WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R									Date:	08/02/14	
	pplicant: Enbridge vestigators: BEH/BCS/MRK		Subregion (MLPA or LPP): MLPA 56						County: State:	Kittson MN			
Investigators: BEH/BCS/MRK Soil Unit: I140A			Subregion (MLRA or LRR): MLRA 56 NWI Classification:							State.	IVIIN		
Landform:					Loc	cal Relief:		i Olacomoation.			Sample Point	: u-159n48w6-a1	
Slope (%):	0 - 2%		Latitude:			Longitude:			Datum:				
		nditions on the site				ar? (If no, exp			⊡Yes	□No	Section:		
Are Vegetation		☐ or Hydrology					Are	e normal circum	•	esent?	Township:		
Are Vegetation		☐ or Hydrology	L∎tural	ly prob	olematic?			Yes	□No		Range:	Dir:	
SUMMARY C				NI-					Lludria Cail	la Dragant?	No		
Hydrophytic Vegetation Present? No No No										ls Present?	nt Within A W	/etland? No	
Remarks:	The upland	sample point is lo	cated be	tween				ivate gravel driv				site is dominated by quack	grass
LIVEROL OO		, and is adjacent to	o a neart	by wetl	and located	next to th	e drive.						
HYDROLOG													
		icators (Check all	I that app	ıly; Mir	nimum of on	e primary	or two se	econdary requi	red):	0			
Primary:	<u>:</u> A1 - Surface \	Nater				B11 - Salt	Crust			Secondary:	B6 - Surface S	Soil Cracks	
A2 - High Water Table					B13 - Aqua	atic Fauna		☐ B8 - Sparsely Vegetated Concave Surface					
	A3 - Saturation B1 - Water M					C1 - Hydro					B10 - Drainag	e Patterns Rhizospheres on Living Roots	(tilled)
	B2 - Sedimen											Burrows	(tilled)
	B3 - Drift Dep					C4 - Prese	nce of Re	duced Iron	,			n Visible on Aerial Imagery	
	B4 - Algal Ma B5 - Iron Dep					C7 - Thin N Other (Exp		ace			D2 - Geomorp D5 - FAC-Neu		
		n Visible on Aerial Im	nagery			Other (Lxp	iaii)					aved Hummocks (LRR F)	
	B9 - Water-St		• ,										
Field Obser													
Field Observ Surface Water		Yes		Donth		(in)							
Water Table		Yes		Depth:		(in.) (in.)			Wetland H	lydrology l	Present?	N	
Saturation Pr		Yes		Depth:		(in.)						_	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:													
I Describe Reco	orded Data (s	tream gauge moni	itorina we	ll aeria	al nhotos nre	vious iner	ections)	if available:					
							ections),	if available:					
Remarks:		stream gauge, moni or secondary hydr					ections),	if available:					
Remarks: SOILS	No primary	or secondary hydr	rological i	indicat	ors were ob	served.							
