

24-Hour Emergency Hotline Number: 1-800-943-0003

Date and Mil. Time of Incident <i>me 9/23/2000</i>		Date and Mil. Time Reported <i>9/23/2000</i>	
Person Reporting <i>Mark Sidek</i>		Representing <i>Enbridge Energy</i>	Phone # <i>(715) 394-1410</i>
Responsible Party/Spiller <i>Enbridge Energy</i>		RP Decision based on	Phone # <i>(715) 394-1410</i>
RP Contact Name <i>Mark Sidek</i>		Phone # <i>(715) 394-1410</i>	
Address <i>199 N. 25th St. E.</i>		City, State, Zip Code <i>Superior, WI 54480</i>	
Substance Involved <i>Crude oil</i>		Amount & Units Released <i>30 barrels - or 120 gal</i>	Amount Recovered
<input type="checkbox"/> Solid <input type="checkbox"/> Semisolid <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Gas Color _____ Odor _____			
Exact Location (inc. address, facility name, mileage, bldg. #, etc.) <i>2800 East 21st Ave</i>		Property Owner (if known) <i>Enbridge Energy</i>	
City <i>Superior</i>	County <i>Douglas</i>	Lat/long <i>46 41 16.6 - 92 03 4.14</i>	
DNR Region <i>NOR</i>	Weather Cond. <i>NET/4NE/4sec3 (E/W)</i>		
Cause of Incident <i>Line 5/6 cross over line</i>			
Spilled Substance Impact To: Check (✓) all that apply: <input type="checkbox"/> Air <input type="checkbox"/> Potential <input checked="" type="checkbox"/> Soil <input checked="" type="checkbox"/> Potential <input type="checkbox"/> Groundwater <input type="checkbox"/> Potential <input type="checkbox"/> Surface Water <input type="checkbox"/> Potential Name _____ <input type="checkbox"/> Storm Sewer <input type="checkbox"/> Potential <input type="checkbox"/> Sanitary Sewer <input type="checkbox"/> Potential <input type="checkbox"/> Concrete/Asphalt <input type="checkbox"/> Potential <input type="checkbox"/> Private Well <input type="checkbox"/> Potential <input type="checkbox"/> Contained/Recovered <input type="checkbox"/> Other: _____		Spill Source: <input type="checkbox"/> Transportation Accident, Fuel Tank Spill <input type="checkbox"/> Transportation Accident, Load Spill <input type="checkbox"/> Industrial Facility <input type="checkbox"/> Paper Mill <input type="checkbox"/> Chemical Co. <input type="checkbox"/> Ag Coop/Facility/ Food Factory/Facility <input type="checkbox"/> Gas/Service Station/Garage/Auto Dealer, Repair Shop <input checked="" type="checkbox"/> Pipeline, Terminal, Tank Farm, Oil Jobber/Wholesaler <input type="checkbox"/> Public Property (city, state, church, school, etc.) <input type="checkbox"/> Utility Co, Power Generating/ Transfer Facility <input type="checkbox"/> Private Property (home/farm) <input type="checkbox"/> Construction, Excavation, Wrecking, Quarry, Mine <input type="checkbox"/> Airport Facility <input type="checkbox"/> Railroad Facility <input type="checkbox"/> Other _____	
Action Taken By Spiller: <input type="checkbox"/> No Action Taken <input type="checkbox"/> No Action Needed <input type="checkbox"/> Monitor <input checked="" type="checkbox"/> Cleanup Method: <i>Excavation - 245 yds + vacuum truck</i> <input checked="" type="checkbox"/> Waste Destination: <i>Timberline trail</i> <input type="checkbox"/> Containment <input type="checkbox"/> Contractor Hired Name: _____ <input type="checkbox"/> Other: _____			
Injuries? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, how many? _____		Has an evacuation occurred? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Potential? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
Are there any resource damages? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Potential What kinds? _____			
Other Agencies Notified (✓ first column if notified) (✓) both columns if on the scene <input type="checkbox"/> Fire Department <input checked="" type="checkbox"/> Local DNR <input type="checkbox"/> EPA <input type="checkbox"/> Local Law Enforcement <input type="checkbox"/> Div. Emer. Mgt. <input type="checkbox"/> Nat'l Resp. Ctr. 800-442-8802 <input type="checkbox"/> LEPC or Local Emer. Mgt. <input type="checkbox"/> Coast Guard <input type="checkbox"/> Chemtrec 800-424-9300 <input type="checkbox"/> Level A/Level B Team <input type="checkbox"/> DHFS 608-258-0099 <input type="checkbox"/> Other _____			Incident Commander, if known: _____ Phone: _____
Prepared By: (Print) <i>Norman Dunbar</i>		(Phone) <i>715-365-8963</i>	Date: <i>6/10/02</i>
Person Notified: <i>Jim Hoesch</i>		(Phone) <i>715-392-0802</i>	Date: <i>9/2000</i>
Investgtd By: (Print) <i>Jim Hoesch</i>		(Sign)	Date: <i>6/10/02</i>
Spill Coordinator Signoff: <i>Norman Dunbar</i>		Date: <i>6/10/02</i>	Transferred to: ERP <input type="checkbox"/> DATCP <input type="checkbox"/> Date: _____ Case # _____ NFA Letter Sent? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Spill Packet Sent? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No To: _____

Date and Military Time of Incident:	Responsible Party:
-------------------------------------	--------------------

Additional Comments:

Case Activity Report: <input type="checkbox"/> Yes <input type="checkbox"/> No CAR#:	(Please attach copy of all CAR and other documentation)
Enforcement Action: <input type="checkbox"/> Yes <input type="checkbox"/> No (explain below)	

Enbridge Energy Company, Inc.
Lake Superior Place
21 West Superior Street
Duluth, MN 55802-2067
Tel 218 725 0100
Fax 218 725 0139
www.enbridgepartners.com

Scott W. Lounsbury Supervisor, Environment
Dana A. Slade Senior Environmental Analyst
Kris H. Benson Environmental Analyst
Barry F. Power Environmental Engineer



JUNE 5, 2002

Mr. Norm Dunbar
Wisconsin Department of Natural Resources
107 Sutliff Avenue
Rhineland, WI 54501

**RE: Site Investigation Report
Superior Terminal – Line 5/6 Crossover
September 23, 2000**

Dear Mr. Dunbar:

Enclosed is a report outlining the remedial actions taken in response to the above referenced incident. If you have any questions or comments, please call me – I can be reached at (218) 725-0143.

Sincerely,

A handwritten signature in blue ink, appearing to read "Barry F. Power", written over a horizontal line.

Barry F. Power, P.E.
Environmental Engineer

jam

Enclosure

c: Mark Sitek / Al Aleknavicius – EEC Superior
Scott Lounsbury – EEC Duluth

**SITE INVESTIGATION REPORT:
CRUDE OIL RELEASE AT
SUPERIOR TERMINAL
SEPTEMBER 2000
LINE 5/6 CROSSOVER
SUPERIOR, WISCONSIN**

Prepared by:

***NATURAL RESOURCES
ENGINEERING COMPANY
13 WEST SUPERIOR STREET
DULUTH, MN 55802***

MAY 2002



**Enbridge Energy
Company**

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I. INTRODUCTION

A. BACKGROUND

On September 23, 2000, a crude oil release was discovered near the Line 5/6 crossover pipe at Enbridge Energy Company's Superior Terminal (or simply "Site" from hereon). The Site is located at Milepost 1098 in Superior, Wisconsin (see Figure 1). The released oil followed topographic contours and collected in a drainage ditch approximately 20 feet east of the release location. A map of the Site showing the release location is included as Figure 2.

Upon discovery of the release, remedial activities commenced. Oil migration was impeded using absorbent booms. Vacuum trucks were used to recover free product pooled in the drainage ditch and on the ground surface. Hand augered soil borings were advanced at various locations surrounding the release area to define the extent of subsurface impact. Approximately 245 cubic yards of soil were removed from the area surrounding the release, using observations from soil borings and visual characteristics of the soil to guide the excavation process. The Line 5/6 crossover pipe was also removed during the excavation process. Excavated soil was hauled off-site and disposed of at Waste Management's Timberline Trail Landfill in Weyerhaeuser, Wisconsin.

The following is a chronology of events from the Site:

- September 23, 2000 – Release is discovered and remedial activities commence;
- September 25, 2000 – Hand augered soil borings are advanced to define extent of impacted soil;
- September 25 – November 30, 2000 – Impacted soil is removed from the release area and the crossover pipe is removed;
- November 20 – November 30, 2000 – Excavated soil is hauled off-site and disposed of at Waste Management's Timberline Trail Landfill in Weyerhaeuser, Wisconsin.

Specifics of the release (including: township and range, near surface geology/hydrogeology, nearby drinking water wells, number of nearby dwellings, and volume of oil lost) are summarized on the WDNR Case Summary and Close Out Form included as Appendix A.

B. PURPOSE/CONTENT

This report serves to detail environmental activities conducted in response to the crude oil release at Enbridge's Superior Terminal and to document existing subsurface conditions at the Site.

Including this section, the report is divided into five parts. Section II summarizes the local topography, near surface geology, and hydrologic setting. Section III details remedial activities at the Site. Section IV provides conclusions and sets forth recommendations. Section V contains a list of references.

II. PHYSICAL SETTING

A. HYDROLOGY

The area around the Site is characterized by the flat ancient lakebed of Glacial Lake Duluth and deeply incised ravines and river valleys. Surface drainage from the Site is to the east, ultimately discharging to the Nemadji River, a low energy river that flows north to Superior Bay. The slope across the Site is generally less than 0.5%, but steepens to over 15% along the Nemadji River valley. Average annual precipitation in the area is on the order of 28 inches, with approximately 1 to 2 inches (per year) seeping into the ground, 6 inches (per year) as run off, and the remainder lost to evapotranspiration (Young et al., 1974).

B. HYDROGEOLOGY

Regionally, the near-surface geology is composed of greater than 300 feet of red, plastic, fat clay with a USCS designator of CL (Olcott et al., 1978). This clay was deposited on the bottom of Glacial Lake Duluth during the Holocene/Pleistocene epochs when the Lake was at a higher stand, and is common at lower elevations throughout the Western Lake Superior Basin. Locally, the near-surface geology has been modified by the inclusion of fill materials – an artifact of the Site's industrial setting.

At the Site, groundwater flows to the east toward the Nemadji River (a regional sink for shallow groundwater flow) under unconfined conditions, with a southerly variation in flow direction across the central portion of the Site due to deeply incised ravines south of the Terminal. Depth to groundwater across the Site varies from a minimum of approximately 6 feet to over 15 feet below grade in response to topographic and piezometric relief across the Site.

C. GROUNDWATER RECEPTOR SURVEY

The Nemadji River, located approximately ½-mile east of the release location, is the closest surface water and groundwater receptor. There are no known drinking water supply wells located within 1,200 feet of the Site.

III. SITE REMEDIATION

A. SOIL CLEANUP

Upon discovery of the release in September 2000, initial response efforts consisted of excavating and stockpiling oil stained soils, recovery of free product with a vacuum truck, and removal of the Line 5/6 crossover pipe. Visibly stained soil was targeted during the excavation process, and approximately 245 cubic yards of impacted soil were removed from the area surrounding the release. This soil was hauled off-site and disposed of at Waste Management's Timberline Trail Landfill in Weyerhaeuser, Wisconsin. Soil disposal manifests are included as Appendix B. Following excavation and disposal of impacted soil, clean fill was used to backfill the excavation.

B. SOIL SAMPLING AND ANALYSIS

When the removal of visibly impacted soil had been completed, soil samples for headspace screening were collected from the scraped area. Samples were screened in the field for concentrations of organic vapors using a photoionization detector (PID) calibrated to an isobutylene standard. Table 1 summarizes the headspace screening results. The final excavation limits and seven soil sampling locations are shown in Figure 3. Pursuant to a discussion with Mr. Jim Hosch, Wisconsin Department of Natural Resources on November 21, 2000, soil samples were collected and analyzed for diesel range organics (DRO) and polycyclic aromatic hydrocarbons (PAHs). Soil samples were submitted to Midwest Analytical Services in Duluth, Minnesota for laboratory analysis. Laboratory Analytical reports are contained in Appendix C.

C. RESULTS

Results of the laboratory analysis are summarized in Table 2. With the exception of DRO, analytes were not detected above the laboratory's method detection limit. DRO concentrations ranged from below detection limits at B-1, SW-2, and SW-4 to

247 mg/kg at SW-3. Concentrations fell below the NR 720 generic standard of 250 mg/kg for low permeability soils.

IV. CONCLUSIONS AND RECOMMENDATIONS

The following is a summary of conclusions and recommendations drawn upon the findings of the initial response and remediation activities and data provided in this report.

A. CONCLUSIONS

- On September 23, 2000, a crude oil release was discovered in the area of the Line 5/6 crossover line at Enbridge's Superior Terminal;
- Near-surface geology at the release location consists of clay with a USCS designator of CL;
- The Nemadji River, approximately ½-mile east of the release location, is the closest surface water and groundwater receptor;
- There are no known drinking water supply wells within 1,200 feet of the Site;
- Approximately 245 cubic yards of impacted soil were excavated and disposed of at Waste Management's Timberline Trail Landfill in Weyerhaeuser, Wisconsin;
- PAHs were not detected in the confirmatory samples above laboratory detection limits;
- DRO was detected in four of the confirmatory samples above laboratory detection limits; and
- DRO concentrations fell below the guidelines for low permeability soils set forth in the NR 720 generic standard.

B. RECOMMENDATIONS

Based on the environmental setting of the Site and effectiveness of the remediation, residual crude oil related compounds, if present, pose little (if any) risk, and we are requesting closure of the Site.

V. REFERENCES

Olcott, P.G., Ericson, D.W., Felsheim, P.E., and Broussard, W.L., 1978, "Water Resources of the Lake Superior Watershed, Northeastern Minnesota, Hydrologic Investigations Atlas HA-582," United States Geological Survey, Reston, Virginia.

