

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_200j1W
Investigator(s): BEH/KAT Section, Township, Range: _____
Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): CC Slope (%): 0-2
Subregion (LRR or MLRA): LRR K Latitude: 47.6706666 Longitude: -95.39688864 Datum: Minnesota State ...
Soil Map Unit Name: 718C NWI Classification: PFO1C

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.) Forested wetland dominated by green ash.		

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)	<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:		Wetland Hydrology Present? <u>Yes</u>
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)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: The sample point is located in a depressional area where water collects, and the vegetation passes the FAC-Neutral test.		

VEGETATION - Use scientific names of plants.

 Sampling Point: CLC5004_...

	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot Size: <u>30'</u>)				Dominance Test worksheet:
1. <u>Fraxinus pennsylvanica</u>	<u>60.00</u>	<u>Yes</u>	<u>FACW</u>	Number of Dominant Species
2. <u>Fraxinus nigra</u>	<u>20.00</u>	<u>Yes</u>	<u>FACW</u>	That Are OBL, FACW, or FAC: <u>2</u> (A)
3. <u>Ulmus americana</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>	Total Number of Dominant
4. _____	_____	_____	_____	<u>2</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>90</u>	= Total Cover		Prevalence Index worksheet:
<u>Sapling/Shrub Stratum</u> (Plot Size: _____)				Total % Cover of: _____ Multiply by: _____
1. _____	_____	_____	_____	OBL species <u>15.00</u> x 1 <u>15</u>
2. _____	_____	_____	_____	FACW species <u>150.00</u> x 2 <u>300</u>
3. _____	_____	_____	_____	FACU species <u>5.00</u> x 3 <u>20</u>
4. _____	_____	_____	_____	UPL species <u>0.00</u> x 4 <u>0</u>
5. _____	_____	_____	_____	Column Totals <u>175</u> (A) <u>350</u> (B)
6. _____	_____	_____	_____	Prevalence Index = B/A = <u>2</u>
7. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:
	<u>0</u>	= Total Cover		<u>yes</u> 1 - Rapid Test for Hydrophytic Vegetation
<u>Herb Stratum</u> (Plot Size: <u>5'</u>)				<u>yes</u> 2 - Dominance Test is > 50%
1. <u>Impatiens capensis</u>	<u>40.00</u>	<u>Yes</u>	<u>FACW</u>	<u>yes</u> 3 - Prevalence Index is ≤ 3.0 ¹
2. <u>Phalaris arundinacea</u>	<u>20.00</u>	<u>No</u>	<u>FACW</u>	_____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. <u>Poa palustris</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
4. <u>Persicaria pensylvanica</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Persicaria punctata</u>	<u>5.00</u>	<u>No</u>	<u>OBL</u>	Definitions of Vegetation Strata:
6. <u>Urtica dioica</u>	<u>5.00</u>	<u>No</u>	<u>FAC</u>	Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
7. <u>Ranunculus pensylvanicus</u>	<u>5.00</u>	<u>No</u>	<u>OBL</u>	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
8. <u>Scutellaria lateriflora</u>	<u>5.00</u>	<u>No</u>	<u>OBL</u>	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9. <u>Mentha arvensis</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	Woody vines - All woody vines greater than 3.28 ft in height.
10. <u>Galeopsis tetrahit</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
11. _____	_____	_____	_____	Hydrophytic Vegetation Present? _____
12. _____	_____	_____	_____	
	<u>105</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot Size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Remarks: (include photo numbers here or on a separate sheet.)				
The canopy is dominated by green ash and black ash, and the herbaceous layer is dominated by jewelweed.				

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 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): ☐ Type: _____ Depth (inches): _____		Hydric Soil Present? <u>Yes</u>
Remarks:		
Soil is loamy mucky mineral underlain by dark brown sandy clay loam. The bottom layer is depleted sandy clay. The profile meets three hydric soil indicators.		