WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	L3R	Date:	06/30/14
Applicant:	Enbridge	County:	Kittson
Investigators:	EAB/RAJ	Subregion (MLRA or LRR): MLRA 56	State:	MN

Soil Unit: I132A
NWI Classification:
Landform: Talf Local Relief: LC
Sample Point: u-159n49w23-a1
Slope (%): 0 - 2%   Latitude: 48.574324   Longitude: -96.936649   Datum:

Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) ☐ Yes ☑ No   Section:

Are Vegetation ☐ Soil ☑ or Hydrology ☐ significantly disturbed?   Are normal circumstances present? ☑ Yes ☐ No   Township:

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic?   Range: Dir:

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? No   Hydric Soils Present? Yes

Wetland Hydrology Present? Yes   **Is This Sampling Point Within A Wetland? No**

Remarks: The sample site is located in mowed area near a private residence. The area drains into a wetland that expanded due to recent pipeline construction. A utility station lies east of the area.

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required):

Primary:
- ☐ A1 - Surface Water
- ☑ A2 - High Water Table
- ☑ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves

- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not tilled)
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D2 - Geomorphic Position
- ☐ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present?	Yes	☐	Depth:	(in.)
Water Table Present?	Yes	☑	Depth: 4	(in.)
Saturation Present?	Yes	☑	Depth: 3	(in.)

Wetland Hydrology Present?   Y

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: A high water table is present at 4 inches. The presence of hydrological indicators is likely the result of recent heavy rains across the area.

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix Color (Moist)	%	Mottles Color (Moist)	%	Type	Location	Texture	Remarks
0-5	Hue_10YR 2/1	100					C	
5-10	Hue_10YR 2/1	60	Hue_2.5Y 4/1	40	D	M	C	
10-18	Hue_2.5Y 7/1	70	Hue_10YR 4/4	3	C	M	C	
10-18	Hue_2.5Y 4/1	22	Hue_10YR 2/1	5	C	M	C	

NRCS Hydric Soil Field Indicators   (check here if indicators are not present): ☐

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR FGH)
- ☑ A11 - Depleted Below Dark Surface
- ☐ A12 - Thick Dark Surface
- ☐ S1 - Sandy Mucky Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix

- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Mucky Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1 cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

[1]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer   Type: Depth: **Hydric Soil Present?**   Y

Remarks: The soils appear to be significantly disturbed.

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VEGETATION   (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft. radius)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Sapling/Shrub Stratum (Plot size: 15 ft. radius)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Herb Stratum (Plot size: 5 ft. radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	Bromus ciliatus	60	Y	FAC
2.	Poa pratensis	40	Y	FACU
3.	Symphyotrichum ericoides	10	N	FACU
4.	Cirsium arvense	10	N	FACU
5.	Taraxacum officinale	5	N	FACU
6				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
	Total Cover =	125		

Woody Vine Stratum (Plot size: 30 ft. radius)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
5.				
4.				
	Total Cover =	0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1   (A)

Total Number of Dominant Species Across All Strata: 2   (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **50.0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	60	x 3 =	180
FACU spp.	65	x 4 =	260
UPL spp.	0	x 5 =	0
Total	125 (A)		440 (B)

Prevalence Index = B/A =   **3.520**

Hydrophytic Vegetation Indicators:

_____ Rapid Test for Hydrophytic Vegetation
_____ Dominance Test is > 50%
_____ Prevalence Index is ≤ 3.0 *
_____ Morphological Adaptations (Explain) *
_____ Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Hydrophytic Vegetation Present?   N

Remarks: The sample site is dominated by smooth brome.

Additional Remarks: