.017	ns	ns	ns	ns	ns
<b>Phenanthrene/ppm</b>	<0.0040	ns	ns	ns	ns	ns	ns	ns	<b>0.015</b>	ns	ns	ns	ns	ns
<b>Pyrene/ppm</b>	<b>0.018</b>	ns	ns	ns	ns	ns	ns	ns	<b>0.038</b>	ns	ns	ns	ns	ns
<b>Benzene/ppm</b>	<0.025	<b>0.21</b>	<0.025	ns	ns	ns	ns	ns	<0.025	ns	<1.0	ns	ns	ns
<b>Ethylbenzene/ppm</b>	<0.025	<b>0.27</b>	<0.025	ns	ns	ns	ns	ns	<0.025	ns	<b>7.3</b>	ns	ns	ns
<b>Methy tert-butyl ether/ppm</b>	<0.025	<0.025	<0.025	ns	ns	ns	ns	ns	<0.025	ns	<1.2	ns	ns	ns
<b>Naphthalene/ppm</b>	ns	<b>0.10</b>	<0.025	ns	ns	ns	ns	ns	ns	ns	<b>87</b>	ns	ns	ns
<b>Toluene/ppm</b>	<0.025	<b>0.067</b>	<0.025	ns	ns	ns	ns	ns	<0.025	ns	<1.1	ns	ns	ns
<b>1,2,4-Trimethylbenzene/ppm</b>	<0.025	<b>0.064</b>	<0.025	ns	ns	ns	ns	ns	<0.025	ns	<b>33</b>	ns	ns	ns
<b>1,3,5-Trimethylbenzene/ppm</b>	<0.025	<b>0.058</b>	<0.025	ns	ns	ns	ns	ns	<0.025	ns	<b>21</b>	ns	ns	ns
<b>m&amp;p-Xylene/ppm</b>	<b>0.081</b>	<b>0.18</b>	<0.025	ns	ns	ns	ns	ns	<b>0.066</b>	ns	<b>13</b>	ns	ns	ns
<b>o-Xylene/ppm</b>	<0.025	<0.025	<0.025	ns	ns	ns	ns	ns	<0.025	ns	<b>8.2</b>	ns	ns	ns
<b>Petroleum Deg. Count/cfu/g ts</b>	ns	7300	ns	ns	ns	ns	ns	ns	ns	ns	1300	ns	ns	ns
<b>Heterotrophic Count/cfu/g ts</b>	ns	1300000	ns	ns	ns	ns	ns	ns	ns	ns	770000	ns	ns	ns
<b>Percent Degraders/%</b>	ns	0.56	ns	ns	ns	ns	ns	ns	ns	ns	0.17	ns	ns	ns
<b>Ammonia Nitrogen/ppm</b>	ns	2.6	ns	ns	ns	ns	ns	ns	ns	ns	2.4	ns	ns	ns
<b>Total Organic Nitrogen/ppm</b>	ns	<25	ns	ns	ns	ns	ns	ns	ns	ns	<26	ns	ns	ns
<b>Nitrogen Kjeldahl/ppm</b>	ns	<25	ns	ns	ns	ns	ns	ns	ns	ns	<26	ns	ns	ns
<b>pH</b>	ns	7.10	ns	ns	ns	ns	ns	ns	ns	ns	6.23	ns	ns	ns
<b>Available Phosphorous/ppm</b>	ns	23	ns	ns	ns	ns	ns	ns	ns	ns	13	ns	ns	ns
<b>Total Organic Carbon/% OM</b>	ns	0.25	ns	ns	ns	ns	ns	ns	ns	ns	0.37	ns	ns	ns

NOTE: ns = not sampled Bold = detects

SOIL BORING DATA TABLE FOR THE NORTMAN OIL LUST INVESTIGATION  
BY METCO

SAMPLING CONDUCTED ON FEBRUARY 28 - MARCH 4, 2002

SOIL SAMPLES CONTINUED

Sample Location Number	MW-5-1	MW-5-2	MW-5-3	MW-6-1	MW-6-2	MW-7-1	MW-7-2	B-8-1	B-8-2	B-9-1	B-9-2	B-10-1	B-10-2	MeOH Blank
Sample Depth in Feet	2-3	3-4	14-16	2-4	12-14	2-4	12-14	1-3	8-10	1-3	8-10	1-3	6-8	==
Soil Type	Sandy Clay	Sandy Clay	Shale/Sandstone	Sand/Gravel	Sand/Gravel	Sand	Sand/Gravel	Sandy Clay	Sandstone	Sandy Clay	Silty Sand	Sand/Gravel	Silty Sand	==
Petroleum Odors	Slight	No	No	No	No	No	No	No	No	Slight	No	No	No	==
Petroleum Staining	No	No	No	No	No	No	No	No	No	No	No	No	No	==
Moisture	Moist	Moist	Wet	Moist	Wet	Moist	Wet	Moist	Moist	Moist	Moist	Moist	Moist	==
HNU in Units	5	0	0	0	0	0	0	0	0	ns	0	ns	ns	==
Lab Sample Collected?	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	==
Diesel Range Organics/ppm	ns	ns	ns	ns	ns	ns	ns	<3.9	<3.5	<3.7	<3.2	<b>4800</b>	<b>170</b>	ns
Gasoline Range Organics/ppm	ns	ns	ns	ns	ns	ns	<1.6	<1.6	<1.6	<1.6	<1.6	<b>14</b>	<b>23</b>	<1.6
LUST Total Percent Solids/%	ns	ns	ns	ns	ns	ns	78.6	69.8	76.5	73.2	85.1	81.9	77.4	ns
1-Methylnaphthalene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.023	ns	<0.022	ns	<0.020	ns	ns
2-Methylnaphthalene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.021	ns	<0.020	ns	<0.018	ns	ns
Acenaphthene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.024	ns	<0.023	ns	<0.021	ns	ns
Acenaphthylene/ppm	ns	ns	ns	ns	ns	ns	ns	<b>1.2</b>	ns	<b>0.50</b>	ns	<b>0.33</b>	ns	ns
Anthracene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.0037	ns	<0.0036	ns	<0.0032	ns	ns
Benzo(a)anthracene/ppm	ns	ns	ns	ns	ns	ns	ns	<b>0.0056</b>	ns	<0.00077	ns	<0.00068	ns	ns
Benzo(a)pyrene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.0030	ns	<b>0.0053</b>	ns	<b>0.0051</b>	ns	ns
Benzo(b)fluoranthene/ppm	ns	ns	ns	ns	ns	ns	ns	<b>0.0077</b>	ns	<0.00085	ns	<b>0.0068</b>	ns	ns
Benzo(g,h,i)perylene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.0019	ns	<0.0018	ns	<0.0016	ns	ns
Benzo(k)fluoranthene/ppm	ns	ns	ns	ns	ns	ns	ns	<b>0.0050</b>	ns	<b>0.018</b>	ns	<0.00088	ns	ns
Chrysene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.0054	ns	<0.0052	ns	<0.0046	ns	ns
Dibenzo(a,h)anthracene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.0057	ns	<b>0.034</b>	ns	<0.0049	ns	ns
Fluoranthene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.0011	ns	<0.0011	ns	<0.00094	ns	ns
Fluorene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.011	ns	<0.011	ns	<0.0098	ns	ns
Indeno(1,2,3-cd)pyrene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.0020	ns	<0.0019	ns	<0.0017	ns	ns
Naphthalene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.021	ns	<0.020	ns	<0.018	ns	ns
Phenanthrene/ppm	ns	ns	ns	ns	ns	ns	ns	<0.0047	ns	<0.0045	ns	<0.0040	ns	ns
Pyrene/ppm	ns	ns	ns	ns	ns	ns	ns	<b>0.022</b>	ns	<b>0.049</b>	ns	<b>0.016</b>	ns	ns
Benzene/ppm	ns	ns	ns	ns	ns	ns	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Ethylbenzene/ppm	ns	ns	ns	ns	ns	ns	<0.025	<0.025	<0.025	<0.025	<0.025	<b>0.053</b>	<0.025	<0.025
Methy tert-butyl ether/ppm	ns	ns	ns	ns	ns	ns	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Naphthalene/ppm	ns	ns	ns	ns	ns	ns	<0.025	ns	<0.025	<0.025	<0.025	ns	<b>1.4</b>	<0.025
Toluene/ppm	ns	ns	ns	ns	ns	ns	<0.025	<0.025	<0.025	<0.025	<0.025	<b>0.044</b>	<0.025	<0.025
1,2,4-Trimethylbenzene/ppm	ns	ns	ns	ns	ns	ns	<0.025	<0.025	<0.025	<0.025	<0.025	<b>0.49</b>	<b>0.13</b>	<0.025
1,3,5-Trimethylbenzene/ppm	ns	ns	ns	ns	ns	ns	<0.025	<0.025	<0.025	<0.025	<0.025	<b>0.20</b>	<b>0.13</b>	<0.025
m&p-Xylene/ppm	ns	ns	ns	ns	ns	ns	<0.025	<0.025	<0.025	<0.025	<0.025	<b>0.14</b>	<b>0.097</b>	<0.025
o-Xylene/ppm	ns	ns	ns	ns	ns	ns	<0.025	<0.025	<0.025	<0.025	<0.025	<b>0.11</b>	<0.025	<0.025
Petroleum Deg. Count/cfu/g ts	ns	ns	ns	ns	ns	ns	40	ns	ns	ns	ns	ns	ns	ns
Heterotrophic Count/cfu/g ts	ns	ns	ns	ns	ns	ns	230000	ns	ns	ns	ns	ns	ns	ns
Percent Degraders/%	ns	ns	ns	ns	ns	ns	0.017	ns	ns	ns	ns	ns	ns	ns
Ammonia Nitrogen/ppm	ns	ns	ns	ns	ns	ns	5.2	ns	ns	ns	ns	ns	ns	ns
Total Organic Nitrogen/ppm	ns	ns	ns	ns	ns	ns	<25	ns	ns	ns	ns	ns	ns	ns
Nitrogen Kjeldahl/ppm	ns	ns	ns	ns	ns	ns	<25	ns	ns	ns	ns	ns	ns	ns
pH	ns	ns	ns	ns	ns	ns	6.40	ns	ns	ns	ns	ns	ns	ns
Available Phosphorous/ppm	ns	ns	ns	ns	ns	ns	8.5	ns	ns	ns	ns	ns	ns	ns
Total Organic Carbon/% OM	ns	ns	ns	ns	ns	ns	0.22	ns	ns	ns	ns	ns	ns	ns

NOTE: ns = not sampled Bold = detects

HAND SAMPLING DATA TABLE FOR NORTMAN OIL LUST INVESTIGATION  
BY METCO

SAMPLING CONDUCTED ON JULY 8, 2002

SOIL SAMPLES

	HS-1	HS-2	HS-3	HS-4	HS-5	MeOH BLANK
Sample Location Number	2	2	2	2	2	==
Sample Depth in Feet	2	2	2	2	2	==
Soil Type	Silty Sand	Sandy Clay	Sandy Clay	Sand w/Gravel	Sandy Clay	==
Petroleum Odors	Yes	No	Yes	Slight	No	==
Petroleum Staining	Yes	No	No	No	No	==
Moisture	Moist	Moist	Moist	Moist	Moist	==
Lab Sample Collected?	Yes	Yes	Yes	Yes	Yes	==
Gasoline Range Organics/ppm	260	<1.6	1.7	<1.6	1.6	<1.6
Total Solids/%	88.9	80.5	80.9	92.4	81.2	ns
1-Methylnaphthalene/ppm	5.2	<0.020	<0.020	<0.017	<0.020	ns
2-Methylnaphthalene/ppm	7.7	<0.019	<0.019	<0.016	<0.019	ns
Acenaphthene/ppm	<0.096	<0.021	<0.021	<0.018	<0.021	ns
Acenaphthylene/ppm	<0.084	<0.019	<0.019	<0.016	<0.019	ns
Anthracene/ppm	<0.015	<0.0032	<0.0032	<0.0028	<0.0032	ns
Benzo(a)anthracene/ppm	<0.0031	<b>0.0047</b>	<b>0.0066</b>	<0.00061	<b>0.02</b>	ns
Benzo(a)pyrene/ppm	<b>0.039</b>	<b>0.0068</b>	<b>0.013</b>	<b>0.0024</b>	<b>0.044</b>	ns
Benzo(b)flouranthene/ppm	<b>0.022</b>	<b>0.0071</b>	<b>0.042</b>	<b>0.16</b>	<b>0.057</b>	ns
Benzo(g,h,l)perylene/ppm	<b>0.062</b>	<b>0.0094</b>	<b>0.014</b>	<0.014	<b>0.05</b>	ns
Benzo(k)flouranthene/ppm	<b>0.12</b>	<b>0.0032</b>	<0.00089	<0.00078	<b>0.03</b>	ns
Chrysene/ppm	<0.021	<0.0047	<0.0047	<0.0041	<0.0047	ns
Dibenzo(a,h)anthracene/ppm	<0.022	<0.0050	<0.0049	<0.0043	<b>0.012</b>	ns
Flouranthene/ppm	<b>3.8</b>	<0.00096	<b>0.022</b>	<b>0.031</b>	<b>0.21</b>	ns
Flourene/ppm	<b>1.2</b>	<0.0099	<0.0099	<0.0087	<0.0099	ns
Indeno(1,2,3-cd)pyrene/ppm	<0.0079	<0.0017	<0.0017	<0.0015	<0.0017	ns
Naphthalene/ppm	<b>1.4</b>	<0.019	<0.019	<0.016	<0.019	ns
Phenanthrene/ppm	<b>2.1</b>	<0.0041	<0.0041	<b>0.024</b>	<b>0.12</b>	ns
Pyrene/ppm	<0.016	<0.0035	<0.0035	<0.0030	<0.0035	ns
Benzene/ppm	<0.050	<0.025	<b>0.025</b>	<0.025	<0.025	<0.025
Ethylbenzene/ppm	<b>0.3</b>	<0.025	<b>0.027</b>	<0.025	<0.025	<0.025
Methyl tert-butyl ether/ppm	<0.060	<0.025	<0.025	<0.025	<0.025	<0.025
Toluene/ppm	<0.055	<0.025	<0.025	<0.025	<0.025	<0.025
1,2,4-Trimethylbenzene/ppm	<b>4.3</b>	<0.025	<b>0.070</b>	<0.025	<0.025	<0.025
1,3,5-Trimethylbenzene/ppm	<b>3.2</b>	<0.025	<0.025	<0.025	<0.025	<0.025
m&p-Xylene/ppm	<b>1.4</b>	<0.025	<b>0.057</b>	<0.025	<0.025	<0.025
o-Xylene/ppm	<b>0.93</b>	<0.025	<b>0.028</b>	<0.025	<0.025	<0.025

METCO

NOTE: ns = not sampled **Bold** = detects

Environmental Consulting, Fuel System Design, Installation and Service  
2956 Airport Road – La Crosse, WI 54603 608-781-8879

**TABLE 2 (page 1 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

Date	MW-1/MW-1A							NR 140 Remedial Action Limits	
	Mar-02	Nov-02	Feb-03	Nov-05	Feb-06	Jun-06	Aug-06		
Elevation (ft)	88.35	89.32	87.58	89.20	---	88.92	87.87		
<b>ANALYTE</b>								<i>ES</i>	<i>PAL</i>
DO (mg/l)	1.34	---	0.94	1.45	no	2.66	2.30		
Redox (mV)	---	---	---		sample	70	86		
Temperature °C	6.4	---	6.9	7.5	---	10.1	10		
<b>VOCs/PVOCs (ppb)</b>									
Benzene	<b>230</b>	<b>140</b>	<b>12</b>	< 0.3	---	< 0.3	< 0.3	5	0.5
Ethylbenzene	14	120	3.3	< 0.5	---	< 0.5	< 0.5	700	140
MTBE	ND	6.2	6	1.03	---	< 0.3	< 0.3	60	12
Naphthalene	<b>48</b>	<b>36</b>	ND	< 0.8	---	< 0.8	< 0.8	100	10
Toluene	130	3.9	0.22	< 0.3	---	< 0.3	< 0.3	1,000	200
1,2,4- & 1,3,5-TMB	<b>131</b>	78.6	ND	< 0.4	---	< 0.4	< 0.4	480	96
Total Xylenes	610	101	1.1	< 0.6	---	< 0.6	< 0.6	10,000	1,000

ND = Not Detected

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

MW-1A was installed in the vicinity of well MW-1.