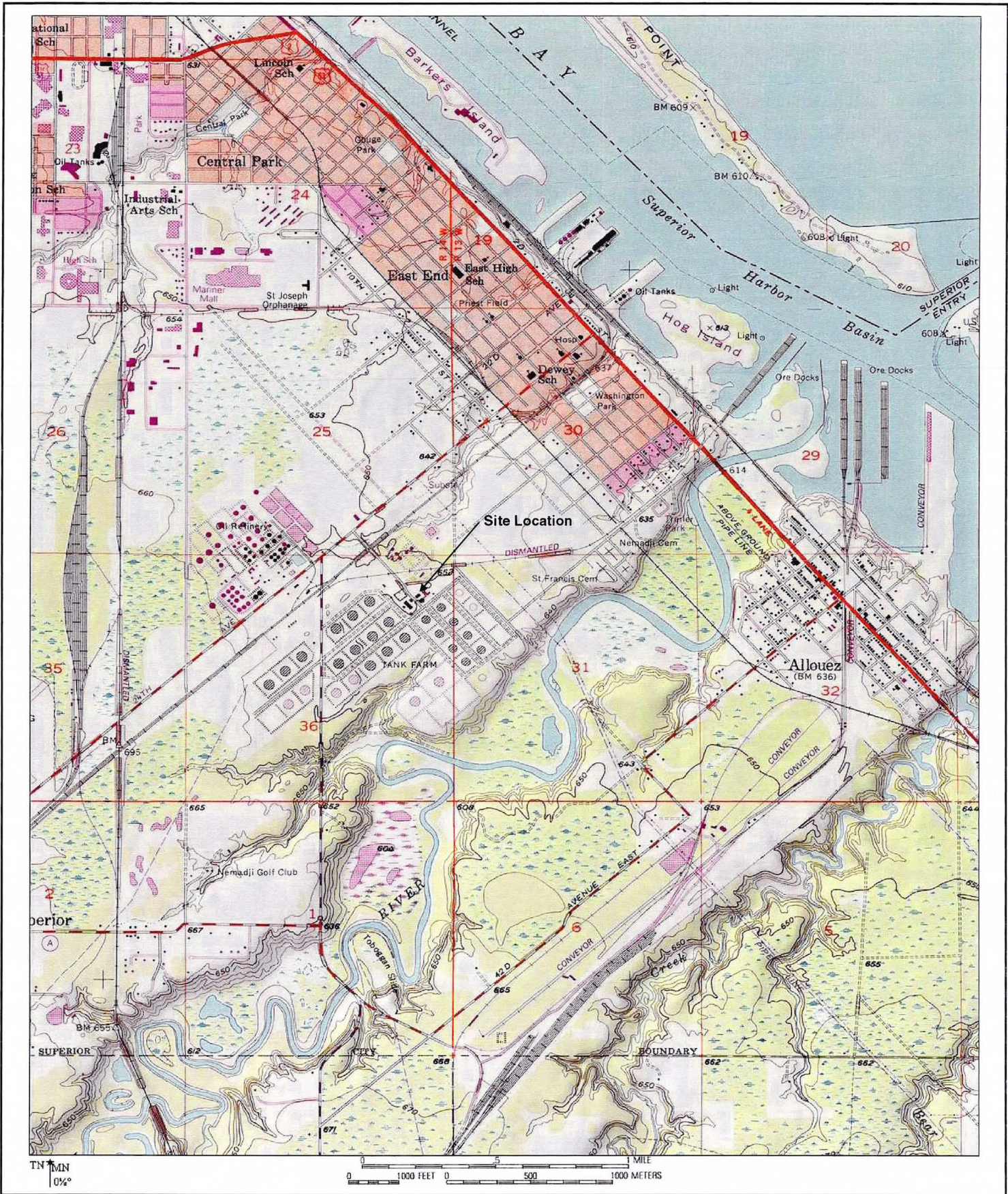
Young, H.L., and Skinner, E.L., 1974, "Water Resources of Wisconsin, Lake Superior Basin, Hydrologic Investigations Atlas HA-524," United States Geological Survey, Reston, Virginia.

TABLES

Table 1: Headspace Screening Results
Enbridge Energy Company - Superior Terminal (Line 5/6 Crossover)

<u>Location</u>	<u>Date</u>	<u>Headspace (ppm)</u>
SW-1	11/20/00	< 5
SW-2	11/20/00	24.1
SW-4	11/27/00	< 5
B-1	11/20/00	7.8
B-2	11/20/00	9.1
B-3	11/27/01	24.1

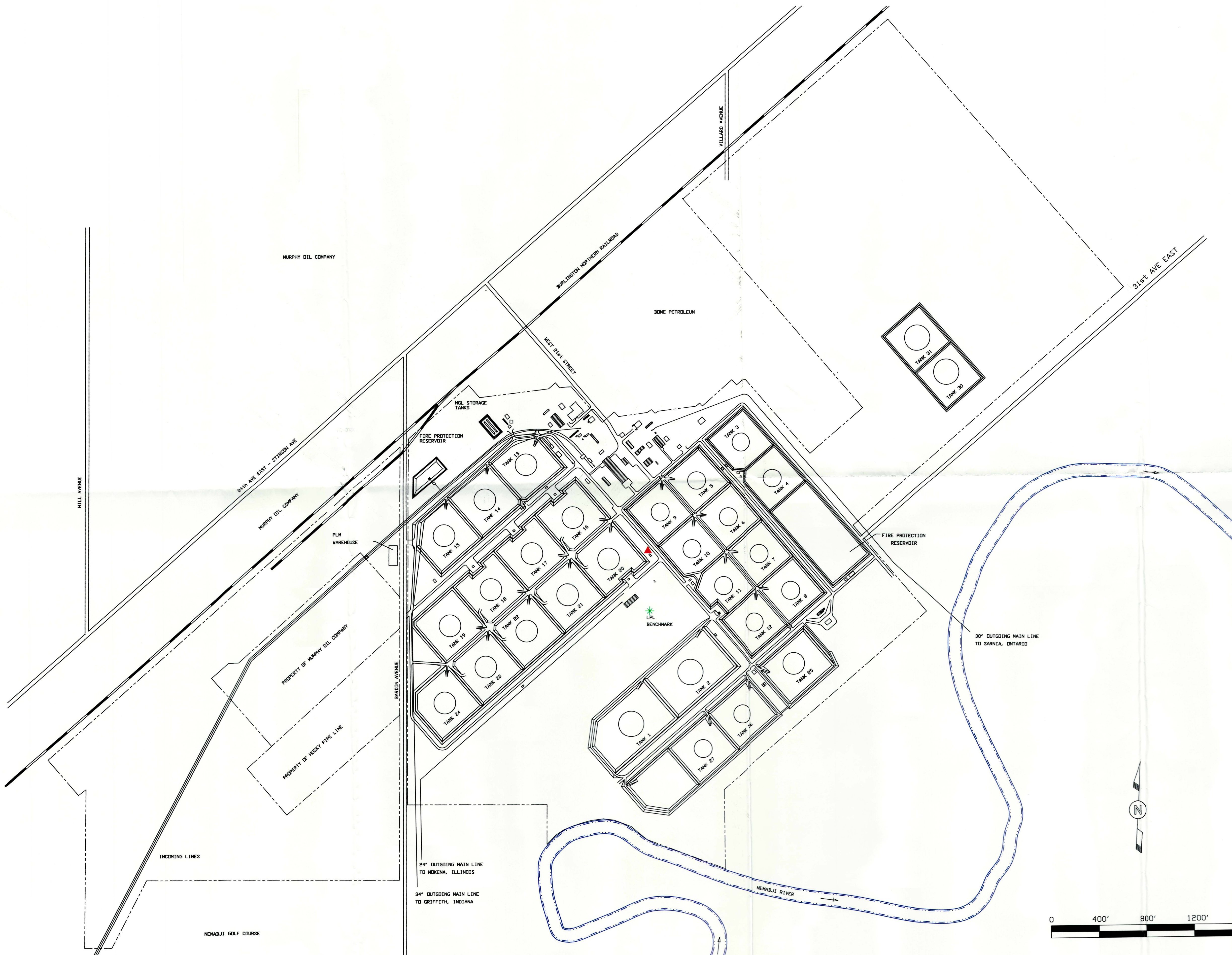
FIGURES



Site Location Map
Enbridge Energy Company - Superior Terminal

Natural Resources Engineering Company
13 West Superior Street, Duluth, MN 55802





LEGEND

- ▲ RELEASE LOCATION
- - - - - PROPERTY LINES
- ◆ LAKEHEAD PIPE LINE OFFICE, SHOP AND PUMPHOUSE BUILDINGS
- ◇ LAKEHEAD PIPE LINE STRUCTURES (MISC.)

