



Memorandum

To: Alex Smith, Enbridge Energy
From: Ryan Erickson
Subject: 2014 Tank 11 Environmental Response
Date: August 4, 2014
Project: 49161092.03 003 009
c: Karl Beaster

Dear Mr. Smith,

On July 8, 2014, historical hydrocarbon contaminated soil was encountered by Enbridge contractors in a Tank 11 valve maintenance excavation during work at the Enbridge Superior Terminal in Superior, Wisconsin (Figures 1 and 2). The contaminated soil was in a similar location and had similar characteristics to the contaminated soil that was excavated during the 2013 Tank 11 Ring Road project (Figure 3). Enbridge requested that Barr assess the environmental current site conditions and assist with waste disposal coordination.

Barr was onsite on July 8, 2014 to document the environmental conditions observed in the excavation. The excavation was located on the north side of Tank 11 and was approximately 8 feet by 6 feet by 1-foot deep (attached field screening log). Barr observed a sheen on the surface of the water that had accumulated within the excavation. No product was observed. Barr field screened a representative soil sample from each sidewall. The collection of bottom samples at this time was not possible due to the presence of standing water in the excavation.

Soil with a headspace detection greater than 10 parts per million (ppm) and a petroleum odor was identified along the southern sidewall (114.6 ppm) and western sidewall (55.7 ppm). Additional remedial excavation activity was not possible due to the presence of tank infrastructure. Soil sample *Tank 11 Valve-S-1* was collected from the western sidewall because that location would be more exposed than the southern location after the completion of the valve maintenance work. The sample was submitted to the Legend Technical Services laboratory for analysis of PVOC + Naphthalene. Detected analyte concentrations were below WDNR Industrial Direct Contact RCL's and passed the hazard quotient criteria that are set in the US EPA Regional Screening Level Web Calculator. The only analyte that exceeded the WDNR Groundwater RCL's was Naphthalene (4.1 mg/kg). The laboratory report is attached to this memo.

Approximately 3 cubic yards of contaminated soil and water were removed from the valve maintenance excavation with a hydrovac truck, solidified for transportation purposes and hauled to the Shamrock Landfill in Cloquet, Minnesota under the existing Tank 11 waste profile (CL13-0023).

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A concrete base structure was constructed within the excavation around the valve and clean fill was added around the perimeter of the slab as part of the valve maintenance project.

Based on the characteristics and location of the hydrocarbon contaminated soil encountered in the Tank 11 valve maintenance excavation, we believe that it is historical in nature. Since the 2014 contamination is in the same vicinity and has similar characteristics as the contamination discovered in 2013 Tank 11 Ring Road Project (Figure 3), we recommend that this contamination be associated with that site, which is still pending WDNR closure pending the facility-wide negotiated agreement.

Please let me know if you have any additional questions.

Sincerely,



Ryan Erickson

Attachments

Photos 1 and 2

Figures 1 through 3

Site Investigation Field Sampling and Screening Log

Legend Technical Services Laboratory Report

To: Alex Smith, Enbridge Energy
From: Ryan Erickson
Subject: 2014 Tank 11 Environmental Response
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Photos

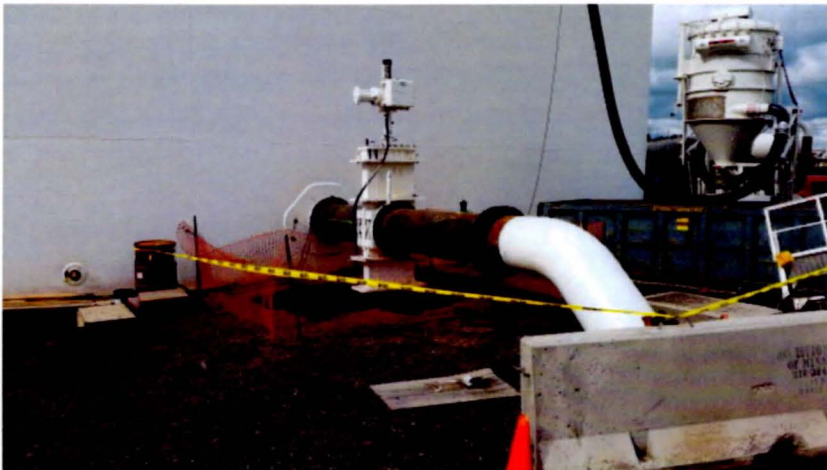
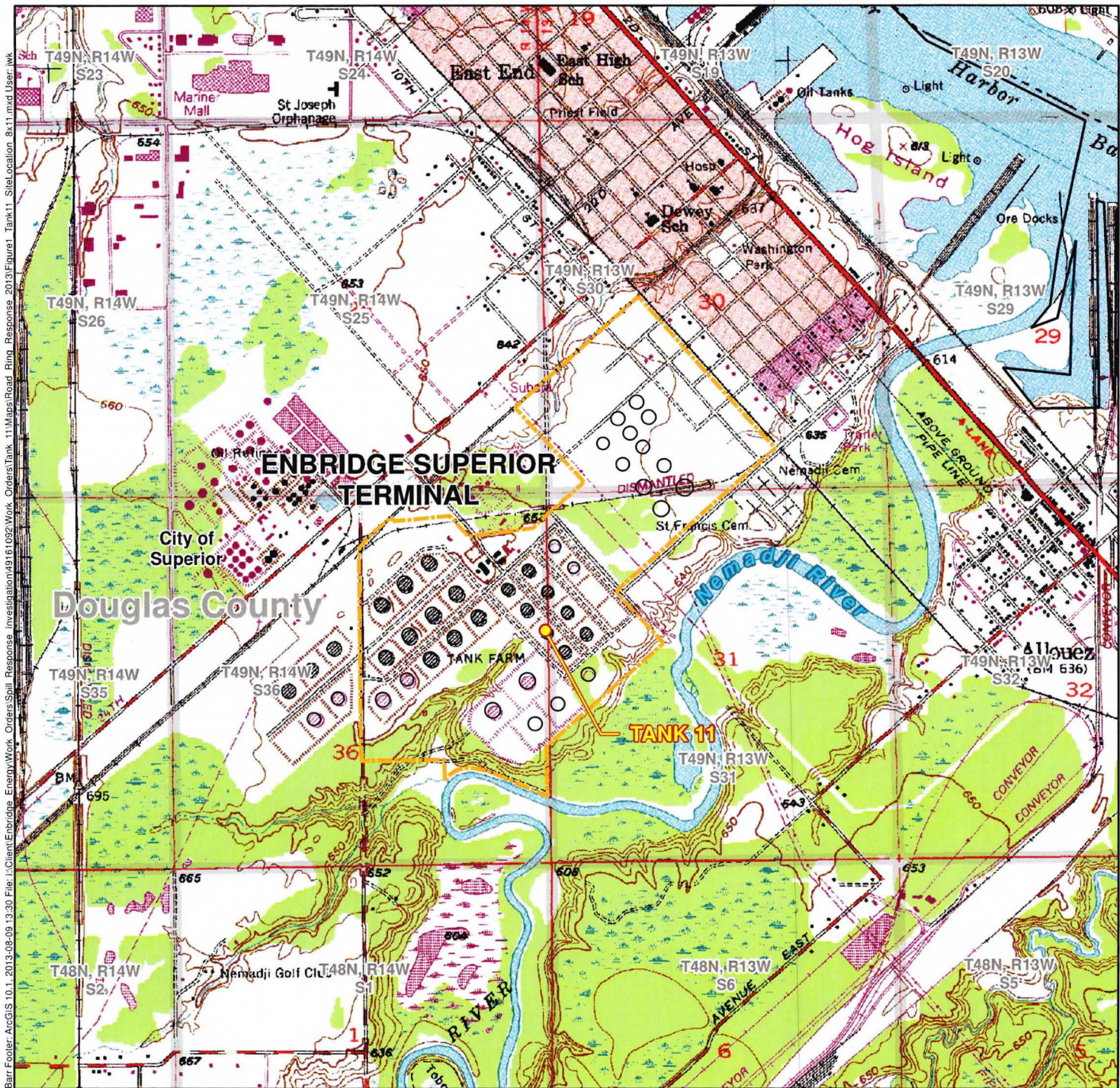


