

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: L3R City/County: Marshall Sampling Date: 2015-06-05

Applicant/Owner: Enbridge State: Minnesota Sampling Point: w-155n46w2-f_R1

Investigator(s): BCS/LEB Section, Township, Range: S2 T155N R46W

Landform (hillslope, terrace, etc.): Talf Local Relief (concave, convex, none): LL Slope (%): 0-2

Subregion (LRR or MLRA): LRR F Latitude: 48.2752056140... Longitude: -96.53370877...

Datum: Minnesota State Plane North, NAD 83 (2011) U.S. feet

Soil Map Unit Name: I65A NWI Classification: _____

Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): Yes

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	<u>Yes</u>	Is the Sampled Area within a Wetland? <u>Yes</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	<u>Yes</u>	
Wetland Hydrology Present?	<u>Yes</u>	
Remarks: (Explain alternative procedures here or in a separate report.) The wetland is a Shrub-Carr community located adjacent to an alfalfa field and within a larger wetland complex. The vegetation is dominated by sandba...		

VEGETATION - Use scientific names of plants.

Tree Stratum	(Plot Size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
		<u>0</u> = Total Cover		
Sapling/Shrub Stratum (Plot Size: _____)				
1.	<u>Salix interior</u>	<u>20.00</u>	<u>Yes</u>	<u>FACW</u>
2.	<u>Salix petiolaris</u>	<u>10.00</u>	<u>Yes</u>	<u>OBL</u>
3.	<u>Symphoricarpos occidentalis</u>	<u>5.00</u>	<u>No</u>	<u>UPL</u>
4.	<u>Salix bebbiana</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>
5.	_____	_____	_____	_____
		<u>37</u> = Total Cover		
Herb Stratum (Plot Size: _____)				
1.	<u>Carex buxbaumii</u>	<u>50.00</u>	<u>Yes</u>	<u>OBL</u>
2.	<u>Juncus balticus</u>	<u>15.00</u>	<u>No</u>	<u>FACW</u>
3.	<u>Calamagrostis canadensis</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>
4.	<u>Carex pellita</u>	<u>10.00</u>	<u>No</u>	<u>OBL</u>
5.	<u>Carex sartwellii</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>
6.	_____	_____	_____	_____
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>87</u> = Total Cover		
Woody Vine Stratum (Plot Size: _____)				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
		<u>0</u> = Total Cover		
% Bare Ground in Herb Stratum _____				

Dominance Test worksheet:
Number of Dominant Species _____
That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species _____
Species Across All Strata: 3 (B)
Percent of Dominant Species _____
That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:
Total % Cover of: _____ Multiply by: _____
OBL species 70.00 x 1 70
FACW species 49.00 x 2 98
FACU species 0.00 x 3 0
UPL species 5.00 x 4 25
Column Totals 124 (A) 193 (B)
Prevalence Index = B/A = 1.5564516...

Hydrophytic Vegetation Indicators:
yes 1 - Rapid Test for Hydrophytic Vegetation
yes 2 - Dominance Test is > 50%
yes 3 - Prevalence Index is ≤ 3.0¹
_____ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ _____
(Explain) _____
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? _____

Remarks:
The wetland sample area is dominated by Buxbaum's sedge in the herb stratum, with sandbar willow and meadow willow dominating the shrub stratum.

SOIL

Sampling Point: w-155n46...

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

Depth	Matrix	Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-8	10YR 2 1	100					MMI	Sandy		
8-20	10YR 4 2	100					FS			

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5)

☐ 1cm Muck (A9) (LRR F, G, H)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☒ Sandy Mucky Mineral (S1)

☐ 2.5cm Mucky Peat or Peat (S2)(LRR G, H)

☐ 5cm Mucky Peat or Peat (S3) (LRR F)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Loamy Mucky Mineral (F1) (LRR K, L)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

☐ High Plains Depressions (F16)

(MLRA 72 & 73 of LRR H)

Indicators for Problematic Hydric Soil³:

☐ 1cm Muck (A9) (LRR I, J)

☐ Coast Prairie Redox (A16)(LRR K, L, R)

☐ Dark Surface (S7) (LRR G)

☐ High Plains Depressions (F16)

(LRR H outside of MLRA 72 & 73)

☐ Reduced Vertic (F18)

☐ Red Parent Material (F21)

☐ Very Shallow Dark Surface (TF12)

☐ Other (explain in remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

☐

Type: _____Depth (inches): _____

Hydric Soil Present? Yes _____

Remarks:

Soil profile consists of a black sandy mucky mineral underlain by a light fine sand. Meets indicator S1, Sandy Mucky Mineral.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

☐ Surface Water (A1)

☒ High Water Table (A2)

☒ Saturation (A3)

☐ Water Marks (B1)

☐ Sediment Deposits (B2)

☐ Drift Deposits (B3)

☐ Algal Mat or Crust (B4)

☐ Iron Deposits (B5)

☐ Water-Stained Leaves (B9)

☐ Inundation Visible on Aerial Imagery (B7)

☐ Salt Crust (B11)

☐ Aquatic Invertebrates (B13)

☐ Hydrogen Sulfide Odor (C1)

☐ Dry-Season Water Table (C2)

☐ Oxidized Rhizospheres on Living Roots (C3)

(where not tilled)

☐ Presence of Reduced Iron (C4)

☐ Thin Muck Surface (C7)

☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

☐ Surface Soil Cracks (B6)

☐ Sparsely Vegetated Concave Surface (B8)

☐ Drainage Patterns (B10)

☐ Oxidized Rhizospheres on Living Roots (C3)

(where tilled)

☐ Crayfish Burrows (C8)

☐ Saturation Visible on Aerial Imagery (C9)

☒ Geomorphic Position (D2)

☒ FAC-Neutral Test (D5)

☐ Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present?

No

Water Table Present?

Yes

Saturation Present?

Yes

(includes capillary fringe)

Depth (inches) _____

Depth (inches) 1 _____

Depth (inches) 0 _____

Wetland Hydrology Present? Yes _____

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

Remarks:

The water table was observed at 1 inch, with saturation at the surface.

Site Photograph 1

Sampling Point: w-155n46w2-f_R1