WETLAND DETERMINATION DATA FORM Great Plains Region

Danie 1/0:1-1		Lop	ı						I Data:	00/45/44			
Project/Site: Applicant:		L3R Enbridge							Date: County:	09/15/14 Pennington			
Investigators	<u>.</u>	BEH/MRK/RAJ			Subregion (M	RA or I RR)	MLRA 56		State:	MN			
Soil Unit:						NWI Classification			J Glato:	······			
Landform:	Depression			Lo	cal Relief: LC				Sample Point:	w-154n44w31-i1			
Slope (%):	0 - 2%		ide: 48.12		Longitude: -96		Datum:						
Are climatic/	hydrologic co	onditions on the site typi	cal for this	s time of yea	ar? (If no, explain i	remarks)	Yes	□ No	Section:				
Are Vegetati			•	disturbed?		Are normal circur	•	esent?	Township:				
Are Vegetati			urally prob	olematic?		✓ Yes	□ No		Range:	Dir:			
SUMMARY (
Hydrophytic			Yes					ls Present?		villa IO Vaa			
Wetland Hyd			Yes		and the second second second	and a stale of t			nt Within A W	etland? Yes			
Remarks:	vvet meado	ow in a roadside ditch lo	cated bet	ween a pave	ea county nigh	ay and a strip of t	orest that le	ads into a g	gravei pit.				
HYDROLOC	V												
HYDROLOGY Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required):													
_	•	icators (Check all that	apply; Mir	nimum of on	e primary or to	o secondary requi	red):	0					
<u>Primary</u> □	<u>:</u>	Water		П	B11 - Salt Crus			Secondary:	B6 - Surface S	Soil Cracks			
	A2 - High Wa				B13 - Aquatic F	una				Vegetated Concave Surface			
	A3 - Saturation				C1 - Hydrogen				B10 - Drainage				
	B1 - Water M				C2 - Dry Seaso					Rhizospheres on Living Roots (tille			
	B2 - Sedimer	•				nizospheres on Living	Roots (not till	• -	C8 - Crayfish I				
	B3 - Drift Dep B4 - Algal Ma				C4 - Presence of C7 - Thin Muck				D2 - Geomorp	n Visible on Aerial Imagery			
	B5 - Iron Dep				Other (Explain)	dilace		☑	D5 - FAC-Neu				
		on Visible on Aerial Imagery	,	_	Out (2)(piant)					aved Hummocks (LRR F)			
	B9 - Water-S	tained Leaves											
Field Obser													
Surface Wat		Yes	Depth:		(in.)		Wetland H	lydrology l	Present?	Y			
Water Table		Yes	Depth:		_ (in.)		Victiana	iyarology i	i rosciici	<u> </u>			
Saturation P	resent?	Yes	Depth:		_ (in.)								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:													
Describe Rec	orded Data (stream gauge, monitoring	well, aeri	al photos, pr	evious inspection	ns), if available:							
Remarks:	•	stream gauge, monitoring an area that would coll	•		· · · · · · · · · · · · · · · · · · ·								
	•		•		· · · · · · · · · · · · · · · · · · ·								
Remarks:	The ditch is	an area that would coll	ect water	and vegetat	ion passes the	FAC-neutral test.							
Remarks: SOILS Profile Descr	The ditch is	an area that would coll	ect water	and vegetate	cator or confin	FAC-neutral test.	ndicators.)						
Remarks: SOILS Profile Descr	The ditch is	an area that would coll	ect water	and vegetate	cator or confin	FAC-neutral test.	ndicators.)						
Remarks: SOILS Profile Descr	The ditch is	ibe to the depth needed	ect water	and vegetate	cator or confir	FAC-neutral test. In the absence of interpretation in the absence	ndicators.)						
Remarks: SOILS Profile Descr (Type: C=Concer	The ditch is	ibe to the depth needed letion, RM=Reduced Matrix, C	ect water to docum	and vegetate	cator or confir Grains; Location:	FAC-neutral test. In the absence of interpretation in the absence	ndicators.)	Teyture		Pamarks			
Remarks: SOILS Profile Descr	The ditch is	ibe to the depth needed	ect water	and vegetate	cator or confir Grains; Location:	FAC-neutral test. In the absence of interpretation in the absence	ndicators.)	Texture		Remarks			
Remarks: SOILS Profile Descr (Type: C=Concer	The ditch is	ibe to the depth needed letion, RM=Reduced Matrix, C	ect water to docum	and vegetate	cator or confir Grains; Location:	FAC-neutral test. In the absence of interpretation in the absence	ndicators.)	Texture		Remarks			
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Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	The ditch is	ibe to the depth needed letion, RM=Reduced Matrix Color (Moist)	to docum CS=Covered	and vegetate and v	cator or confire Grains; Location:	the absence of in the absence	ndicators.)	Texture		Remarks			
Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	The ditch is	ibe to the depth needed letion, RM=Reduced Matrix Color (Moist)	to docum CS=Covered	and vegetate and v	cator or confir Grains; Location:	FAC-neutral test. In the absence of interpretation in the absence	ndicators.)						
Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	The ditch is	ibe to the depth needed letion, RM=Reduced Matrix Color (Moist)	to documents=Covered	and vegetate and v	cator or confired Grains; Location: In Moist) Noist) not present):	the absence of in the absence	Location	Indicators f	for Problematic				
Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	iption (Description, D=Deporter Soil Field A1- Histosol	ibe to the depth needed letion, RM=Reduced Matrix Color (Moist) I Indicators (check h	to documents=Covered	and vegetate and v	cator or confirmations; Location: In Moist) Moist) not present):	the absence of in the absence	Location	Indicators f A9 - 1 cm M	luck (LRR I, J)	c Soils ¹			
Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	iption (Description, Deportmentation, Deportmentation, Deportmentation) ric Soil Field A1- Histosol A2 - Histic Ep	ibe to the depth needed letion, RM=Reduced Matrix, Color (Moist) I Indicators (check hoppedon	to documents=Covered	and vegetate nent the indi /Coated Sand (Color (icators are r S5 - Sandy R S6 - Stripped	cator or confired frains; Location: In Moist) Moist) Mot present): edox Matrix	the absence of in the absence	Location	Indicators f A9 - 1 cm M A16 - Coast	luck (LRR I, J) Prairie Redox (c Soils ¹			
Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	iption (Description, D=Deportation, D=Deportation, D=Deportation) A1- Histosol A2 - Histic Epox A3 - Black Histosol	ibe to the depth needed letion, RM=Reduced Matrix, Color (Moist) I Indicators (check hoipedon stic	to documes=Covered	and vegetate nent the indi /Coated Sand (Color (icators are r S5 - Sandy R S6 - Stripped F1 - Loamy N	cator or confired and passes the cator or	the absence of in the absence	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S	luck (LRR I, J) Prairie Redox (urface (LRR G)	c Soils ¹ (LRR F, G, H)			
Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	iption (Description, D=Deportration, D=Deportration) A1- Histosol A2 - Histic Epology A3 - Black Hi A4 - Hydroge	ibe to the depth needed letion, RM=Reduced Matrix, Color (Moist) I Indicators (check hoipedon stic	ct water to docum S=Covered % nere if ind	and vegetate nent the indi /Coated Sand (Color (icators are r S5 - Sandy R S6 - Stripped	cator or confirmations; Location: Moist) Moist) edox Matrix Mucky Mineral Gleyed Matrix	the absence of in the absence	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depressio	c Soils ¹			
Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A9 - 1 cm Mu	ibe to the depth needed letion, RM=Reduced Matrix. Color (Moist) I Indicators (check hoipedon stic in Sulfide d Layers (LRR F) lick (LRR FGH)	ct water to docum S=Covered % nere if ind	color (Color (Color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy R F3 - Depleted F6 - Redox D	cator or confirmations; Location: Moist) Moist) edox Matrix Mucky Mineral Gleyed Matrix Ma	the absence of in the absence	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 ¹ (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)			
Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	iption (Description, D=Deportation, D=Deportation, D=Deportation) A1- Histosol A2 - Histic Epolic A3 - Black Hi A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete	ibe to the depth needed letion, RM=Reduced Matrix, Color (Moist) Matrix Color (Moist) I Indicators (check hopedon stice in Sulfide de Layers (LRR F) lick (LRR FGH) led Below Dark Surface	ct water to docum S=Covered % nere if ind	coated Sand Coated Sand Coated Sand Color (Coated Sand Coated San	cator or confirmations; Location: Moist) Moist) edox Matrix Mucky Mineral Gleyed Matrix Mucky Mineral Gleyed Matrix	the absence of in the absence	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 ¹ (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)			
Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	ric Soil Field 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 needed letion, RM=Reduced Matrix, Color (Moist) Matrix Color (Moist) I Indicators (check has been Sulfide at Layers (LRR F) lick (LRR FGH) led Below Dark Surface Dark Surface	ct water to docum S=Covered % nere if ind	and vegetation and ve	cator or confired Grains; Location: In Moist) Moist) edox Matrix Mucky Mineral Gleyed Matrix If Matrix Ma	the absence of in L=Pore Lining, M=Mat ottles 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 Plains Material	C Soils ¹ (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)			
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Remarks: SOILS Profile Descr (Type: C=Concer Depth (In.)	The ditch is iption (Description (Description), D=Deportmentation, D=D	ibe to the depth needed letion, RM=Reduced Matrix. Color (Moist) I Indicators (check has been sticen Sulfide Layers (LRR F) leck (LRR FGH) led Below Dark Surface Dark Surface lucky Mineral Mucky Peat or Peat (LRR F, licky Peat or Peat (LRR F)	to documes=Covered	and vegetation and ve	cator or confired Grains; Location: In Moist) Moist) edox Matrix Mucky Mineral Gleyed Matrix If Matrix Ma	the absence of in L=Pore Lining, M=Mat ottles Type	Location	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S6 F16 - High F18 - Reduct TF2 - Red PTF12 - Very Other (Explain Indicators of In	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression ced Vertic Parent Material Shallow Dark S ain in Remarks)	C Soils ¹ (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)			
Remarks: SOILS Profile Descr (Type: C=Concel Depth (In.)	The ditch is iption (Description, D=Depindent A1- Histosol A2 - Histic Epindent A3 - Black Hipping A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick Epindent A13 - Sandy Market A13 - Sandy Market A14 - A15	ibe to the depth needed letion, RM=Reduced Matrix. Color (Moist) I Indicators (check has been sticen Sulfide Layers (LRR F) leck (LRR FGH) led Below Dark Surface Dark Surface lucky Mineral Mucky Peat or Peat (LRR F, licky Peat or Peat (LRR F)	to documes=Covered	and vegetation and ve	cator or confired Grains; Location: In Moist) Moist) edox Matrix Mucky Mineral Gleyed Matrix If Matrix Ma	the absence of in L=Pore Lining, M=Mat ottles Type	Location	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S6 F16 - High F18 - Reduct TF2 - Red PTF12 - Very Other (Explain Indicators of In	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression ced Vertic Parent Material Shallow Dark Stain in Remarks)	c Soils ¹ (LRR F, G, H) Ons (LRR H, outside MLRA 72, 73) Surface			
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Remarks: SOILS Profile Descr (Type: C=Concel Depth (In.)	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A1- Deplete A1- Thick E S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm M S4 - Sandy G Type:	ibe to the depth needed letion, RM=Reduced Matrix. Color (Moist) Matrix Color (Moist) I Indicators (check has been been been been been been been bee	to documents=Covered	coated Sand of Coated Sand of Color (Coated Sand of Coated Sand of Co	cator or confirmations; Location: Moist) Moist) edox Matrix Mucky Mineral Gleyed Matrix I Matrix ark Surface I Dark Surface epressions ains Depressions	the absence of in L=Pore Lining, M=Mate ottles Type (MLRA 72, 73 of LRI Hydric Sc	Location R H)	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S6 F16 - High FF18 - Reduct TF2 - Red FF12 - Very Other (Explain Indicators of Funless disturbed Y	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression ced Vertic Parent Material Shallow Dark Stain in Remarks) hydrophytic vegetated or problematic.	c Soils ¹ (LRR F, G, H) Ons (LRR H, outside MLRA 72, 73) Surface			

WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site	: L3R				Sample Point: w-154n44w31-i1					
VEGETATIO	、 .	re non-native	species.)							
Tree Stratum	(Plot size: 30 ft. radius)									
	<u>Species Name</u>	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet					
1.										
2.					Number of Dominant Species that are OBL, FACW, or FAC: (A)					
3.										
4.					Total Number of Dominant Species Across All Strata: 5 (B)					
5.										
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)					
7.										
8.					Prevalence Index Worksheet					
9.					4					
10.										
10.	l Total Cover =				OBL spp. $\frac{21}{100}$ $\times 1 = \frac{21}{100}$					
	Total Cover =	0	_		FACW spp. 66 $\times 2 = 132$					
0 11 /01 1	0 (D)				FAC spp. 0					
	Stratum (Plot size: 15 ft. radius)			E 4 O 1 4 /	FACU spp. 0 X 4 = 0					
1.	Salix discolor	5	Y	FACW	$UPL spp. \underline{\qquad \qquad 0 \qquad \qquad } X S = \underline{\qquad \qquad 0 \qquad }$					
2.	Salix eriocephala	5	Y	FACW						
3.	Comus alba	1	N	FACW	Total 87 (A) 153 (B)					
4.	Salix petiolaris	1	N	OBL						
5.					Prevalence Index = B/A = 1.759					
6.										
7.										
8.					Hydrophytic Vegetation Indicators:					
9.					Rapid Test for Hydrophytic Vegetation					
10.					X Dominance Test is > 50%					
10.	ı Total Cover =	12			X Prevalence Index is ≤ 3.0 *					
	Total Cover =	12								
	(-)				Morphological Adaptations (Explain) *					
	(Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *					
1.	Phalaris arundinacea	30	Υ	FACW						
2.	Equisetum hyemale	25	Υ	FACW	* Indicators of hydric soil and wetland hydrology must be					
3.	Eleocharis palustris	15	Υ	OBL	present, unless disturbed or problematic.					
4.	Carex pellita	5	Ν	OBL	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.					1					
					Herb - All herbaceous (non-woody) plants, regardless of size.					
12.					Herb - All Herbaceous (Horr-woody) plants, regardless of size.					
13.										
14.										
15.					Woody Vines - All woody vines, regardless of height.					
	Total Cover =	75								
Woody Vine S	tratum (Plot size: 30 ft. radius)									
1.										
2.										
3.					Hydrophytic Vegetation Present?					
5.					ingarophytio rogotation i rogotiti					
4.										
4.	Total Cover =									
Domonto			المائلمان المائلمان	مالداء اداد	olf in deminated by read construction and a second					
Remarks:		edge of the	e ditch. The	e ditch itse	elf is dominated by reed canary grass, common scouring-rush, and common					
	spikerush.									
Additional Remarks:										