

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_200g1U
 Investigator(s): KAT/BEH Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Foot Slope Local Relief (concave, convex, none): LL Slope (%): 2
 Subregion (LRR or MLRA): LRR K Latitude: 47.67206566 Longitude: -95.39256833 Datum: Minnesota State ...
 Soil Map Unit Name: 718C NWI Classification: PEMC

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>Yes</u>	
Wetland Hydrology Present?	<u>No</u>	
Remarks: (Explain alternative procedures here or in a separate report.) The upland sample point is located in a pasture, upslope from an adjacent shallow marsh. The sample site contains hydric soil, but no wetland hydrolog...		

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 primary or secondary wetland hydrology indicators were observed.			

VEGETATION - Use scientific names of plants.

 Sampling Point: CLC5004_...

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot Size: _____)				Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species
2. _____	_____	_____	_____	That Are OBL, FACW, or FAC: <u>0</u> (A)
3. _____	_____	_____	_____	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>0</u> (A/B)
	<u>0</u> = Total Cover			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot Size: _____)				Total % Cover of:
1. _____	_____	_____	_____	Multiply by:
2. _____	_____	_____	_____	OBL species <u>0.00</u> x 1 <u>0</u>
3. _____	_____	_____	_____	FACW species <u>15.00</u> x 2 <u>30</u>
4. _____	_____	_____	_____	FACU species <u>0.00</u> x 3 <u>300</u>
5. _____	_____	_____	_____	UPL species <u>0.00</u> x 4 <u>0</u>
6. _____	_____	_____	_____	Column Totals <u>90</u> (A) <u>330</u> (B)
7. _____	_____	_____	_____	Prevalence Index = B/A = <u>3.666666...</u>
	<u>0</u> = Total Cover			Hydrophytic Vegetation Indicators:
Herb Stratum (Plot Size: <u>5'</u>)				_____ 1 - Rapid Test for Hydrophytic Vegetation
1. <u>Taraxacum officinale</u>	<u>25.00</u>	<u>Yes</u>	<u>FACU</u>	<u>no</u> 2 - Dominance Test is > 50%
2. <u>Poa pratensis</u>	<u>20.00</u>	<u>Yes</u>	<u>FACU</u>	<u>no</u> 3 - Prevalence Index is ≤ 3.0 ¹
3. <u>Agrostis gigantea</u>	<u>15.00</u>	<u>No</u>	<u>FACW</u>	_____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Trifolium repens</u>	<u>15.00</u>	<u>No</u>	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Phleum pratense</u>	<u>10.00</u>	<u>No</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. <u>Elymus repens</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	Definitions of Vegetation Strata:
7. _____	_____	_____	_____	Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
8. _____	_____	_____	_____	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9. _____	_____	_____	_____	Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10. _____	_____	_____	_____	Woody vines - All woody vines greater than 3.28 ft in height.
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>90</u> = Total Cover			
Woody Vine Stratum (Plot Size: _____)				Hydrophytic Vegetation Present? _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u> = Total Cover			
Remarks: (include photo numbers here or on a separate sheet.)				
The sample site is dominated by common dandelion and Kentucky bluegrass.				

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	97	5YR 3 4	3	C	M	CL	
6-14	10YR 2 1	100					CL	
14-20	10YR 4 2	95	10YR 5 6	5	C	M	C	
20-28	10YR 5 2	70	10YR 5 8	30	C	M	C	

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? Yes _____

Remarks:

Soil is two black layers of clay loam, with redox in the upper layer. The bottom two layers are depleted clay of varying color; the profile meets two hydric soil indicators.