

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Clearwater Sampling Date: 2015-07-11
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: CLC5004_200n1W
 Investigator(s): BJC/LEB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR K Latitude: 47.6670122892... Longitude: -95.40539002... Datum: Minnesota State ...
 Soil Map Unit Name: 718C, Naytahwaush loam, 8 to 15 percent slopes 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? 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 hardwood swamp dominated by black ash, green ash, and reed canary grass. It is located in a depression on the edge of a mesic forest.		

HYDROLOGY

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

VEGETATION - Use scientific names of plants.

 Sampling Point: CLC5004_...

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot Size: <u>30 ft</u>)				Dominance Test worksheet:
1. <u>Fraxinus nigra</u>	<u>50.00</u>	<u>Yes</u>	<u>FACW</u>	Number of Dominant Species
2. <u>Fraxinus pennsylvanica</u>	<u>30.00</u>	<u>Yes</u>	<u>FACW</u>	That Are OBL, FACW, or FAC: <u>5</u> (A)
3. _____	_____	_____	_____	Total Number of Dominant
4. _____	_____	_____	_____	<u>5</u>
5. _____	_____	_____	_____	Species Across All Strata: _____ (B)
6. _____	_____	_____	_____	Percent of Dominant Species
7. _____	_____	_____	_____	That Are OBL, FACW, or FAC: <u>100</u> (A/B)
	<u>80</u>	= Total Cover		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot Size: <u>15 ft</u>)				Total % Cover of:
1. <u>Salix interior</u>	<u>15.00</u>	<u>Yes</u>	<u>FACW</u>	Multiply by:
2. <u>Fraxinus pennsylvanica</u>	<u>5.00</u>	<u>Yes</u>	<u>FACW</u>	OBL species <u>5.00</u> x 1 <u>5</u>
3. <u>Fraxinus nigra</u>	<u>5.00</u>	<u>Yes</u>	<u>FACW</u>	FACW species <u>160.00</u> x 2 <u>320</u>
4. _____	_____	_____	_____	FACU species <u>0.00</u> x 3 <u>0</u>
5. _____	_____	_____	_____	UPL species <u>0.00</u> x 4 <u>0</u>
6. _____	_____	_____	_____	Column Totals <u>165</u> (A) <u>325</u> (B)
7. _____	_____	_____	_____	Prevalence Index = B/A = <u>1.9696969...</u>
	<u>25</u>	= Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum (Plot Size: <u>5 ft</u>)				<u>yes</u> 1 - Rapid Test for Hydrophytic Vegetation
1. <u>Phalaris arundinacea</u>	<u>35.00</u>	<u>Yes</u>	<u>FACW</u>	<u>yes</u> 2 - Dominance Test is > 50%
2. <u>Impatiens capensis</u>	<u>15.00</u>	<u>Yes</u>	<u>FACW</u>	<u>yes</u> 3 - Prevalence Index is ≤ 3.0 ¹
3. <u>Carex cristatella</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	_____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Ribes triste</u>	<u>5.00</u>	<u>No</u>	<u>OBL</u>	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. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>60</u>	= Total Cover		
Woody Vine Stratum (Plot Size: _____)				Hydrophytic Vegetation Present? _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Remarks: (include photo numbers here or on a separate sheet.)				
The wetland sample point is dominated by black ash, green ash, sandbar willow, reed canary grass, and orange jewelweed.				

SOIL

Sampling Point: CLC5004_...

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2 1	100					L	
8-24	10YR 4 2	95	10YR 4 6	5	C	M	SIL	

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)

☒ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Mucky Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Dark Surface (S7) (LRR R, MLRA 149B)

☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)

☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)

☐ 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)

Indicators for Problematic Hydric Soil³:

☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)

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

☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)

☐ Dark Surface (S7) (LRR K, M)

☐ Polyvalue Below Surface (S8) (LRR K, L)

☐ Thin Dark Surface (S9) (LRR K, L)

☐ Iron-Maganese Masses (F12) (LRR K, L, R)

☐ Piedmont Floodplain Soils (F19) (MLRA 149B)

☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)

☐ Red Parent Material (F21)

☐ Very Shallow Dark Surface (TF12)

☐ Other (explain in remarks)

Restrictive Layer (if observed):

☐

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____

Remarks:

A depleted matrix was observed under a dark surface layer.