

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Clearwater Sampling Date: 2015-07-10
Applicant/Owner: Enbridge State: Minnesota Sampling Point: CLC5004_200k1W
Investigator(s): KAT/BEH Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): CC Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Latitude: 47.668238666 Longitude: -95.40201566 Datum: Minnesota State ...
Soil Map Unit Name: 718C NWI Classification: _____

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

YesAre Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? YesAre 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: _____
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 shallow marsh dominated by cattails and lake sedge.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>no</u> Surface Water (A1)	<u> </u> Water-Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)
<u>yes</u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)
<u>yes</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>yes</u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u> </u> Stunted/Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u>yes</u> Geomorphic Position (D2)
<u>no</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>No</u> Depth (inches) _____	Wetland Hydrology Present? <u>Yes</u>
Water Table Present?	<u>Yes</u> Depth (inches) <u>0</u>	
Saturation Present? (includes capillary fringe)	<u>Yes</u> Depth (inches) <u>0</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Soil is saturated at the surface.		

VEGETATION - Use scientific names of plants.

 Sampling Point: CLC5004_...

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot Size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant <u>1</u> Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: $\frac{100}{\text{Total}} = \frac{100}{1} = 100$ (A/B)	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species $\frac{95.00}{\text{Total}} \times 1 = \frac{95}{\text{Total}}$ FACW species $\frac{0.00}{\text{Total}} \times 2 = \frac{0}{\text{Total}}$ FACU species $\frac{0.00}{\text{Total}} \times 3 = \frac{0}{\text{Total}}$ UPL species $\frac{0.00}{\text{Total}} \times 4 = \frac{0}{\text{Total}}$ Column Totals $\frac{95}{\text{Total}}$ (A) $\frac{95}{\text{Total}}$ (B) Prevalence Index = $B/A = \frac{1}{\text{Total}}$	
0 _____ = Total Cover					
Sapling/Shrub Stratum (Plot Size: _____)					Hydrophytic Vegetation Indicators: yes 1 - Rapid Test for Hydrophytic Vegetation yes 2 - Dominance Test is > 50% yes 3 - Prevalence Index is $\leq 3.0^1$ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.	
0 _____ = Total Cover					
Herb Stratum (Plot Size: <u>5'</u> _____)					Hydrophytic Vegetation Present? _____
1. <u>Typha X glauca</u>	80.00	Yes	OBL		
2. <u>Carex lacustris</u>	15.00	No	OBL		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
95 _____ = Total Cover					
Woody Vine Stratum (Plot Size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
0 _____ = Total Cover					
Remarks: (include photo numbers here or on a separate sheet.)					
Hydrophytic vegetation, including hybrid cattail and lake sedge, is present at the sample point.					

SOIL

Sampling Point: CLC5004_...

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 Soil³:	
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)	☐ Coast Prairie Redox (A16)(LRR K, L, R)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	☐ Dark Surface (S7) (LRR K, M)
☐ Black Histic (A3)	☒ Loamy Mucky Mineral (F1) (LRR K, L)	☐ Polyvalue Below Surface (S8) (LRR K, L)	☐ Thin Dark Surface (S9) (LRR K, L)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)	☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)	☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	☐ Red Parent Material (F21)
☐ Depleted Below Dark Surface (A11)	☐ Redox Dark Surface (F6)	☐ Very Shallow Dark Surface (TF12)	☐ Other (explain in remarks)
☐ Thick Dark Surface (A12)	☐ Depleted Dark Surface (F7)		
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)		
☐ Sandy Gleyed Matrix (S4)			
☐ Sandy Redox (S5)			
☐ Stripped Matrix (S6)			
☐ Dark Surface (S7) (LRR R, MLRA 149B)			
Restrictive Layer (if observed): ☐		Hydric Soil Present? <u>Yes</u>	
Type: _____ Depth (inches): _____			
Remarks:			
Soil consists of a thin layer of peat underlain by mucky peat over loamy mucky mineral. The bottom layer is black sandy clay with redox. The profile meets hydric soil indicator F1-Loamy Mucky Mineral.			