**TABLE 2 (page 2 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

Date	MW-2					NR 140 Remedial Action Limits	
	Mar-02	Jul-02	Nov-02	Feb-03	Jun-06	ES	PAL
Elevation (ft)	85.72	87.80	86.29	84.60	85.38		
<b>ANALYTE</b>							
DO (mg/l)	2.87	3.07	0.29	4.47	4.15		
Redox (mV)	---	---	---	---	83		
Temperature °C	6.1	13	13.3	6.8	12.7		
<b>VOCs/PVOCs (ppb)</b>							
Benzene	ND	ND	ND	ND	< 0.3	5	0.5
Ethylbenzene	ND	ND	ND	ND	< 0.5	700	140
MTBE	ND	ND	ND	ND	< 0.3	60	12
Naphthalene	ND	ND	ND	ND	< 0.8	100	10
Toluene	ND	ND	ND	0.13	< 0.3	1,000	200
1,2,4- & 1,3,5-TMB	ND	ND	ND	ND	< 0.4	480	96
Total Xylenes	ND	ND	ND	ND	< 0.3	10,000	1,000

ND = Not Detected

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

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--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

**TABLE 2 (page 3 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

Date	MW-3								NR 140 Remedial Action Limits	
	Mar-02	Jul-02	Nov-02	Feb-03	Nov-05	Feb-06	Jun-06	Aug-06	ES	PAL
Elevation (ft)	87.09	89.40	88.07	86.68	87.82	86.97	87.62	86.92		
<b>ANALYTE</b>										
DO (mg/l)	0.97	0.28	---	0.91	1.50	0.85	1.35	2.25		
Redox (mV)	---	---	---	---	56	5	18	47		
Temperature °C	6.9	12.9	---	6.8	7.1	6.6	9.3	10.8		
<b>VOCs/PVOCs (ppb)</b>										
Benzene	<b>85</b>	<b>270</b>	<b>160</b>	<b>30</b>	< 15	<b>44</b>	<b>7.28</b>	<b>4.23</b>	5	0.5
Ethylbenzene	<b>170</b>	<b>200</b>	<b>190</b>	140	<b>162</b>	<b>333</b>	17.7	6.68	700	140
Isopropylbenzene	---	---	---	---	---	---	7.59	---	---	---
MTBE	ND	ND	ND	ND	< 15	< 1.5		< 0.3	60	12
Naphthalene	<b>30</b>	---	<b>240</b>	<b>130</b>	<b>133</b>	< 4	<b>23.3</b>	<b>49.9</b>	100	10
n-Butylbenzene	---	---	---	---	---	---	46.2	---	---	---
n- Propylbenzene	---	---	---	---	---	---	10.1	---	---	---
p- Isopropyltoluene	---	---	---	---	---	---	9.37	---	---	---
sec-Butylbenzene	---	---	---	---	---	---	13.3	---	---	---
Toluene	9.7	30	6.7	5.8	< 15	12	< 1.5	0.89	1,000	200
1,2,4- & 1,3,5-TMB	<b>400</b>	<b>430</b>	<b>435</b>	<b>315</b>	<b>350</b>	<b>640</b>	87.5	<b>123.1</b>	480	96
Total Xylenes	<b>540</b>	660	730	370	747	<b>1,317</b>	65.8	58.7	10,000	1,000

ND = Not Detected

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

**TABLE 2 (page 4 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

	MW-5				NR 140 Remedial Action Limits	
	Mar-02	Jul-02	Nov-02	Feb-03		
Date	Mar-02	Jul-02	Nov-02	Feb-03		
Elevation (ft)	89.27	91.36	89.99	88.50		
<b>ANALYTE</b>					<i>ES</i>	<i>PAL</i>
DO (mg/l)	2.11	2.20	0.50	4.94		
Redox (mV)	---	---	---	---		
Temperature °C	6.8	9.0	11.1	6.9		
<b>VOCs/PVOCs (ppb)</b>						
Benzene	ND	ND	ND	ND	5	0.5
Ethylbenzene	ND	ND	ND	ND	700	140
MTBE	<b>23</b>	<b>15</b>	<b>14</b>	4.9	60	12
Naphthalene	ND	ND	ND	ND	100	10
Toluene	ND	ND	ND	ND	1,000	200
1,2,4- & 1,3,5-TMB	ND	ND	ND	ND	480	96
Total Xylenes	ND	ND	ND	ND	10,000	1,000

ND = Not Detected

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

**TABLE 2 (page 5 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

	MW-6				NR 140 Remedial Action Limits	
	Mar-02	Jul-02	Nov-02	Feb-03		
Date						
Elevation (ft)	87.56	88.33	87.78	86.12		
<u>ANALYTE</u>					<i>ES</i>	<i>PAL</i>
DO (mg/l)	2.62	5.00	0.76	7.34		
Redox (mV)	---	---	---	---		
Temperature °C	2.4	15.2	11.9	6.9		
VOCs/PVOCs (ppb)						
Benzene	ND	ND	ND	ND	<b>5</b>	<b>0.5</b>
Ethylbenzene	ND	ND	ND	ND	<b>700</b>	<b>140</b>
MTBE	ND	ND	ND	ND	<b>60</b>	<b>12</b>
Naphthalene	ND	ND	ND	ND	<b>100</b>	<b>10</b>
Toluene	ND	ND	ND	ND	<b>1,000</b>	<b>200</b>
1,2,4- & 1,3,5-TMB	ND	ND	ND	ND	<b>480</b>	<b>96</b>
Total Xylenes	ND	ND	ND	ND	<b>10,000</b>	<b>1,000</b>

