WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Hubbard Sampling Date: 2015-06-29

Applicant/Owner: Enbridge State: Minnesota Sampling Point: HUC5028c1U

Investigator(s): BEH/BCS Section, Township, Range:

Landform (hillslope, terrace, etc.): Side Slope Local Relief (concave, convex, none): LL Slope (%): 3-7

Subregion (LRR or MLRA): LRR K Latitude: 47.1959799 Longitude: -95.1316836 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?	No	**Is the Sampled Area**	
Hydric Soil Present?	No	**within a Wetland?**	No
Wetland Hydrology Present?	No	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

The upland sample point is located in a forest dominated by quaking aspen and black ash with a dense shrub layer.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)
- Water-Stained Leaves (B9)
- Aquatic Fauna (B13)
- Marl Deposits (B15)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres on Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Drainage Patterns (B10)
- Moss Trim Lines (B16)
- Dry-Season Water Table (C2)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Stunted/Stressed Plants (D1)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- Microtopographic Relief (D4)
- yes FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? No Depth (inches)

Water Table Present? No Depth (inches)

Saturation Present? No Depth (inches)

(includes capillary fringe)

Wetland Hydrology Present? No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Vegetation passes the FAC-Neutral test, but no other hydrological indicators were observed.

VEGETATION - Use scientific names of plants.

Sampling Point: HUC5028c...

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot Size: 30')			
1. Populus tremuloides	35.00	Yes	FACU
2. Fraxinus nigra	20.00	Yes	FACW
3. Quercus macrocarpa	3.00	No	FACU
4.			
5.			
6.			
7.			
	58	= Total Cover	
Sapling/Shrub Stratum (Plot Size: 15')			
1. Fraxinus nigra	15.00	Yes	FACW
2. Viburnum rafinesquianum	15.00	Yes	
3. Prunus virginiana	10.00	No	FACU
4. Corylus cornuta	10.00	No	FACU
5. Amelanchier alnifolia	5.00	No	FACU
6.			
7.			
	55	= Total Cover	
Herb Stratum (Plot Size: 5')			
1. Athyrium angustum	20.00	Yes	FAC
2. Toxicodendron rydbergii	10.00	No	FAC
3. Amelanchier alnifolia	10.00	No	FACU
4. Osmundastrum cinnamomeum	10.00	No	FACW
5. Thalictrum dioicum	5.00	No	FACU
6. Oryzopsis asperifolia	5.00	No	
7. Streptopus lanceolatus	5.00	No	FACU
8. Luzula acuminata	5.00	No	FACU
9.			
10.			
11.			
12.			
	70	= Total Cover	
Woody Vine Stratum (Plot Size:)			
1.			
2.			
3.			
4.			
	0	=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0.00	x 1	0
FACW species	45.00	x 2	90
FACU species	30.00	x 3	352
UPL species	20.00	x 4	100
Column Totals	183 (A)		632 (B)

Prevalence Index = B/A = 3.4535519...

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation

no 2 - Dominance Test is > 50%

no 3 - Prevalence Index is ≤ 3.0[1]

____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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.

Hydrophytic Vegetation Present? ____

Remarks: (include photo numbers here or on a separate sheet.)

The canopy is dominated by quaking aspen and black ash. The shrub component is mostly comprised of black ash saplings and downy arrowwood. Ground cover is predominantly lad...

SOIL

Sampling Point: HUC5028c...

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

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 2 1	100					sl	
3-24	10YR 3 2	100					sl	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: 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 Soil[3]:

- ☐ 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:

Soil is dark sandy loam underlain by slightly lighter sandy loam. The profile does not meet any hydric soil indicators.