## WETLAND DETERMINATION DATA FORM Great Plains Region

| Project/Site:  |  | L3R   |   |  |  |   |   |  |   | Date:  | 08/02/14  |                   |
|--|--|---|---|--|--|---|---|--|---|--|---|-------------------|
| Applicant:   |  | Enbridge  |   |  |  |   |   |  |   | County:  | Kittson   |                   |
| Investigators  | :  | BCS/BEH/MRK   |   |  | Subregio   | n (MLRA   | or LRR):  | MLRA 56  |   | State:   | MN  |                   |
| Soil Unit:   | I140A  |   |   | _  |  | NWI   | Classification  | :  |   |  |   |                   |
| Landform:  | Talf   |   |   | Lo   | cal Relief:  |   |   |  |   | Sample Point:  | u-159n48w6-c1   |                   |
| Slope (%):   | 0 - 2%   |   | Latitude: 48.61   |  |  | -96.9049  |   | Datum:   |   |  |   |                   |
| Are climatic/h   | , ,  | nditions on the site  | , · · · · · · · · · · · · · · · · · · ·                                       |  | ar? (If no, exp  |   |   |  | □ No  | Section:   |   |                   |
| Are Vegetation   |  | ☐ or Hydrology  |   |  |  | Are   | normal circur   | •  | esent?  | Township:  |   |                   |
| Are Vegetation   |  | ☐ or Hydrology  | □aturally pro   | blematic?  |  |   | ☑ Yes   | □No  |   | Range:   | Dir:  |                   |
| SUMMARY C  | OF FINDING:  | 6   |   |  |  |   |   |  |   |  |   |                   |
| Hydrophytic \  | Vegetation P   | resent?   | No  |  |  |   |   | Hydric Soil                                    | ls Present?   | No   |   |                   |
| Wetland Hyd  | Irology Prese  | nt?   | No  |  | _  |   |   | Is This Sar                                    | mpling Poin   | it Within A We   | etland? <b>No</b>   |                   |
| Remarks:   | The upland   | sample point is ac  | djacent to a gr   | avel drive, u  | slope of t   | he associ   | iated wetland.  | The site is                                    | dominated I   | by alfalfa and   | timothy.  |                   |
|  |  |   |   |  |  |   |   |  |   |  |   |                   |
| <b>HYDROLOG</b>  | Υ  |   |   |  |  |   |   |  |   |  |   |                   |
| Wetland Hy   | drology Ind  | icators (Check all  | that apply: M   | inimum of or   | e nrimary  | or two se   | condary requi   | red):  |   |  |   |                   |
| Primary:   |  | outoro (oricon un   | that apply, in  |  | o primary  | 0. 1110 00  | oonaary roqui   | 100).  | Secondary:  |  |   |                   |
| A1 - Surface Water   |  |   |   |  | B11 - Salt   | Crust   |   |  |   | B6 - Surface S   | oil Cracks  |                   |
|  | A2 - High Wa   |   |   |  | B13 - Aqua   |   |   |  |   |  | Vegetated Concave S   | Surface           |
|  | A3 - Saturation  |   |   |  | C1 - Hydro   |   |   |  |   | B10 - Drainage Patterns C3 - Oxidized Rhizospheres on Living Roots (tilled)  |   |                   |
|  | B1 - Water M<br>B2 - Sedimen   |   |   |  | C2 - Dry So  |   | er Table<br>pheres on Living  | Poots (not till                                |   | C3 - Oxidized F  |   | ig Roots (tilled) |
| 1 5  | B3 - Drift Dep   |   |   |  |  |   |   | 1100ts (110t till                              |   |  | n Visible on Aerial Ima   | agery             |
|  | B4 - Algal Ma  |   |   |  |  |   |   |  |   | D2 - Geomorph  |   | 3- 7              |
|  | B5 - Iron Dep  |   |   |  | Other (Exp   | lain)   |   |  |   | D5 - FAC-Neut  |   |                   |
|  | B7 - Inundation B9 - Water-St  | n Visible on Aerial Im  | nagery  |  |  |   |   |  |   | D7 - Frost-Hea   | ived Hummocks (LRF  | R F)              |
|  | B9 - Water-Si  | ained Leaves  |   |  |  |   |   |  |   |  |   |                   |
| Field Obser  |  |   |   |  |  |   |   |  |   |  |   |                   |
| Field Observ   |  |   |   |  | <i>(</i> : \   |   |   |  |   |  |   |                   |
| Surface Water  |  |   | Depth   | :<br>:   | (in.)  |   |   | Wetland H                                      | lydrology I   | Present?   | N   |                   |
| Water Table  |  | Yes   |   |  | (in.)  |   |   |  | , ,,  |  | _   |                   |