Remarks: SOILS Profile Descri	No primary	or secondary hydr	rological i	indicat docum	ors were ob	served.	onfirm th	e absence of in					
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Remarks: SOILS Profile Descri	No primary	or secondary hydr	rological i	indicat docum	ors were ob	served.	onfirm th	e absence of in ore Lining, M=Matr		I			
Remarks: SOILS Profile Descri	No primary	or secondary hydr be to the depth ne etion, RM=Reduced M	rological i	indicat docum	ors were ob	served. cator or co	onfirm the	e absence of in ore Lining, M=Matr		Texture		Remarks	
Remarks: SOILS Profile Descri (Type: C=Concer	No primary	or secondary hydrone be to the depth neetion, RM=Reduced M	rological i	docum Covered/	nent the indicated Sand (served. cator or co	onfirm the	e absence of in ore Lining, M=Matr es	ix)	Texture		Remarks	
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Remarks: SOILS Profile Descri (Type: C=Concer	No primary	or secondary hydron secondary hydron be to the depth neetion, RM=Reduced M. Matrix Color (Moist)	rological i	docum Covered/ %	nent the indicated Sand (cator or co Grains; Loca Moist)	onfirm thition: PL=Po	e absence of in ore Lining, M=Matr es	ix)				
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	No primary iption (Descriptration, D=Depl	or secondary hydron secondary hydron be to the depth neetion, RM=Reduced M. Matrix Color (Moist)	rological i	docum Covered/ %	content the indicent the indice	cator or co Grains; Loca Moist)	onfirm thition: PL=Po	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1	for Problemati	ic Soils ¹	
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	No primary iption (Descrintration, D=Depl ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) Indicators (chain ipedon etic)	rological i	docum Covered/ %	color (Incident the indial Coated Sand Sand Sand Sand Sand Sand Sand San	cator or co Grains; Loca Moist) Moist) Motor presented ox Matrix lucky Mineral	onfirm thion: PL=Pi Mottle % ti):	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark Si	luck (LRR I, J) Prairie Redox urface (LRR G)	i <u>c Soils¹</u> (LRR F, G, H)	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	No primary iption (Descriptration, D=Depl ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge	be to the depth neetion, RM=Reduced Mi Matrix Color (Moist) Indicators (chipedon stic in Sulfide	rological i	docum Covered/ %	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy M F2 - Loamy G	cator or co Grains; Loca Moist) Moist) ot presented ox Matrix lucky Mineraleyed Matrix lucky Mineraleyed Matrix	onfirm thion: PL=Pi Mottle % ti):	e absence of in ore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi	ic Soils ¹ (LRR F, G, H)	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	ric Soil Field A1- Histosol A2 - Histic Ep A4 - Hydroge A5 - Stratified	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) Indicators (chain ipedon etic)	rological i	docum docum %	color (Incident the indial Coated Sand Sand Sand Sand Sand Sand Sand San	cator or co Grains; Local Moist) not presented with the control of the control o	onfirm the	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduc	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi	i <u>c Soils¹</u> (LRR F, G, H)	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	No primary iption (Descrintration, D=Depl A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete	be to the depth ne etion, RM=Reduced M. Matrix Color (Moist) Indicators (chairman and the color is sufficient to the color is	eeded to eatrix, CS=C	docum Covered	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy M F2 - Loamy G F3 - Depleted F7 - Depleted	cator or co Grains; Loca: Moist) Moist) Mot presen edox Matrix lucky Minera lleyed Matrix Matrix ark Surface Dark Surface	Mottle %	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark SI F16 - High F F18 - Red uc TF2 - Red F	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi ced Vertic Parent Material Shallow Dark S	IC Soils ¹ (LRR F, G, H)) ONS (LRR H, outside MLRA 72, 73) Surface	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	no primary iption (Descriptration, D=Depi A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D	be to the depth ne etion, RM=Reduced Mi Matrix Color (Moist) Indicators (chipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface	eeded to eatrix, CS=C	docum docum %	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy G F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	cator or co Grains; Local Moist) Moist) Mot presen edox Matrix Mucky Mineraleyed Matrix Matrix Autrix Burdare Surface Dark Surface peressions	Mottle % Mottle tion: PL=Pe Mottle % tt):	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark SI F16 - High F F18 - Red uc TF2 - Red F	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi ced Vertic Parent Material	IC Soils ¹ (LRR F, G, H)) ONS (LRR H, outside MLRA 72, 73) Surface	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M	be to the depth ne etion, RM=Reduced Mi Matrix Color (Moist) Indicators (chipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface	eeded to eatrix, CS=C	docum docum %	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy G F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	cator or co Grains; Local Moist) Moist) Mot presen edox Matrix Mucky Mineraleyed Matrix Matrix Autrix Burdare Surface Dark Surface peressions	Mottle % Mottle tion: PL=Pe Mottle % tt):	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark SI F16 - High F F18 - Red uc TF2 - Red F	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi ced Vertic Parent Material Shallow Dark S	IC Soils ¹ (LRR F, G, H)) ONS (LRR H, outside MLRA 72, 73) Surface	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	No primary iption (Descrintration, D=Depl A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	be to the depth ne etion, RM=Reduced M. Matrix Color (Moist) Indicators (chairman and the color is suffice to the care is considered by the color is sufficed by the color is sufficient in Sulfide by the color in Sulfide by the color is sufficient in Sulfide by the color in Sulfide by the	eeded to elatrix, CS=C	docum docum %	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy G F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	cator or co Grains; Local Moist) Moist) Mot presen edox Matrix Mucky Mineraleyed Matrix Matrix Autrix Burdare Surface Dark Surface peressions	Mottle % Mottle tion: PL=Pe Mottle % tt):	e absence of in ore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark SI F16 - High F F18 - Reduc TF2 - Red F TF12 - Very Other (Expla	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi ced Vertic Parent Material Shallow Dark S ain in Remarks)	IC Soils ¹ (LRR F, G, H)) ONS (LRR H, outside MLRA 72, 73) Surface	resent,
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WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: u-159n48w6-a1	
VEGETATION	(Species identified in all uppercase are	e non-native	species.)			
	Plot size: 30 ft. radius)					
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet	
1.						
2.					Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)	
3.					`` <i></i> ``	
4.					Total Number of Dominant Species Across All Strata: 2 (B)	
5.					Total Number of Bonnian oposito / Groce / Groc	
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)	
7.					reicent of borninant opecies that Ale Obl., I AOW, of I AO.	
8.					Prevalence Index Worksheet	
9.					Total % Cover of: Multiply by:	
10.	<u> </u>				OBL spp. 0 x 1 = 0	
	Total Cover =	0	_		FACW spp. 20 x 2 = 40	
					FAC spp. 0 x 3 = 0	
Sapling/Shrub S	Stratum (Plot size: 15 ft. radius)				FACU spp. 90 x 4 = 360	
1.					UPL spp. 5 x 5 = 25	
2.					··· 	
3.					Total 115 (A) 425 (B)	
4.					(1)	
5.					Prevalence Index = B/A = 3.696	
					Prevalence Index = B/A = 3.696	
6.						
7.						
8.					Hydrophytic Vegetation Indicators:	
9.					Rapid Test for Hydrophytic Vegetation	
10.					Dominance Test is > 50%	
	Total Cover =	0			Prevalence Index is ≤ 3.0 *	
	·				Morphological Adaptations (Explain) *	
Herb Stratum (F	Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *	
1.	Elymus repens	40	Υ	FACU		
2.	Phleum pratense	20	Y	FACU	* Indicators of hydric soil and wetland hydrology must be	
3.	Hordeum jubatum	15	N .	FACW	present, unless disturbed or problematic.	
4.			N			
	Ambrosia artemisiifolia	15		FACU	Definitions of Vegetation Strata:	
5.	Trifolium hybridum	15	N	FACU	-	
6	Bromus inermis	5	N	UPL	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast	
7.	Rumex stenophyllus	5	N	FACW	height (DBH), regardless of height.	
8.						
9.					Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.	
10.				_		
11.						
12.					Herb - All herbaceous (non-woody) plants, regardless of size.	
13.						
14.	1			_		
15.					Woody Vines - All woody vines, regardless of height.	
15.	T.1.0	445			TYOOUY VIIIGS - 7 1000, 1000, 1000 or noight.	
	Total Cover =	115	_			
	atum (Plot size: 30 ft. radius)					
1.						
2.						
3.					Hydrophytic Vegetation Present? N	
5.				_		
4.						
r.	Total Cover =	0				
Remarke:			othy			
Remarks: The sample point is dominated by quack grass and timothy.						
Additional R	lemarks:					