## WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R								Date:	08/02/14	
Applicant:		Enbridge				(1.11.5.1				County:	Marshall	
Investigators		KRG/NTT			Subregic	•	A or LRR):	MLRA 56		State:	MN	
Soil Unit:	I57B				Land Dalla		'I Classification:				455457 ls4	
Landform:	Rise 3 - 7%		1 - 414	250012	Local Relief		1402	Deture		Sample Point: 	u-155n45w7-b1	
Slope (%):		onditions on the site	Latitude: 48.			e: -96.500		Datum:	□ No	Section:		
			• •			-	•			1		
Are Vegetati Are Vegetati			□significan □aturally p	•		All	e normal circun ☑ Yes	⊓Stances pre □ No	esenti	Township:	Dir:	
SUMMARY (			Haturally P	TODIETTALIC	· :		<u> </u>	□ 1NO		Range:	DII.	
Hydrophytic			No					Hydric Soi	ls Present?	No		
Wetland Hyd	•		No							nt Within A W	etland? <b>No</b>	
Remarks:		point is located wit		pasture do	ominated by c	rasses a	nd clover	13 THIS Cal	mping rom	ic vvicinii / C vv	charia: 110	
Tromanio.	THO apiana	point to rocated the	a datao	paotaro at	on mateur by g	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
HYDROLOG	Υ											
		icatora (Chaolagh	that apply	Minimum	of and primary	or two o	accordory requi	rad).				
Primary		icators (Check all	that apply,	viinimum C	one primary	or two s	econdary requi	red):	Secondary:			
	A1 - Surface	Water			□ B11 - Salt	Crust				B6 - Surface S	Soil Cracks	
	A2 - High Wa					atic Fauna	a				Vegetated Concave Surfa	ace
	A3 - Saturation					ogen Sulfic				B10 - Drainage		
	B1 - Water M						ater Table	Pooto (not till			Rhizospheres on Living F	Roots (tilled)
	B2 - Sedimer B3 - Drift Der	•					spheres on Living educed Iron	Roots (not till	, –	C8 - Crayfish E	ourrows n Visible on Aerial Imagei	rv
	B4 - Algal Ma					Muck Surf			_	D2 - Geomorp		. ,
	B5 - Iron Dep	osits			□ Other (Ex	plain)				D5 - FAC-Neu	tral Test	
		on Visible on Aerial Ima	agery							D7 - Frost-Hea	aved Hummocks (LRR F)	)
	B9 - Water-S	tained Leaves										
Field Obser	vations:											
		Vaa 🗖	Day	46.	(in )							
Surface Wat		Yes □ Yes □		oth:	(in.)			Wetland F	lydrology l	Present?	N	
Water Table			-	th:	(in.)						—	
					` ` ′							
	<u> </u>	stream gauge, monit		•	` ` ′	pections)	, if available:					
Describe Rec Remarks:	<u> </u>	stream gauge, monit		•	` ` ′	pections)	, if available:					
Remarks:	<u> </u>			•	` ` ′	pections)	, if available:					
Remarks:	No indicato	rs of wetland hydro	ology were o	bserved.	s, previous ins	,		adicators )				
Remarks:  SOILS Profile Descr	No indicato	rs of wetland hydro	ology were o	bserved.	s, previous ins	onfirm th	ne absence of ir					
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Remarks:  SOILS Profile Descr	No indicato	rs of wetland hydro	ology were o	bserved.	s, previous ins	onfirm th	ne absence of in Pore Lining, M=Matr					
Remarks:  SOILS Profile Descr (Type: C=Conce	No indicato	rs of wetland hydro ibe to the depth nee letion, RM=Reduced Ma	ology were o	bserved.  ument the red/Coated S	s, previous ins	onfirm th	ne absence of in Pore Lining, M=Matr		Texture		Remarks	
Remarks:  SOILS Profile Descr	No indicato	rs of wetland hydro ibe to the depth neeletion, RM=Reduced Ma Matrix Color (Moist)	eded to doc atrix, CS=Cove	ument the red/Coated S	indicator or c	onfirm thation: PL=P	ne absence of in Pore Lining, M=Matr	rix)	Texture		Remarks	
Remarks:  SOILS Profile Descr (Type: C=Conce	No indicato	rs of wetland hydro ibe to the depth neeletion, RM=Reduced Ma Matrix Color (Moist)	eded to doc atrix, CS=Cove	ument the red/Coated S	indicator or c	onfirm thation: PL=P	ne absence of in Pore Lining, M=Matr	rix)			Remarks	
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Remarks:  SOILS Profile Descr (Type: C=Concer  Depth (In.) 0-18	No indicato	ibe to the depth neeletion, RM=Reduced Ma  Matrix Color (Moist)  2/1	eded to doc atrix, CS=Cove	ument the red/Coated S	indicator or of and Grains; Local	Mottl	ne absence of in Pore Lining, M=Matr	rix)			Remarks	
Remarks:  SOILS Profile Descr (Type: C=Concer  Depth (In.) 0-18	No indicato	ibe to the depth neeletion, RM=Reduced Ma  Matrix Color (Moist)  2/1	eded to doc atrix, CS=Cove	ument the red/Coated S	indicator or c	Mottl	ne absence of in Pore Lining, M=Matr les Type	rix)	FS	for Problematic	,	
