## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP	_City/County: Clearw	aterSampling Date: 5	/24/2014
Applicant/Owner: Enbridge		State: MN Sampling Poir	nt: CLC5027c1W
Investigator(s): EAB/RAJ		Section, Township, Range:	
Landform (hillslope, terrace, etc.): Depression	Loc	al relief (concave, convex, no	ne): CC
Slope (%): <u>0 - 2%</u> Lat.: <u>47.566379</u>	Long.: <u>-95.391937</u>	Datum:	
Soil Map Unit Name: 1152B		NWI Classificatio	
Are climatic/hydrologic conditions of the site typical		The state of the s	-
Are vegetation , soil , or hydrol	· · · · · · · · · · · · · · · · · · ·	disturbed? Are "norn	
Are vegetation $\square$ , soil $\square$ , or hydrol	ogy <u> </u>	oblematic? circumsta	nces" present?
(If needed, explain any answers in remarks)			
SUMMARY OF FINDINGS			
Hydrophytic vegetation present? Y	is the sample	I area within a wetland?	Υ
Hydric soil present?		aroa witiiii a wottana.	<del></del>
Indicators of wetland hydrology present? Y	If yes, optional	wetland site ID:	
Remarks: (Explain alternative procedures here or in	a separate report )		
The wetland is a forested, seasonally-floode		s been grazed and trample	ed by cattle
	-		-
Understory vegetation is sparse but the can			nd lies adjacent to
an open grazed pasture along an existing u	naerground utility RO	/V.	
HYDROLOGY			
		Secondary Indica	tors (minimum of two
Primary Indicators (minimum of one is required; che		required)	
	ater-Stained Leaves (B9)	Surface Soil C	
	uatic Fauna (B13)	Drainage Patt	
	arl Deposits (B15)	Moss Trim Lin	
	drogen Sulfide Odor (C1) didized Rhizospheres on	☐ Crayfish Burro	Vater Table (C2)
	ring Roots (C3)		ible on Aerial Imagery
	esence of Reduced Iron (		ible on Achai imagery
	cent Iron Reduction in Till	_ ` _	essed Plants (D1)
<u> </u>	ils (C6)	✓ Geomorphic F	
	in Muck Surface (C7)	☐ Shallow Aquit	
	her (Explain in Remarks)		hic Relief (D4)
Surface (B8)		☐ FAC-Neutral 1	
Field Observations:			
Surface water present? Yes	Depth (inches)	Indicato	rs of
Water table present? Yes	Depth (inches)		nd
Saturation present? Yes	Depth (inches)		ogy
(includes capillary fringe)	, , ,	presei	
Describe recorded data (stream gauge, monitoring	weii, aeriai photos, previo	ous inspections), if available:	
Domonico			
Remarks: The wetland is located in a grazed depres	sion. Surface water is	nrecent alcowhere in the	wetland in
trampled areas that cattle evidently use fo		•	
in amplica areas that cathe evidently use to	wanowing, but tills t	The sample site was chos	Son to avoid

•	Matrix		depth needed t				confirm	the absence o	f indicators.)	
Color	Matrix		depth needed t				confirm	the absence o	f indicators.)	
Color		0/		Redux					of indicators.)	
	(1110131)	Depth Matrix (In.) Color (moist) %			Redox Features Color (moist) %			Texture	Remarks	
	2/2	100	Color (III)	UISI)	70	Type*	Loc**	CL		
Hue 10YR	5/2	90	Hue_10YR	4/6	10	С	М	CL		
True_ToTR	0/2	- 00	1100_10111	470	1 .		1	02		
					1 1		1			
							1			
							<u> </u>	<b> </b>		
C=Concent	ration D=De	enletio	n RM=Reduce	d Matrix (	S=Cov	ered or C	nated Sa	and Grains		
				a Matrix, C	JO-00V	cica oi o	oaica oi	and Grains		
	<u> </u>						Indicat	tors for Proble	ematic Hydric Soils:	
Histic Epipe Black Histic Hydrogen S Stratified Li Depleted B Thick Dark Sandy Muc Sandy Gley Sandy Red Stripped Mi Dark Surface	edon (A2) c (A3) Sulfide (A4) ayers (A5) elow Dark S Surface (A ky Mineral o yed Matrix (So) atrix (S6) ce (S7) (LR	Suface 12) (S1) S4) R R, N	(S8   Thin (LR   Loa (A11) (LR   Loa (A11) (LR   Loa (LR   Loa (LR   Loa (LR   Loa (LR   Loa (LR   Loa (LR   LR   Loa (LR   Loa (LR   LR   La (LR   LR   LR   La (LR   LR   LR   La (LR   LR   LR   LR   La (LR   LR   LR   LR   LR   LR   LR   LR	i) (LRR R, n Dark Sui RR R, MLR amy Mucky RR K, L) amy Gleyed bleted Mat dox Dark S bleted Dark dox Depres	MLRA rface (S A 149B r/ Minera d Matrix rix (F3) Surface k Surface ssions (	149B) 9) 6 6 (F1) (F6) 9 (F6) 9 (F7) 9 (F8)	Co Da Da Po Th Iro Pie Me Re Ott	east Prairie Red om Mucky Peat irk Surface (S7 lyvalue Below in Dark Surface n-Manganese I edmont Floodpl esic Spodic (TA ed Parent Mater ry Shallow Dar her (Explain in	Surface (S8) (LRR K, L) e (S9) (LRR K, L) Masses (F12) (LRR K, L, R) lain Soils (F19) (MLRA 149B) 6) (MLRA 144A, 145, 149B) rial (F21) k Surface (TF12) Remarks)	
Restrictive Layer (if observed): Type: Depth (inches):							Hydric soil present?Y			
	eatures a d	deplet	ed layer with	promine	ent redo	ox conce	entratio	ns beneath a	dark surface.	
	ion: PL=Por Soil Indica Histosol (A Histic Epipe Black Histic Hydrogen S Stratified La Depleted B Thick Dark Sandy Muc Sandy Gley Sandy Red Stripped Mi Dark Surfac ors of hydro ive Layer (ii inches):	ion: PL=Pore Lining, M Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark S Thick Dark Surface (A Sandy Mucky Mineral Sandy Gleyed Matrix ( Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LR ors of hydrophytic vege ive Layer (if observed)	ion: PL=Pore Lining, M=Matrix Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Suface Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, N ors of hydrophytic vegetation ive Layer (if observed): inches):	Soil Indicators:  Histosol (A1)	Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Suface (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  ors of hydrophytic vegetation and wetland hydrology materials.	Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Suface (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  ors of hydrophytic vegetation and wetland hydrology must be prive Layer (if observed):  inches):    Polyvalue Below Surface (S8) (LRR R, MLRA)   (S8) (LRR R, MLRA)   Thin Dark Surface (S   (LRR R, MLRA 149B)   Loamy Mucky Mineral (LRR K, L)   Loamy Gleyed Matrix (F3)   Redox Dark Surface Depleted Dark Surface Redox Depressions (INT)   Redox Depre	Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Suface (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) 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)  Dark Surface (S7) (LRR R, MLRA  ors of hydrophytic vegetation and wetland hydrology must be present, unive Layer (if observed): inches):  SS:	Soil Indicators:  Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Clark Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) Clark R, MLRA 149B Date (A12) Sandy Mucky Mineral (S1) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) Clark R, MLRA 149B Date (A12) Date (A13) Depleted Matrix (F2) Depleted Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Dark Surface (S7) Clark R, MLRA Depleted Matrix (F3) Depleted Matrix (F3) Redox Dark Surface (F6) Dark Surface (S7) Clark R, MLRA Depleted Matrix (F3) Depleted Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Depleted Dark Surface (	Black Histic (A3)	