WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP	City/County: Aitkin		Sampling Date: 2016-08-22	
Applicant/Owner: Enbridge		State: Minnesota	Samplir	ng Point: <u>u-50n26w18-j1</u>
Investigator(s): ZCW, MGH	Section,	Township, Range: S18, T50N	N, R26W	
Landform (hillslope, terrace, etc.): Ri	se	Local Relief (concar	ve, convex, none): VV	Slope (%): 3-7%
Subregion (LRR or MLRA):	Lati	tude: 46.8255081028	Longitude: -93.67779563	Datum: NAD83
Soil Map Unit Name: 204B			NWI Cla	ssification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): No				
Analysmatation No. Cail No.	···	ا مسالا الما الكام الما الما الما الما الما	, S	
Are Vegetation No , Soil No , o	Hydrology NO significanti	iy disturbed? Are "Normai C	ircumstances" present? Tes	
Are Vegetation No_, Soil No_, or F	lydrology No naturally pro	oblematic? (If needed, expla	ain any answers in Remarks)	
CLIMMARY OF FINDINGS Attach	cita man chawing campling	noint locations transacts i	important foatures, etc	
Hydrophytic Vegetation Present?	No	Is the Sampled Are		
Hydric Soil Present?	No	within a Wetland?		No
Wetland Hydrology Present?	No	If yes, optional We		
Remarks: (Explain alternative proce				-
Climatic conditions are "wet" based	•			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one	is required; check all that ag	oply)	Surface So	il Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)		Drainage Patterns (B10)	
High Water Table (A2)	Aquatic Fa	una (B13)	Moss Trim	Lines (B16)
Saturation (A3)	Marl Depo	sits (B15)	Dry-Season Water Table (C2)	
Water Marks (B1)	Hydrogen S	Sulfide Odor (C1)	Crayfish Burrows (C8)	
Sediment Deposits (B2)	Oxidized R	hizospheres on Living Roots (C3)	Saturation \	isible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence o	of Reduced Iron (C4)	Stunted/Stro	essed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron	n Reduction in Tilled Soils (C6)	Geomorphic	Position (D2)
Iron Deposits (B5)	Thin Muck	Surface (C7)	Shallow Aqu	iitard (D3)
Inundation Visible on Aerial Imagery	indation Visible on Aerial Imagery (B7) Other (Explain in Rer			
Sparsely Vegetated Concave Surface	(B8)		FAC-Neutral	Test (D5)
Field Observations:	No			
Surface Water Present?		(inches)		
Water Table Present?		(inches)		a Na
Saturation Present?	No Depth	(inches)	Wetland Hydrology Pr	esent? <u>No</u>
(includes capillary fringe)				
Describe Recorded Data (stream gau	ge, monitoring well, aerial p	hotos, previous inspections)	i, if available:	
Remarks:				

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot Size: 30)	% Cover	Species?	Status	Number of Dominant Species
1. Populus tremuloides	35.00	Yes	FAC	That Are OBL, FACW, or FAC: 1(A)
2. Quercus rubra	35.00	Yes	FACU	Total Number of Dominant
3. Acer rubrum	15.00	No	FAC	Species Across All Strata: 5 (B)
4.				Percent of Dominant Species
5.		-	-	That Are OBL, FACW, or FAC: 20 (A/B)
			· -	Prevalence Index worksheet:
		-		`
7				Total % Cover of: Multiply by:
	85	= Total Cover		OBL species <u>0.00</u> x 1 <u>0</u>
Sapling/Shrub Stratum (Plot Size: 15)				FACW species <u>0.00</u> x 2 <u>0</u>
1. Corylus cornuta	25.00	Yes	UPL	FACU species 80.00 x 3 320
2. Quercus rubra	15.00	Yes	FACU	UPL species <u>65.00</u> x 4 <u>325</u>
3				Column Totals <u>195</u> (A) <u>795</u> (B)
4				Prevalence Index = B/A = 4.0769230
5				Hydrophytic Vegetation Indicators:
6			<u></u>	1 - Rapid Test for Hydrophytic Vegetation
7				no 2 - Dominance Test is > 50%
	40	= Total Cover		no 3 - Prevalence Index is ≤ 3.0 ¹
Herb Stratum (Plot Size: 5)				4 - Morphological Adaptations 1 (Provide
1. Carex woodii	40.00	Yes		supporting data in Remarks or on a separate sheet)
2. Eurybia macrophylla	15.00	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Aralia nudicaulis	10.00	No	FACU	
Vaccinium angustifolium	5.00	No	FACU	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5			-	Definitions of Vegetation Strata:
6.				Deminions of Vegetation Strata.
		-		Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast
7 8.				height (DBH), regardless of height.
	-			
9		-	-	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				1
11				Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		_	_	woody plants less than 5.20 it tall.
	70	_ = Total Cover		Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot Size: 30)				
1				
2.			<u> </u>	Hydrophytic
3.				Vegetation No
4.	-			Present?
*-	0	-Total Cover		1
		_=Total Cover		
Remarks: (include photo numbers here or on a separate sheet	.)			

Sampling Point: u-50n26w... **SOIL** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth Loc² (inches) Color (moist) % Color (moist) % Type¹ Texture Remarks 10YR 3 3 0-4 100 FSL 10YR 5 2 10YR 58 95 4-24 С M LS ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soil³: Hydric Soil Indicators: Polyvalue Below Surface (S8) (LRR R, MLRA Histosol (A1) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) Coast Prairie Redox (A16)(LRR K, L, R) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Dark Surface (S7) (LRR K, M) Loamy Gleyed Matrix (F2) 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-Maganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) 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? No Depth (inches): Remarks:

Site Photograph 1 Sampling Point: u-50n26w18-j1



Latitude: 46.8255480006773	Cowardin Classification:
Longitude: -93.6777794548251	Circular 39:
Direction: North	Eggers & Reed:
Remarks:	
Upland	

Site Photograph 2 Sampling Point: u-50n26w18-j1



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Latitude: 46.8255479168583	Cowardin Classification:			
Longitude: -93.677778951911	Circular 39:			
Direction: West	Eggers & Reed:			
Remarks:				
Upland				