ND = Not Detected

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

**TABLE 2 (page 6 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

Date	MW-7						NR 140 Remedial Action Limits	
	Mar-02	Jul-02	Nov-02	Feb-03	Jun-06	Aug-06	ES	PAL
Elevation (ft)	86.12	88.08	86.74	85.05	85.95	85.40		
<b>ANALYTE</b>								
DO (mg/l)	2.85	5.53	0.57	5.34	4.55	5.22		
Redox (mV)	---	---	---	---	54	120		
Temperature °C	7.1	12.8	12.5	6.8	9.5	10.1		
<b>VOCs/PVOCs (ppb)</b>								
Benzene	ND	ND	ND	ND	< 0.3	< 0.3	5	0.5
Ethylbenzene	ND	ND	ND	ND	< 0.5	< 0.5	700	140
MTBE	ND	ND	ND	ND	< 0.3	< 0.3	60	12
Naphthalene	ND	ND	ND	ND	< 0.8	< 0.8	100	10
Toluene	ND	ND	ND	ND	< 0.3	< 0.3	1,000	200
1,2,4- & 1,3,5-TMB	ND	ND	ND	ND	< 0.4	< 0.4	480	96
Total Xylenes	ND	ND	ND	ND	< 0.6	< 0.6	10,000	1,000

ND = Not Detected

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

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TMB = trimethylbenzene

**TABLE 2 (page 7 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

	MW-8				NR 140 Remedial Action Limits	
	Nov-05	Feb-06	Jun-06	Aug-06		
Date	Nov-05	Feb-06	Jun-06	Aug-06		
Elevation (ft)	87.15	87.20	87.75	87.05		
<b>ANALYTE</b>					<i>ES</i>	<i>PAL</i>
DO (mg/l)	4.22	3.55	2.25	4.70		
Redox (mV)	39	97	68	8		
Temperature °C	7.1	6.7	9.3	10.1		
<b>VOCs/PVOCs (ppb)</b>						
Benzene	< 0.3	<b>1.2</b>	<b>12</b>	< 0.3	5	0.5
Ethylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	700	140
MTBE	< 0.3	< 0.3	< 0.3	< 0.3	60	12
Naphthalene	< 0.8	< 0.8	4.15	< 0.8	100	10
sec-Butylbenzene	---	---	1.82	---	---	---
Toluene	< 0.5	< 0.3	< 0.3	< 0.3	1,000	200
1,2,4- & 1,3,5-TMB	< 0.4	< 0.4	< 0.4	< 0.4	480	96
Total Xylenes	< 0.6	< 0.6	< 0.6	< 0.6	10,000	1,000

ND = Not Detected

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**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

**TABLE 2 (page 8 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

Date	P-4					NR 140 Remedial Action Limits	
	Mar-02	Jul-02	Nov-02	Feb-03	Jun-06	ES	PAL
Elevation (ft)	85.66	87.36	86.31	84.70	85.31		
<b>ANALYTE</b>							
DO (mg/l)	1.77	0.52	0.46	5.23	5.23		
Redox (mV)	---	---	---	---	76		
Temperature °C	6.0	11.0	13.1	6.8	6.8		
<b>VOCs/PVOCs (ppb)</b>							
Benzene	ND	ND	ND	ND	< 0.3	<b>5</b>	<b>0.5</b>
Ethylbenzene	ND	ND	ND	ND	< 0.5	<b>700</b>	<b>140</b>
MTBE	ND	ND	ND	ND	< 0.3	<b>60</b>	<b>12</b>
Naphthalene	2.6	ND	ND	ND	< 0.8	<b>100</b>	<b>10</b>
Toluene	ND	ND	ND	ND	< 0.3	<b>1,000</b>	<b>200</b>
1,2,4- & 1,3,5-TMB	0.59	ND	ND	ND	< 0.4	<b>480</b>	<b>96</b>
Total Xylenes	ND	ND	ND	ND	< 0.6	<b>10,000</b>	<b>1,000</b>

ND = Not Detected

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**TABLE 2 (page 9 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

	P-9				NR 140 Remedial Action Limits	
	Nov-05	Feb-06	Jun-06	Aug-06	ES	PAL
Date	Nov-05	Feb-06	Jun-06	Aug-06		
Elevation (ft)	86.30	85.15	85.40	84.85		
<b>ANALYTE</b>						
DO (mg/l)	3.55	5.40	5.15	4.90		
Redox (mV)	73	37	70	110		
Temperature °C	10	9.8	10.9	10.7		
<b>VOCs/PVOCs (ppb)</b>						
Benzene	< 0.3	< 0.3	< 0.3	< 0.3	5	0.5
Ethylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	700	140
MTBE	< 0.3	< 0.3	< 0.3	< 0.3	60	12
Naphthalene	< 0.8	< 0.8	< 0.8	< 0.8	100	10
Toluene	< 0.3	< 0.3	< 0.3	< 0.3	1,000	200
1,2,4- & 1,3,5-TMB	< 0.4	< 0.4	< 0.4	< 0.4	480	96
Total Xylenes	< 0.6	< 0.6	< 0.6	< 0.6	10,000	1,000

ND = Not Detected

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

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--- = not analyzed or no standard

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TMB = trimethylbenzene

**TABLE 2 (page 10 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

Date	P-10				NR 140 Remedial Action Limits	
	Nov-05	Feb-06	Jun-06	Aug-06		
Elevation (ft)	85.65	84.70	85.00	84.60		
<b>ANALYTE</b>					<b>ES</b>	<b>PAL</b>
DO (mg/l)	5.45	4.85	4.65	5.75		
Redox (mV)	86.0	17.0	56	27		
Temperature °C	10.2	9.5	11.3	11		
VOCs/PVOCs (ppb)						
Benzene	< 0.3	0.33	< 0.3	< 0.3	5	0.5
Ethylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	700	140
MTBE	< 0.3	< 0.3	< 0.3	< 0.3	60	12
Naphthalene	< 0.8	< 0.8	< 0.8	< 0.8	100	10
Toluene	< 0.3	0.45	< 0.3	< 0.3	1,000	200
1,2,4- & 1,3,5-TMB	< 0.4	< 0.4	< 0.4	< 0.4	480	96
Total Xylenes	< 0.6	< 0.6	< 0.6	< 0.6	10,000	1,000