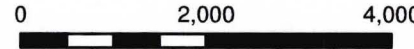
Photo 1: 2014 Tank 11 valve maintenance excavation site. 7/8/2014



Photo 2: Tank 11 valve maintenance excavation with trace amounts of sheen on water surface.
7/8/2014



- Tank 11
- Terminal Property Boundary



Feet
1 Inch = 2,000 Feet

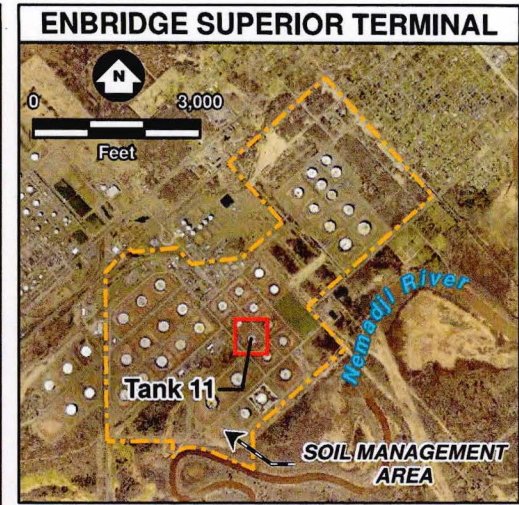
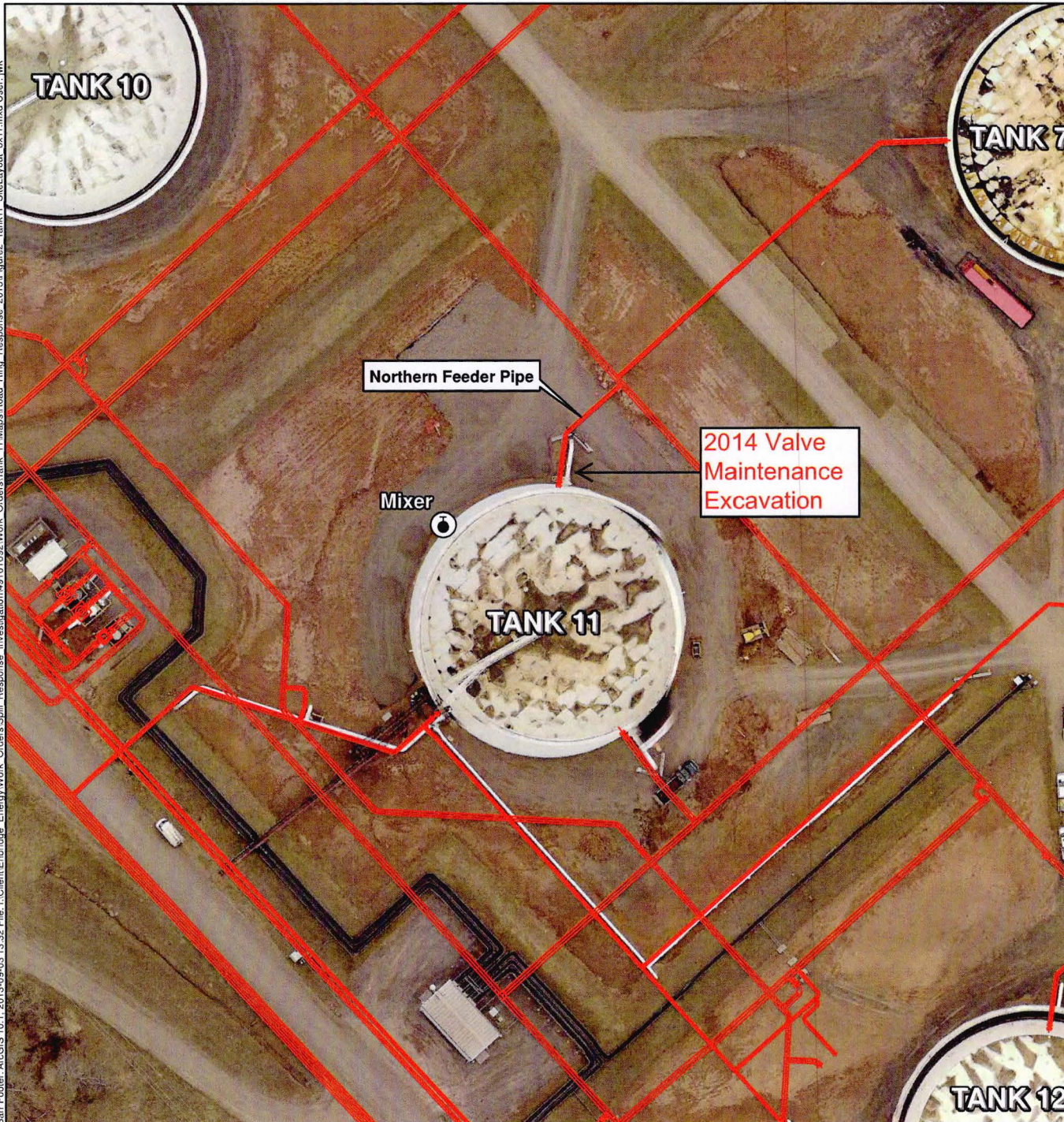
Figure 1




