

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Aitkin Sampling Date: 2015-07-10
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: AI114a2W_R
 Investigator(s): ZSW/DPT Section, Township, Range: 26, 49n, 25w
 Landform (hillslope, terrace, etc.): Talf Local Relief (concave, convex, none): Concave Slope (%): 0
 Subregion (LRR or MLRA): LRR K Latitude: 46.6977730952... Longitude: -93.46894718... Datum: Minnesota State ...
 Soil Map Unit Name: 1878 NWI Classification: PSS/EM5B

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? If yes, optional Wetland Site ID: <u>AI114aW</u>
Hydric Soil Present?	<u>Yes</u>	
Wetland Hydrology Present?	<u>Yes</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>yes</u> Surface Water (A1)	<u> </u> Water-Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)
<u> </u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)
<u> </u> Saturation (A3)	<u> </u> Marl Deposits (B15)	<u> </u> Moss Trim Lines (B16)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Crayfish Burrows (C8)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u>no</u> Stunted/Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u> </u> Geomorphic Position (D2)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Other (Explain in Remarks)	<u> </u> Shallow Aquitard (D3)
<u> </u> Sparsely Vegetated Concave Surface (B8)		<u> </u> Microtopographic Relief (D4)
		<u>yes</u> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? <u>Yes</u> Depth (inches) <u>4</u> Water Table Present? <u>Yes</u> Depth (inches) <u>0</u> Saturation Present? <u>Yes</u> Depth (inches) <u>0</u> (includes capillary fringe)		Wetland Hydrology Present? <u>Yes</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

VEGETATION - Use scientific names of plants.

Sampling Point: AI114a2W...

		Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot Size: <u>30</u>)					Dominance Test worksheet:
1. _____	_____	_____	_____	_____	Number of Dominant Species
2. _____	_____	_____	_____	_____	That Are OBL, FACW, or FAC: ⁴ _____ (A)
3. _____	_____	_____	_____	_____	Total Number of Dominant
4. _____	_____	_____	_____	_____	⁴
5. _____	_____	_____	_____	_____	Species Across All Strata: _____ (B)
6. _____	_____	_____	_____	_____	Percent of Dominant Species
7. _____	_____	_____	_____	_____	¹⁰⁰
		0	= Total Cover		That Are OBL, FACW, or FAC: _____ (A/B)
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15</u>)					Prevalence Index worksheet:
1. <u>Salix petiolaris</u>	40.00	Yes	FACW		Total % Cover of: _____ Multiply by: _____
2. <u>Spiraea alba</u>	20.00	Yes	FACW		OBL species <u>90.00</u> x 1 <u>90</u>
3. <u>Salix bebbiana</u>	10.00	No	FACW		FACW species <u>80.00</u> x 2 <u>160</u>
4. <u>Rubus idaeus</u>	10.00	No	FACU		FACU species <u>0.00</u> x 3 <u>40</u>
5. _____	_____	_____	_____		UPL species <u>0.00</u> x 4 <u>0</u>
6. _____	_____	_____	_____		Column Totals <u>180</u> (A) <u>290</u> (B)
7. _____	_____	_____	_____		Prevalence Index = B/A = <u>1.611111...</u>
		80	= Total Cover		Hydrophytic Vegetation Indicators:
<u>Herb Stratum</u> (Plot Size: <u>5</u>)					_____ 1 - Rapid Test for Hydrophytic Vegetation
1. <u>Calamagrostis canadensis</u>	60.00	Yes	OBL		yes _____ 2 - Dominance Test is > 50%
2. <u>Carex lacustris</u>	30.00	Yes	OBL		yes _____ 3 - Prevalence Index is ≤ 3.0 ¹
3. <u>Poa palustris</u>	5.00	No	FACW		_____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Eupatorium perfoliatum</u>	5.00	No	FACW		Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____		Definitions of Vegetation Strata:
7. _____	_____	_____	_____		Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
8. _____	_____	_____	_____		Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9. _____	_____	_____	_____		Herb - All herbaeaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10. _____	_____	_____	_____		Woody vines - All woody vines greater than 3.28 ft in height.
11. _____	_____	_____	_____		Hydrophytic Vegetation Present? _____
12. _____	_____	_____	_____		
		100	= Total Cover		
<u>Woody Vine Stratum</u> (Plot Size: <u>30</u>)					
1. _____	_____	_____	_____	_____	
2. _____	_____	_____	_____	_____	
3. _____	_____	_____	_____	_____	
4. _____	_____	_____	_____	_____	
		0	=Total Cover		
Remarks: (include photo numbers here or on a separate sheet.)					

SOIL

Sampling Point: Al114a2W...

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

[illegible]

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soil ³ :
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	☐ Coast Prairie Redox (A16)(LRR K, L, R)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (LRR K, L)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Dark Surface (S7) (LRR K, M)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)	☐ Polyvalue Below Surface (S8) (LRR K, L)
☐ Depleted Below Dark Surface (A11)	☐ Redox Dark Surface (F6)	☐ Thin Dark Surface (S9) (LRR K, L)
☐ Thick Dark Surface (A12)	☐ Depleted Dark Surface (F7)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Sandy Gleyed Matrix (S4)		☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Redox (S5)		☐ Red Parent Material (F21)
☐ Stripped Matrix (S6)		☐ Very Shallow Dark Surface (TF12)
☐ Dark Surface (S7) (LRR R, MLRA 149B)		☒ Other (explain in remarks)
Restrictive Layer (if observed): ☐	Hydric Soil Present? <u>Yes</u>	
Type: _____ Depth (inches): _____		
Remarks:		
Road ditch, no soil pit. Hydric soils assumed based on veg and hydro.		



Latitude: 46.6977766994822

Cowardin Classification: PSS

Longitude: -93.4689404816306

Circular 39: 6

Direction: North

Eggers & Reed: Shrub-Carr/Alder Thicket

Remarks: