

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: CLC5005_210a1U
 Investigator(s): LEB/BJC Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): sideslope Local Relief (concave, convex, none): Conve... Slope (%): 15
 Subregion (LRR or MLRA): _____ Latitude: 47.6667501451... Longitude: -95.40533378... 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): 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>No</u>	Is the Sampled Area within a Wetland? <u>No</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	
Remarks: (Explain alternative procedures here or in a separate report.) The upland sample point is located on a forested sideslope leading from a residential yard into a roadside hardwood swamp.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
☐ Surface Water (A1)	☐ 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)	☐ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	
Field Observations: Surface Water Present? <u>No</u> Depth (inches) _____ Water Table Present? <u>No</u> Depth (inches) _____ Saturation Present? <u>No</u> Depth (inches) _____ (includes capillary fringe)		Wetland Hydrology Present? <u>No</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: No indicators of wetland hydrology were observed.			

VEGETATION - Use scientific names of plants.

Sampling Point: CLC5005_...

		Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot Size: <u>30 ft</u>)					Dominance Test worksheet:
1.	<u>Populus tremuloides</u>	<u>40.00</u>	<u>Yes</u>	<u>FACU</u>	Number of Dominant Species
2.	<u>Quercus macrocarpa</u>	<u>20.00</u>	<u>Yes</u>	<u>FACU</u>	That Are OBL, FACW, or FAC: <u>1</u> (A)
3.	<u>Ulmus americana</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	Total Number of Dominant
4.					<u>7</u>
5.					Species Across All Strata: (B)
6.					Percent of Dominant Species
7.					<u>14.2857142857...</u>
					That Are OBL, FACW, or FAC: (A/B)
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15 ft</u>)					Prevalence Index worksheet:
1.	<u>Amelanchier alnifolia</u>	<u>15.00</u>	<u>Yes</u>	<u>FACU</u>	Total % Cover of: Multiply by:
2.	<u>Prunus virginiana</u>	<u>10.00</u>	<u>Yes</u>	<u>FACU</u>	OBL species <u>0.00</u> x 1 <u>0</u>
3.	<u>Fraxinus pennsylvanica</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	FACW species <u>12.00</u> x 2 <u>24</u>
4.	<u>Lonicera tatarica</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	FACU species <u>40.00</u> x 3 <u>280</u>
5.	<u>Fraxinus nigra</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	UPL species <u>45.00</u> x 4 <u>225</u>
6.					Column Totals <u>167</u> (A) <u>649</u> (B)
7.					Prevalence Index = B/A = <u>3.8862275...</u>
		<u>65</u>	= Total Cover		Hydrophytic Vegetation Indicators:
					<u>1</u> - Rapid Test for Hydrophytic Vegetation
					<u>no</u> <u>2</u> - Dominance Test is > 50%
					<u>no</u> <u>3</u> - Prevalence Index is ≤ 3.0 ¹
					<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
<u>Herb Stratum</u> (Plot Size: <u>5</u>)					Problematic Hydrophytic Vegetation ¹ (Explain)
1.	<u>Carex pensylvanica</u>	<u>25.00</u>	<u>Yes</u>		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	<u>Eurybia macrophylla</u>	<u>20.00</u>	<u>Yes</u>	<u>UPL</u>	
3.	<u>Thalictrum dioicum</u>	<u>15.00</u>	<u>Yes</u>	<u>FACU</u>	
4.	<u>Streptopus lanceolatus</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<u>65</u>	= Total Cover		Definitions of Vegetation Strata:
<u>Woody Vine Stratum</u> (Plot Size:)					Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
1.					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
2.					Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
3.					Woody vines - All woody vines greater than 3.28 ft in height.
4.					
		<u>0</u>	=Total Cover		Hydrophytic Vegetation Present? _____
Remarks: (include photo numbers here or on a separate sheet.)					
The vegetation is dominated by quaking aspen and bur oak with Pennsylvania sedge and big-leaf aster in the understory.					

SOIL

Sampling Point: CLC5005_...

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		
0-6	10YR 2 1	100					sil	
6-24	10YR 4 2	100					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? No _____

Remarks:

The soil consists of a dark silt loam surface horizon above a light silt loam. No hydric soil indicators were observed.