**TANK 11 SITE LOCATION
SUPERIOR TERMINAL**
Enbridge Energy, L.P.
Superior, Wisconsin

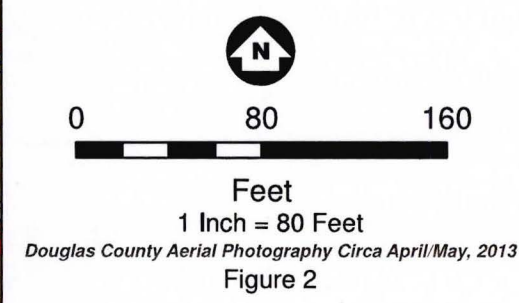


Barr Footer: ArcGIS 10.1, 2013-08-09 13:30 File: I:\Client\Enbridge_Energy\Work_Orders\Spill_Response_Investigation\49161092\Work_Orders\Tank_11\Maps\Road_Ring_Response_2013\Figure1_Tank11_SiteLocation_8x11.mxd User: wjk

Barr Footer: ArcGIS 10.1, 2013-09-03 13:32 File: I:\Client\Enbridge_Energy\Work_Orders\Spill_Response_Investigation\49161092\Work_Orders\Tank_11\Maps\Road_Ring_Response_2013\Figure2_Tank11_Sitelayout_8x11.mxd User: jwk



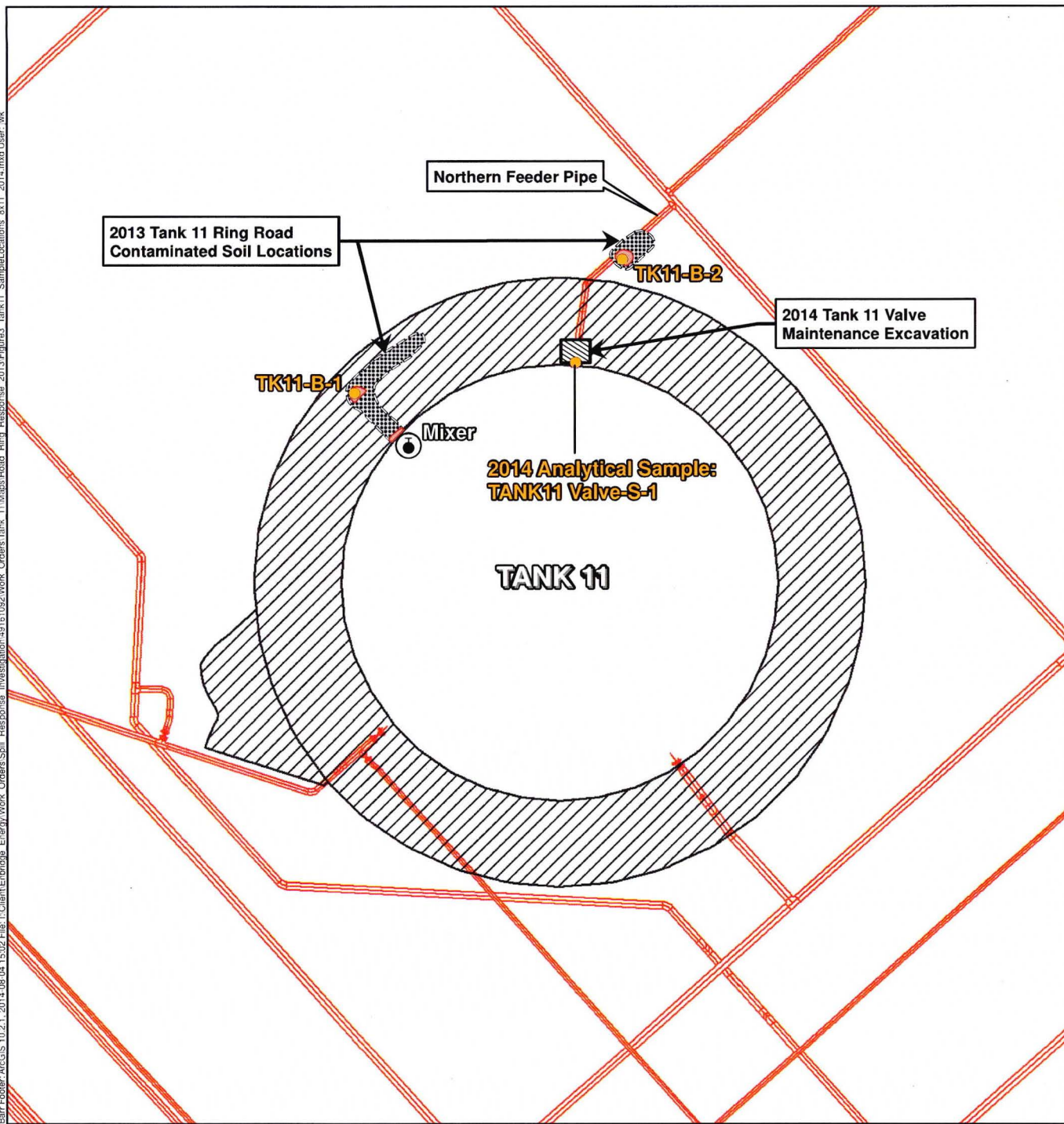
-  Mixer
-  Pipeline Infrastructure
-  Terminal Property Boundary



