

**Site/Project Location:** West Side HDD Bore Missouri River

**Date of Inspection:** 11 August 2016

Start of construction of 30-inch HDD pipeline river crossing on west side of Missouri River in Morton County i.e. "Oahe Crossing" was initially reported to us August 10 to start on the week August 22, then later that day called to say construction was starting next day at 9:00 am.

Inspection of construction to focus (1) confirming surface disturbance/work occurring within ND PSC-approved work corridor and/or route; (2) proficient topsoil segregation occurring; (3) vegetation removal consistent with tree & scrub mitigation plan; (4) depth of cover adequate; (5) archeological monitoring consistent with ND SHPO instructions; as well as other provisions of ND PSC order.

#### **Observed Work / Weather Conditions**

Visit occurred between 2:40 pm to 2:42 pm. Weather included broken skies with unrestricted visibility. Southeast wind 5-8 mph. No precipitation during visit. No standing water noted. Temperature 80 – 82 °F.

Visit to both access road site and ROW off of ND Highway 1806.. Protests in progress at both locations, with largest activity at south area. Staff from the North Dakota State Patrol (NDSP) were at south site.

Spoke to NDSP lieutenant on site and identified ourselves as third-party inspectors from the ND Public Service Commission. Received report that protesters were blocking work access to project areas and negotiations were continuing, and no attempt to press through workers to the site where occurring that day. Confirmed that no contractors were at work at the site. Left business card with NDSP representative and left site.

#### **Top Soil Management / Condition / Erosion Control / Stormwater Management**

No work has started in this portion of the project

#### **Vegetation Condition**

No surface disturbance has occurred in this portion of the project.

#### **Depth of Cover / Road Crossings / River Crossings / Riparian Condition at HDD Bore Sites**

Trenching for pipeline installation not yet started in this area. No bore or road crossing underway.

#### **Other Project Issues**

Protestors at both project access points off ND Highway 1806. Timetable for resolution unknown.

#### **Deficiencies**

None to report.

#### **Actions Taken/To Be Taken**

None.

**Keitu Inspector:** KMS

**Inspection Report Submitted:** 15 August 2016

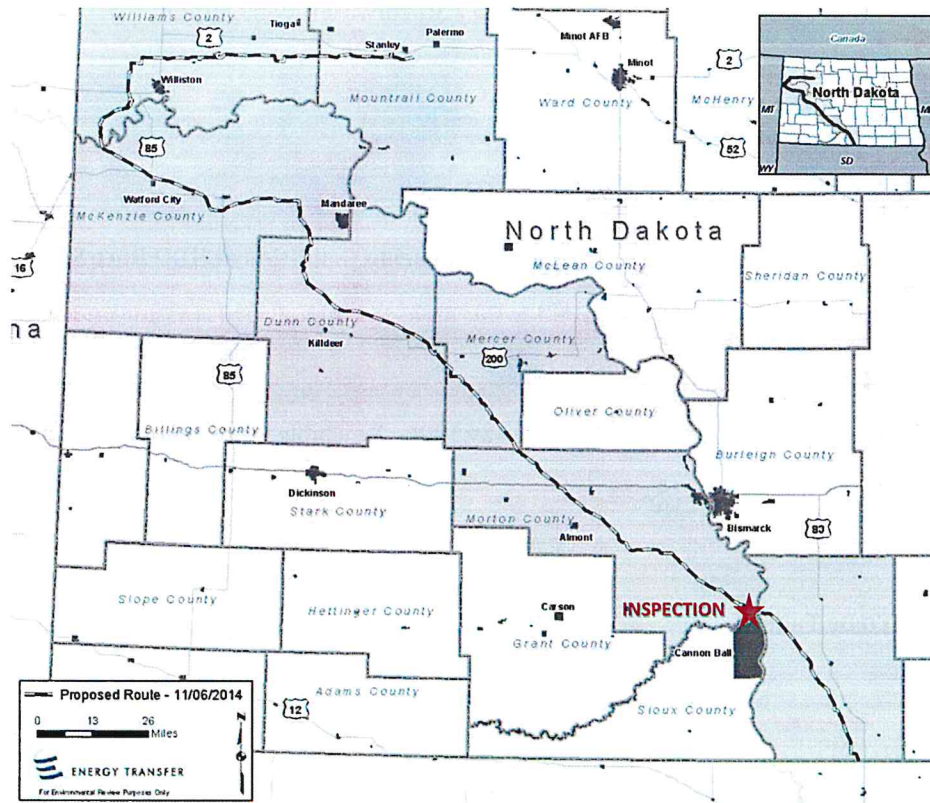
**Report Photo #1 "Protest Area – North Site":**

47.5770°N 102.8736°W



**Project Map Inspection Location:**

West of Missouri River



**Site/Project Location:** Slip HDD South of Little Missouri River

**Date of Inspection:** 04 August 2016

Construction of 30-inch pipeline on right-of-way (ROW) south of Little Missouri River in Dunn County in progress at the north edge of area where a landslide occurred in 2011 during the construction of another pipeline. Inspection of construction to focus (1) confirming surface disturbance/work occurring within ND PSC-approved work corridor and/or route; (2) proficient topsoil segregation occurring; (3) vegetation removal consistent with tree & scrub mitigation plan; (4) depth of cover adequate; (5) archeological monitoring consistent with ND SHPO instructions; as well as other provisions of ND PSC order.

