

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Carlton Sampling Date: 2015-06-27
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: CR162g1U
 Investigator(s): ACM/LEB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ rise _____ Local Relief (concave, convex, none): _____ Conve... _____ Slope (%): 0-2
 Subregion (LRR or MLRA): _____ Latitude: 46.357955 Longitude: -92.179261 Datum: Minnesota State ...
 Soil Map Unit Name: 303 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? If yes, optional Wetland Site ID: _____	
Hydric Soil Present?	<u>No</u>		<u>No</u>
Wetland Hydrology Present?	<u>No</u>		
Remarks: (Explain alternative procedures here or in a separate report.) The upland is an aspen forest dominated by aspen, black ash, beaked hazel, and big-leaf aster.			

HYDROLOGY

Wetland Hydrology Indicators:	<u>Secondary Indicators (minimum of two required)</u>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted/Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> 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 wetland hydrology indicators were observed.

VEGETATION - Use scientific names of plants.

Sampling Point: CR162g1U

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot Size: <u>30 ft</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)
1. <u>Populus tremuloides</u>	<u>40.00</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Fraxinus nigra</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot Size: <u>15 ft</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>5.00</u> x 1 <u>5</u> FACW species <u>74.00</u> x 2 <u>148</u> FACU species <u>5.00</u> x 3 <u>428</u> UPL species <u>37.00</u> x 4 <u>185</u> Column Totals <u>228</u> (A) <u>781</u> (B) Prevalence Index = B/A = <u>3.4254385...</u>
1. <u>Fraxinus nigra</u>	<u>30.00</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Corylus cornuta</u>	<u>20.00</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Alnus incana</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>	
4. <u>Viburnum lentago</u>	<u>5.00</u>	<u>No</u>	<u>FAC</u>	
5. <u>Viburnum rafinesquianum</u>	<u>2.00</u>	<u>No</u>	_____	
6. <u>Populus tremuloides</u>	<u>2.00</u>	<u>No</u>	<u>FACU</u>	
_____ = Total Cover				
Herb Stratum (Plot Size: <u>5 ft</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is > 50% <input type="checkbox"/> 3 - Prevalence Index is ≤ 3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) <small>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>
1. <u>Eurybia macrophylla</u>	<u>35.00</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Aralia nudicaulis</u>	<u>20.00</u>	<u>No</u>	<u>FACU</u>	
3. <u>Equisetum pratense</u>	<u>15.00</u>	<u>No</u>	<u>FACW</u>	
4. <u>Rosa acicularis</u>	<u>10.00</u>	<u>No</u>	<u>FACU</u>	
5. <u>Rubus pubescens</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>	
6. <u>Fragaria virginiana</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
7. <u>Pteridium aquilinum</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
8. <u>Maianthemum canadense</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
9. <u>Calamagrostis canadensis</u>	<u>5.00</u>	<u>No</u>	<u>OBL</u>	
10. <u>Carex projecta</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	
11. <u>Solidago gigantea</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	
12. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot Size: _____)				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.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Hydrophytic Vegetation Present? _____				
Remarks: (include photo numbers here or on a separate sheet.) The vegetation is dominated by aspen, black ash, beaked hazel, and big-leaf aster.				

SOIL

Sampling Point: CR162g1U

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	5YR 3 3	100					sic		
8-24	5YR 4 6	99	5YR 5 8	1	C	M	c		

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 :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Coast Prairie Redox (A16)(LRR K, L, R)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Dark Surface (S7) (LRR K, M)
	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
	<input type="checkbox"/> Iron-Maganese Masses (F12) (LRR K, L, R)
	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	<input type="checkbox"/> Red Parent Material (F21)
	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
	<input type="checkbox"/> Other (explain in remarks)
Restrictive Layer (if observed): <input type="checkbox"/>	
Type: _____	
Depth (inches): _____	Hydric Soil Present? <u>No</u>
Remarks:	
The soils are silty clay over red clay with no hydric soil indicators.	