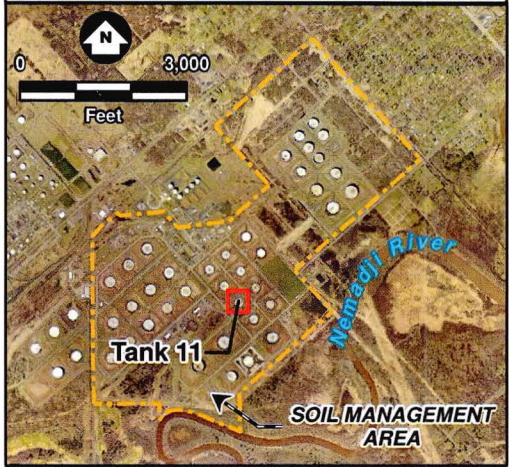
**TANK 11 SITE LAYOUT MAP
SUPERIOR TERMINAL**
Enbridge Energy, L.P.
Superior, Wisconsin



Bar Footer: ArcGIS 10.2.1, 2014 08 04 15:02 File: I:\Client\Enbridge - Energy\Work Orders\Spill Response Investigation\49161992\Work Orders Tank 11\Maps\Road Ring Response 2013\Figures3 Tank11_SampleLocations 8x11 2014.mxd User: wk



ENBRIDGE SUPERIOR TERMINAL



- Sample Locations
- ⊙ Mixer
- ▨ Approximate Area of Crude Oil Impacted Soil Encountered During 2013 RING ROAD Construction Activity
- Crude Oil Impacted Soil Left In Place
- ▧ 2013 Excavation Extent
- ▩ 2014 Tank 11 Valve Maintenance Excavation
- Pipeline Infrastructure
- - - Terminal Property Boundary

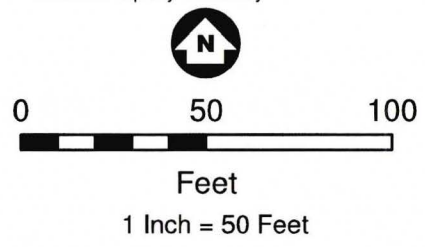


Figure 3

**TANK 11 SAMPLE LOCATIONS
SUPERIOR TERMINAL**
Enbridge Energy, L.P.
Superior, Wisconsin



July 16, 2014

Ms. Andrea Nord
Barr Engineering Co.
4700 W 77th St
Minneapolis, MN 55435

Work Order Number: 1402974
RE: 49161092

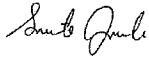
Enclosed are the results of analyses for samples received by the laboratory on 07/09/14. If you have any questions concerning this report, please feel free to contact me.

Results are not blank corrected unless noted within the report. Additionally, all QC results meet requirements unless noted.

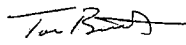
All samples will be retained by Legend Technical Services, Inc. unless consumed in the analysis, at ambient conditions for 30 days from the date of this report and then discarded unless other arrangements are made. All samples were received in acceptable condition unless otherwise noted.

WI Accreditation #998022410

Prepared by:
LEGEND TECHNICAL SERVICES, INC



Samantha Jaworski
Manager, Organics
sjaworski@legend-group.com



Tom Barrett
Vice President, Strategic Analytical Services
tbarrett@legend-group.com

Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 49161092 Project Number: 49161092.03 003 009 Project Manager: Ms. Andrea Nord	Work Order #: 1402974 Date Reported: 07/16/14
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ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tank 11 Valve-S-1_1-1	1402974-01	Soil	07/08/14 10:00	07/09/14 09:10

Shipping Container Information	
Default Cooler	Temperature (°C): 1.9
Received on ice: Yes	Temperature blank was present
Received on melt water: No	Ambient: No
Custody seals: No	Received on ice pack: No Acceptable (IHAISO only): No

Case Narrative:
The dry weight correction and dilution applies to the sample result, MDL, and RL.
Ethylbenzene was present in the method blank between the MDL and RL for the BTEX analysis.