| Saturation Pr  | Saturation Present? Yes Depth: (in.)   |   |   |  |  |   |   |  |   |  |   |                   |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: |  |   |   |  |  |   |   |  |   |  |   |                   |
| Describe Reco  | orded Data (s  | stream gauge, moni  | itoring well, ae  | rial photos, pr  | - ' '  | pections), i  | if available:   |  |   |  |   |                   |
| Describe Reco  |  | tream gauge, moni<br>or secondary wetla   |   |  | evious insp  |   | if available:   |  |   |  |   |                   |
| Remarks:   |  |   |   |  | evious insp  |   | if available:   |  |   |  |   |                   |
| Remarks:<br>SOILS  | No primary   | or secondary wetla  | and hydrology   | indicators w   | evious insp<br>ere observ  | ved.  |   |  |   |  |   |                   |
| Remarks:  SOILS Profile Descri   | No primary   | or secondary wetla  | and hydrology   | indicators w   | evious inspered observing cator or co  | ved.  | e absence of in   |  |   |  |   |                   |
| Remarks:  SOILS Profile Descri   | No primary   | or secondary wetla  | and hydrology   | indicators w   | evious inspered observing cator or co  | ved.  | e absence of in   |  |   |  |   |                   |
| Remarks:  SOILS Profile Descri   | No primary   | or secondary wetlands be to the depth ne  | and hydrology   | indicators w   | evious inspered observing cator or co  | ved.  onfirm the tion: PL=Po                          | e absence of in<br>ore Lining, M=Mat  |  | ı   |  |   |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer   | No primary   | or secondary wetla<br>be to the depth ne<br>etion, RM=Reduced Ma<br>Matrix  | eeded to docu<br>atrix, CS=Covere   | ment the indi  | evious inspere observing cator or co   | onfirm the  | e absence of in<br>ore Lining, M=Mat  | rix)   | Toutura   |  | Domarko   |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer   | No primary   | be to the depth ne<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)   | eeded to docu<br>atrix, CS=Covere   | indicators w   | evious inspere observing cator or co   | ved.  onfirm the tion: PL=Po                          | e absence of in<br>ore Lining, M=Mat  |  | Texture   |  | Remarks   |                   |
| Remarks: SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13  | No primary  ption (Descriptration, D=Depl  | be to the depth ne<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)   | eeded to docu<br>atrix, CS=Covere   | ment the indi<br>d/Coated Sand   | evious inspere observing cator or configuration of config | onfirm the tion: PL=Po                                | e absence of in<br>ore Lining, M=Mat<br>es<br>Type                                  | Location                                       | С   |  | Remarks   |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16                                     | No primary   | be to the depth ne<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)   | eeded to docu<br>atrix, CS=Covere   | ment the indi<br>d/Coated Sand<br>Color (  | cator or co  | onfirm the tion: PL=Po  Mottle                        | e absence of in<br>ore Lining, M=Mat<br>es<br>Type<br>C                             | Location M                                     | C<br>C  |  | Remarks   |                   |
| Remarks: SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16                                | No primary  ption (Descriptration, D=Depl  Hue_10YR  Hue_2.5Y  | be to the depth ne<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>3/2   | eeded to docu<br>atrix, CS=Covere<br>%<br>100<br>73                           | ment the indi<br>d/Coated Sand   | cator or co  | onfirm the tion: PL=Po                                | e absence of in<br>ore Lining, M=Mat<br>es<br>Type                                  | Location                                       | C<br>C<br>C   |  | Remarks   |                   |
| Remarks: SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16                                      | No primary  ption (Descriptration, D=Depl  | be to the depth ne<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)   | eeded to docu<br>atrix, CS=Covere   | ment the indi<br>d/Coated Sand<br>Color (  | cator or co  | onfirm the tion: PL=Po  Mottle                        | e absence of in<br>ore Lining, M=Mat<br>es<br>Type<br>C                             | Location M                                     | C<br>C  |  | Remarks   |                   |
