

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

|                                                                                                                                      |                                                                     |                           |                                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------|
| Project/Site:                                                                                                                        | L3R                                                                 | Date:                     | 08/02/14                                                            |
| Applicant:                                                                                                                           | Enbridge                                                            | County:                   | Kittson                                                             |
| Investigators:                                                                                                                       | BEH/BCS/MRK                                                         | State:                    | MN                                                                  |
| Soil Unit:                                                                                                                           | I140A                                                               | Subregion (MLRA or LRR):  | MLRA 56                                                             |
| Landform:                                                                                                                            | Talf                                                                | NWI Classification:       |                                                                     |
| Slope (%):                                                                                                                           | 0 - 2%                                                              | Local Relief:             | LL                                                                  |
|                                                                                                                                      | Latitude: 48.61588717                                               | Longitude: -96.9034881667 | Datum:                                                              |
| Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks)                            |                                                                     |                           | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? | Are normal circumstances present?                                   |                           |                                                                     |
| Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic?   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                           |                                                                     |
| Section:                                                                                                                             |                                                                     |                           |                                                                     |
| Township:                                                                                                                            |                                                                     |                           |                                                                     |
| Range:                                                                                                                               |                                                                     |                           | Dir:                                                                |

**SUMMARY OF FINDINGS**

|                                 |    |                                             |
|---------------------------------|----|---------------------------------------------|
| Hydrophytic Vegetation Present? | No | Hydic Soils Present? No                     |
| Wetland Hydrology Present?      | No | Is This Sampling Point Within A Wetland? No |

Remarks: The upland sample point is located between a gravel county road and a private gravel drive in an old pipe storage yard. The site is dominated by quack grass and timothy, and is adjacent to a nearby wetland located next to the drive.

**HYDROLOGY**

**Wetland Hydrology Indicators** (Check all that apply; Minimum of one primary or two secondary required):

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><u>Primary:</u></p> <input type="checkbox"/> A1 - Surface Water<br><input type="checkbox"/> A2 - High Water Table<br><input type="checkbox"/> A3 - Saturation<br><input type="checkbox"/> B1 - Water Marks<br><input type="checkbox"/> B2 - Sediment Deposits<br><input type="checkbox"/> B3 - Drift Deposits<br><input type="checkbox"/> B4 - Algal Mat or Crust<br><input type="checkbox"/> B5 - Iron Deposits<br><input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery<br><input type="checkbox"/> B9 - Water-Stained Leaves | <input type="checkbox"/> B11 - Salt Crust<br><input type="checkbox"/> B13 - Aquatic Fauna<br><input type="checkbox"/> C1 - Hydrogen Sulfide Odor<br><input type="checkbox"/> C2 - Dry Season Water Table<br><input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots (not till)<br><input type="checkbox"/> C4 - Presence of Reduced Iron<br><input type="checkbox"/> C7 - Thin Muck Surface<br><input type="checkbox"/> Other (Explain) | <p><u>Secondary:</u></p> <input type="checkbox"/> B6 - Surface Soil Cracks<br><input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface<br><input type="checkbox"/> B10 - Drainage Patterns<br><input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots (tilled)<br><input type="checkbox"/> C8 - Crayfish Burrows<br><input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery<br><input type="checkbox"/> D2 - Geomorphic Position<br><input type="checkbox"/> D5 - FAC-Neutral Test<br><input type="checkbox"/> D7 - Frost-Heaved Hummocks (LRR F) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Field Observations:**

|                                                     |                    |                                                |
|-----------------------------------------------------|--------------------|------------------------------------------------|
| Surface Water Present? Yes <input type="checkbox"/> | Depth: _____ (in.) | <b>Wetland Hydrology Present?</b> <u>  N  </u> |
| Water Table Present? Yes <input type="checkbox"/>   | Depth: _____ (in.) |                                                |
| Saturation Present? Yes <input type="checkbox"/>    | Depth: _____ (in.) |                                                |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary hydrological indicators were observed.

**SOILS**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

| Depth (In.) | Matrix        |   | Mottles       |   |      |          | Texture | Remarks |
|-------------|---------------|---|---------------|---|------|----------|---------|---------|
|             | Color (Moist) | % | Color (Moist) | % | Type | Location |         |         |
|             |               |   |               |   |      |          |         |         |
|             |               |   |               |   |      |          |         |         |
|             |               |   |               |   |      |          |         |         |
|             |               |   |               |   |      |          |         |         |
|             |               |   |               |   |      |          |         |         |