Legend Technical Services, Inc. *The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

Legend Technical Services, Inc. *The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.* Page 2 of 8

Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 49161092 Project Number: 49161092.03 003 009 Project Manager: Ms. Andrea Nord	Work Order #: 1402974 Date Reported: 07/16/14
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WI(95) GRO/8015D
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Tank 11 Valve-S-1_1-1 (1402974-01) Soil Sampled: 07/08/14 10:00 Received: 07/09/14 9:10										
1,2,4-TrimeOylbenzene	0.40	0.027	0.0029	mg/kg dry	1	B4G0902	07/09/14	07/09/14	WI(95) GRO	
1,3,5-TrimeOylbenzene	0.31	0.027	0.0056	mg/kg dry	1	-	-	-	-	
Benzene	<0.0031	0.027	0.0031	mg/kg dry	1	-	-	-	-	
Ethylbenzene	0.048	0.027	0.0068	mg/kg dry	1	-	-	-	-	B-01
Naphthalene	4.1	0.53	0.023	mg/kg dry	1	-	-	-	-	
Toluene	0.038	0.027	0.0044	mg/kg dry	1	-	-	-	-	
Xylenes (total)	0.23	0.080	0.015	mg/kg dry	1	-	-	-	-	
Surrogate: 4-Fluorochlorobenzene	112			80-150 %		-	-	-	-	

Barr Engineering Co. 4700 W 77th St Minneapolis, MN 55435	Project: 49161092 Project Number: 49161092.03 003 009 Project Manager: Ms. Andrea Nord	Work Order #: 1402974 Date Reported: 07/16/14
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PERCENT SOLIDS
Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Tank 11 Valve-S-1_1-1 (1402974-01) Soil Sampled: 07/08/14 10:00 Received: 07/09/14 9:10										
% Solids	94			%	1	B4G1513	07/15/14	07/16/14	% calculation	

Legend Technical Services, Inc. *The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.* Page 3 of 8

Legend Technical Services, Inc. *The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.* Page 4 of 8

Barr Engineering Co. Project: 49161092
 4700 W 77th St Project Number: 49161092.03 003 009 Work Order #: 1402974
 Minneapolis, MN 55435 Project Manager: Ms. Andrea Nord Date Reported: 07/16/14

W(95) GRO/8015D - Quality Control
 Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
Batch B4G0902 - EPA 5035 Soil (Purge and Trap)											
Blank (B4G0902-BLK1) Prepared & Analyzed: 07/09/14											
1,2,4-Trimethylbenzene	< 0.0027	0.025	0.0027	mg/kg wet							
1,3,5-Trimethylbenzene	< 0.0029	0.025	0.0029	mg/kg wet							
Benzene	< 0.0029	0.025	0.0029	mg/kg wet							
Ethylbenzene	0.00909	0.025	0.0084	mg/kg wet							B-02, J
Naphthalene	< 0.022	0.50	0.022	mg/kg wet							
Toluene	< 0.0041	0.025	0.0041	mg/kg wet							
Xylenes (total)	< 0.014	0.075	0.014	mg/kg wet							
Surrogate: 4-Fluorochlorobenzene	22.2			ug/L	25.0		22.9	80-150			
LCS (B4G0902-B51) Prepared & Analyzed: 07/09/14											
1,2,4-Trimethylbenzene	98.3			ug/L	100		98.3	80-120			
1,3,5-Trimethylbenzene	95.9			ug/L	100		95.9	80-120			
Benzene	99.0			ug/L	100		99.0	80-120			
Ethylbenzene	96.1			ug/L	100		96.1	80-120			
Naphthalene	96.4			ug/L	100		96.4	80-120			
Toluene	98.5			ug/L	100		98.5	80-120			
Xylenes (total)	280			ug/L	300		93.5	80-100			
Surrogate: 4-Fluorochlorobenzene	23.4			ug/L	25.0		93.5	80-150			
LCS Dup (B4G0902-B5D1) Prepared: 07/09/14 Analyzed: 07/10/14											
1,2,4-Trimethylbenzene	95.6			ug/L	100		95.6	80-120	2.81	20	
1,3,5-Trimethylbenzene	92.6			ug/L	100		92.6	80-120	3.48	20	
Benzene	98.8			ug/L	100		98.8	80-120	0.254	20	
Ethylbenzene	95.9			ug/L	100		95.9	80-120	0.190	20	
Naphthalene	96.8			ug/L	100		96.8	80-120	0.429	20	
Toluene	98.6			ug/L	100		98.6	80-120	0.113	20	
Xylenes (total)	280			ug/L	300		93.3	80-100	0.198	20	
Surrogate: 4-Fluorochlorobenzene	23.4			ug/L	25.0		93.5	80-150			
Matrix Spike (B4G0902-M51) Source: 1402974-03 Prepared: 07/09/14 Analyzed: 07/10/14											
1,2,4-Trimethylbenzene	94.0			ug/L	100		94.0	80-120			
1,3,5-Trimethylbenzene	91.2			ug/L	100		91.2	80-120			
Benzene	98.0			ug/L	100		98.0	80-120			
Ethylbenzene	96.9			ug/L	100		96.9	80-120			
Naphthalene	90.2			ug/L	100		90.2	80-120			
Toluene	98.2			ug/L	100		98.2	80-120			
Xylenes (total)	285			ug/L	300	0.140	94.9	80-120			
Surrogate: 4-Fluorochlorobenzene	23.2			ug/L	25.0		92.6	80-150			

Legend Technical Services, Inc.

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Barr Engineering Co. Project: 49161092
 4700 W 77th St Project Number: 49161092.03 003 009 Work Order #: 1402974
 Minneapolis, MN 55435 Project Manager: Ms. Andrea Nord Date Reported: 07/16/14

PERCENT SOLIDS - Quality Control
 Legend Technical Services, Inc.