NO	REVISION	BY	DATE	APPR

ENBRIDGE Enbridge Energy, Limited Partnership

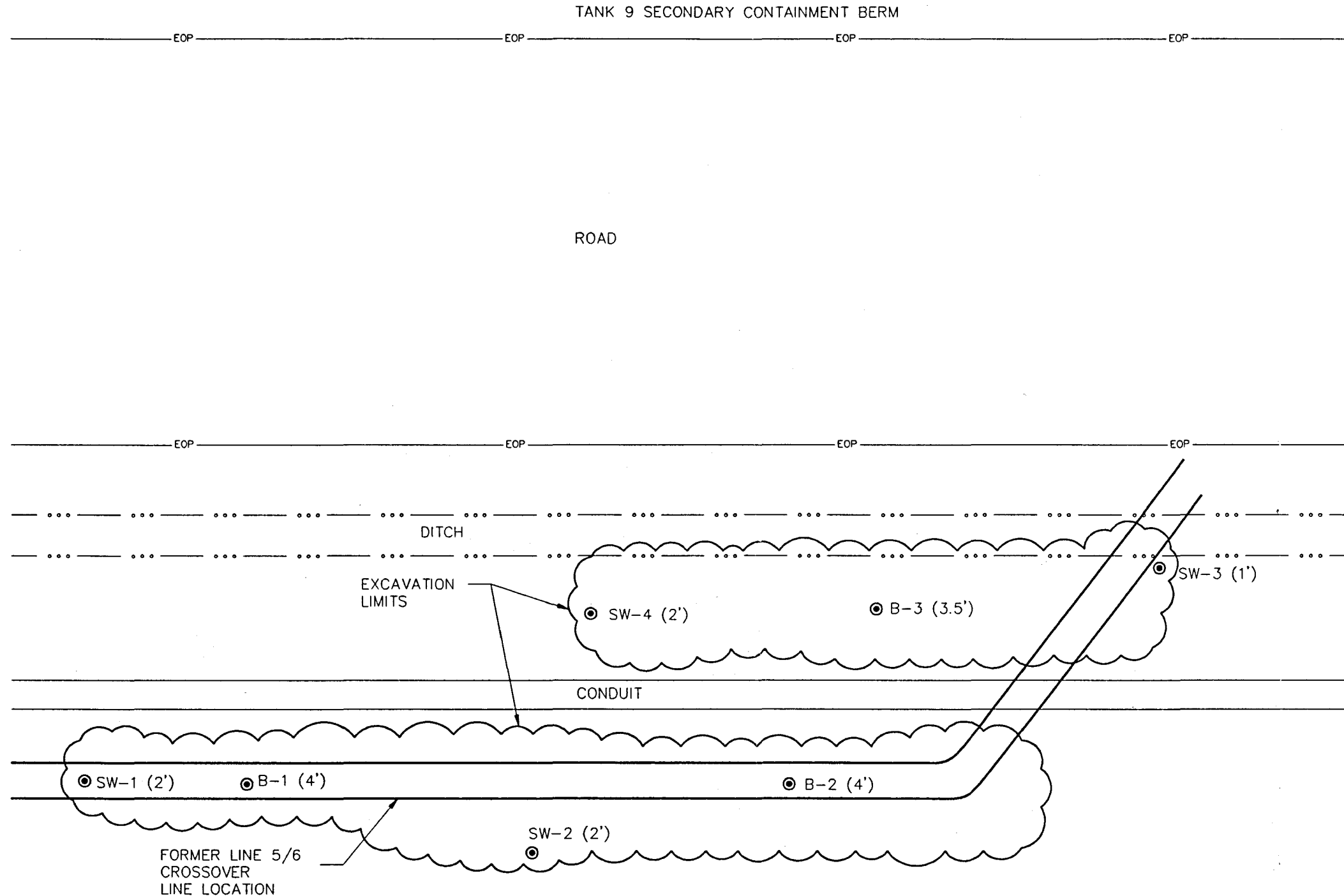
SUPERIOR (WI) TERMINAL

SITE MAP

#04-14-390497

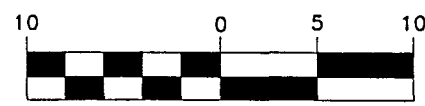
PROJECT:	SCALE: SHOWN	DATE: 4-24-01	DRAWN: C. TACKLES
CHECK:	APPR:	DATE:	
APPR:			
APPR:			

FIGURE 2



LEGEND

● SAMPLING LOCATION



SCALE 1" = 10'

SITE MAP
SCALE : 1" = 10'

LHB Engineers & Architects
DULUTH, MINNESOTA 55802

Natural Resources Engineering Company
DULUTH, MINNESOTA 55802

NO.	REVISION	DATE	APPR.
1	ISSUED FOR REVIEW	04/10/01	HELDT

EXCAVATION AREA DETAIL AND SAMPLING LOCATIONS SUPERIOR, WI TERMINAL				
DATE	DRAWN	APPROVED	LHB PROJ. NO.	DRAWING NO.
APR 2001	ABB	DAH	01807.62	FIGURE 3

04-10-01 12:44 PM FAB

APPENDICES

APPENDIX A: CASE SUMMARY AND CLOSEOUT FORM

I certify that, to the best of my knowledge, the information presented on and attached to this form is true and accurate. This recommendation for case closure is based upon all available data as of _____ (date). I have read the Case Summary and Close Out Form Instructions and all required information has been included.

Form Completed By:

Closeout Review Fee Attached
 GW Registry fee attached

[Signature] Barry Power
5/30/02

(Signature)

(Date)

Printed Name: Barry Power, P.E. Company Name: NIRE

Email address: nire@computerjet.com

If not site owner, relationship to site owner: CONSULTANT

Address: 13 WEST SUPERIOR STREET, DULUTH, MN. 55802

Telephone Number: (218) 722-9554 FAX Number: (218) 722-9562

Environmental Consultant (if different then above): _____

Address: _____

Telephone Number: () FAX Number: ()

1. SITE LOCATION & ZONING

WDNR Site Name: ENBRIDGE ENERGY COMPANY, SUPERIOR TERMINAL

Complete Site Address: 2800 EAST 21ST AVE, SUPERIOR, WI 54880

WDNR BRRTS Case #: _____ FID #: _____

PECFA Claim #: _____

Responsible Party Name: ENBRIDGE ENERGY COMPANY

Complete Responsible Party Address: 21 WEST SUPERIOR STREET, DULUTH, MN. 55802

Site Legal Description: NE 1/4, NE 1/4, Section 36, T 49 N, R 14 (E/W) Town: SUPERIOR

County: DOUGLAS Latitude: 46 41.1 6.6" Longitude: 92 03 41.4 "

GIS Coordinates obtained: _____ on site using GPS Locator converted or projected onto WMTM '91
_____ using RR GIS Registry on screen digitizing to get WMTM coordinates

Date of Incident/Discovery: 9/23/00 Contaminant Type(s): CRUDE OIL

Quantity Released: 30 BARRELS Post remedial Zoning Classification : _____
(do not abbreviate zoning terms)

2. RECEPTORS

Identify all pre-remedial potential and actual receptors, the potential risk and their locations (i.e. both on and off site utility corridors, basements or sumps of nearby buildings, direct contact threat from soil, water supplies, surface waters, sediments, etc.) (For definition, refer to s. NR 700.03 (47), Wis. Adm. Code):

POTENTIAL RECEPTOR - NEMATHE LEVEL, - 1200 FEET EAST

Have the remedial actions abated the potential or actual impacts to these receptors? Yes No

If no, provide details in case summary.

If yes, please identify the nature of the remaining risk and the receptor at risk: _____

3. SOIL INVESTIGATION INFORMATION

Extent Defined? Yes No If not, explain Why? _____

Soil Type(s): STIFF CLAY (CL) Depth of Contamination: 4 FEET

Type of Bedrock: CRYSTALLINE PRECAMBRIAN Depth to Bedrock: 1200 FEET

Is any contaminated soil (unsaturated or saturated) in contact with the bedrock? Yes No

List all contaminants found in soil (regardless of ch. NR 720 standards/attach table if necessary)

DIESEL RANGE ORGANICS (DRO)

Measurable Free Product? Yes No Depth/ Location: N/A

4. SOIL REMEDIATION INFORMATION

Remedial Action Completed? Yes No s. NR 720.19 Analysis? Yes No If yes, attach supporting documentation.

Were Immediate or Interim Actions Conducted? Yes No If yes, what action was taken?

RECOVERY OF FREE PRODUCT

Brief Description of Remedial Action Taken: IMPACTED SOIL WAS EXCAVATED AND HAULD OFF-SITE FOR DISPOSAL

Were Soils Excavated? Yes No Quantity: 245 YDS Disposal Method: HAULD OFF-SITE TO LIQUID DISPOSAL FACILITY

Final Confirmation Sample Collection Methods: SOIL SAMPLES WERE COLLECTED FROM EXCAVATION AREA AND ANALYZED FOR DRO AND PAHs.

Final Soil/Drill Cuttings Disposal Location: TEMPERLINE TIRAL LANDFILL, WEJERTAEUSEZ, WI

Estimated volume and depth of in situ soils exceeding ch. NR 720 Table RCLs or site specific RCLs: N/A

Estimated volume and depth of in situ soils exceeding ch. NR 746 Table 1 or Table 2 or site specific RCLs: N/A

5. GROUNDWATER INFORMATION

Extent of Contamination Defined? Yes No N/A Remedial Action Completed? Yes No N/A

Brief Description of Remedial Action Taken: _____

of Sample Rounds: _____ Depth(s) to Groundwater/Flow Direction(s): _____

Field Analyses? Yes No Lab Analyses? Yes No # of Sampling points: _____

WDNR BRRTS CASE # _____ - _____ - _____

WDNR SITE NAME EDBRIDGE ENERGY, SUI TERREIL
1 TERMINAL

NR 141 Monitoring Wells Sampled: _____ # Temporary Groundwater Sampling Points Sampled: _____

Recovery Sumps Sampled: _____ # Municipal Wells Sampled: _____ # Private Wells Sampled: _____

List all contaminants found in groundwater (regardless of ch. NR 140 standards/attach table if necessary)

Has DNR Been Notified of Substances in Groundwater w/o Standards? ___ Yes ___ No If Yes, How Many? _____

What Substances? _____

Potable Wells Within 1200 Feet of Site? ___ Yes ___ No Have They Been Sampled? ___ Yes ___ No
[NOTE: Wells are to be included on map described in Item B8]

Have Well Owners/Occupants Been Notified of Results? ___ Yes ___ No Are notification letters attached? ___ Yes ___ No

Preventive Action Limit Currently Exceeded? ___ Yes ___ No If yes, identify location(s) _____

Enforcement Standard Currently Exceeded? ___ Yes ___ No If yes, identify location(s) _____

Measurable Free Product Detected? ___ Yes ___ No ___ pre-remediation? ___ post-remediation?

Was Free Product remediated? ___ Yes ___ No Explain: _____

6. OTHER CONTAMINATED MEDIA INFORMATION

Have Other Media Been Impacted (either on-site or off-site)? ___ Yes X No Briefly describe type and extent of all contamination found in media other than soil or groundwater:

Remedial Action Completed? ___ Yes ___ No X N/A Brief Description of Remedial Action Taken: _____

of Sample Rounds: _____ Field Analyses? ___ Yes ___ No Lab Analyses? ___ Yes ___ No

of Sampling Points: _____ Tables of Analytical Results for all contaminants Attached? ___ Yes

7. PATHWAY TO CLOSURE PROPOSED AND ASSOCIATED SITE INFORMATION:

Soil

- X < s. NR 720.09/720.11 Generic RCLs
- ___ s. NR 720.19(2) Soil Performance Standards(SPS)
- ___ s. NR 720.19(3) Site Specific Standards(SSRCLs)

Petroleum Storage Tank Soil Options for Closure:

- ___ s. NR 746.07 Soil Screening Levels/Post Investigation
- ___ s. NR 746.08 Soil Screening/Post Remediation

Groundwater

- ___ < s. NR 140.10 Table 1 & Table 2 Values
- ___ s. NR 140.28(2) PAL Exemption
- ___ s. NR 726.05(2)(b), ≥ ES Natural Attenuation

Petroleum Storage Tank Groundwater Options for Closure:

- ___ s. NR 746.07 ≥PAL <ES Low Permeability Site/Post Investigation
- ___ s. NR746.07 ≥ES, Permeable Site, Post Investigation
- ___ s. NR 746.08 ≥ES, Low Permeability Site, Post Remediation
- ___ s. NR 746.08 ≥ES, Permeable Site, Post Remediation

WDNR BRRTS CASE # _____ - _____ - _____

WDNR SITE NAME ENIBRIDGE ENERGY SUPERFUND I REMEDIAL NR 4400-202 (rev.11-20-01) Page 6

A. Enforcement Actions Closed Out? Yes No N/A Permits Closed Out? Yes No N/A

B. Proposed Post Remediation Land Use: Residential Commercial Industrial Other Specify: _____

C. Does Remedy Include Soil Performance Standard (SPS)? Yes No
Type: Cap Soil Building Natural Attenuation of Groundwater Other
Specify: _____

Will the proposed post remediation land use be consistent with the maintenance of the SPS? Yes No
Why? _____

Proof of ch. NR 714 public notice attached? Yes No (Proof can be either the actual entire page of the newspaper with the notice OR a "Proof of Publication" from the Newspaper Publisher)

Maps and photos attached documenting the cap area, construction, and/or the integrity of the cap? Yes No N/A

A maintenance plan is attached for the performance standard per ss. NR 720.19(2) and 724.13(2), Wis. Adm. Code? Yes No

D. Does Remedy include SSRCLs? Yes No
Is post-remedial land use industrial? Yes No

Is zoning change required or completed? Yes No If yes, have you attached verification of the zoning for affected properties? Yes No

Complete assumptions and calculations for SSRCLs attached with justification? Yes No

If using EPA Soil Screening Level Model as justification for closure of sites with residual contaminated soils, are the numbers used: (circle one) site specific inputs or defaults and are calculations and results attached? Yes No

E. Does Remedy Include Natural Attenuation of Groundwater only? (i.e. there is no residual soil contamination?) Yes No
Mann-Kendall/Mann-Whitney U Results attached? Yes No (required for ch. NR 746 permeable sites)

F. Describe how the following pathways are protected:
1) Direct Contact Pathway: _____

2) Groundwater: _____

8. PROPOSED INSTITUTIONAL CONTROLS (See PUB. RR-606)
- Unrestricted
 - Deed Restriction (required for industrial cleanup level/ and when performance standard requires maintenance plan)
 - Deed Notice
 - For public street or highway right of way contamination, provide notice as required See item (E) in the case summary checklist
 - RR GIS Registry of Closed Sites
 - Other

Copy of Draft Deed Document(s) attached? Yes No (see RR web site: <http://www.dnr.state.wi.us/org/aw/rr/index.html>)

FOR DEPARTMENT USE ONLY

PROJECT MANAGER: _____ **Date Reviewed:** _____

FIRST REVIEW DATE: _____ Approved Denied

(Signature) (Signature) (Signature) (Signature)

SECOND REVIEW DATE: _____ Approved Denied

(Signature) (Signature) (Signature) (Signature)

COMMITTEE RECOMMENDATION:

_____ **Closure Approved With:**

- _____ No Restrictions
- _____ Listing on GIS Registry
- _____ Zoning Verification
- _____ Deed Restriction
- _____ Deed Notice
- _____ Site Specific Close Out Letter
- _____ Well Abandonment Documentation
- _____ Soil Disposal Documentation
- _____ Public Notice of soil performance standard remedy
- _____ NR 140 Exemption For: _____

_____ **Specific Comments:** _____

_____ **Closure Denied, Needs More:**

- _____ Investigation
- _____ Groundwater Monitoring
- _____ Soil Remediation
- _____ Groundwater Remediation
- _____ Documentation of Soil Landspreading or Biopile Destiny
- _____ Specific Comments: _____

APPENDIX B: SOIL DISPOSAL MANIFESTS

(DRIVER: PLEASE SIGN BELOW)

1475090

REFERENCE NO.
138957
11/28/2000

(PLEASE SIGN HERE)

LOCATION: ID County
RUSK RUSK

ST Pct
WI 100%

Wanda J. Yegan

GROSS: 33.460

TARE: 14.060

NET: 19.400

Oper Time Date
In: SMO 11:16 AM 11/28/2000
Out: SMO 11:31 AM 11/28/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. TRUCK NO.
0000346 RED

PROFILE NO.
47483

CUSTOMER
LAKEHEAD PIPELINE

MANIFEST NO.