**NRCS Hydic Soil Field Indicators** (check here if indicators are not present):

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> A1- Histosol<br><input type="checkbox"/> A2 - Histic Epipedon<br><input type="checkbox"/> A3 - Black Histic<br><input type="checkbox"/> A4 - Hydrogen Sulfide<br><input type="checkbox"/> A5 - Stratified Layers (LRR F)<br><input type="checkbox"/> A9 - 1 cm Muck (LRR FGH)<br><input type="checkbox"/> A11 - Depleted Below Dark Surface<br><input type="checkbox"/> A12 - Thick Dark Surface<br><input type="checkbox"/> S1 - Sandy Mucky Mineral<br><input type="checkbox"/> S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)<br><input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat (LRR F)<br><input type="checkbox"/> S4 - Sandy Gleyed Matrix | <input type="checkbox"/> S5 - Sandy Redox<br><input type="checkbox"/> S6 - Stripped Matrix<br><input type="checkbox"/> F1 - Loamy Mucky Mineral<br><input type="checkbox"/> F2 - Loamy Gleyed Matrix<br><input type="checkbox"/> F3 - Depleted Matrix<br><input type="checkbox"/> F6 - Redox Dark Surface<br><input type="checkbox"/> F7 - Depleted Dark Surface<br><input type="checkbox"/> F8 - Redox Depressions<br><input type="checkbox"/> F16 - High Plains Depressions (MLRA 72, 73 of LRR H) | <p><b>Indicators for Problematic Soils<sup>1</sup></b></p> <input type="checkbox"/> A9 - 1 cm Muck (LRR I, J)<br><input type="checkbox"/> A16 - Coast Prairie Redox (LRR F, G, H)<br><input type="checkbox"/> S7 - Dark Surface (LRR G)<br><input type="checkbox"/> F16 - High Plains Depressions (LRR H, outside MLRA 72, 73)<br><input type="checkbox"/> F18 - Reduced Vertic<br><input type="checkbox"/> TF2 - Red Parent Material<br><input type="checkbox"/> TF12 - Very Shallow Dark Surface<br><input type="checkbox"/> Other (Explain in Remarks) |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

<sup>1</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

|                               |              |                                         |
|-------------------------------|--------------|-----------------------------------------|
| Restrictive Layer Type: _____ | Depth: _____ | <b>Hydic Soil Present?</b> <u>  N  </u> |
|-------------------------------|--------------|-----------------------------------------|

Remarks: Due to the location in a roadside area, the soil profile was not observed. Based on the dominant vegetation and lack of hydrology indicators, the soil is assumed to be non-hydric.

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

Project/Site: **L3R** Sample Point: **u-159n48w6-a1**

**VEGETATION** (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft. radius)

| 1.  | Species Name | % Cover | Dominant | Ind.Status |
|-----|--------------|---------|----------|------------|
| 2.  |              |         |          |            |
| 3.  |              |         |          |            |
| 4.  |              |         |          |            |
| 5.  |              |         |          |            |
| 6.  |              |         |          |            |
| 7.  |              |         |          |            |
| 8.  |              |         |          |            |
| 9.  |              |         |          |            |
| 10. |              |         |          |            |

**Dominance Test Worksheet**

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Total Cover = 0

Sapling/Shrub Stratum (Plot size: 15 ft. radius)

|     |  |  |  |  |
|-----|--|--|--|--|
| 1.  |  |  |  |  |
| 2.  |  |  |  |  |
| 3.  |  |  |  |  |
| 4.  |  |  |  |  |
| 5.  |  |  |  |  |
| 6.  |  |  |  |  |
| 7.  |  |  |  |  |
| 8.  |  |  |  |  |
| 9.  |  |  |  |  |
| 10. |  |  |  |  |

**Prevalence Index Worksheet**

| Total % Cover of:           | Multiply by: |                |
|-----------------------------|--------------|----------------|
| OBL spp. <u>0</u>           | x 1 =        | <u>0</u>       |
| FACW spp. <u>20</u>         | x 2 =        | <u>40</u>      |
| FAC spp. <u>0</u>           | x 3 =        | <u>0</u>       |
| FACU spp. <u>90</u>         | x 4 =        | <u>360</u>     |
| UPL spp. <u>5</u>           | x 5 =        | <u>25</u>      |
| <b>Total</b> <u>115</u> (A) |              | <u>425</u> (B) |

Prevalence Index = B/A = 3.696

Total Cover = 0

Herb Stratum (Plot size: 5 ft. radius)

|     |                                |    |   |      |
|-----|--------------------------------|----|---|------|
| 1.  | <i>Elymus repens</i>           | 40 | Y | FACU |
| 2.  | <i>Phleum pratense</i>         | 20 | Y | FACU |
| 3.  | <i>Hordeum jubatum</i>         | 15 | N | FACW |
| 4.  | <i>Ambrosia artemisiifolia</i> | 15 | N | FACU |
| 5.  | <i>Trifolium hybridum</i>      | 15 | N | FACU |
| 6.  | <i>Bromus inermis</i>          | 5  | N | UPL  |
| 7.  | <i>Rumex stenophyllus</i>      | 5  | N | FACW |
| 8.  |                                |    |   |      |
| 9.  |                                |    |   |      |
| 10. |                                |    |   |      |
| 11. |                                |    |   |      |
| 12. |                                |    |   |      |
| 13. |                                |    |   |      |
| 14. |                                |    |   |      |
| 15. |                                |    |   |      |

**Hydrophytic Vegetation Indicators:**

Rapid Test for Hydrophytic Vegetation

Dominance Test is > 50%

Prevalence Index is ≤ 3.0 \*

Morphological Adaptations (Explain) \*

Problem Hydrophytic Vegetation (Explain) \*

\* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Total Cover = 115

Woody Vine Stratum (Plot size: 30 ft. radius)

|    |  |  |  |  |
|----|--|--|--|--|
| 1. |  |  |  |  |
| 2. |  |  |  |  |
| 3. |  |  |  |  |
| 4. |  |  |  |  |

**Definitions of Vegetation Strata:**

**Tree** - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** - Woody plants less than 3 in. DBH, regardless of height.

**Herb** - All herbaceous (non-woody) plants, regardless of size.

**Woody Vines** - All woody vines, regardless of height.

Total Cover = 0

Remarks: **The sample point is dominated by quack grass and timothy.**

**Hydrophytic Vegetation Present?** N

**Additional Remarks:**