Remarks:  SOILS Profile Descr (Type: C=Concer  Depth (In.) 0-18  NRCS Hydr	No indicato	ibe to the depth neeletion, RM=Reduced Ma  Matrix Color (Moist)  2/1	eded to doc atrix, CS=Cove	ument the red/Coated S	indicator or of and Grains; Local Ior (Moist)	Mottl	ne absence of in Pore Lining, M=Matr les Type	Location	FS Indicators f	for Problemation	,	
Remarks:  SOILS Profile Descr (Type: C=Concer  Depth (In.) 0-18	iption (Description, D=Dep  Hue_10YR  A1- Histosol A2 - Histic Ep	ibe to the depth need letion, RM=Reduced Markix  Color (Moist)  2/1  I Indicators (cheed in the letion)	eded to doc atrix, CS=Cove	ument the red/Coated S  Co O O O S5 - Sar S6 - Stri	indicator or of and Grains; Local Ior (Moist)  are not presented the second of the sec	Mottl % nt):	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast	luck (LRR I, J) Prairie Redox (	c Soils <sup>1</sup> (LRR F, G, H)	
Remarks:  SOILS Profile Descr (Type: C=Concer  Depth (In.) 0-18  NRCS Hydr	No indicato iption (Description, D=Dep  Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black Hi	ibe to the depth needletion, RM=Reduced Markix  Color (Moist)  2/1  I Indicators (checking)	eded to doc atrix, CS=Cove	ument the red/Coated S  Co O O S5 - Sar S6 - Stri F1 - Loa	indicator or control of the control	mottl  mation: PL=P  Mottl  mottl  mottl  mottl	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S	luck (LRR I, J) Prairie Redox ( urface (LRR G)	c Soils <sup>1</sup> (LRR F, G, H)	
Remarks:  SOILS Profile Descr (Type: C=Concel  Depth (In.) 0-18  NRCS Hydr	Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge	ibe to the depth needletion, RM=Reduced Matrix  Color (Moist)  2/1  I Indicators (checking Sulfide)	eded to doc atrix, CS=Cove	ument the red/Coated S  Co O O S5 - Sar S6 - Stri F1 - Loa F2 - Loa	indicator or of and Grains; Local Grains; Lo	mottl  mation: PL=P  Mottl  mottl  mottl  mottl	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S6 F16 - High F	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depressio	c Soils <sup>1</sup> (LRR F, G, H)	
Remarks:  SOILS Profile Descr (Type: C=Concer  Depth (In.) 0-18  NRCS Hydr	iption (Description, D=Deportration, D=Deportr	ibe to the depth need letion, RM=Reduced Markix  Color (Moist)  2/1  Indicators (check on Sulfide de Layers (LRR F)	eded to doc atrix, CS=Cove	ument the red/Coated S  Co  S  Co  S  S  S  S  S  S  S  S  S  S  S  S  S	indicator or of and Grains; Local Grains; Lo	Mottl // // // // // // // // // // // // //	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduce	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depression ced Vertic	c Soils <sup>1</sup> (LRR F, G, H)	
Remarks:  SOILS Profile Descr (Type: C=Concel  Depth (In.) 0-18  NRCS Hydr	Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A9 - 1 cm Mu	ibe to the depth needletion, RM=Reduced Markix  Color (Moist)  2/1  Indicators (check the color stice on Sulfide the Layers (LRR F) arck (LRR FGH)	eded to doc atrix, CS=Cove	ument the red/Coated S  Co  So  Co  So  So  Co  F1 - Loa  F2 - Loa  F3 - Dep  F6 - Rec	indicator or of and Grains; Local Grains; Lo	mottles with the stion: PL=P	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduct TF2 - Red P	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depression Plains Material	C Soils <sup>1</sup> (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)	
Remarks:  SOILS Profile Descr (Type: C=Concel  Depth (In.) 0-18  NRCS Hydr	Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D	ibe to the depth needletion, RM=Reduced Matrix  Color (Moist)  2/1  Indicators (check the color stick on Sulfide the Layers (LRR F) ack (LRR FGH) and Below Dark Surface to Cark Surface	eded to doc atrix, CS=Cove	ument the red/Coated S  Co  S  S  S  S  S  S  S  S  C  T  S  S  S  S  S  S  S  S  S  S  S  S	indicator or of and Grains; Local Grains; Lo	mottl  mation: PL=P  Mottl  mo	ne absence of in Pore Lining, M=Matr	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depression ced Vertic	C Soils <sup>1</sup> (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)	