FORT ATKINSON WI

PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

COPY 1

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9199

(DRIVER: PLEASE SIGN BELOW)

1801778

REFERENCE NO.
138642
11/20/2000

(PLEASE SIGN HERE)

LOCATION: LOC ID	County	ST	Pct
RUSK	RUSK	WI	100

GROSS: 39.200
TARE: 15.830

Oper Time Date
In: SMO 01:21 PM 11/20/2000
Out: SMO 01:40 PM 11/20/2000

NET: 23.370

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO.	TRUCK NO.
0000346	DJ

PROFILE NO.
47483
MANIFEST NO.
PERMIT NO.

LAKEHEAD PIPELINE

FORT ATKINSON WI

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

Wave Wang

OFFICE

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9198

(DRIVER: PLEASE SIGN BELOW)

1801780

REFERENCE NO.
138644
11/20/2000

(PLEASE SIGN HERE) LOCATION: ID County ST Pct
RUSK RUSK WI 100%

E. [Signature]

GROSS: 39.890 Oper Time Date
TARE: 15.440 In: SMO 01:36 PM 11/20/2000
NET: 24.450 Out: SMO 02:09 PM 11/20/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. TRUCK NO.
0000346 D35

CUSTOMER

LAKEHEAD PIPELINE

FORT ATKINSON WI

PROFILE NO.
47483
MANIFEST NO.
PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

OFFICE

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-3498

(DRIVER: PLEASE SIGN BELOW)

1801766

REFERENCE NO.
138630
11/20/2000

(PLEASE SIGN HERE)

LOCATION: LOC ID County ST Pct
RUSK RUSK WI 100

Warne J. Yuzarek

GROSS: 26.760 Man Wt
TARE: 14.320 Oper Time Date
In: SMO 11:00 AM 11/20/2000
NET: 12.440 Out: SMO 11:17 AM 11/20/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. TRUCK NO.
0000346 RED

PROFILE NO.
47483
MANIFEST NO.
PERMIT NO.

LAKEHEAD PIPELINE

FORT ATKINSON WI

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIC	CONTAMINATED SOIL	15.00	

OFFICE

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9198

(DRIVER: PLEASE SIGN BELOW)

1474820

REFERENCE NO.
138687
11/21/2000

(PLEASE SIGN HERE) LOCATION: ID County ST Pct
RUSK RUSK WI 100%

Andy Balwit

GROSS: 35.600

TARE: 13.930

NET: 21.670

Oper Time Date

In: SMO 11:29 AM 11/21/2000

Out: SMO 11:43 AM 11/21/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. TRUCK NO.
0000346 3

PROFILE NO.
47483

CUSTOMER
LAKEHEAD PIPELINE

MANIFEST NO.

FORT ATKINSON WI

PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

COPY 1

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9199

(DRIVER: PLEASE SIGN BELOW)

1475221

REFERENCE NO.
139082
11/30/2000

(PLEASE SIGN HERE)

LOCATION: ID County
RUSK RUSK

ST. PAUL
WI 100

[Handwritten Signature]

GROSS: 35.710

TARE: 14.040

NET: 21.670

Oper Time Date

In: SMO 11:14 AM 11/30/2000

Out: SMO 11:25 AM 11/30/2000

TIMBERLINE TRAIL RDF

WASTE MANAGEMENT

P.O. BOX 160

BRUCE, WI 54819

800-504-1067

FAX: 715-868-7001

COMMENTS

CUSTOMER NO. TRUCK NO.
0000346 D24

PROFILE NO.
47483

CUSTOMER

LAKEHEAD PIPELINE

MANIFEST NO.

FORT ATKINSON

WI

PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

COPY 1

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9198

(DRIVER: PLEASE SIGN BELOW)

1475095

REFERENCE NO.
138956
11/28/2000

(PLEASE SIGN HERE) LOCATION: ID County ST Fe
RUSK RUSK WI 100

Andy Palasik

GROSS: 34.730 Oper Time Date
TARE: 13.940 In: SMO 11:16 AM 11/28/2000
NET: 20.790 Out: SMO 11:30 AM 11/28/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. TRUCK NO.
0000346 3

PROFILE NO.
47483
MANIFEST NO.
PERMIT NO.

CUSTOMER
LAKEHEAD PIPELINE

FORT ATKINSON WI

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

COPY 1

111-022 REORDER FROM PRECEPT BUSINESS PRODUCTS (800) 333-9188

(DRIVER: PLEASE SIGN BELOW)

1475151

REFERENCE NO.
139012
11/29/2000

(PLEASE SIGN HERE) LOCATION: ID County ST Pct
RUSK RUSK WI 100
Andy Balesik

GROSS: 40.170 Oper Time Date
TARE: 13.960 In: SMO 10:20 AM 11/29/2000
NET: 26.210 Out: SMO 10:32 AM 11/29/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. TRUCK NO.
0000346 3

CUSTOMER
LAKEHEAD PIPELINE

FORT ATKINSON WI

PROFILE NO.
47483
MANIFEST NO.
PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

111-022 REORDER FROM PRECEPT BUSINESS PRODUCTS (800) 333-9188

(DRIVER: PLEASE SIGN BELOW)

1475152

REFERENCE NO.
139013
11/29/2000

(PLEASE SIGN HERE)

LOCATION: ID County ST Pct
RUSK RUSK WI 100%

Wam J. Ryan

GROSS: 35.520
TARE: 14.160
NET: 21.360

Oper Time Date
In: SMO 10:20 AM 11/29/2000
Out: SMO 10:32 AM 11/29/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. 0000346	TRUCK NO. RED
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CUSTOMER
LAKEHEAD PIPELINE

FORT ATKINSON WI

PROFILE NO. 47483
MANIFEST NO.
PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

COPY 1

111-022 - REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9109

(DRIVER: PLEASE SIGN BELOW)

1475153

REFERENCE NO.
139014
11/29/2000

(PLEASE SIGN HERE)	LOCATION: ID RUSK	County RUSK	ST Per WI 100%
--------------------	----------------------	----------------	-------------------

GROSS: 38.740
TARE: 15.240

Oper	Time	Date
In: SMO	10:46 AM	11/29/2000
Out: SMO	10:55 AM	11/29/2000

NET: 23.500

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. 0000346	TRUCK NO. D46
-------------------------	------------------

PROFILE NO. 47483
MANIFEST NO.
PERMIT NO.