### **Observed Work / Weather Conditions**

Visit occurred between 11:15 am to 2:15 pm. Weather included overcast skies with unrestricted visibility. Variable wind 3-5 mph. No rain or other precipitation during visit. No standing water noted. Temperature 72 – 78 °F.

Visit to north side of bore site of HDD bore machine. Tree & shrub removal complete. Surface stripping complete. HDD bore machine position partially uphill. Mud mix-trailer including water and bentonite material staging located at base of hill. Mud transferred to bore pit via hoses. Transcube fuel tank in use at mud mix-trailer and operation/placement adequate. Operators report expected 2700 feet of expected bore length. Access road including topsoil stripping installed across crest of hill above bore path.

Little Missouri River HDD reportedly complete. HDD up north side bluff in progress. Pipe string assembly for bluff HDD reportedly complete. Pipe stringing for slip HDD not yet underway.

HDD bore machine location observed including drill pit. All material maintained within drill pit and or mud machine overflow pit. Geotechnical engineer not on site, but reportedly at north bluff HDD location.

### **Top Soil Management / Condition / Erosion Control / Stormwater Management**

Mats/ties placed in high traffic soft areas at base of worksite. Topsoil from subsoil segregation appears adequate although poor segregation in limited areas associated with very steep grades up hillside. Silt fence installed in select areas at base although adequate vegetative cover (50+feet) noted beyond active work areas. Topsoil and subsoil stacks sometimes side-by-side and sometimes on opposite sides of ROW. On steep slope, a couple of small piles of topsoil was being stored on top of subsoil. In other areas, both soil piles had been removed. Where they exist, soil piles are within staked ROW boundaries.

Staff reported that all mud from mud trailer overflow will be recovered and removed from site.

### **Vegetation Condition**

Tree/shrubs removal in area immediately south of river very narrow, reportedly only 35 feet wide. Full width tree/shrub removal in current work area. Piles of wood chips noted within ROW work areas. Project staff reported they will be removed from ROW and not used during remediation. Asked to see tree count and removal tally. Project staff reported they were still waiting for that information as well from their project's environmental staff.

### **Depth of Cover / Road Crossings / River Crossings / Riparian Condition at HDD Bore Sites**

Trenching for pipeline installation not yet started in this area. No bore or road crossing underway.

**Other Project Issues**

Lack of adequate supply of HDD-spec pipe posing challenge to project. Multiple changes to eliminating planned bores are occurring in North Dakota.

**Deficiencies**

One area of topsoil stacked on top of stripped subsoil.

Secondary fuel tank located at worksite trailer has been at site for four (4) days protected only by plastic sheeting beneath tank.

**Actions Taken/To Be Taken**

Moving topsoil pile on subsoil would likely be as much if not more damaging as leaving it at current location. Recommend leaving the soil pile at its current location.

Site personnel understood, without prompting, that the secondary containment for the fuel trailer was not adequate. Possible modifications were discussed to correct item. Staff indicated it would be corrected in less than two (2) days.

