

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Hubbard Sampling Date: 2015-07-02
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: HUC5034_200c1W
 Investigator(s): BCS/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: 47.1856259 Longitude: -95.1286791 Datum: Minnesota State ...
 Soil Map Unit Name: 526C 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 quaking aspen and black ash and located within a large forested complex.		

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)
<u>yes</u> ☒ 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)
<u>yes</u> ☒ 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) _____ Water Table Present? <u>No</u> Depth (inches) _____ Saturation Present? <u>Yes</u> Depth (inches) <u>8</u> (includes capillary fringe)		Wetland Hydrology Present? <u>Yes</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Saturation is present at 8 inches. The wetland is located in a sparsely vegetated depression and passes the FAC-Neutral test.		

VEGETATION - Use scientific names of plants.

 Sampling Point: HUC5034_...

	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>20.00</u>	<u>Yes</u>	<u>FACU</u>	Number of Dominant Species
2. <u>Fraxinus nigra</u>	<u>15.00</u>	<u>Yes</u>	<u>FACW</u>	That Are OBL, FACW, or FAC: <u>3</u> (A)
3. <u>Quercus macrocarpa</u>	<u>15.00</u>	<u>Yes</u>	<u>FACU</u>	Total Number of Dominant
4. <u>Fraxinus pennsylvanica</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	<u>5</u>
5. _____	<u>5.00</u>	<u>No</u>	<u>FACW</u>	Species Across All Strata: _____ (B)
6. <u>Ulmus americana</u>	_____	_____	_____	Percent of Dominant Species
7. _____	_____	_____	_____	That Are OBL, FACW, or FAC: <u>60</u> (A/B)
	<u>60</u>	= Total Cover		Prevalence Index worksheet:
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15 ft</u>)				Total % Cover of: _____ Multiply by: _____
1. <u>Fraxinus nigra</u>	<u>30.00</u>	<u>Yes</u>	<u>FACW</u>	OBL species <u>15.00</u> x 1 <u>15</u>
2. <u>Quercus macrocarpa</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	FACW species <u>77.00</u> x 2 <u>154</u>
3. _____	_____	_____	_____	FACU species <u>0.00</u> x 3 <u>160</u>
4. _____	_____	_____	_____	UPL species <u>0.00</u> x 4 <u>0</u>
5. _____	_____	_____	_____	Column Totals <u>132</u> (A) <u>329</u> (B)
6. _____	_____	_____	_____	Prevalence Index = B/A = <u>2.4924242...</u>
7. _____	_____	_____	_____	Hydrophytic Vegetation Indicators:
	<u>35</u>	= Total Cover		_____ 1 - Rapid Test for Hydrophytic Vegetation
<u>Herb Stratum</u> (Plot Size: <u>5 ft</u>)				<u>yes</u> 2 - Dominance Test is > 50%
1. <u>Iris versicolor</u>	<u>15.00</u>	<u>Yes</u>	<u>OBL</u>	<u>yes</u> 3 - Prevalence Index is ≤ 3.0 ¹
2. <u>Carex intumescens</u>	<u>10.00</u>	<u>Yes</u>	<u>FACW</u>	_____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. <u>Fraxinus nigra</u>	<u>10.00</u>	<u>Yes</u>	<u>FACW</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
4. <u>Equisetum sylvaticum</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. _____	_____	_____	_____	Definitions of Vegetation Strata:
6. _____	_____	_____	_____	Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
7. _____	_____	_____	_____	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
8. _____	_____	_____	_____	Herb - All herbaeeous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9. _____	_____	_____	_____	Woody vines - All woody vines greater than 3.28 ft in height.
10. _____	_____	_____	_____	Hydrophytic Vegetation Present? _____
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>37</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 sample area is dominated by quaking aspen, black ash, and bur oak in the tree stratum, black ash saplings in the shrub stratum, and blue flag iris, greater bladder sedge, and blac...				

SOIL

Sampling Point: HUC5034_...

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): ☐	Hydric Soil Present? Yes ☐	
Remarks:		
The observed profile consists of a dark silt loam underlain by a depleted fine sandy loam with 30% prominent redox concentrations. Soil meets indicators A11 and F3.		