| Remarks: SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16                                | No primary  ption (Descriptration, D=Depl  Hue_10YR  Hue_2.5Y  | be to the depth ne<br>etion, RM=Reduced Ma<br>Matrix<br>Color (Moist)<br>2/1<br>3/2   | eeded to docu<br>atrix, CS=Covere<br>%<br>100<br>73                           | ment the indi<br>d/Coated Sand<br>Color (  | cator or co  | onfirm the tion: PL=Po  Mottle                        | e absence of in<br>ore Lining, M=Mat<br>es<br>Type<br>C                             | Location M                                     | C<br>C<br>C   |  | Remarks   |                   |
| Remarks: SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23                          | ption (Descriptration, D=Deplied Hue_10YR Hue_2.5Y   | be to the depth ne etion, RM=Reduced Mi  Matrix  Color (Moist)  2/1  3/2  3/2   | eeded to docu<br>atrix, CS=Covere   | ment the indi<br>d/Coated Sand<br>Color (<br>Hue_10YR  | cator or co<br>Grains; Local   | onfirm the  | e absence of ir<br>ore Lining, M=Mat<br>es<br>Type<br>C<br>C                        | Location M                                     | C<br>C<br>C   |  | Remarks   |                   |
| Remarks: SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23                          | No primary  ption (Descriptration, D=Depl  Hue_10YR  Hue_2.5Y  | be to the depth ne etion, RM=Reduced Mi  Matrix  Color (Moist)  2/1  3/2  3/2   | eeded to docu<br>atrix, CS=Covere<br>%<br>100<br>73                           | ment the indi<br>d/Coated Sand<br>Color (<br>Hue_10YR  | cator or co<br>Grains; Local   | onfirm the  | e absence of in<br>ore Lining, M=Mat<br>es<br>Type<br>C                             | Location M                                     | C<br>C<br>C   |  | Remarks   |                   |
| Remarks: SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23                          | ption (Descriptration, D=Deplied Hue_10YR Hue_2.5Y   | be to the depth ne etion, RM=Reduced Mi  Matrix  Color (Moist)  2/1  3/2  3/2   | eeded to docu<br>atrix, CS=Covere<br>%<br>100<br>73<br>100<br>neck here if in | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  | cator or co<br>Grains; Local  Moist)  6/6 2/1  not presen  | onfirm the  | e absence of ir<br>ore Lining, M=Mat<br>es<br>Type<br>C<br>C                        | Location  M M                                  | C<br>C<br>C<br>C  | or Problematic   |   |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | No primary  ption (Description, D=Depl  Hue_10YR Hue_2.5Y  Hue_2.5Y  ic Soil Field  A1- Histosol   | be to the depth ne etion, RM=Reduced Mi  Matrix Color (Moist) 2/1 3/2 3/2 Indicators (ch  | eeded to docu<br>atrix, CS=Covere<br>%<br>100<br>73<br>100<br>neck here if in | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  dicators are i  | cator or cograins; Local  Moist)  6/6 2/1  not presen  | onfirm the  | e absence of ir<br>ore Lining, M=Mat<br>es<br>Type<br>C<br>C                        | Location M M                                   | C<br>C<br>C<br>C  | luck (LRR I, J)  | : Soils <sup>1</sup>  |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | No primary  ption (Description, D=Depl  Hue_10YR Hue_2.5Y  Hue_2.5Y  A1- Histosol A2 - Histic Ep   | be to the depth ne etion, RM=Reduced Mis  Matrix Color (Moist) 2/1 3/2 3/2 Indicators (chippedon  | eeded to docu<br>atrix, CS=Covere<br>% 100 73 100 neck here if inc            | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  dicators are i  | cator or co<br>Grains; Local   | Mottle 2 25 tt):                                      | e absence of ir<br>ore Lining, M=Mat<br>es<br>Type<br>C<br>C                        | Location M M                                   | C<br>C<br>C<br>C<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast  | luck (LRR I, J)<br>Prairie Redox (   | : Soils <sup>1</sup>  |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | No primary  ption (Descrintration, D=Depl  Hue_10YR Hue_2.5Y  Hue_2.5Y  A1- Histosol A2 - Histic Ep A3 - Black His   | be to the depth ne etion, RM=Reduced Minimum. Matrix  Color (Moist)  2/1  3/2  3/2  Indicators (chains)   | eeded to docu<br>eatrix, CS=Covere  | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  I S5 - Sandy R I S6 - Stripped F1 - Loany M   | cator or cograins; Locar  Moist)  6/6 2/1  not presen  edox Matrix fucky Mineral   | wed.  confirm the tion: PL=Po  Mottle  %  2  25  tt): | e absence of ir<br>ore Lining, M=Mat<br>es<br>Type<br>C<br>C                        | Location M M                                   | C<br>C<br>C<br>C<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark St  | luck (LRR I, J)<br>Prairie Redox (l<br>urface (LRR G)  | : <mark>Soils¹</mark><br>LRR F, G, H)                           |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | No primary  ption (Descriptation, D=Depl  Hue_10YR Hue_2.5Y  Hue_2.5Y  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge   | be to the depth ne etion, RM=Reduced Matrix Color (Moist) 2/1 3/2 3/2 Indicators (chippedon stice in Sulfide  | eeded to docu<br>atrix, CS=Covere   | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  dicators are I  S5 - Sandy R  S6 - Stripped I F1 - Loamy N  F2 - Loamy O  | cator or cograins; Local  Moist)  6/6 2/1  not presen  edox Matrix Mucky Mineral Bleyed Matrix   | wed.  confirm the tion: PL=Po  Mottle  %  2  25  tt): | e absence of ir<br>ore Lining, M=Mat<br>es<br>Type<br>C<br>C                        | Location  M M                                  | C<br>C<br>C<br>C<br>S<br>Indicators f<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark St<br>F16 - High F                             | luck (LRR I, J)<br>Prairie Redox (l<br>urface (LRR G)<br>Plains Depressio  | : Soils <sup>1</sup>  | 773)              |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | Ption (Description), D=Deplementation, D=Depleme | be to the depth ne etion, RM=Reduced Minimum. Matrix  Color (Moist)  2/1  3/2  3/2  Indicators (chains)   | eeded to docu<br>atrix, CS=Covere<br>% 100 73 100 neck here if in             | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  I S5 - Sandy R I S6 - Stripped F1 - Loany M   | cator or cograins; Local  Moist)  6/6  2/1  anot presented with the company of th | wed.  confirm the tion: PL=Po  Mottle  %  2  25  tt): | e absence of ir<br>ore Lining, M=Mat<br>es<br>Type<br>C<br>C                        | Location  M M                                  | C<br>C<br>C<br>C<br>C<br>A9 - 1 cm M<br>A16 - Coast<br>S7 - Dark Si<br>F16 - High F<br>F18 - Reduc                              | luck (LRR I, J)<br>Prairie Redox (l<br>urface (LRR G)<br>Plains Depressio  | : <mark>Soils¹</mark><br>LRR F, G, H)                           | 73)               |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | No primary  ption (Descrintration, D=Deplete   Hue 10YR   Hue 2.5Y   Hue 2.5Y   A1- Histosol   A2- Histic Ep   A3- Black His   A4- Hydroge   A5- Stratified   A6- 1 cm Mu   A11- Deplete   | be to the depth ne etion, RM=Reduced Minimum Matrix  Color (Moist)  2/1  3/2  3/2  Indicators (chain in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface  | eeded to docu<br>atrix, CS=Covere   | ment the indi<br>d/Coated Sand  Color (  Hue_10YR  Hue_10YR  J S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy C F3 - Depletec  | cator or co<br>Grains; Loca<br>Moist)  6/6 2/1  not presen edox Matrix Mucky Minera Bleyed Matrix I Matrix ark Surface   | Mottle  2 25 tt):                                     | e absence of ir<br>ore Lining, M=Mat<br>es<br>Type<br>C<br>C                        | Location M M                                   | CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC  | luck (LRR I, J) Prairie Redox (lurface (LRR G) Plains Depressioned Vertic Parent Material Shallow Dark S                   | E Soils <sup>1</sup> LRR F, G, H)  ONS (LRR H, outside MLRA 72, | 73)               |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | Ption (Description) (Descripti | be to the depth ne etion, RM=Reduced Matrix Color (Moist)  2/1 3/2  3/2  Indicators (chaipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface                                   | eeded to docu<br>atrix, CS=Covere   | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  I S5 - Sandy R I S6 - Stripped I F6 - Loamy N I F2 - Loamy N I F3 - Depleted I F7 - Depleted I F8 - Redox D I F8 - Redox D  | cator or cograins; Local  Moist)  6/6 2/1  not presen  edox Matrix Mucky Minera Gleyed Matrix I Matrix ark Surface I Dark Surface I portessions  | Mottle  2 25 25 tt):                                  | e absence of in one Lining, M=Matters  Type  C  C                                   | Location  M M  IIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC  | luck (LRR I, J) Prairie Redox (lurface (LRR G) Plains Depressional Vertic Parent Material                                  | E Soils <sup>1</sup> LRR F, G, H)  ONS (LRR H, outside MLRA 72, | 73)               |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | ption (Descriptation, D=Depl Hue_10YR Hue_2.5Y Hue_2.5Y Hue_2.5Y  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 neetion, RM=Reduced Mineral  Matrix Color (Moist)  2/1  3/2  Indicators (chairpedon stic on Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface aucky Mineral                            | eeded to docu atrix, CS=Covere  % 100 73 100 neck here if in                  | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  I S5 - Sandy R I S6 - Stripped I F6 - Loamy N I F2 - Loamy N I F3 - Depleted I F7 - Depleted I F8 - Redox D I F8 - Redox D  | cator or cograins; Local  Moist)  6/6 2/1  not presen  edox Matrix Mucky Minera Gleyed Matrix I Matrix ark Surface I Dark Surface I portessions  | Mottle  2 25 25 tt):                                  | e absence of ir<br>ore Lining, M=Mat<br>es<br>Type<br>C<br>C                        | Location  M M  IIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC  | luck (LRR I, J) Prairie Redox (lurface (LRR G) Plains Depressioned Vertic Parent Material Shallow Dark S                   | E Soils <sup>1</sup> LRR F, G, H)  ONS (LRR H, outside MLRA 72, | 73)               |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | Pition (Descriptation, D=Deplementation, D=Deple | be to the depth ne etion, RM=Reduced Mineral Matrix  Color (Moist)  2/1 3/2  3/2  Indicators (chairpedon stic of Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface aucky Mineral lucky Peat or Peat (L | eeded to docu atrix, CS=Covere  | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  I S5 - Sandy R I S6 - Stripped I F6 - Loamy N I F2 - Loamy N I F3 - Depleted I F7 - Depleted I F8 - Redox D I F8 - Redox D  | cator or cograins; Local  Moist)  6/6 2/1  not presen  edox Matrix Mucky Minera Gleyed Matrix I Matrix ark Surface I Dark Surface I portessions  | Mottle  2 25 25 tt):                                  | e absence of in one Lining, M=Matters  Type  C  C                                   | Location  M M  IIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | Indicators f  A9 - 1 cm M A16 - Coast S7 - Dark Si F18 - Reduc TF2 - Red P TF12 - Very Other (Explain                           | luck (LRR I, J) Prairie Redox (I urface (LRR G) Plains Depressio ced Vertic Parent Material Shallow Dark S ain in Remarks) | E Soils <sup>1</sup> LRR F, G, H)  ONS (LRR H, outside MLRA 72, |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | Pition (Descriptation, D=Deplementation, D=Deple | be to the depth ne etion, RM=Reduced Mineral lucky Peat or Peat (LR Peat (LR F))  | eeded to docu atrix, CS=Covere  | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  I S5 - Sandy R I S6 - Stripped I F6 - Loamy N I F2 - Loamy N I F3 - Depleted I F7 - Depleted I F8 - Redox D I F8 - Redox D  | cator or cograins; Local  Moist)  6/6 2/1  not presen  edox Matrix Mucky Minera Gleyed Matrix I Matrix ark Surface I Dark Surface I portessions  | Mottle  2 25 25 tt):                                  | e absence of in one Lining, M=Matters  Type  C  C                                   | Location  M M  IIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F F18 - Red uc TF2 - Red P TF12 - Very Other (Explain              | luck (LRR I, J) Prairie Redox (I urface (LRR G) Plains Depressio ced Vertic Parent Material Shallow Dark S ain in Remarks) | E Soils <sup>1</sup> LRR F, G, H)  ONS (LRR H, outside MLRA 72, |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | Pition (Descrintration, D=Deplete A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A11 - Deplete A12 - Thick D S1 - Sandy M S3 - 5 cm Mu S3 - 5 cm Mu   | be to the depth ne etion, RM=Reduced Mineral lucky Peat or Peat (LR Peat (LR F))  | eeded to docu atrix, CS=Covere  | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  I S5 - Sandy R I S6 - Stripped I F6 - Loamy N I F2 - Loamy N I F3 - Depleted I F7 - Depleted I F8 - Redox D I F8 - Redox D  | cator or cograins; Local  Moist)  6/6 2/1  not presen  edox Matrix Mucky Minera Gleyed Matrix I Matrix ark Surface I Dark Surface I portessions  | Mottle  2 25 25 tt):                                  | e absence of in one Lining, M=Matters  Type  C  C                                   | Location  M M  IIIIIIIIIIIIIIIIIIIIIIIIIIIIIII | Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F F18 - Red uc TF2 - Red P TF12 - Very Other (Explain              | luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depressio ed Vertic Parent Material Shallow Dark S ain in Remarks)   | E Soils <sup>1</sup> LRR F, G, H)  ONS (LRR H, outside MLRA 72, |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | Pition (Descrintration, D=Depleter 10 Pition (Descrintration, D=Depleter 10 Pition (Description) Pition (Descripti | be to the depth ne etion, RM=Reduced Mineral lucky Peat or Peat (LR Peat (LR F))  | eeded to docu atrix, CS=Covere  | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  Hue_10YR  S5 - Sandy R  S6 - Stripped F1 - Loamy N  F2 - Loamy C  F3 - Depletec F6 - Redox D  F7 - Depletec F6 - Redox D  F16 - High Pl   | cator or cograins; Loca  Moist)  6/6 2/1  not presen  edox Matrix Mucky Minera Sleyed Matrix I Matrix ark Surface I Dark Surfa epressions ains Depres  | Mottle  2 25 25 tt):                                  | e absence of in ore Lining, M=Mates  Type  C  C                                     | Location  M M R H)                             | Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red P TF12 - Very Other (Explainless disturbed) | luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depressio ed Vertic Parent Material Shallow Dark S ain in Remarks)   | E Soils <sup>1</sup> LRR F, G, H)  ONS (LRR H, outside MLRA 72, |                   |
| Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-13 13-16 13-16 16-23  NRCS Hydr              | Hue 10YR Hue 2.5Y Hue 2.5Y Hue 2.5Y  Hue 10YR Hue 2.5Y  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu S4 - Sandy G  | be to the depth ne etion, RM=Reduced Mineral lucky Peat or Peat (LR Peat (LR F))  | eeded to docu atrix, CS=Covere  % 100 73 100 neck here if in                  | ment the indid/Coated Sand  Color (  Hue_10YR  Hue_10YR  Hue_10YR  Glicators are in the indidicators are in the indidicators are in the indidicators are in the indicators are indicators. In the indicators are indicators. In the indicators are indicators are indicators are indicators are indicators are indicators. In the indicators are indicators are indicators are indicators are indicators are indicators. In the indicators are indicators are indicators are indicators are indicators are indicators are indicators. In the indicators are indicators are indicators are indicators are indicators are indicators. In the indicators are indicators. In the indicators are indicators are indicators are indicators are indicators are indicators. In the indicators are indicators. In t | cator or cograins; Local  Moist)  6/6  2/1  anot present  edox Matrix Mucky Minera Sleyed Matrix ark Surface I Dark Surfa epressions ains Depres   | Mottle  2 25 tt):                                     | e absence of ingre Lining, M=Material es Type C C C H PARA 72, 73 of LRI  Hydric So | Location  M M  R H)                            | Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red P TF12 - Very Other (Explainless disturbed) | luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depressio ed Vertic Parent Material Shallow Dark S ain in Remarks)   | E Soils <sup>1</sup> LRR F, G, H)  ONS (LRR H, outside MLRA 72, |                   |