CUSTOMER
LAKEHEAD PIPELINE

FORT ATKINSON WI

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	
<i>Dave Way</i>			

COPY 1

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9188

(DRIVER: PLEASE SIGN BELOW)

1475157

REFERENCE NO.
139015
11/29/2000

(PLEASE SIGN HERE) *Bruce Wells* LOCATION: ID County ST Pcd
RUSK RUSK WI 100%

GROSS: 40.900 Oper Time Date
TARE: 15.650 In: SMO 10:46 AM 11/29/2000
NET: 25.250 Out: SMO 11:03 AM 11/29/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. TRUCK NO.
0000346 T34

CUSTOMER
LAKEHEAD PIPELINE

FORT ATKINSON WI

PROFILE NO.
47483
MANIFEST NO.
PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

COPY 1

111-022 * REORDER FROM PRECEPT BUSINESS PRODUCTS * (800) 333-9198

(DRIVER: PLEASE SIGN BELOW)

1475012

REFERENCE NO.
138875
11/27/2000

(PLEASE SIGN HERE)

LOCATION: ID County ST Pct
RUSK RUSK WI 100%

Wm Gyana

GROSS: 33.400
TARE: 14.010
NET: 19.390

Oper Time Date
In: SMO 10:16 AM 11/27/2000
Out: SMO 10:37 AM 11/27/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. 0000346	TRUCK NO. RED
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CUSTOMER
LAKEHEAD PIPELINE

FORT ATKINSON WI

PROFILE NO. 47483
MANIFEST NO.
PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

COPY 1

111-022 * REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9198

(DRIVER: PLEASE SIGN BELOW)

1475015

REFERENCE NO.
138877
11/27/2000

(PLEASE SIGN HERE)

LOCATION: ID County ST PC
RUSK RUSK WI 100%

Andy Balesik

GROSS: 35.280
TARE: 13.780
NET: 21.500

Oper Time Date
In: SMO 10:16 AM 11/27/2000
Out: SMO 10:47 AM 11/27/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. 0000346	TRUCK NO. 3
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CUSTOMER
LAKEHEAD PIPELINE

FORT ATKINSON WI

PROFILE NO. 47483
MANIFEST NO.
PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

COPY 1

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9198

(DRIVER: PLEASE SIGN BELOW)

147501C

REFERENCE NO.
138879
11/27/2000

(PLEASE SIGN HERE)	LOCATION: ID RUSK	County RUSK	ST Pct WI 100%
--------------------	----------------------	----------------	-------------------

GROSS: 40.470

TARE: 15.090

NET: 25.380

Oper - Time Date

In: SMO 11:08 AM 11/27/2000

Out: SMO 11:14 AM 11/27/2000

TIMBERLINE TRAIL RDF
 WASTE MANAGEMENT
 P.O. BOX 160
 BRUCE, WI 54819
 800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO. 0000346	TRUCK NO. D46
-------------------------	------------------

PROFILE NO. 47483
MANIFEST NO.
PERMIT NO.

CUSTOMER

LAKEHEAD PIPELINE

FORT ATKINSON

WI

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

Dave Wang

COPY 1

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9199

(DRIVER: PLEASE SIGN BELOW)

1475025

REFERENCE NO.
138888
11/27/2000

(PLEASE SIGN HERE) LOCATION: ID County ST Post
RUSK RUSK WI 100%

San 48

GROSS: 39.670
 TARE: 14.920 Man Wt Oper Time Date
 In: SMO 11:47 AM 11/27/2000
 NET: 24.750 Out: SMO 12:02 PM 11/27/2000

TIMBERLINE TRAIL RDF
 WASTE MANAGEMENT
 P.O. BOX 160
 BRUCE, WI 54819
 800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO.	TRUCK NO.
0000346	D46

CUSTOMER
LAKEHEAD PIPELINE

FORT ATKINSON WI

PROFILE NO.
47483
MANIFEST NO.
PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

COPY 1

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9198

(DRIVER: PLEASE SIGN BELOW)

1801765

REFERENCE NO.
138629
11/20/2000

(PLEASE SIGN HERE)

LOCATION: LOC	ID	County	ST	Pct
RUSK		RUSK	WI	100%

Andy Balczik

GROSS: 30.480 Man Wt
 TARE: 14.080
 NET: 16.400

Oper	Time	Date
In: SMO	10:59 AM	11/20/2000
Out: SMO	11:09 AM	11/20/2000

TIMBERLINE TRAIL RDF
 WASTE MANAGEMENT
 P.O. BOX 160
 BRUCE, WI 54819
 800-504-1067 FAX: 715-868-7001

COMMENTS

CUSTOMER NO.	TRUCK NO.
0000345	3

CUSTOMER

LAKEHEAD PIPELINE

FORT ATKINSON

WI

PROFILE NO.
47483
MANIFEST NO.
PERMIT NO.

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

OFFICE

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9188

(DRIVER: PLEASE SIGN BELOW)

1474823

REFERENCE NO.
138686
11/21/2000

(PLEASE SIGN HERE) LOCATION: ID County ST Per
RUSK RUSK WI 100

Wood P. Fryer

GROSS: 34.440

TARE: 14.210

NET: 20.230

Oper	Time	Date
In: SMO	11:29 AM	11/21/2000
Out: SMO	11:43 AM	11/21/2000

TIMBERLINE TRAIL RDF
WASTE MANAGEMENT
P.O. BOX 160
BRUCE, WI 54819
800-504-1067 FAX: 715-868-7001

COMMENTS

111-022 • REORDER FROM PRECEPT BUSINESS PRODUCTS • (800) 333-9188

CUSTOMER NO. 0000346	TRUCK NO. RED	
-------------------------	------------------	--

PROFILE NO. 47483
MANIFEST NO.
PERMIT NO.

CUSTOMER
LAKEHEAD PIPELINE

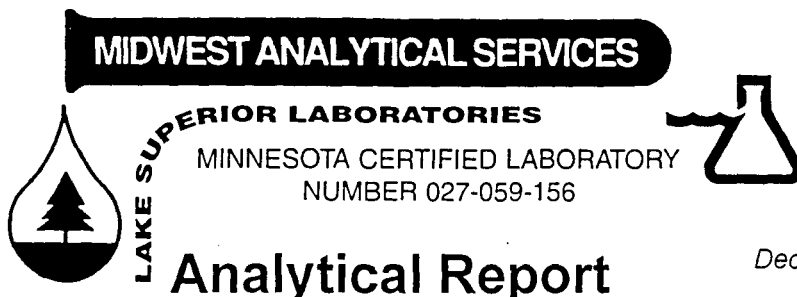
FORT ATKINSON WI

LOAD CODE	LOAD DESCRIPTION	LOAD QUANTITY	AMOUNT
BIO	CONTAMINATED SOIL	15.00	

COPY 1

APPENDIX C: LABORATORY ANALYTICAL REPORTS

330 SO. CLEVELAND ST.
CAMBRIDGE, MN 55008
LAB (612) 689-2175
METRO (612) 444-9270
FAX (612) 689-3660



205 WEST 2ND STREET
SUITE 105
DULUTH, MN 55802
LAB (218) 722-9884
FAX (218) 722-9964

Analytical Report

December 12, 2000

Natural Resources Engineering
13 W. Superior Street
Duluth, MN 55802

Chain of Custody

Project ID: Line 5/6 X

Chain of Custody: 32007

Date Received: 11/22/2000 2:17:13 PM by John Delahanty

Sample Information

SampleID	Description	Date	Matrix
63155	SW-1 2'	11/20/2000	Soil
63156	SW-2 2'	11/22/2000	Soil
63157	B-1 4'	11/22/2000	Soil
63158	B-2 4'	11/22/2000	Soil

Analytical results are listed on the following page(s).