Remarks:  SOILS Profile Descr (Type: C=Concel  Depth (In.)  0-18  NRCS Hydr	iption (Description, D=Depoint A1- Histosol A2 - Histic Epoint A3 - Black Histosol A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick Epoint S1 - Sandy March	ibe to the depth need letion, RM=Reduced Markix  Color (Moist)  2/1  I Indicators (check the color of the col	eded to doc atrix, CS=Cove	ument the red/Coated S  Co  S  S  S  S  S  S  S  S  C  T  S  S  S  S  S  S  S  S  S  S  S  S	indicator or of and Grains; Local Grains; Lo	mottl  mation: PL=P  Mottl  mo	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depression ced Vertic Parent Material Shallow Dark S	C Soils <sup>1</sup> (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)	
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Remarks:  SOILS Profile Descr (Type: C=Concel  Depth (In.) 0-18  NRCS Hydr	Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick E S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	ibe to the depth needletion, RM=Reduced Markix  Color (Moist)  2/1  Indicators (check the color of the color	eded to doc atrix, CS=Cove	ument the red/Coated S  Co  S  S  S  S  S  S  S  S  C  T  S  S  S  S  S  S  S  S  S  S  S  S	indicator or of and Grains; Local Grains; Lo	mottl  mation: PL=P  Mottl  mo	ne absence of in Pore Lining, M=Matr	Location	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S6 F16 - High F18 - Reduct TF2 - Red F1F12 - Very Other (Explain Indicators of In	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depression Red Vertic Parent Material Shallow Dark Stain in Remarks)	C Soils <sup>1</sup> (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)	ust be present,
Remarks:  SOILS Profile Descr (Type: C=Concer  Depth (In.) 0-18  NRCS Hydr	Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick E S1 - Sandy M S2 - 2.5 cm M	ibe to the depth needletion, RM=Reduced Markix  Color (Moist)  2/1  Indicators (check the color of the color	eded to doc atrix, CS=Cove	ument the red/Coated S  Co  S  S  S  S  S  S  S  S  C  T  S  S  S  S  S  S  S  S  S  S  S  S	indicator or of and Grains; Local Grains; Lo	mottl  mation: PL=P  Mottl  mo	ne absence of in Pore Lining, M=Matr	Location	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S6 F16 - High F18 - Reduct TF2 - Red F1F12 - Very Other (Explain Indicators of In	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depression Red Vertic Parent Material Shallow Dark S Rain in Remarks)	c Soils <sup>1</sup> (LRR F, G, H) Ons (LRR H, outside MLRA 72, 73) Surface	ust be present,
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## WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: u-155n45w7-b1
·					· · · · · · · · · · · · · · · · · · ·
<b>VEGETATION</b>	(Species identified in all uppercase ar	e non-native	species.)		
Tree Stratum (	Plot size: 30 ft. radius)				
	Species Name	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)
3.					
4.					Total Number of Dominant Species Across All Strata: 3 (B)
5.					`` <i>'</i>
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)
7.					Toronk of Bollimark openies That Alle GB2, The VV, of The (74B)
8.					Prevalence Index Worksheet
9.					4
10.					Total % Cover of:  Multiply by:
10.	 Total Cover =	0			OBL spp. 0
	Total Cover =		_		FACTOR Spp. $\frac{30}{30}$ $\times 2 = \frac{60}{30}$
0 11 (0) 1 (	2				FAC spp. $\frac{0}{\sqrt{3}}$ $\frac{1}{\sqrt{3}}$
4	Stratum (Plot size: 15 ft. radius)				FACU spp. 80 X 4 = 320
1.					UPL spp. $0   x   5 = 0$
2.					
3.					Total 110 (A) 380 (B)
4.					
5.					Prevalence Index = B/A = 3.455
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 (I	Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *
1.	Poa pratensis	40	Υ	FACU	Problem Hydrophytic Vegetation (Explain)
					* Indicators of hydric soil and wetland hydrology must be
2.	Poa palustris	30	Y	FACU	present, unless disturbed or problematic.
3.	Trifolium repens	30	<u> </u>	FACU	·
4.	Phleum pratense	10	N	FACU	Definitions of Vegetation Strata:
5.					_
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.
10.					
11.					
12.					<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size.
13.					
14.					
15.					Woody Vines - All woody vines, regardless of height.
10.	Total Cover =	110			
	Total Cover =	110	_		
Manaka Vina Ch	veture (Diet einer 20 ft verdige)				
	ratum (Plot size: 30 ft. radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present?N
5.					
4.					
	Total Cover =				
Remarks:	Vegetation is dominated by two species of b	luegrass ai	nd white cl	lover.	
Additional R	emarks:				
, adminial N					