## WETLAND DETERMINATION DATA FORM Great Plains Region

| Project/Site:           | L3R   |              |                                       |              | Sample Point: u-159n48w6-c1  |  |  |  |
|-------------------------|---|--------------|---------------------------------------|--------------|--|--|--|--|
|                         |   |              |                                       |              |  |  |  |  |
| <b>VEGETATIO</b>        | N (Species identified in all uppercase are  | e non-native | species.)                             |              |  |  |  |  |
| Tree Stratum (          | 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.                      |   |              |                                       |              |  |  |  |  |
| 4.                      |   |              |                                       |              | Total Number of Dominant Species Across All Strata: 2 (B)  |  |  |  |
| 5.                      |   |              |                                       |              | Total National of Bottiman openies / Gross / G |  |  |  |
| 6.                      |   |              |                                       |              | Descript of Descriptors Chapter That Are ORL FACIAL as FAC: 0.09/ (A/D)  |  |  |  |
|                         |   |              |                                       |              | Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)   |  |  |  |
| 7.                      |   |              |                                       |              |  |  |  |  |
| 8.                      |   |              |                                       |              | Prevalence Index Worksheet   |  |  |  |
| 9.                      |   |              |                                       |              | Total % Cover of: Multiply by:   |  |  |  |
| 10.                     |   |              |                                       |              | OBL spp. 0 x 1 = 0   |  |  |  |
|                         | Total Cover =                               | 0            |                                       |              | FACW spp. 5 x 2 = 10   |  |  |  |
|                         | -   |              | _                                     |              | FAC spp. 15 x 3 = 45   |  |  |  |
| Sapling/Shrub S         | Stratum (Plot size: 15 ft. radius)          |              | FACU spp. 51 x 4 = 204                |              |  |  |  |  |
| 1.                      | ,   |              |                                       |              | UPL spp. 45 X 5 = 225  |  |  |  |
| 2.                      |   |              |                                       |              |  |  |  |  |
| 3.                      |   |              |                                       |              | Total 116 (A) 484 (B)  |  |  |  |
|                         |   |              |                                       |              | Total 116 (A) 484 (B)  |  |  |  |
| 4.                      |   |              |                                       |              |  |  |  |  |
| 5.                      |   |              |                                       |              | Prevalence Index = B/A = 4.172   |  |  |  |
| 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) *  |  |  |  |
| Harb Ctratum /          | Diet eize: Eft redius)                      |              |                                       |              | Problem Hydrophytic Vegetation (Explain) *   |  |  |  |
| 1.                      | Plot size: 5 ft. radius)  Medicago sativa   | 45           | Υ                                     | UPL          | Problem Hydrophytic Vegetation (Explain)   |  |  |  |
| 2.                      |   |              | Y                                     |              | * Indicators of hydric soil and wetland hydrology must be  |  |  |  |