**Keitu Inspector:** KMS

**Inspection Report Submitted:** 15 August 2016

**Report Photo #1 "Overall Site Looking South Toward Backside of Prior Slip":** 47.6069°N 102.8765°W



**NOTE:** Bridger ROW to 50 feet to east (left)

**Report Photo #2 "Looking South Toward Equipment Staging on North Slope":** 47.6082°N 102.8765°W



**Report Photo #3 "Overview Site Looking North from Slip Bore Machine Level":** 47.6072°N 102.8764°W



**NOTE:** Mud Mix-Trailer and Overflow Pit on east (right)

**Report Photo #4 "Bore Machine":**

47.6069°N 102.8764°W



**Report Photo #5 "Marginal Topsoil Segregation":**

47.6069°N 102.8765°W



**NOTE:** Topsoil stacked on subsoil

**Report Photo #6 "Chipped Wood Pile on West Side of ROW":**

47.6074°N 102.8765°W



**Report Photo #7 "Transcube Fuel Container":**

47.6069°N 102.8765°W

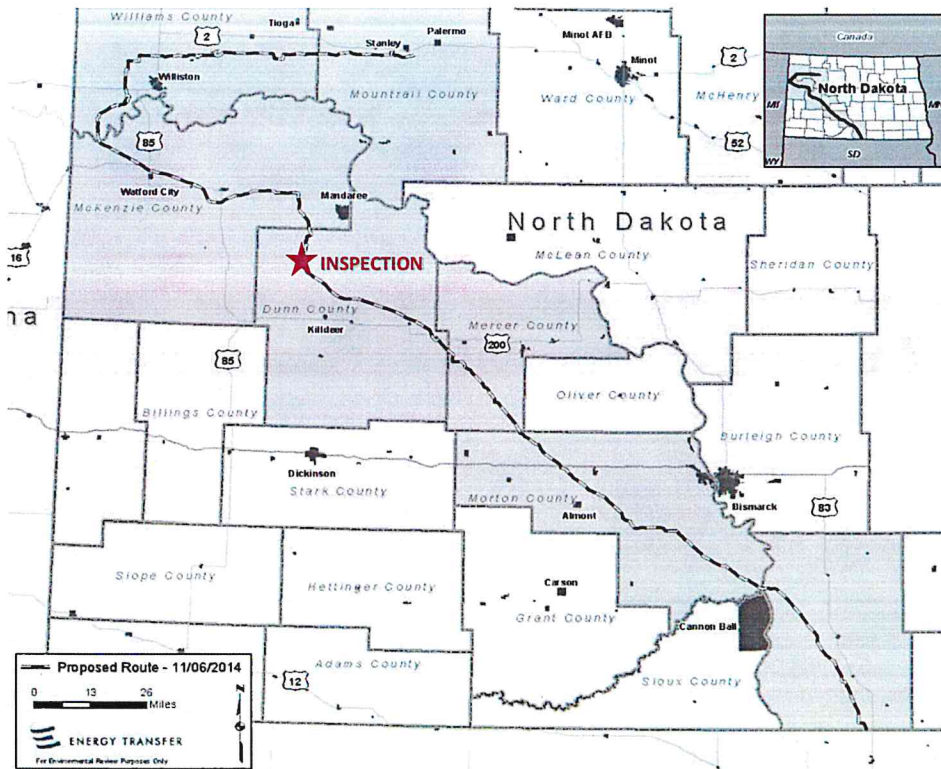


**Report Photo #8 "Fueling Trailer" at GPS Coordinates: 47.6087°N 102.8765°W**



**Project Map Inspection Location:**

South of Little Missouri River



**Site/Project Location:** MP 13 Pipeline ROW McKenzie County Rd 37      **Date of Inspection:** 20 July 2016

ROW restoration activities continue along the pipeline right-of-way (ROW) on "Spread 8" east of the Watford City Terminal and south of the city of Watford City.

**Observed Work / Weather Conditions**

Visit occurred between 2:40 pm to 2:45 pm. Weather included clear skies with unrestricted visibility. Northwest wind 5-8 mph. No precipitation during visit. No standing water noted. Temperature 92 – 94 °F.

Spot check made of ROW. Straw application and crimping on west side of road. Subsoil replacement completed on east side of road but topsoil replacement had not yet commenced. Wire fences and gates in place.

Skid steer equipment was being moved along the ROW boundaries, but could not confirm it was traveling outside of ROW as survey stakes had been removed.

**Top Soil Management / Condition / Erosion Control / Stormwater Management**

Stormwater BMPs had been removed from both areas of the ROW. Shredded straw and crimping underway on sloped areas of ROW on west side of McKenzie County Road 37. Topography restored to apparent prior condition and elevation.

On east side of McKenzie County Road 37, topography restored to apparent prior condition and elevation. Subsoil smoothly replaced across entire ROW. Top soil windrows still in place.

**Vegetation Condition**

Crimped straw applied in high slope areas, but not on slight grade portions at this time.

**Depth of Cover / Road Crossings / River Crossings / Riparian Condition at HDD Bore Sites**

No open trenches noted in area to check pipeline depth of cover. No damage or construction impact noted to County Road 37, consistent with the road crossing being bored.

**Other Project Issues**

None reported.

**Deficiencies**

Skid steer equipment was being moved along the ROW boundaries, but could not confirm it was traveling outside of ROW as survey stakes had been removed.

**Actions Taken/To Be Taken**

None.

**Keitu Inspector:** KMS

**Inspection Report Submitted:** 15 August 2016

**Report Photo #1 "Pipeline ROW West of County Road 37 (Zoomed)" Looking W: 47.7833°N 103.2192°W**



**Report Photo #2 "Pipeline ROW West of County Road 37" Looking West: 47.7833°N 103.2192°W**



**Report Photo #3 "Pipeline ROW East of County Road 37" Looking ENE:**

47.7826°N 103.2192°W



**Project Map Inspection Location:** Southeast of Watford City