Analyte	Result	RL	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	%RPD	%RPD Limit	Notes
Batch B4G1513 - General Preparation											
Duplicate (B4G1513-DUP1) Source: 1403088-02 Prepared: 07/15/14 Analyzed: 07/16/14											
% Solids	94.0			%			94.0	0.00	20		

Legend Technical Services, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Barr Engineering Co. Project: 49161092
 4700 W 77th St Project Number: 49161092.03 003 009 Work Order #: 1402974
 Minneapolis, MN 55435 Project Manager: Ms. Andrea Nord Date Reported: 07/16/14

Notes and Definitions

- J Parameter was present between the MDL and RL and should be considered an estimated value
- B-02 Target analyte was present in the method blank between the MDL and RL.
- B-01 Analyte was present in the method blank. Sample result is less than or equal to 10 times the blank concentration.
- < Less than value listed
- dry Sample results reported on a dry weight basis
- NA Not applicable. The %RPD is not calculated from values less than the reporting limit.
- MDL Method Detection Limit
- RL Reporting Limit
- RPD Relative Percent Difference
- LCS Laboratory Control Spike = Blank Spike (BS) = Laboratory Fortified Blank (LFB)
- MS Matrix Spike = Laboratory Fortified Matrix (LFM)

Legend Technical Services, Inc.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Chain of Custody

Project Number: 49161092.03 003 009
 Project Name: Tank 11 Soils - Laboratory
 Sample Description: Blank 11 (see notes for good use information)
 EOC Number: ND 41224

Location	Date Collected	Depth (feet)	Volume (L)	Container	Time	Initials	Signature	Notes
Tank 11 Soils - 1	7/16/14	1	1	1	1	1	1	1

Checked/Prepared/Condition: [Signature]
 Analyzed: [Signature] Date: 7/16/14
 Reported by: [Signature] Date: 7/16/14
 Sample Shipped Via: [Signature] Date: 7/16/14

02-16-561125

Enbridge Pipelines (Lakehead) L.L.C.
Environment Department
1320 Grand Avenue
Superior, WI 54880
Tel 715 394 1400
Fax 715 394 1500

Shane Yokom
Joseph Peterson
Cheryl Urie
Jim Snider
Rhonda O'Leary
James Anklam
Karl Beaster
Stacey Frerich
Derek Senn
Kelli Nelson
Bryan Sederberg
Alex Smith
Greg St. Onge
Julie O'Brien

Manager, Environment Operations
Supervisor, Region Operations
Supervisor, Programs
Environmental Specialist
Sr. Air Compliance Specialist
Sr. Environmental Analyst
Environmental Analyst II
Environmental Analyst II
Environmental Analyst II
Environmental Analyst II
Environmental Analyst
ER Preparedness Coordinator
Environmental Assistant



www.enbridgepartners.com

January 22, 2014

Erin Endsley
Wisconsin Department of Natural Resources - Northern Region
Remediation and Redevelopment
1701 N 4th St
Superior, WI 54880

Re: Tank 11 Historical Crude Oil Impacts
Ring Road Excavation Report
Enbridge Energy Superior Terminal
Superior, Wisconsin

Dear Ms. Endsley:

Please find attached report regarding the clean-up of historical crude oil impacts discovered during the Tank 11 ring road excavation. Based on the findings presented in this report, we are requesting no further action in regards to this historical release.

Please contact me if you have any questions or comments regarding this project.

Sincerely,
Enbridge Energy

Karl F. Beaster, P.G.
Environmental Analyst

Enclosure

cc: Ryan Erickson, Barr Engineering

- In Facility wrdc
ERP
- No RP letter sent
- Needs separate
BRTS to for robotization
; move to Facility wrdc.
#3 X: 362,769
Y: 692,364

Tank 11 10/2/13

transfer to Fac-wide

**Notification For Hazardous Substance Discharge
 (Non-Emergency Only)**

Form 4400-225 (05/12) Page 1 of 2

Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003

Notice: Hazardous substance discharges must be reported immediately according to s. 292.11 Wis. Stats. Non-emergency hazardous substance discharges may be reported by telefaxing or e-mailing a completed report to the Department, or calling or visiting a Department office in person. If you choose to notify the Department by telefax or by email, you should use this form to be sure that all necessary information is included. However, use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than \$10 nor more than \$5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 – 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release Notification.

Complete this form. **TYPE or PRINT LEGIBLY.** NOTIFY appropriate DNR region (see next page) **IMMEDIATELY** upon discovery of a potential release from (check one):

- Underground Petroleum Storage Tank System (additional information may be required for Item 6 below)
- Aboveground Petroleum Storage Tank System
- Dry Cleaner Facility
- Other - Describe: Historical crude oil impacts discovered near an above ground petroleum storage tank during tank ring road construction.

ATTN DNR: **R & R Program Associate**

Date DNR Notified: 10/02/2013

1. Discharge Reported By

Name Karl Beaster	Firm Enbridge Energy	Phone No. (include area code) (715) 398-4754
Mailing Address 1320 Grand Ave., Superior, WI 54880		Email Address karl.beaster@enbridge.com

2. Site Information

Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property. Enbridge Superior Terminal - Tank 11

Location: Include street address, not PO Box. If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60. 2800 East 21st Street, Superior, WI 54880

Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city.

Superior

County: Douglas	Legal Description: SE 1/4 NE 1/4 Sec 36 Tn 49N Range 14 <input type="radio"/> E <input checked="" type="radio"/> W	WTM: X _____ Y _____
--------------------	---	-------------------------

3. Responsible Party (RP) and/or RP Representative

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

Enbridge Energy

- Reported in compliance with s. 292.11(2), Wis. Stats., by a local government exempt from liability under s. 292.11(9)(e), Wis. Stats.
- For more information see <http://dnr.wi.gov/org/aw/rr/lgu/liability.htm>.