ND = Not Detected

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

**TABLE 2 (page 11 of 11)**  
**ANALYTICAL RESULTS - GROUNDWATER**  
**NORTMAN OIL SITE, BLACK RIVER FALLS, WISCONSIN**

	Potable Wells									NR 140 Remedial Action Limits	
	PW-1	PW-1	PW-1	PW-1	PW-1	PW-1	PW-1	PW-2	PW-3		
Date	Jul-02	Nov-02	Feb-03	Nov-05	Feb-06	Jun-06	Aug-06	Jul-06	Jul-06		
ANALYTE										ES	PAL
VOCs/PVOCs (ppb)											
Benzene	ND	ND	0.053	< 0.1	0.18	< 0.15	< 0.15	< 0.15	< 0.15	5	0.5
Carbon Tetrachloride	ND	ND	ND	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	0.22	5	0.5
1,1-Dichloropropylene	ND	ND	ND	< 0.3	< 0.3	< 0.3	< 0.3	0.32	< 0.3	---	---
Ethylbenzene	ND	ND	ND	< 0.1	0.14	< 0.1	< 0.1	< 0.1	< 0.1	700	140
MTBE	ND	ND	ND	< 0.1	< 0.1	< 0.1	---	---	---	60	12
Naphthalene	ND	ND	ND	< 1	< 1	< 1	---	---	---	100	10
n-Propylbenzene	ND	ND	0.49	< 0.1	< 0.1	< 0.1	---	---	---	---	---
PCE	ND	ND	<b>1.3</b>	<b>3.45</b>	<b>81</b>	< 0.1	< 0.1	< 0.1	< 0.1	5	0.5
Toluene	ND	ND	0.34	12.2	1.2	< 0.4	0.89	< 0.4	< 0.4	1,000	200
1,2,4- & 1,3,5-TMB	ND	ND	ND	< 0.1	0.26	< 0.1	---	---	---	480	96
Total Xylenes	ND	ND	0.14	< 0.4	0.66	< 0.4	< 1	< 1	< 1	10,000	1,000

ND = Not Detected

***Bold italic*** numbers indicate concentrations above the ES outlined in NR 140.10.

**Bold** numbers indicate concentrations above the PAL outlined in NR 140.10.

--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

PW-1 represents samples collected from the on site potable well.

PW-2 represents a sample collected from the Engebretson potable well.

PW-3 represents a sample collected from the Brown potable well.

PCE = Tetrachloroeth(y)ene



**TETRA TECH**

1837 County Highway OO  
Chippewa Falls, WI 54729-6519

(715) 832-0282  
Fax (715) 832-0541

March 30, 2007

Scott Heller  
Hwy 54 Towing  
5999 State Highway 54 W  
Black River Falls, WI 54615

**RECEIVED**  
**APR - 4 2007**  
**DNR-WCH**

Re: Groundwater contamination from the former Nortman Oil Company site,  
N5999 State Highway 54, Black River Falls, Jackson County, Wisconsin.  
**WDNR BRRTS #03-27-257644.** WDCOM # 54615-5951-99.  
Tetra Tech Project #1155332142.

Dear Mr. Heller:

Tetra Tech has completed groundwater monitoring at the former Nortman Oil Company site. We are required to notify you as the property owner, that groundwater contamination is present on your property. The levels of petroleum contamination in the groundwater on your property are above the state groundwater enforcement standards (ESs) found in chapter NR 140, Wisconsin Administrative Code. However, the groundwater contaminant plume is stable or receding and will naturally degrade over time. We believe that allowing natural attenuation to complete the cleanup at this site will meet the requirements for case closure that are found in chapter NR 726 and chapter Comm 46, Wisconsin Administrative Code, and we have requested that the Wisconsin Department of Natural Resources (WDNR) accept natural attenuation and maintenance of the existing garage building and asphalt pavement cap as the final remedy for this site and grant case closure.

As part of the cleanup, a land use control for cap maintenance will be required to maintain the existing garage building and asphalt pavement cap as outlined on the enclosed drawing. Under s. 292.12, Wis. Stats., any current and future landowner is responsible for complying with these conditions of closure, unless another person has a legally enforceable responsibility to comply with the requirements of the final closure letter.

Closure means that the WDNR will not be requiring any further investigation or cleanup action to be taken, other than the reliance on natural attenuation and maintenance of the existing cap. Since the source of the groundwater contamination is on your property, the WDNR has requested that a maintenance plan related to the existing garage building and the asphalt parking lot surface to the east of the garage occupying the area over the contaminated soil be subject to this Maintenance Plan. Shallow soil is contaminated with polynuclear aromatic hydrocarbons (PAHs). The location of the paved surfaces and building to be maintained in accordance with this Maintenance Plan, as well as the contaminated soil are identified in the plan map (Exhibit A). I have enclosed a copy of the plan for your use.

The following activities will be prohibited on any portion of the property where the pavement and garage building is required as shown on the attached map, unless prior written approval has been obtained from the WDNR: 1) removal of the existing barrier; 2) disturbing the barrier by planting trees or shrubs; 3) replacement with another barrier; 4) excavating or grading of the land surface; 5) filling on capped or paved areas; 6) plowing for agricultural cultivation; or 7) construction or placement of a building or other structure.