Reviewed By

Anne M Hoppenrath 12/12/00

Anne Hoppenrath
Organic Chemist

MIDWEST ANALYTICAL SERVICES

December 12, 2000

Page 2

COC 32007

Date Analyzed: 11/30/00

Parameter:	Total Hydrocarbons as DRO	Percent Moisture
Units:	(mg/kg)	(%)
MDL:	10.0	
63155 SW-1 2'	14.4	25.6
63156 SW-2 2'	BDL	26.8
63157 B-1 4'	BDL	27.6
63158 B-2 4'	16.9	28.6

BDL = Below Detection Limit, MDL = Method Detection Limit

MIDWEST ANALYTICAL SERVICES

December 12, 2000

Page 3

COC 32007

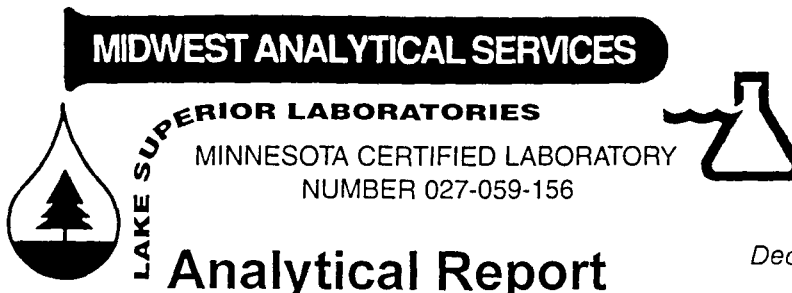
Date Analyzed: 12/01/00

Analyte	63155 SW-1 2' (mg/kg)	63156 SW-2 2' (mg/kg)	63157 B-1 4' (mg/kg)	63158 B-2 4' (mg/kg)	Report Limit (mg/kg)
Acenaphthylene	ND	ND	ND	ND	0.20
Acenaphthene	ND	ND	ND	ND	0.20
Anthracene	ND	ND	ND	ND	0.20
Benzo(a)anthracene	ND	ND	ND	ND	0.20
Benzo(b)fluoranthene	ND	ND	ND	ND	0.20
Benzo(k)fluoranthene	ND	ND	ND	ND	0.20
Benzo(g,h,i)perylene	ND	ND	ND	ND	0.20
Benzo(a)pyrene	ND	ND	ND	ND	0.20
Carbazole	ND	ND	ND	ND	0.20
Chrysene	ND	ND	ND	ND	0.20
Dibenz(a,h)anthracene	ND	ND	ND	ND	0.20
Dibenzofuran	ND	ND	ND	ND	0.20
Fluoranthene	ND	ND	ND	ND	0.20
Fluorene	ND	ND	ND	ND	0.20
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	0.20
2-Methylnaphthalene	ND	ND	ND	ND	0.20
Naphthalene	ND	ND	ND	ND	0.20
Phenanthrene	ND	ND	ND	ND	0.20
Pyrene	ND	ND	ND	ND	0.20

ND = Not detected at the report limit.

PAH analysis was subcontracted to an outside laboratory.

330 SO. CLEVELAND ST.
CAMBRIDGE, MN 55008
LAB (612) 689-2175
METRO (612) 444-9270
FAX (612) 689-3660



205 WEST 2ND STREET
SUITE 105
DULUTH, MN 55802
LAB (218) 722-9884
FAX (218) 722-9964

December 19, 2000

Analytical Report

Natural Resources Engineering
13 W. Superior Street
Duluth, MN 55802

Chain of Custody

Project ID: Line 5/6 X

Chain of Custody: 32466

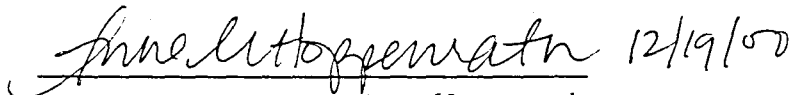
Date Received: 11/29/2000 4:05:51 PM by John Delahanty

Sample Information

SampleID	Description	Date	Matrix
63403	SW-4 2'	11/27/2000	Soil
63404	B-3 3.5'	11/27/2000	Soil

Analytical results are listed on the following page(s).

Reviewed By

 12/19/00

Anne Hoppenrath
Organic Chemist

MIDWEST ANALYTICAL SERVICES

December 19, 2000

Page 2

COC 32466

Date Analyzed: 12/06/00

Parameter:	Total Hydrocarbons as DRO	Percent Moisture
Units:	(mg/kg)	(%)
MDL:	10.0	
63403 SW-4 2'	BDL	28.3
63404 B-3 3.5'	33.1	25.6

BDL = Below Detection Limit, MDL = Method Detection Limit

MIDWEST ANALYTICAL SERVICES

December 19, 2000

Page 3

COC 32466

Analyte	63403 SW-4 2' (mg/kg)	63404 B-3 3.5' (mg/kg)	Report Limit (mg/kg)
Acenaphthene	ND	ND	0.20
Acenaphthylene	ND	ND	0.20
Anthracene	ND	ND	0.20
Benzo(a)anthracene	ND	ND	0.20
Benzo(b)fluoranthene	ND	ND	0.20
Benzo(k)fluoranthene	ND	ND	0.20
Benzo(g,h,i) perylene	ND	ND	0.20
Benzo(a)pyrene	ND	ND	0.20
Carbazole	ND	ND	0.20
Chrysene	ND	ND	0.20
Dibenz(a,h)anthracene	ND	ND	0.20
Dibenzofuran	ND	ND	0.20
Fluoranthene	ND	ND	0.20
Fluorene	ND	ND	0.20
Indeno(1,2,3-cd)pyrene	ND	ND	0.20
2-Methylnaphthalene	ND	ND	0.20
Naphthalene	ND	ND	0.20
Phenanthrene	ND	ND	0.20
Pyrene	ND	ND	0.20

ND = Not detected at the report limit.

PAH analysis was subcontracted to an outside laboratory.

330 SO. CLEVELAND ST.
CAMBRIDGE, MN 55008
LAB (612) 689-2175
METRO (612) 444-9270
FAX (612) 689-3660



205 WEST 2ND STREET
SUITE 105
DULUTH, MN 55802
LAB (218) 722-9884
FAX (218) 722-9964

December 28, 2000

Analytical Report

Natural Resources Engineering
13 W. Superior Street
Duluth, MN 55802

Chain of Custody

Project ID: Line 5/6X

Chain of Custody: 32467

Date Received: 12/6/2000 3:21:24 PM by Anne Hoppenrath

Sample Information

SampleID	Description	Date	Matrix
63691	SW-3 (1')	12/4/2000	Soil

Analytical results are listed on the following page(s).

Reviewed By


Anne Hoppenrath
Organic Chemist

MIDWEST ANALYTICAL SERVICES

December 28, 2000

Page 2

COC 32467

Date Analyzed: 12/20/00

Parameter:	Total Hydrocarbons as DRO	Percent Moisture
Units:	(mg/kg)	(%)
MDL:	10.0	
63691 SW-3 (1')	247	27.3

Analyte	63691 SW-3 (1') (mg/kg)	Report Limit (mg/kg)
Acenaphthene	ND	0.97
Acenaphthylene	ND	0.97
Anthracene	ND	0.97
Benzo(a)anthracene	ND	0.97
Benzo(b)fluoranthene	ND	0.97
Benzo(k)fluoranthene	ND	0.97
Benzo(g,h,l) perylene	ND	0.97
Benzo(a)pyrene	ND	0.97
Carbazole	ND	0.97
Chrysene	ND	0.97
Dibenz(a,h)anthracene	ND	0.97
Dibenzofuran	ND	0.97
Fluoranthene	ND	0.97
Fluorene	ND	0.97
Indeno(1,2,3-cd)pyrene	ND	0.97
2-Methylnaphthalene	ND	0.97
Naphthalene	ND	0.97
Phenanthrene	ND	0.97
Pyrene	ND	0.97

ND = Not detected at the report limit.

PAH analysis was subcontracted to an outside laboratory.