Contact Person Name (if different) Karl Beaster	Phone Number (715) 398-4757	Email Address karl.beaster@enbridge.com	
Mailing Address 1320 Grand Ave., Superior, WI 54880	City Superior	State WI	ZIP Code 54880

Property owner if Different From RP: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

Contact Person Name (if different)	Phone Number	Email Address	
Mailing Address	City	State	ZIP Code

(continued)

4. Hazardous Substance Information

Identify hazardous substance discharged (check all that apply):

- | | | |
|--|---|---|
| <input checked="" type="checkbox"/> VOC's | <input type="checkbox"/> Diesel | <input type="checkbox"/> PERC (Dry Cleaners) |
| <input type="checkbox"/> PAH's | <input type="checkbox"/> Fuel Oil | <input type="checkbox"/> RCRA Hazardous Waste |
| <input type="checkbox"/> Metals (specify): _____ | <input type="checkbox"/> Gasoline | <input type="checkbox"/> Leachate |
| <input type="checkbox"/> Arsenic | <input type="checkbox"/> Hydraulic Oil | <input type="checkbox"/> Fertilizer |
| <input type="checkbox"/> Chromium | <input type="checkbox"/> Jet Fuel | <input type="checkbox"/> Pesticide/Herbicide/Insecticide(s) |
| <input type="checkbox"/> Cyanide | <input type="checkbox"/> Mineral Oil | <input checked="" type="checkbox"/> Other (specify): <u>Crude oil</u> |
| <input type="checkbox"/> Lead | <input type="checkbox"/> Waste Oil | <input type="checkbox"/> Unknown |
| <input type="checkbox"/> PCB's | <input type="checkbox"/> Petroleum-Unknown Type | |

5. Impacts to the Environment Information

Enter "K" for known/confirmed or "P" for potential for all that apply.

- | | | |
|---|---|--|
| <input type="checkbox"/> Air Contamination | <input type="checkbox"/> Sanitary Sewer Contamination | <input checked="" type="checkbox"/> Soil Contamination |
| <input type="checkbox"/> Co-Contamination (Petroleum & Non-Petroleum) | <input type="checkbox"/> Contamination in Right of Way | <input type="checkbox"/> Storm Sewer Contamination |
| <input type="checkbox"/> Contamination Within 1 Meter of Bedrock | <input type="checkbox"/> Fire Explosion Threat | <input type="checkbox"/> Surface Water Contamination |
| <input type="checkbox"/> Contaminated Private Well | <input type="checkbox"/> Free Product | <input type="checkbox"/> Within 100 ft of Private Well |
| <input type="checkbox"/> Contaminated Public Well | <input checked="" type="checkbox"/> Groundwater Contamination | <input type="checkbox"/> Within 1000 ft of Public Well |
| <input type="checkbox"/> Contamination in Fractured Bedrock | <input type="checkbox"/> Off-Site Contamination | |
| | <input type="checkbox"/> Other (specify): _____ | |

Contamination was discovered as a result of:

- | | | |
|--|--|---|
| <input type="checkbox"/> Tank closure assessment | <input type="checkbox"/> Site assessment | <input checked="" type="checkbox"/> Other - Describe: <u>Excavation of soils around tank for construction</u> |
| Date <input type="text"/> | Date <input type="text"/> | Date <input type="text" value="05/06/2013"/> |

Lab results: Lab results will be faxed upon receipt Lab results are attached

Additional Comments: Include a brief description of immediate actions taken to halt the release and contain or cleanup hazardous substances that have been discharged.

Impacts were from historical releases

6. Federal Energy Act Requirements (Section 9002(d) of the Solid Waste Disposal Act (SWDA))

For all confirmed releases from UST's occurring after 9/30/2007 please provide the following information:

- | <u>Source</u> | <u>Cause</u> |
|---|--|
| <input type="checkbox"/> Tank | <input type="checkbox"/> Spill |
| <input type="checkbox"/> Piping | <input type="checkbox"/> Overfill |
| <input type="checkbox"/> Dispenser | <input type="checkbox"/> Corrosion |
| <input type="checkbox"/> Submersible Turbine Pump | <input type="checkbox"/> Physical or Mechanical Damage |
| <input type="checkbox"/> Delivery Problem | <input type="checkbox"/> Installation Problem |
| <input type="checkbox"/> Other (specify): _____ | <input type="checkbox"/> Other (does not fit any of above) |
| | <input type="checkbox"/> Unknown |

Does not apply.

Contact information to report non-emergency releases in DNR's five regions are as follows:

Northeast Region (FAX: 920-662-5197); Attention -- R&R Program Associate: DNRRRNER@wisconsin.gov

Brown, Calumet, Door, Fond du Lac (except City of Waupun - see South Central Region), Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Sheboygan, Waupaca, Waushara, Winnebago counties

Northern Region (FAX: 715-623-6773); Attention -- R&R Program Associate: DNRRRNOR@wisconsin.gov

Ashland, Barron, Bayfield, Burnett, Douglas, Forest, Florence, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn counties

South Central Region (FAX: 608-273-5610); Attention -- R&R Program Associate: DNRRRSCR@wisconsin.gov

Columbia, Dane, Dodge, Fond du Lac (City of Waupun only), Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk, Walworth counties