1837 County Highway OO  
Chippewa Falls, WI 54729-6519

(715) 832-0282  
Fax (715) 832-0541

The final closure letter will contain a description of the land use limitation or condition, any prohibitions on activities and will include any applicable maintenance plan. The final closure letter, any required maintenance plan and a map of the properties affected will be included in the file attached to the site on the internet accessible GIS Registry of Closed Remediation Sites, at <http://maps.dnr.state.wi.us/brrts>.

The WDNR will not review the closure request for at least 30 days after the date of this letter. As an affected property owner, you have a right to contact the WDNR to provide any technical information that you may have that indicates that closure should not be granted for this site. If you would like to submit any information to the WDNR that is relevant to this closure request, you should mail that information to: Eileen Kramer, WDNR, P.O. Box 4001, Eau Claire, WI 54702-4001, 715-839-3824.

If this case is closed, all properties within the site boundaries where groundwater contamination exceeds chapter NR 140 groundwater ESs will be listed on the WDNRs' GIS Registry of Closed Remediation Sites. The information on the GIS Registry includes maps showing the location of properties in Wisconsin where groundwater contamination above chapter NR 140 ESs was found at the time that the case was closed. This GIS Registry will be available to the general public on the WDNRs' internet web site. Please review the enclosed legal description of your property, and notify me within the next 30 days if the legal description is incorrect.

Once the Department makes a decision on the closure request, you will receive a copy of the closure letter. A copy of the closure letter is also included as part of the site file on the GIS Registry of Closed Remediation Sites. Should you or any subsequent property owner wish to construct or reconstruct a well on your property, special well construction standards may be necessary to protect the well from the residual groundwater contamination. Any well driller who proposes to construct a well on your property in the future will first need to obtain approval from a regional water supply specialist in WDNR's Drinking Water and Groundwater Program. The well construction application, form 3300-254, is on the internet, or may be accessed through the GIS Registry web address in the preceding paragraph.

I have enclosed a figure illustrating the approximate location of the contaminated groundwater and tables presenting the groundwater samples analytical results so you have an idea of the contaminant concentrations below your property. In addition I have included a copy of the Maintenance Plan, including a drawing outlining the area where the existing cap must be maintained.

If you have any questions I can be reached at 715-832-0282 or you may contact Eileen Kramer with WDNR.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael K. Neal'.

Michael K. Neal, Professional Hydrologist  
Geomorphologist

cc:  Eileen Kramer, WDNR, P.O. Box 4001, Eau Claire



John Nortman, N6403 Rose Hill Road, Black River Falls, WI 54605  
MKN:mkn

**PAVEMENT COVER AND BUILDING CAP MAINTENANCE PLAN**

March 9, 2007

Property Located at: N5999 State Highway 54  
Black River Falls, WI 54615  
WDNR BRRTS #03-27-257644

**RECEIVED**

APR - 4 2007

**DNR-WOR**

Legal Description: "That part of the South West Quarter of the North East Quarter of Section Twenty-one, Township Twenty-one North, Range Four West described as follows: Commencing on the east line thereof 16.5 feet south from the northeast corner of said quarter-quarter; thence South 0°06' East on the said east line 310.2 feet; thence North 74°54' West 339.85 feet; thence South 0°06' West parallel with the east line of said quarter-quarter 221.7 feet to a point 16.5 feet south from the North line of the said quarter-quarter; thence east parallel to and 16.5 feet south from the north line thereof to the east line of said quarter-quarter, being the place of beginning. Subject to the right of way of State Highway 54 over the East side thereof, and to the driveway easement as shown in the Land Contract recorded in Volume 185 of Records on page 458, as Document 193499, subject to existing highways, easements, and rights of way of record.

Tax Parcel No.: 004-0630-0005

**Introduction**

This document is the Maintenance Plan for a pavement cover and building barrier at the above-referenced property in accordance with the requirements of s. NR 724.13(2), Wisconsin Administrative Code. The maintenance activities relate to the existing garage building and the asphalt parking lot surface to the east of the garage occupying the area over the contaminated soil on-site. Shallow soil is contaminated with polynuclear aromatic hydrocarbons (PAHs). The location of the paved surfaces and building to be maintained in accordance with this Maintenance Plan, as well as the contaminated soil are identified in the attached map (Exhibit A).

**Cover and Building Barrier Purpose**

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

**Annual Inspection**

The paved surfaces and building foundation overlying the contaminated soil and as depicted in Exhibit A will be inspected once a year, normally in the spring after all snow and ice is gone, for deterioration, cracks and other potential problems that can cause the exposure to underlying soils. The inspections will be performed to evaluate damage due to settling, exposure to the weather, wear from traffic, increasing age and other factors. Any area where soils have become or are likely to become exposed will be documented. A log of the inspections and any repairs will be maintained by the property owner and is included as Exhibit B, Cap Inspection Log. The log will include recommendations for necessary repair of any areas where underlying soils are exposed. Once repairs are completed, they will be documented in the inspection log. A copy of the inspection log will be sent to the Wisconsin Department of Natural Resources (WDNR) at least annually after every inspection, unless otherwise directed in the case closure letter.

### **Maintenance Activities**

If problems are noted during the annual inspections or at any other time during the year, repairs will be scheduled as soon as practical. Repairs can include patching and filling operations or they can include larger resurfacing or construction operations. In the event that necessary maintenance activities expose the underlying soil, the owner must inform maintenance workers of the direct contact exposure hazard and provide them with appropriate personal protection equipment ("PPE"). The owner must also sample any soil that is excavated from the site prior to disposal to ascertain if contamination remains. The soil must be treated, stored and disposed of by the owner in accordance with applicable local, state and federal law. In the event the paved surfaces and/or the building overlying the contaminated soil are removed or replaced, the replacement barrier must be equally impervious. Any replacement barrier will be subject to the same maintenance and inspection guidelines as outlined in this Maintenance Plan unless indicated otherwise by the WDNR or its successor. The property owner, in order to maintain the integrity of the paved surfaces and/or the building, will maintain a copy of this Maintenance Plan on-site and make it available to all interested parties (i.e. on-site employees, contractors, future property owners, etc.) for viewing.

### **Amendment or Withdrawal of Maintenance Plan**

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

Contact Information March 2007.

#### **Current Owner & Operator:**

Scott Heller  
Hwy 54 Towing  
N5999 State Highway 54 W  
Black River Falls, WI 54615  
715-284-2511

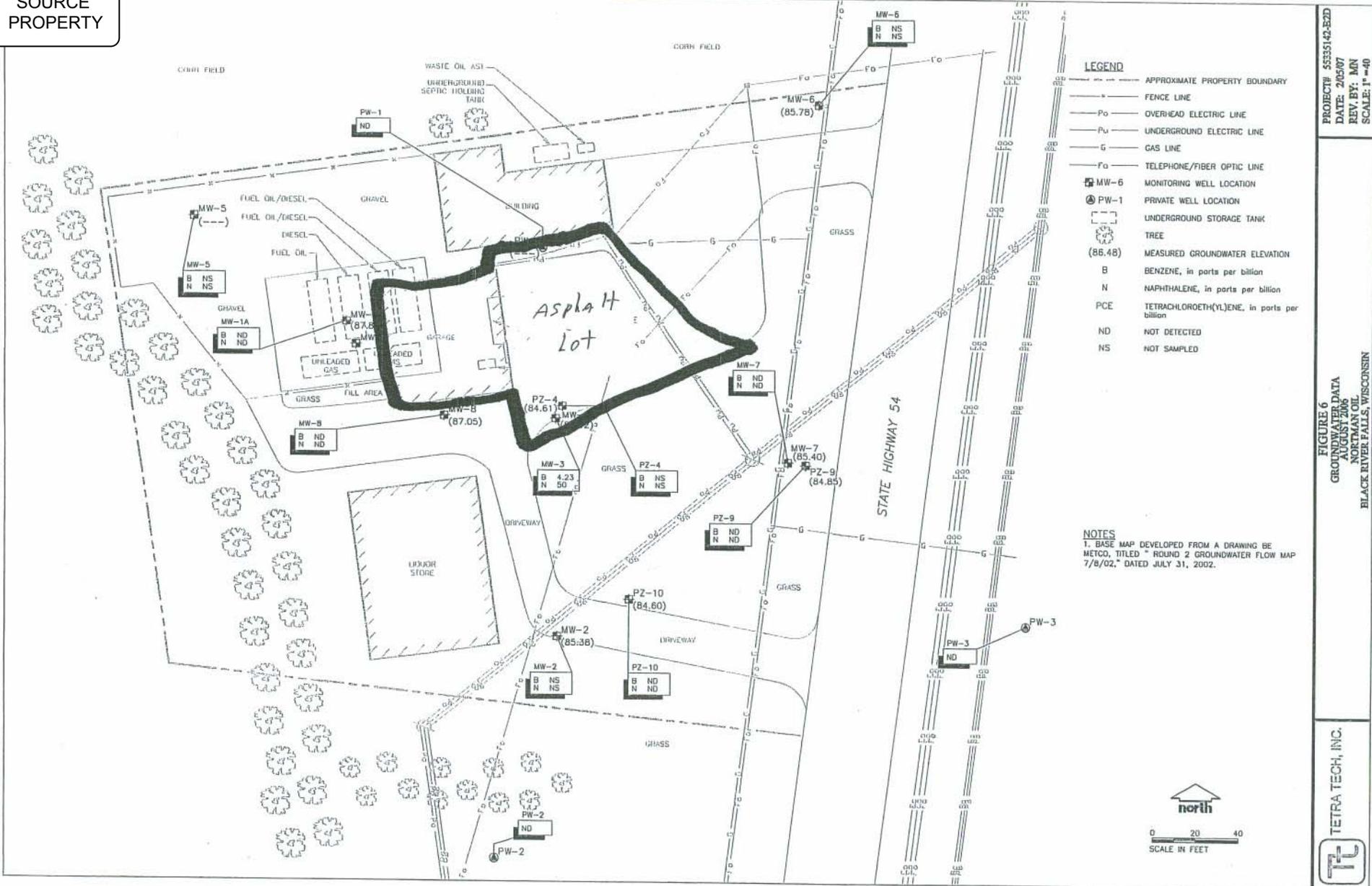
#### **Former Property Owner & Operator of Nortman Oil Company:**

John Nortman  
N6403 Rose Hill Road  
Black River Falls, WI 54615  
715-284-7504

**Consultant:** Tetra Tech  
1837 County Highway OO  
Chippewa Falls, WI 54729-6519  
715-832-0282

**WDNR Project Manager:** Eileen Kramer  
WDNR  
P.O. Box 4001  
Eau Claire, WI 54702-4001  
715-839-3824

**SOURCE PROPERTY**



PROJECT# 55335142-32D  
 DATE: 2/05/07  
 REV BY: MN  
 SCALE: 1"=40'

**FIGURE 6**  
 GROUNDWATER DATA  
 AUGUST 2006  
 METCO  
 BLACK RIVER FALLS, WISCONSIN

TETRA TECH, INC.

*Exhibit A*

**Exhibit B  
CAP INSPECTION LOG**

<b>Inspection Date</b>	<b>Inspector</b>	<b>Condition of Cap</b>	<b>Recommendations</b>	<b>Have Recommendations from previous Inspection been Implemented?</b>