|                         | Phleum pratense                             | 30           |                                       | FACU         | present, unless disturbed or problematic.  |  |  |  |
| 3.                      | Trifolium hybridum                          | 15           | N                                     | FACU         |  |  |  |  |
| 4.                      | Sonchus arvensis                            | 15           | N                                     | FAC          | Definitions of Vegetation Strata:  |  |  |  |
| 5.                      | Hordeum jubatum                             | 5            | N                                     | FACW         |  |  |  |  |
| 6                       | Trifolium pratense                          | 2            | N                                     | FACU         | Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast  |  |  |  |
| 7.                      | Ambrosia artemisiifolia                     | 2            | N                                     | FACU         | height (DBH), regardless of height.  |  |  |  |
| 8.                      | Dactylis glomerata                          | 2            | N                                     | FACU         |  |  |  |  |
| 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.  |  |  |  |
|                         |   |              |                                       | _            | 1161D  |  |  |  |
| 13.                     |   |              |                                       |              |  |  |  |  |
| 14.                     |   |              |                                       | _            | All control of the second of t |  |  |  |
| 15.                     |   |              |                                       |              | Woody Vines - All woody vines, regardless of height.   |  |  |  |
|                         | Total Cover =                               | 116          | _                                     |              |  |  |  |  |
|                         |   |              |                                       |              |  |  |  |  |
| Woody Vine St           | ratum (Plot size: 30 ft. radius)            |              |                                       |              |  |  |  |  |
| 1.                      |   |              |                                       |              |  |  |  |  |
| 2.                      |   |              |                                       |              |  |  |  |  |
| 3.                      |   |              |                                       |              | Hydrophytic Vegetation Present? N  |  |  |  |
| 5.                      |   |              |                                       | <del>-</del> | Trydrophytic Vogetation i Tesent.  |  |  |  |
|                         |   |              |                                       | _            |  |  |  |  |
| 4.                      | T 1 1 C                                     | ^            |                                       | _            |  |  |  |  |
|                         | Total Cover =                               | 0            |                                       |              |  |  |  |  |
| Remarks:                | The upland sample area is dominated by alfa | ilfa and tin | nothy, with                           | a variety    | of forbs and graminoids interpersed throughout.  |  |  |  |
|                         |   |              |                                       |              |  |  |  |  |
|                         |   |              |                                       |              |  |  |  |  |
| Additional Remarks:     |   |              |                                       |              |  |  |  |  |
| - Additional Februaries |   |              |                                       |              |  |  |  |  |
|                         |   |              |                                       |              |  |  |  |  |
|                         |   |              |                                       |              |  |  |  |  |
|                         |   |              |                                       |              |  |  |  |  |