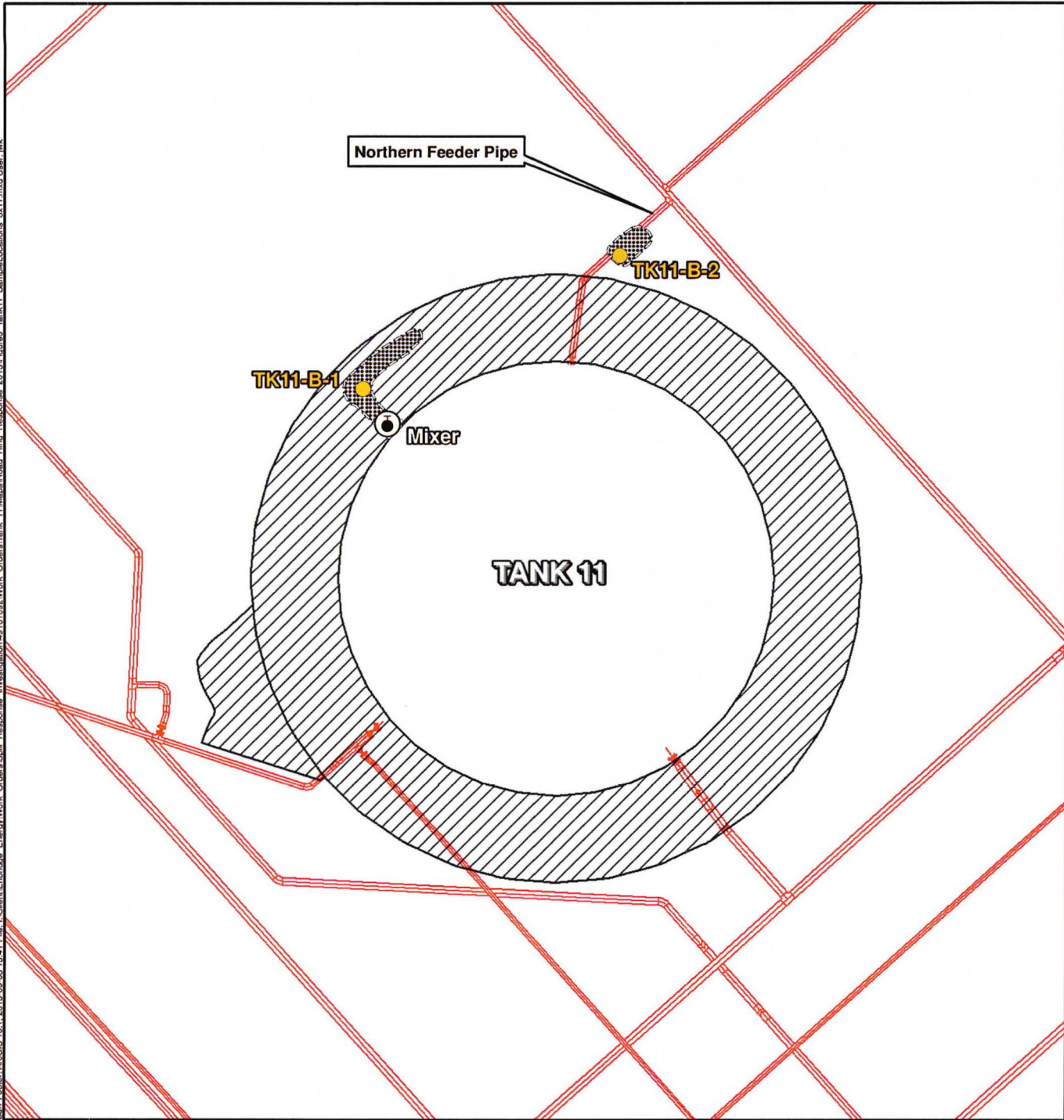
Southeast Region (FAX: 414-263-8550); Attention -- R&R Program Associate: DNRRRSER@wisconsin.gov

Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha counties

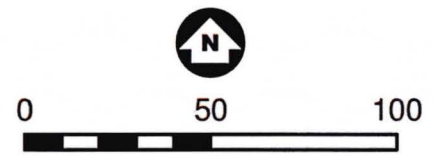
West Central Region (FAX: 715-839-6076); Attention -- R&R Program Associate: DNRRRWCR@wisconsin.gov

Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, LaCrosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, Wood counties

Bar_Footer: ArcGIS 10.1, 2013-09-03 13:41, File: I:\Client\Enbridge_Energy\Work_Orders\Soil_Response_Investigation\916102\Work_Orders\Tank_11\Map\Road_Ring_Response_2013\Figure3_Tank11_SampleLocations_8x11.mxd User: iwk



- Sample Locations
- ⊙ Mixer
- ▨ Approximate Area with Observed Crude Oil Impacted Soil Prior to Ring Road Excavation Activity
- ▨ Excavation Extent
- Pipeline Infrastructure
- Terminal Property Boundary



Feet
1 Inch = 50 Feet

Figure 3

**TANK 11 SAMPLE LOCATIONS
SUPERIOR TERMINAL**
Enbridge Energy, L.P.
Superior, Wisconsin



Table 1
Soil Analytical Data Summary
Tank 11 Ring Road Excavation
Enbridge Energy Terminal - Superior, Wisconsin
Units, mg/kg (unless otherwise noted)

Parameter			Moisture	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Benzene	Ethyl benzene	Toluene	Xylene, total	Diesel Range Organics	Exceedance Count	Hazard Quotient	Cumulative Cancer Risk	Pass or Fail
Effective Date	Exceedance Key													
Industrial Groundwater SSRCLs		Bold		1.3793 TR	1.3793 TR	0.0051	0.785	0.5536	1.97 XYL					
Industrial Direct Contact SSRCLs	05/01/2012	No Exceed		219	182	7.41	37	818	258		0	1.0	0.00001	Pass
Location	Date	Depth (ft)												
TK 11 ROAD-B-1	5/07/2013	3	10.9 %	28.4	9.68	1.64	31.1	< 0.286	7.71	17400	0	0.0847	1.1E-06	Pass
TK 11 ROAD-B-2	5/08/2013	0.8	19.9 %	0.85 *	0.50 *	< 0.060 *	0.50 *	< 0.060 *	0.72 *	2380	0	0.0026	2.2E-06	Pass

TR - Based on 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene combined.

XYL - Based on Xylenes (m-, o-, p- combined).

*Estimated value, QA/QC criteria not met.