

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	L3R	Subregion (MLRA or LRR):	MLRA 56	Date:	10/04/14
Applicant:	Enbridge	NWI Classification:		County:	Polk
Investigators:	JLS/SAM			State:	MN
Soil Unit:	712			Sample Point:	u-150n40w24-g1
Landform:	Talf	Local Relief:	LL		
Slope (%):	0 - 2%	Latitude:	47.8042808	Longitude:	-95.7162325
		Datum:			
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks)				<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present?		Township:	
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic?		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Range: Dir:	

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	No	Hydic Soils Present? Yes
Wetland Hydrology Present?	No	Is This Sampling Point Within A Wetland? No

Remarks: The upland sample point is located in a slightly elevated area within an open pasture. Soils contain relict hydric features; however, no other wetland indicators were observed.

HYDROLOGY

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

<p><u>Primary:</u></p> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B9 - Water-Stained Leaves	<input type="checkbox"/> B11 - Salt Crust <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C2 - Dry Season Water Table <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots (not till) <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> Other (Explain)	<p><u>Secondary:</u></p> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots (tilled) <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test <input type="checkbox"/> D7 - Frost-Heaved Hummocks (LRR F)
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Field Observations:

Surface Water Present? Yes <input type="checkbox"/> Depth: _____ (in.) Water Table Present? Yes <input type="checkbox"/> Depth: _____ (in.) Saturation Present? Yes <input type="checkbox"/> Depth: _____ (in.)	Wetland Hydrology Present? <u> N </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary indicators of wetland hydrology were observed.

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			Mottles				Texture	Remarks
	Color (Moist)		%	Color (Moist)	%	Type	Location		
0-10	Hue 10YR	3/1	100					L	
10-18	Hue 10YR	4/1	60	Hue 10YR	4/6	40	C	M	FS
18-24	Gley1	2.5/N	100					MMI	sapric loam

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

<input type="checkbox"/> A1 - Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers (LRR F) <input type="checkbox"/> A9 - 1 cm Muck (LRR FGH) <input checked="" type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Mucky Mineral <input type="checkbox"/> S2 - 2.5 cm Mucky Peat or Peat (LRR G, H) <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat (LRR F) <input type="checkbox"/> S4 - Sandy Gleyed Matrix	<input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Mucky Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions <input type="checkbox"/> F16 - High Plains Depressions (MLRA 72, 73 of LRR H)	<p>Indicators for Problematic Soils¹</p> <input type="checkbox"/> A9 - 1 cm Muck (LRR I, J) <input type="checkbox"/> A16 - Coast Prairie Redox (LRR F, G, H) <input type="checkbox"/> S7 - Dark Surface (LRR G) <input type="checkbox"/> F16 - High Plains Depressions (LRR H, outside MLRA 72, 73) <input type="checkbox"/> F18 - Reduced Vertic <input type="checkbox"/> TF2 - Red Parent Material <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
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¹Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer	Type: _____	Depth: _____	Hydic Soil Present? <u> Y </u>
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Remarks: The profile contains a brown loam over a layer of sandy redox; dark, gleyed mucky loam is present below 18 inches. The upper loam layer contains isolated redox concentrations. Soils may have been hydric prior to drainage; however, the soils no longer support hydrophytic vegetation.

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Project/Site: **L3R** Sample Point: **u-150n40w24-g1**

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

Tree Stratum (Plot size: 30 ft. radius)

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

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Total Cover = 0

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

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL spp. <u>0</u>	x 1 =	<u>0</u>
FACW spp. <u>10</u>	x 2 =	<u>20</u>
FAC spp. <u>2</u>	x 3 =	<u>6</u>
FACU spp. <u>32</u>	x 4 =	<u>128</u>
UPL spp. <u>51</u>	x 5 =	<u>255</u>
Total <u>95</u> (A)		<u>409</u> (B)

Prevalence Index = B/A = 4.305

Total Cover = 0

Herb Stratum (Plot size: 5 ft. radius)

1.	<i>Bromus inermis</i>	50	Y	UPL
2.	<i>Phleum pratense</i>	20	Y	FACU
3.	<i>Spartina pectinata</i>	10	N	FACW
4.	<i>Solidago canadensis</i>	10	N	FACU
5.	<i>Galium boreale</i>	1	N	FACU
6.	<i>Fragaria virginiana</i>	1	N	FACU
7.	<i>Zizia aurea</i>	1	N	FAC
8.	<i>Pycnanthemum virginianum</i>	1	N	FAC
9.	<i>Carduus acanthoides</i>	1	N	NI
10.				
11.				
12.				
13.				
14.				
15.				

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.

Total Cover = 95

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

1.				
2.				
3.				
4.				

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.

Total Cover = 0

Hydrophytic Vegetation Present? N

Remarks: The site is dominated by smooth brome and timothy with prairie cordgrass and Canada goldenrod also prevalent. The topography of the area is quite flat, so the wetland boundary is somewhat gradual.

Additional Remarks: