

# BARTLETT & WEST

SERVICE. THE BARTLETT & WEST WAY.



July 31, 2014

Mr. Darrell Nitschke  
Executive Secretary  
North Dakota Public Service Commission  
600 E. Boulevard, Dept. 408  
Bismarck, ND 58505-0480

**RE: Enbridge Pipeline (North Dakota) LLC  
Case No. PU-10-612 & PU-10-613  
Contract # PU-644-12 and PU-645-12**

Dear Mr. Nitschke:

Attached to this letter is the final construction inspection report for the Enbridge Pipeline, NDPSC Case No. PU-10-612 as well as the final construction inspection report for NDPSC Case No. PU-10-613. As directed by Mr. Pat Fahn, enclosed is one paper copy of the report with attachments. If you have any questions or need any additional information, please let me know.

Sincerely,

A handwritten signature in black ink that reads "James D. Landenberger".

James D. Landenberger, P.E.  
Bartlett & West, Inc.  
Project Manager

Enclosures

File: 18181.002 & 18181.003 - NDPSC Construction Inspection Services - 1.0 Correspondence

**187 PU-10-612** Filed: 8/5/2014 Pages: 53  
**Construction Inspection Report**

Bartlett & West, Inc.

James Landenberger, P.E. - Project Mgr

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# Bakken Pipeline Project Construction Inspection Report

Enbridge Pipelines (North Dakota), LLC.

**PU-10-612**

Prepared for:

NORTH DAKOTA PUBLIC SERVICE COMMISSION

600 E. Boulevard Avenue

Bismarck, ND 58505-0480

Prepared by:



A handwritten signature in blue ink, reading 'James Landenberger', is written over a horizontal line.

**James Landenberger**

**Date**

**Bartlett & West, Inc.**  
3456 E. Century Ave  
Bismarck, ND 58504  
(701) 258-1110

July 2014

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## **Executive Summary**

The North Dakota Public Service Commission (PSC) retained Bartlett & West Inc. to complete a construction inspection of the Bakken Pipeline Project, constructed in Ward and Burke County, ND by Enbridge Pipelines North Dakota LLC in 2011, 2012 & 2013. The purpose of the construction inspection was to ensure the project was constructed in compliance with the siting laws and rules and the applicable PSC Order for the Project. Prior to the construction inspection, Bartlett & West reviewed all Project documents to identify those which required site verification.

The pipeline was visually inspected on August 20, 2013 by Bartlett & West, Inc, accompanied by Enbridge representative, Jay Black. The facilities (Kenaston, Lignite, and Berthold stations) were then inspected November 4, 2013 by Bartlett & West, Inc. accompanied by Enbridge representative, Randy Bishop. It was evident that a great deal of effort was put forth to minimize the impacts to the environment and the surround area.

The document review of the PSC website indicates that Enbridge may have failed to submit some of the supporting documents and permits associated with this specific contract. It is possible that Enbridge mistakenly submitted these documents under a different contract, as this is just one of many Enbridge contracts. The PSC should determine if that is indeed the case, and if not, are these documents necessary for Enbridge to fulfill their project order obligations. Other items of concern include the following:

- 1) Verification that pipe bury depth was 48 inches or 72 inches in undeveloped section line
- 2) Settlement within the first three miles of the pipeline project between Stations 0+00 and 171+00.
- 3) Tree and shrub replacement and survival monitoring had not been completed.
- 4) Verification that environmental inspectors were on site during construction.
- 5) Executed permits needed to comply with PSC Order.

# **1.0 Background**

## **1.1 INTRODUCTION**

The Bakken Pipeline Project, located in Ward and Burke Counties, consisted of replacing approximately 11 miles of 12-inch diameter pipeline, installing two new pump stations (Lignite and Kenaston), and upgrading an existing station (Berthold Terminal and Pump Station). Construction progress reports indicate the pipeline portion of the project was completed by December 2011 and facilities were completed by November 2013. The pipeline is operated by Enbridge Pipelines (North Dakota) LLC. Under the jurisdiction of the North Dakota Public Service Commission (PSC), the Findings of Fact, Conclusions of Law, and Order was granted on May 5, 2011 for Case No. PU-10-612. The Certificate of Corridor Compatibility No. 118 and Route Permit No. 128 were also issued for the Project. The First Amended Certificate of Corridor Compatibility No. 118 and the First Amended Route Permit No. 128 were also issued September 6, 2011 to cover the amended pipeline route submitted by Enbridge on July 28, 2011.

## **1.2 PURPOSE AND SCOPE OF INSPECTION**

The North Dakota Energy Conversion and Transmission Facility Act (North Dakota Century Code Chapter 49-22) authorizes the Public Service Commission to determine that the location, construction, and operation of jurisdictional energy conversion and transmission facilities will produce minimal adverse effects on the environment and the welfare of the citizens of North Dakota. Post-construction inspections will attempt to ensure that the project is constructed in compliance with the siting laws and rules and the applicable Commission Findings of Fact, Conclusions of Law, and Order.

The North Dakota PSC retained Bartlett & West, Inc. to complete a post construction inspection of the Bakken Pipeline in Ward and Burke Counties. The inspection process included a review of the Application for Corridor Compatibility and Route Permit, Order, and other applicable documents to determine Project-specific siting and construction requirements; a site visit and inspection of facilities; documentation of compliance including photographs; and a report summarizing findings.

This report includes, but is not limited to, documentation of site visit observations, documentation of compliance deficiencies, and a summary of issues that should be addressed for the Project to be considered complete and in full compliance.

## 2.0 Document Review

### 2.1 METHODS

Bartlett & West, Inc. reviewed North Dakota siting laws and rules, the Applications for the Certificate of Corridor Compatibility and Route Permit (Application), and the Order for the Project to identify what Project-specific documentation was required for compliance. Bartlett & West, Inc. then reviewed Project documents in the PSC Online Case Search (PU-10-612) to identify those siting laws and rules and Application and Order assertions that already had written verification, those which still required documentation, and those which required physical site verification.

### 2.2 FINDINGS

The following table includes a list of components of the Project that were asserted in the Application and Order which could be documented post-construction to verify compliance with siting laws and rules and the Order for the Project (**Table 1**), via either written documentation or physical site verification. If Bartlett & West, Inc. found written documentation in the online PSC files for a particular Project component, this is marked in the third column of the table. If physical site verification was possible, this was marked in the fourth column and that particular component was verified during the site inspection (Section 3.0).

Several components of the Project were asserted in the Application or proposed construction but have no written documentation showing that they were indeed implemented or constructed as planned, and physical site verification is not applicable. *This includes all items listed in Table 1 which have shaded boxes in the third column*, indicating written verification is possible and appropriate, but it is lacking from current files. The PSC should request written verification from Enbridge for these items, to show the Project is in full compliance, or verify that they were submitted under a separate contract involving the Bakken Pipeline Project.

Table 1. Bakken Pipeline Project Document Review Summary

Source of Project Component/Assertion	Description of Project Component/Assertion	Written Verification in PSC Files*	Site Verification
	<b>PRECONSTRUCTION</b>		
CROP** 2	Preconstruction Conference - MTL June 30, 2011	Docket 45	
CROP 4	Permits	X	
CROP 5	Intent to start construction	Docket 56	
CROP 30	Inform PSC in writing any modifications	X	
CROP 2	Preconstruction Conference - Facilities July 14, 2011	Docket 50	
CROP 3	Approvals from other agencies - city, township, county zoning regulations	X	
FOF 15	Pipeline passing through avoidance area (Landowner waivers)	Docket 46	
	<b>ENGINEERING/CONSTRUCTION/DESIGN &amp; SOILS</b>		
CROP 5	Weekly Construction reports	X	
CROP 6	Pipeline buried 48 inches or 72 inches in undeveloped section lines		X
FOF 6	Construction corridor of 250 ft. maximum width		X
CROP 13	Graded road crossings bored		X
CROP 14	Roads restored to previous use		X
CROP 16	Topsoil segregated and replaced		X
CROP 17	Reclamation and clean-up of right-of-way completed		X
CROP 17	Reclamation and maintenance throughout life of facility		Ongoing
CROP 21	Mitigation of any TV or Radio interference	N/A	
CROP 31	Electronic, paper, and GIS files of as-builts submitted within 3 months of completion	Docket 98	
NDDH Stipulations	Erosion control BMP's implemented successfully		X
NDDH Consultation	Minimize fugitive dust, degradation of waterways, storm water, management, noise	Docket 17	X
CROP 22	Repair and replacement of fences and gates damaged		X
CROP 23	Repair and replacement of any broken drainage tile		N/A
CROP 24	All waste that was a product of the pipeline project removed from right-of-way		X
CROP 28	Complaints procedure filed	Docket 49	
	<b>NATURAL AND CULTURAL RESOURCES</b>		
CROP 18	Reclamation/reseeding according to NRCS or landowner		X
CROP 20	Compliance with "Tree and Shrub Mitigation Specifications"	Docket 143	Ongoing
CROP 10	Reports of presence of threatened, endangered species or bald or golden eagles, if applicable	N/A	
CROP 12	Reports of cultural, archeological, historical resources found during construction, if applicable	N/A	
FOF 8	Class I literature search and Class III cultural resource inventory completed	X	
FOF 8	Environmental data collected on soils, land use, wetland water crossings, and protected species	X	
FOF 10 CROP 10	State Historical Preservation Office concurred with "No historic properties affected" determination	X	
FOF 11	North Dakota Department of Health Approval	Docket 17	
FOF 16	Wetland assessment completed and complied with		
FOF 16	USACE Nationwide Permit obtained for Kenaston pump station		
FOF 16	USACE Nationwide Permit obtained for Berthold pump station		
FOF 17	Fish & Wildlife - no impacts letter	Exhibit F.1 of Application	
FOF 23	EMP & Spill Prevention, containment and control plans submitted	Exhibit E & I of Application	

\*Note: Shaded boxes indicate documentation is lacking and site verification is not applicable.

\*\*CROP: Certification Relating to Order Provisions

## 3.0 Site Inspection

### 3.1 METHODS

Zach Gluckert, P.E. and Andrew Seeberg of Bartlett & West, Inc. visited the pipeline portion of the Project area on August 20, 2013. Jay Black, Construction Manager with Enbridge, accompanied Bartlett & West, Inc. staff during the site visit and assisted with navigation, and answered questions. The site inspection began at end station 571+56 and continued northwest to the pipeline tie-in location at station 0+00. The inspectors traveled along the pipeline route in a utility vehicle in the areas that were easily accessible and walked the pipeline route in the other areas which were not accessible. Tom Kappes of Bartlett & West, Inc. visited the facilities portion of the Project area on November 4, 2013. Randy Bishop, Enbridge representative, assisted Bartlett & West to the Kenaston, Lignite, and Berthold stations. Digital photos were taken to document the conditions of the project and also to show any problem areas (**Appendix A, Photos 12-21**).

### 3.2 OBSERVATIONS & FINDINGS

#### 3.2.1 Engineering/Construction/Design & Soils

The following aspects pertaining to engineering, construction, or design of Project infrastructure were inspected at the site.

- *Pipeline Buried to 48in (72in Undeveloped Section Lines).* Since Bartlett & West, Inc. had not been retained at the time of construction, the Enbridge representative verified that piping was installed below the minimum bury depths (Jay Black, pers. Comm.. 2013). The pipeline shall be buried to a minimum depth from the ground surface to the top of the pipe of 48 inches in rangeland, 48 inches for cultivated land, 48 inches at the bottom of the ditch for road crossings, and 72 inches across undeveloped section lines.
  
- *Construction Corridor 250 ft maximum width, narrowed to 50 ft through wooded areas.* Bartlett & West observed that the pipeline route was within the 250 foot wide requirements along the entire route. The corridor was narrowed to 85 feet through some wetland areas as shown in (**Appendix A, Photo 1**).

- *All crossings of graded roads shall be bored unless the responsible governing agency specifically permits Enbridge to open cut the road.* During the inspection Enbridge representative Jay Black stated that all county roads were bored under on the Bakken Pipeline Project (Jay Black, Pers. Comm. 2013). (**Appendix A, Photo 2**).
- *Roads Restored to Previous Use.* Bartlett & West is unaware of any roads being constructed for the Bakken Pipeline Project but all existing roads observed during the onsite inspection were in good condition.
- *Topsoil Removed, Segregated, Replaced at 12in Depth or Depth of Cultivation.* Bartlett & West was not on site during construction to observe and verify the topsoil being segregated but the pipeline corridor re-vegetation observed during the inspection indicates that Enbridge did comply with these requirements (**Appendix A, Photos 2, 3, 4, 5, 6, 7, 8**). The only area observed that had not re-vegetated was in a wetland area located at station 472+00 (**Appendix A, Photo 1**).
- *Reclamation and clean up along the right-of-way must be continuous and coordinated with construction.* At the time of the inspection all reclamation and clean-up activities had been completed. Bartlett & West observed some problem areas along the first three miles of the pipeline route (station 0+00 to 171+00) where the trench had a little bit of settlement (**Appendix A, Photo 9**). Settlement was most noticeable at stations 34+00 and 148+00. The Enbridge representative indicated that Enbridge is committed to coming back in the fall after crops are harvested to review the entire project and fix any issues encountered (Jay Black, pers. Comm.. 2013). Bartlett & West also observed that all fences were repaired to pre-construction conditions during the inspection.
- *Reclamation and Maintenance throughout Life of Facility.* Enbridge representative Loren Lilly stated that Enbridge inspects its lines 26 times a year in a frequency not to exceed 3 weeks via air patrol. (Loren Lilly, email August 19, 2013)

- *Mitigation of any TV or Radio Interference.* Enbridge's application (B.4.b(10)) indicates a review of the project area did not identify communication or control facilities within the corridor, therefore there were no effects on radio or television reception as a result of the pipeline project.
- *Erosion Control BMP's implemented successfully.* During the inspection of the pipeline it appeared erosion control had been implemented successfully along the pipeline corridor as well as at the pumping station sites.
- *Repair and replacement of fences and gates damaged.* Field inspection indicated that all fences were repaired to pre-construction conditions.

### 3.2.2 Natural Resources (Wildlife, Wetlands, Vegetation)

The following requirements pertaining to natural resources, including wildlife, wetlands, and vegetation, were inspected.

- *Reclamation/Reseeding According to NRCS or Landowner, if applicable.* The pipeline corridor was in excellent condition in respects to the corridor being re-vegetated. The only area observed that had not re-vegetated was in a wetland area located at station 472+00 as stated above. **(Appendix A, Photo 1).**
- *Tree and Shrub Mitigation.* Enbridge has indicated (via email correspondence) the tree and shrub planting will take place in the spring of 2014 by the North Dakota Forest Service. (Andrew Orthober, email 2013)
- *Environmental Inspectors.* Enbridge's Application for Route Permit, section B.1.a. Construction, indicates environmental inspectors will monitor compliance with required environmental protection measures, permit conditions, and specifications, and provide ongoing oversight for day to day issues that may arise during construction. Bartlett & West did not find any documentation in the PSC Docket PU-10-612 supporting this claim.

- *Wetland Delineation.* A Wetland Delineation Report was conducted by McCain and Associates, Inc for the pipeline corridor July 27-29, 2010. A copy can be found in the application for Certificate of Corridor Compatibility, Exhibit D.1. This report covers the 250 foot wide pipeline corridor. The survey identified 60 wetlands, fifty-eight of which were isolated depression wetlands and two were identified as connected to intermittent drainages. A Wetland Delineation Report was also conducted by Barr Engineering in September 2009 covering 14 acres of the existing Berthold station, tank facility and associated buildings and service roads. A copy can be found in the application for Certificate of Corridor Compatibility, Exhibit D.2. Barr's report identified three wetlands and indicated all three wetlands are isolated pothole depressions, surrounded by uplands, with no apparent surface water or wetland connection to other wetlands or Waters of the United States. Therefore, all three wetlands should be considered outside the jurisdiction of Section 404 of the Clean Water Act and the US Army Corps of Engineers (COE).

A second Wetland Delineation Report was conducted by Merjent, Inc. on the 80-acre parcel of land at the Berthold Station. Bartlett & West was unable to find this report documented in the Bakken Pipeline Project US (PU-10-612) PSC Docket information but due to the knowledge of the Bethold Station Upgrades (PU-10-130) Bartlett & West is aware that this survey took place on May 1, 2010 and identified six (6) wetlands. It was determined by the COE that 0.32 acres of these wetlands found within the project area, on the 80-acre parcel, are jurisdictional Waters of the United States. Due to the jurisdictional determination, Merjent prepared a Wetland Mitigation Plan and submitted it to the COE. Through email correspondence with Angela Ronayne of Merjent, Bartlett & West was informed that another project on the Enbridge site was also potentially impacting jurisdictional waters (Bakken Pipeline Project US). At the request of the COE, Merjent prepared a mitigation plan for both of these projects and submitted it to the COE on March 23, 2012. Ms. Ronayne also indicated the mitigation plan was completed in July/August 2012 and that Enbridge is required to provide a complete set of as-builts and design specifications within one year of the project completion and submits annual monitoring reports for five years or until it is determined the project is successful. If completed, then the COE will provide written verification that the mitigation project was successfully completed.

A third Wetland Delineation was conducted by Merjent, Inc. May 2010 on the Kenaston, Lignite, and Berthold Stations. No wetlands were identified within the Lignite Station, and maps of the Kenaston and Berthold Station are included in the application for Certificate of Corridor Compatibility, Exhibit D.3. The included information does not verify the wetlands as isolated or jurisdictional.

- *U.S. Army Corps of Engineers.* Under Finding of Facts #16 of the PSC “Finding of Fact, Conclusion of Law and Order” it states that Enbridge will seek a USACE Nationwide Permit authorizing the temporary and non-jurisdictional wetland impacts for the Lignite and Kenaston stations and will seek authorization for a USACE Individual permit for the Berthold Station. Bartlett & West was unable to locate these permits in the PSC docket but received the COE Berthold Station Permit via email correspondence with Enbridge representatives and can be found in Appendix B. The Corps Permit dated July 12, 2010, stipulates the following: Permittee shall create not less than 0.32 acres of wetlands on-site per the plan submitted by the applicant and conduct monitoring on the mitigation area; a survey of adjacent wetland grades and soil profiles in the proposed wetland enhancement area will be conducted to determine seasonal high waters of the area, the proper grades for the wetland enhancement area and corresponding core and transitional wetland zones. The survey information helps to determine mitigation excavation depths and final grades in the proposed mitigation area. Topsoil shall be stripped to a minimum depth of eight to ten inches on the impacted wetland and spread on the proposed mitigation area allowing the new wetland area to passively re-vegetate. The outer slopes of the new wetland shall be no more than 4:1 grade. Monitoring reports shall be submitted to the ND Regulatory Office not later than November 30 following each growing season, for a period of 5 years or until the Corps of Engineers determines that the mitigation is acceptable. Following the mitigation construction, the creation area shall be documented with as-built engineered drawings provided as part of the construction completion report (Permit Compliance Certification) to the Corps of Engineers, within one year of construction.

PSC project files do not include the mitigation plan submitted to the COE by Merjent Inc. Merjent was contacted for the Mitigation plans and they were received on October 30, 2012. The Nationwide Permit indicates it is the applicants (Enbridge) responsibility to complete the required compensatory mitigation as set forth in Special Condition 6 and it will not be considered fulfilled until they have demonstrated compensatory mitigation project success

and have received written verification of that success from the U.S. Army Corps of Engineers. The mitigation work was completed in July/August 2012. Verification by the COE will not be available until Enbridge fulfills the requirements as stated above.

- *No Endangered, Threatened, or Sensitive Plants Identified.* The Project Application indicates Exhibit D.1 includes the rare plant survey but Bartlett & West was unable to find a determination indicating that no species of concern or threatened and endangered plant species were found in the project corridor during the survey. Exhibit D.2 of Enbridge's Application for Certificate of Corridor Compatibility includes a Wetland Delineation and Rare Plant Survey Report by Barr Engineering, stating that the survey covered the 14-acre Berthold Station site only and that no rare or protected plant species were found. Exhibit D.3 of of Enbridge's Application for Certificate of Corridor Compatibility includes only a Wetland Delineation for the stations by Merjent, Inc.

### **3.2.3 Cultural Resources**

The following aspects pertaining to cultural resources were inspected at the Project site.

- *Cultural Resources Avoided.* A Class I search of the site and manuscript files and a Class III inventory field survey was completed May 12 - 15, 2010, by Kadrmas, Lee & Jackson (KLJ), on the Area of Potential Effect (250' wide survey corridor) for the 10.9 miles of pipeline corridor surveyed. KLJ's report indicated no previously recorded cultural resources were located within the proposed pipeline corridor, and no new cultural resources were encountered. KLJ recommended a finding of "No Historic Properties Affected". The State Historical Society of North Dakota concurred with KLJ's findings on July 27, 2010. The report and SHPO concurrence letter can be found as Exhibit C.1 & C.2 of Enbridge's PSC Application of Certificate of Corridor Compatibility and Route Permit. KLJ conducted a Class III pedestrian survey on pipeline reroutes and additional work space areas November 2 - 4, 2010. KLJ recommended a finding of "No Historic Properties Affected". The State Historical Society of North Dakota concurred with KLJ's findings of "No Historic Properties Affected" in letters dated January 11 & 27, 2010. KLJ completed a third report titled 11-0548 PSC/Enbridge Pipeline (North Dakota), LLC Kenaston and Lignite Pumping stations in portions of [T159N R88W Section 7] Ward

County and [T162N R91W Section 7; T163N R92W Section 34] Burke County, North Dakota. Bartlett & West was unable to find a copy of this report in the PSC Docket but the SHPO Concurrence letter dated January 24, 2011 was found under Exhibit BP-5 indicating their concurrence with KLJ's findings of "No Historic Properties Affected" and "No Significant Sites Affected" determination provided documented sites are avoided. During Bartlett & West's site survey Enbridge's field representative, Jay Black, indicated all cultural resource sites were avoided by the pipeline.

## **4.0 Issues to Resolve and Recommendations**

### **4.1 PIPELINE DEPTH**

Bartlett & West was unable to verify the depth of the buried pipeline during the site visit, but Jay Black of Enbridge confirmed the required depth of 48 inches for cultivated land, 48 inches at the bottom of the ditch for road crossings, and 72 inches across undeveloped section lines, was implemented. The PSC should request Enbridge to provide written verification of the as-built depth of the pipeline if needed for their records.

### **4.2 SETTLEMENT**

As stated above, settlement was found along the first three miles of the pipeline route between station 0+00 and 171+00. Settlement was most noticeable at stations 34+00 and 148+00. The PSC may want to have Enbridge verify that these settlement areas were fixed after the crops were harvested last fall, as this is what the Enbridge representative stated they were planning to do during the inspection.

### **4.3 AS-BUILTS**

As-built drawings were submitted by Enbridge as required by the Order, but the as-builts only cover the pipeline and did not include the as-builts for the Lignite and Kenaston Pump Stations, or the Berthold Pump Station and Terminal. The PSC may want to request the as-builts for the stations as well.

#### **4.4 TREE & SHRUB REPLACEMENT**

The Tree and Shrub Mitigation Specifications were included as a part of the Siting Application submitted by Enbridge and the Restoration Plan can be found in PSC file documents for Case No. PU-10-612. According to Andrew Orthober, Environmental Analyst with Enbridge, the tree restoration has been subcontracted out to the U.S. Forest Service and the tree planting is expected to be completed in 2014. Once the tree/shrub restoration has been completed Enbridge shall submit annual inspection reports for three years after the planting to report the survival rate and comply with the Tree and Shrub Mitigation Specifications.

#### **4.5 ENVIRONMENTAL INSPECTORS**

Enbridge's Application indicated that Environmental inspectors would be on site during pipeline construction to ensure all environmental aspects were complied with. The PSC may want to request written verification that Enbridge indeed did provide these services as stated, and may want to request the inspection reports.

#### **4.6 WETLAND DELINEATION**

Due to very minimal information included in the Merjent Wetland Delineation for the Lignite, Kenaston, and Berthold Stations in Exhibit D.3. of Enbridge's Application the PSC may want to request additional information or a more formal report for their records.

#### **4.7 PERMITS**

Bartlett & West was unable to find several of the permits Enbridge listed as being required for the Bakken Pipeline Project as shown on Late Filed Exhibit #BP-6. Of the permits listed as being required, Bartlett & West was unable to locate the following on the PSC website: U.S. Army Corps of Engineers Individual 404 permit, U.S. Army Corps of Engineers Nationwide Permit (NWP) 12 Section 404 Permit, North Dakota Department of Health – Individual Section 401 Water Quality Certification, North Dakota Department of Health – Construction Stormwater and Temporary Dewatering General Permit, North Dakota Department of Health – Hydrostatic Water Discharge Permit, North Dakota State Water Commission – Temporary Water Permit/Water Withdrawal

## 5.0 Conclusion

Bartlett & West's document review and site inspection confirms that the Bakken Pipeline Project was completed as stated in Enbridge's Application and in compliance with the PSC guidelines. It appears the project has caused minimal adverse effects on the environment and on the welfare of the citizens of North Dakota. It does appear though that there are several remaining items that Enbridge needs to follow-up with before the Project can be considered in full compliance. It is suggested the PSC requests Enbridge to submit all fully executed permits for their records as well as all other supporting documentation shown to be missing in Table 1. It is also recommended that the PSC require written verification that any settlement areas will be repaired and the remaining trees and shrubs will be replanted per the mitigation plan.

## 6.0 References

Black, Jay. 2013. Enbridge Pipelines (North Dakota), LLC. Personal Communication: discussion during site visit.

Bishop, Randy. 2013. Enbridge Pipelines (North Dakota), LLC. Personal Communication: discussion during site visit.

Lilly, Loren. 2013. Enbridge Pipelines (North Dakota), LLC. Email Correspondence.

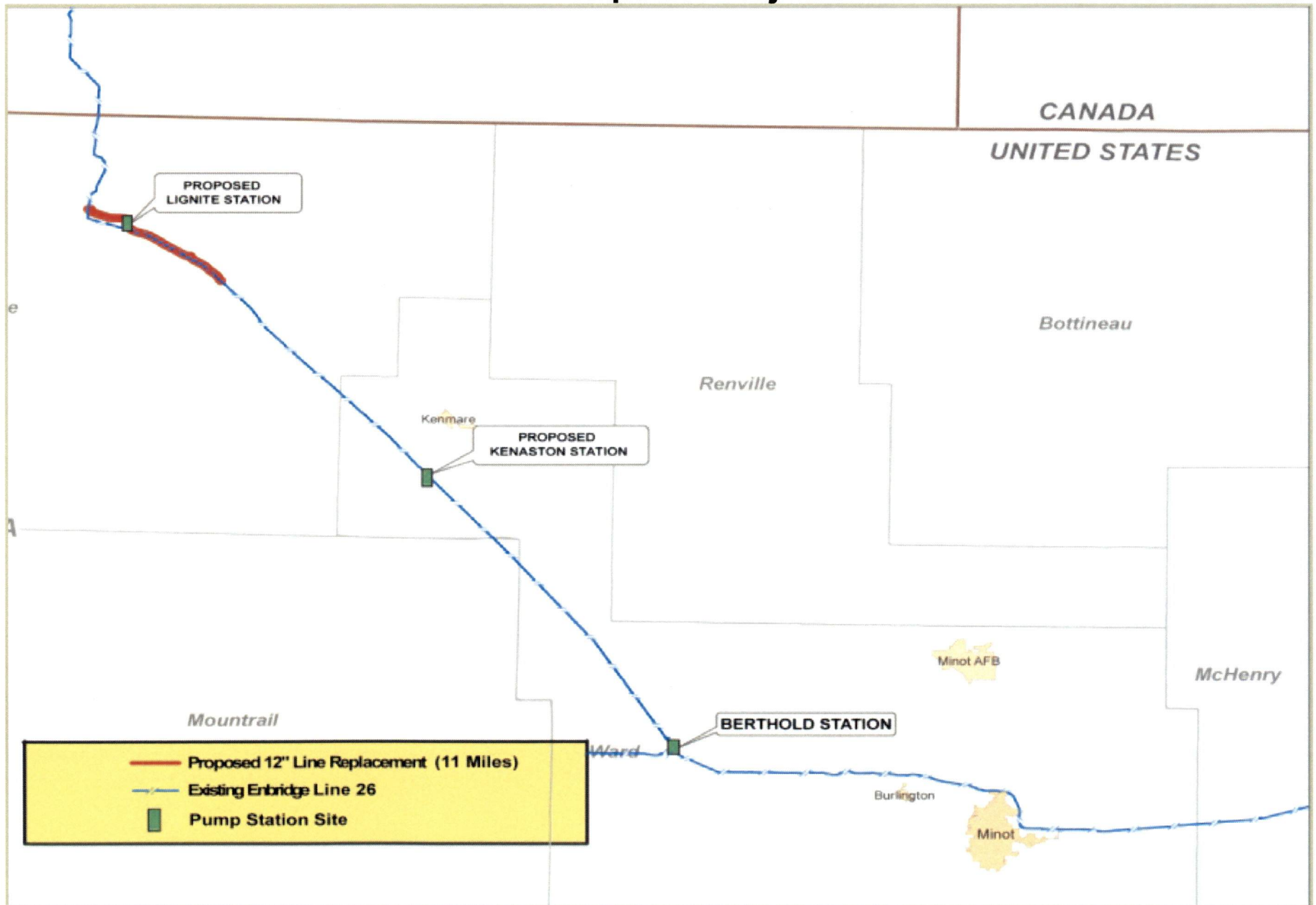
Orthober, Andrew. 2013. Enbridge Pipelines (North Dakota), LLC. Email Correspondence.

Ploetz, Sara. 2013. Enbridge Pipelines (North Dakota), LLC. Email Correspondence.

North Dakota Public Service Commission (ND PSC). 2012. Online Case Search. Available from: [http://www.psc.nd.gov/database/company\\_case\\_list.php](http://www.psc.nd.gov/database/company_case_list.php). Accessed August-December 2013.

# Figures

# Enbridge Pipelines (North Dakota) LLC Bakken Pipeline Project US



# **Appendix A**



**Photo 1.** Station 474+00 Looking northwest at a wetland which had not yet completely re-vegetated.



**Photo 2.** Station 288+00 Looking southeast at a roadways that had been horizontally directionally drilled.



**Photo 3.** Station 92+50 Looking east at the pipeline marking and re-vegetation.



**Photo 4.** Station 92+50 Looking west at the pipeline marking and re-vegetation.



**Photo 5.** Station 171+50 Looking north at the pipeline marking and re-vegetation.



**Photo 6.** Station 349+00 Looking east at the re-vegetation in the pipeline corridor.



**Photo 7.** Station 426+00 Looking northwest at the re-vegetation within the pipeline corridor.



**Photo 8.** Station 568+00 Looking southeast at the re-vegetation within the pipeline corridor.



**Photo 9.** Station 146+00 Looking east at settlement of the pipeline trench in a wheat field.



**Photo 10.** Station 288+00 Looking northwest at a horizontally directionally drilled wetland.



**Photo 11.** Station 308+00 Looking northwest at a directionally drilled wetland.



**Photo 12.** Lignite Pump Station.



**Photo 13.** Lignite Pump Station Pumps, meters and pipine.



**Photo 14.** Lignite Pump Station



**Photo 15.** Kenaston Pump Station above ground piping.



**Photo 16.** Kenaston Pump Station pumps, meters, and piping.



**Photo 17.** Kenaston Pump Station pumps, meters, and piping.



**Photo 18.** Gates at Kenaston Pump Station



**Photo 19.** Berthold Station



**Photo 20.** Berthold Station



**Photo 21.** Berthold Station

# **Appendix B**



April 26, 2011

North Dakota Pollutant Discharge Elimination System (NDPDES)  
General Permit for Stormwater Discharges from Construction Activity  
NOTICE OF COVERAGE

Permittee(s)

Owner/Operator: Randy Rice  
Contact: Enbridge Pipelines (North Dakota) LLC  
1409 Hammond Avenue  
Superior, WI 54880

Coverage under the 2009 reissued construction general permit (NDR10-0000) is identified as follows:

Permit ID: **NDR103724**      Site Name: **Bakken Pipeline Project US**

Please remember to update the Stormwater Pollution Prevention (SWPP) plan as appropriate for site conditions. The best management practices (BMPs) and temporary structures must be inspected, maintained and adjusted until the site is stabilized following construction activities. Once the site is stabilized as outlined in the general permit, you may end permit coverage by filing a termination notice. Cities or counties may impose additional requirements and/or specific BMPs for construction affecting their storm drainage system. Please check with the local officials to be sure all local stormwater management considerations are addressed.

Additional Information

The permit conditions, forms and related information may be found on our web site at:

[www.ndhealth.gov/wq/Storm/Construction/ConstructionHome.htm](http://www.ndhealth.gov/wq/Storm/Construction/ConstructionHome.htm)

Should you have any questions on the permit, please contact a stormwater staff person listed below.

Dallas Grossman  
Division of Water Quality  
701.328.5242  
[dgrossma@nd.gov](mailto:dgrossma@nd.gov)

c. Angela Ronayne, PE – Merjent



**NORTH DAKOTA**  
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION  
Gold Seal Center, 918 E. Divide Ave.  
Bismarck, ND 58501-1947  
701.328.5200 (fax)  
www.ndhealth.gov



August 25, 2011

COPY

Paul Meneghini  
Enbridge Pipelines (North Dakota) LLC  
1409 Hammond Ave, 2<sup>nd</sup> Floor  
Superior, WI 54880

Re: NDPDES Permit No. NDG070276

We have received your "Application for Permit to Discharge - NDPDES Industrial-Short Form C" and have granted authority to discharge under the General Permit for Temporary Dewatering/Hydrostatic Testing Permit No. NDG070000. Your facility has been assigned permit no. **NDG070276**. This permit has been issued by the North Dakota Department of Health (NDDoH) with the understanding that all other applicable permits and permissions have been obtained for the start of the following project. The application indicates that the discharge(s) will consist of surface water from a hydrostatic test of a new 11 mile 12 inch pipeline called the Bakken project:

<u>Discharge Point</u>	<u>Volume (Gallons)</u>	<u>Location</u>
001H	356,500	11 mile 12" pipeline T162N, R91W, Section 23; Burke County

**All discharge points shall be inspected daily.** On a daily basis record the total volume of discharge and make a visual inspection for Oil and Grease. Analytical parameters for pH and Total Suspended Solids (TSS) shall be waived for this project. Testing for Chlorine shall also be waived if the source water is not chlorinated. The parameter of Oil and/or Grease is waived unless sheen is observed in the discharge; if observed then collect a sample for Total Petroleum Hydrocarbon (TPH). The department shall be contacted on all findings of Oil and Grease. All discharges made directly to a surface water body or wetland shall be inspected closely so as to minimize any turbidity issues. Best Management Practices (BMPs) must be used to minimize the impact of the discharge.

**ADDITIVES:** No additives were reviewed for this project.

Enclosed are Discharge Monitoring Report (DMR) forms for your use. If someone else is responsible for the submittal of the DMRs, please forward this letter and the enclosed forms to them. The reports cover three months; the dates and location have been filled out. If no discharge occurs during the reporting period, check "No" in section one. The reports must be post-marked by the last day of the month following the end of each reporting period. All original DMR forms should be sent to NDDoH and a copy should be kept for your files. **EPA no longer requires a copy of the DMR form.**

If any other testing is conducted during this project, copies of the results of any such test should be forwarded to the Department. **Should you wish to no longer be covered under this permit, you must submit a written request to terminate and cite the reasons for termination.** Coverage shall be maintained until a written notification to release has been issued to the permittee by NDDoH. Should you have any questions about your permit or how to complete the DMRs, please contact me at (701) 328-5234.

Sincerely,

Marty Haroldson  
Environmental Scientist  
Division of Water Quality

Enc.

Cc: EPA  
Angela Ronayne – Merjent

Environmental Health  
Section Chief's Office  
701.328.5150

Division of  
Air Quality  
701.328.5188

Division of  
Municipal Facilities  
701.328.5211

Division of  
Waste Management  
701.328.5166

Division of  
Water Quality  
701.328.5210



**NORTH DAKOTA**  
DEPARTMENT of HEALTH

ENVIRONMENTAL HEALTH SECTION  
Gold Seal Center, 918 E. Divide Ave.  
Bismarck, ND 58501-1947  
701.328.5200 (fax)  
www.ndhealth.gov



December 15, 2011

Paul Meneghini  
Enbridge Pipelines (Southern Lights), LLC  
1409 Hammond Ave., 2nd Floor  
Superior, WI 54880

RE: Notice of Termination of Coverage under North Dakota Pollutant Discharge  
Elimination System General Permit, NDG070276

Dear Mr Meneghini,

In accordance with your request, Enbridge Pipelines (North Dakota) LLC's coverage under the general permit NDG070276 for temporary dewatering/hydrostatic testing activities has been terminated. With this termination, you are no longer required to submit reports or conduct other activities as outlined in NDPDES General Permit NDG070000.

If you have any questions, please contact me at (701) 328-5234 or at [mharolds@nd.gov](mailto:mharolds@nd.gov).

Sincerely,

Marty Haroldson  
Environmental Scientist  
Division of Water Quality

MH  
cc:EPA

Environmental Health  
Section Chief's Office  
701.328.5150

Division of  
Air Quality  
701.328.5188

Division of  
Municipal Facilities  
701.328.5211

Division of  
Waste Management  
701.328.5166

Division of  
Water Quality  
701.328.5210

Permit Number - ND2011-4664

State of North Dakota  
Temporary Water Permit  
SWC Project No. 1400A

In response to an application for a temporary water permit dated Aug 22, 2011 as received in this office Aug 25, 2011, authority is hereby granted to:

Enbridge Pipeline-North Dakota-LLC  
1409 Hammond Avenue  
Second Floor  
Superior, WI 54880-1674

Contact Person: Paul Meneghini

Telephone (715) 398-4573

**A Temporary Water Permit as follows:**

**Source:** Un-named Slough

**Point of Diversion:** NW1/4 Sec. 23 Twp. 162 Rng. 091

**Nature of Use:** Pipeline hydrostatic test

**Total Quantity of Water:** 356,500.0 Gallons

**Maximum Withdrawal Rate:** 3,000.0 gpm

**Period of authorized useage:** Sep 15, 2011 through Jan 1, 2012

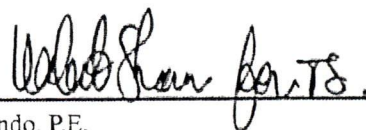
**Conditions**

This temporary water permit is granted subject to use from the source by senior appropriators. Permission for access to the source must be obtained from all affected landowners. Failure to comply with any order of the State Engineer may result in forfeiture of this permit. The granting of a temporary water permit does not create a water right.

The use of the water authorized by this Temporary Water Permit shall be limited to the hydrostatic testing of the pipeline or associated pipeline construction uses. Any other use is unauthorized and will result in the forfeiture of this temporary water permit.

A weatherproof copy of this Temporary Water Permit must be attached the equipment withdrawing water and must be available for inspection by representatives of the State Engineers Office or the State Water Commission.

Dated: Aug 26, 2011



Todd Sando, P.E.  
State Engineer  
ND State Water Commission  
900 East Boulevard  
Bismarck, ND 58505

cc: Burke WRD



APPLICATION TO DRAIN  
OFFICE OF THE STATE ENGINEER  
Water Development Division  
SFN 2830 (4/09)

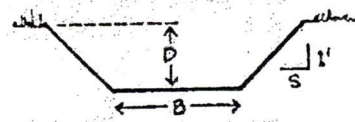


I, the undersigned, am applying for a permit under NDCC Section 61-32-03, to drain a pond, slough, lake, or sheetwater, or any series thereof, which has a watershed area comprising 80 acres or more.

No. 3749  
(USE ONLY)

This application must be accompanied by FSA aerial photos or equivalent showing the location of the proposed drain(s).

(1) WATER RESOURCE DISTRICT IN WHICH PROJECT IS LOCATED: <u>Ward</u>						
(2) LEGAL DESCRIPTION OF DRAIN CENTERLINE: [use separate sheet(s) if necessary]	1/4	SEC	TWP	RGE	LAT (Opt.)	LONG (Opt.)
	<u>NE</u>	<u>20</u>	<u>156N</u>	<u>86W</u>		
	1/4	SEC	TWP	RGE	LAT (Opt.)	LONG (Opt.)
	<u>NW</u>	<u>21</u>	<u>156N</u>	<u>86W</u>		
(3) LEGAL DESCRIPTION of the drain outlet: <u>NW 1/4 NW 1/4 SEC 21 TWP 156N RGE 86W</u>						
(4) PURPOSE: <u>Enbridge Pipelines (Bakken) LP is proposing to expand its existing station</u>						
(5) DESCRIPTION OF EACH AREA TO BE DRAINED:						
TOTAL Drainage Area	Acres	Water Area	Acres	Average Depth of Water		
<u>80</u>			<u>1.46</u>	<u>Seasonally flooded. Approx. 0.5</u>		
Project Drainage Area	Acres					
<u>14</u>						
(6) DESCRIPTION OF DRAIN:						
TOTAL Length of Drain	Feet	Bottom Width (B)	Pipe Diameter			
<u>2,339</u>		<u>31 7/16 x 51 1/8" Arch</u>	<u>42-36-inch</u>			
Length of Drain Project	Feet	Side Slopes (S)		0.02:1 Foot	Maximum Cut (D)	Feet
<u>2,339</u>		<u>2%</u>			<u>Trench depth 116.5</u>	
(7) Construction will be completed on or before: <u>November 2011</u>				(8) Is the proposed drain(s) an assessment drain? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
(9) Do you own the land to be drained in fee? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO				If NO, give the name and address of the legal landowner(s):		



The filing of this application and its approval does not relieve the applicant and/or landowner(s) from any responsibility or liability for damages resulting from the construction, operation or failure of this drain.

APPLICANT'S CERTIFICATION

I understand that I must undertake and agree to pay the expense incurred in making an investigation. If the investigation discloses that the quantity of water to be drained will flood or adversely affect downstream lands, I will be required to obtain flowage easements and must file the easements in the office of the county recorder before a permit may be issued. My signature below acknowledges that I have read and agree to these statements, and will adhere to the conditions given on the back of this application.

NAME (PRINT OR TYPE): <u>Enbridge c/o Paul Meneghini</u>	DATE SUBMITTED:
ADDRESS: <u>1409 Hammond Ave.</u>	PHONE NO: <u>715-398-4573</u>
ADDRESS: <u>Superior, WI 54980</u>	
SIGNATURE (Owner of the land on which the project is located or legal entity sponsoring project): <u>[Signature]</u>	

FOR USE BY WATER RESOURCE DISTRICT AND STATE ENGINEER

The Water Resource District Board has investigated according to NDAC Section 89-0201-09.2.

The proposed drainage ( will  will not) flood or adversely affect lands of downstream landowners.

This application is hereby:

Denied

Signature: \_\_\_\_\_

*Nancy Kramer*

*Chairman or Secretary of Water Resource District Board*

Approved

Date: \_\_\_\_\_

*4/11/11*

(1) The State Engineer or Water Resource District Board may revoke or modify the project and the rights granted under the permit to protect the public health, safety, and welfare; to protect property; or to ensure the orderly control of water resources.

(2) Construction must be completed within two years from the date of final approval.

This application:

does involve drainage of state-wide or interdistrict significance

does not involve drainage of state-wide or interdistrict significance

*LA 3/1/11*

If the State Engineer has determined that this application does not involve drainage of state-wide or interdistrict significance, approval by the Water Resource District Board constitutes a permit to drain.

If the State Engineer has determined that this application involves drainage of state-wide or interdistrict significance, approval by both the Water Resource District Board and the State Engineer must be given to constitute a permit to drain.

This application involving drainage of state-wide or interdistrict significance is:

Denied

Signature: \_\_\_\_\_

*State Engineer*

Approved

Date: \_\_\_\_\_

**CONDITIONS:**

(1) The State Engineer may revoke or modify the project and the rights granted under the permit to protect the public health, safety, and welfare; to protect property; or to ensure the orderly control of water resources.

(2) Construction must be completed within two years from the date of final approval.

Mail to:

Office of the State Engineer  
900 East Boulevard Avenue, Dept 770  
Bismarck, ND 58505-0850

DRAIN APPLICATION No. 3749

Under North Dakota Century Code Section 61-32-03, a water resource district may not grant a permit to drain until an investigation determines that the quantity of water to be drained will not flood or adversely affect downstream lands. The investigation must include a written evaluation of the factors given in North Dakota Administrative Code Section 89-02-01-09.2, which will then become a permanent part of the permit record.

Therefore, the Water Resource District is required to provide written responses to each of the factors listed below. Additional sheets may be attached as necessary. Upon completion, this signed form is to be returned to the State Engineer's Office along with the original drain permit application. A signed copy of this completed form must also be provided to the permit applicant.

**89-02-01-09.2. Evaluation of applications - Factors considered.** The state engineer, for applications of statewide or interdistrict significance, and the board, for all applications to drain, shall consider the following factors:

1. The volume of water proposed to be drained and the impact of the flow or quantity of this water upon the watercourse into which the water will be drained.
2. Adverse effects that may occur to the lands of lower proprietors. This factor is limited to the project's hydrologic effects such as erosion, duration of floods, impact of sustained flows, and impact on the operation of downstream water control devices.
3. The engineering design and other physical aspects of the drain.
4. The project's impact on flooding problems in the project watershed.
5. The project's impact on ponds, sloughs, streams, or lakes having recognized fish and wildlife values.
6. The project's impact on agricultural lands.
7. Whether easements are required.
8. Other factors unique to the project.

Signature: Nancy Kramer  
Chairman or Secretary of Water Resource District Board

Date: 4/11/11

**BUILDING PERMIT**  
**Burke County, Bowbells, North Dakota**

Date February 24, 2011

Permit No. 2011-04

Permit Issued to Enbridge Pipelines (North Dakota) LLC

Address 1409 Hammond Avenue Second Floor Superior, WI 54880 Phone (715) 398-4569

For construction of two unit crude oil pump station complete with outdoor pumps, motors, and associated above and below grade piping. Also included on site will be an independent electrical substation area with transformer having a driveway connection to 101<sup>st</sup> Street NW, electrical service building, landscaped site containment and drainage, and a driveway connection to 84<sup>th</sup> Avenue NW.

Location (Legal Description) A tract of land located in Lot 1 of Section 7, Township 162 North, Range 91 West of the 5<sup>th</sup> Principal Meridian, Burke County, North Dakota, being more specifically described as follows: Beginning at the northwest corner of said Lot 1 of Section 7, thence along the north line of said Lot 1 of Section 7 on an azimuth of 91° 24'29" a distance of 433.00 feet; thence parallel with the west line of said Lot 1 of Section 7 on an azimuth of 181°40'21" a distance of 533.00 feet; thence parallel with the north line of said Lot 1 of Section 7 on an azimuth of 271°24'29" a distance of 433.00 feet to a point on said west line of said Lot 1 of Section 7, thence along said west line of said Lot 1 of Section 7 on an azimuth of 001°40'21" a distance of 533.00 feet to the Point of Beginning. Said tract contains 5.30 acres, more or less

This certificate, issued on the basis of approved plans as stated on the "Zoning Request Application" form, authorizes only the use, arrangement and construction set forth in such approved plans and applications, and no other use, arrangement or construction. Any use, arrangement or construction at variance with that authorized shall be deemed a violation of the regulation and subject as such to penalties as prescribed by the regulation and/or certificate revocation.

Construction must be commenced within six months.

All certificates shall expire one year from date of issuance unless a longer period of construction is agreed to in writing at the time of application.

This notice must be posted in a conspicuous place on or near the construction site.

Zoning Fee Paid \$10.00  
OR# 2041019592

[Signature]  
Signature of Applicant

[Signature]  
Signature Zoning Administrator

[Signature]  
Signature of Property Owner

**ZONING REQUEST APPLICATION  
BURKE COUNTY, BOWBELLS, NORTH DAKOTA**

Date: February 24, 2011

Applicant Name: Enbridge Pipelines (North Dakota) LLC

Address: 119 North 25<sup>th</sup> Street East, Superior, Wisconsin 54880-5247

Owner (if other than applicant)

Name: Kenneth Sorum

Address: P.O. Box 188, Crosby, North Dakota 58730

Type of Request  Building Permit  Amendment  
 Permitted Use  Text  
 Conditional Use  Map  
 Variance  Renewal (Extension)

Description of Request: Enbridge is purchasing this property to be used as a pump station site complete with outdoor pumps, motors, and associated above and below grade piping. Enbridge requests the parcel be zoned industrial to permit such use.

Existing Use of Property Agricultural

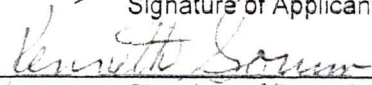
Lot Size 5.30 Acres (433' X 533') Setbacks Approx. 35 foot (CL Road to Fence)

Lot Width 433 feet Sideyard \_\_\_\_\_

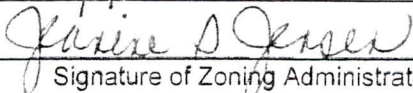
A sketch showing all proposed structures and their locations on the lot must be attached.

Approximate value of structure(s) \$ 200,000.

  
Signature of Applicant

  
Signature of Property Owner

Action Taken Approved

  
Signature of Zoning Administrator

3-17-11  
Date

ZONING REQUEST APPLICATION  
BURKE COUNTY, BOWBELLS, NORTH DAKOTA

Date: February 14, 2011

Applicant Name: Eric Lien, Facilities Engineer

Address: 1409 Hammond Avenue  
Second Floor  
Superior, WI 54880

Owner (if other than applicant)

Name: Enbridge Pipelines (North Dakota) LLC

Address: 1409 Hammond Avenue  
Second Floor Attn: (ROW) Doug Aller  
Superior, WI 54880

Type of Request:       Building Permit                       Amendment  
                                  Permitted Use                       Text  
                                  Conditional Use                       Map  
                                  Variance                       Renewal (Extension)

Description of Request: For the property described in the attached Surveyor's Certificate and Site Survey Map; Enbridge requests the necessary building permit to construct a two unit crude oil pump station complete with outdoor pumps, motors, and associated above & below grade piping. Also included on site will be an independent electrical substation area with transformer having a driveway connection to 101<sup>st</sup> St. NW, electrical service building, landscaped site containment & drainage, and driveway connection to 84 Ave NW. The current construction schedule is to commence civil construction activities the summer of 2011 and complete overall construction activities by winter 2012. Because of the current construction schedule, an extended Building Permit is requested for December 31<sup>st</sup>, 2012 to avoid expiration prior to construction completion.

Existing Use of Property: Agriculture (farmed by previous owner)

Lot Size: 5.30 Acres (433' x 533')

Setbacks: Approx. 35' (CL Road to Fence)

Lot Width: 433'

Sidyard: \_\_\_\_\_

A sketch showing all proposed structures and their locations on the lot must be attached.

Approximate value of structure(s)      \$ 200,000

Kenneth Sorum  
Kenneth Sorum

Eric Lien  
Eric Lien  
#258482 Facilities Engineer  
2011.02.16 13:22:33 -06'00'  
Signature of Applicant

Action Taken approved

Jessie D Jensen      3-17-11  
Signature of Zoning Administrator      Date



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, OMAHA DISTRICT  
NORTH DAKOTA REGULATORY OFFICE  
1513 SOUTH 12<sup>TH</sup> STREET  
BISMARCK ND 58504-6640

June 2, 2011

North Dakota Regulatory Office

[NWO-2009-2882-BIS]

Mr. Paul Meneghini  
Enbridge Pipelines (Bakken) LP  
1409 Hammond Ave., 2<sup>nd</sup> Floor  
Superior, Wisconsin 54880

Dear Mr. Meneghini:

Enclosed is proposed Department of the Army Permit No. NWO-2009-2882-BIS for the placement of fill material in wetlands associated with the Enbridge Berthold Station and Terminal Expansion and pipeline re-route project.

A processing fee of \$100.00 is required. Please make your check payable to the FAO USAED-Omaha and return to the North Dakota Regulatory Office at the address above.

General Condition No. 1. of the permit will establish the time limit for completing the work. In this particular case, it will reflect a construction period of three years from the date of issuance of the permit.

The Omaha District, Regulatory Branch is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our website at <http://per2.nwp.usace.army.mil/survey.html>. If you do not have Internet access, you may call and request a paper copy of the survey that you can complete and return to us by mail or fax.

If you have any questions, feel free to contact Patsy Crooke, Project Manager, or myself, at (701) 255-0015.

Sincerely,

Daniel E. Cimarosti  
Regulatory Program Manager  
North Dakota

Enclosures

## DEPARTMENT OF THE ARMY PERMIT

Permittee Enbridge Pipelines (Bakken) LP  
Permit No. NWO-2009-2882-BIS

Issuing Office NORTH DAKOTA REGULATORY OFFICE

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate district or division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below.

**Project Description:** As part of the Bakken Pipeline Project US (BPP US) Enbridge is proposing to upgrade its existing Berthold Station and Terminal (Berthold Station Expansion). Station upgrades include installation of two control buildings, a new station operations building, electrical infrastructure, interconnecting pipes and valves, metering facilities, and other related appurtenances.

In addition, Enbridge is also proposing to replace approximately 11 miles of existing 12-inch diameter pipeline (Line 26) and install two new pumping stations near the towns of Kenaston, Ward County, North Dakota and Lignite, Burke County, North Dakota.

Mitigation for permanent impacts to 1.78 acres of jurisdictional wetlands will take place according to the plan prepared by the Enbridge and approved by the North Dakota Regulatory Office. The mitigation plan is attached by reference and is based on expansion of wetlands that will take advantage of the hydrology in the South Fork of Arnold Coulee. The expanded wetland will be located in Section 21 Township 156 North, Range 86 West, Ward County, North Dakota.

**Project Location:** The location of this project is Section 20 and 21 Township 156 North, Range 86 West, Ward County, North Dakota.

Permit Conditions:

General Conditions:

1. The time limit for completing the work authorized ends on May 17, 2014. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and state coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. If a conditioned water quality certification has been issued for your project, you must comply with the conditions specified in the certification as special conditions to this permit. For your convenience, a copy of the certification is attached if it contains such conditions.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

(General Conditions are continued on page 4)

Special Conditions: (SEE PAGES 5-8 and Attachments A, B, C, D, E, F, G, H, AND I)

After a detailed and careful review of all of the conditions contained in this permit, the permittee acknowledges that, although said conditions were required by the Corps of Engineers, nonetheless the permittee agreed to those conditions voluntarily to facilitate issuance of the permit and the permittee will comply fully with all the terms of the permit conditions.

Further Information:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

( ) Section 10 of the River and Harbors Act of 1899 (33 U.S.C. 403).

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972 (33 U.S.C. 1413).

2. Limits of this authorization.

a. This permit does not obviate the need to obtain other Federal, state, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability. In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision. This office may reevaluate its decision on this permit at any time circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

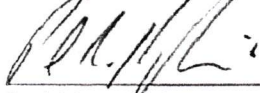
b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate (See 4 above).

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions. General condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.



Paul Meneghini  
Enbridge Pipelines (Bakken) Lp  
1409 Hammond Ave., 2<sup>nd</sup> Floor  
Superior, Wisconsin 54880  
(PERMITTEE)

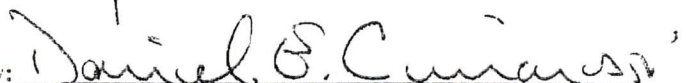
5/31/11

(DATE)

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

**Robert J. Ruch**  
COLONEL, CORPS OF ENGINEERS  
District Commander

1 June 2011  
(DATE)

By:   
DANIEL E. CIMAROSTI  
REGULATORY PROGRAM MANAGER  
North Dakota  
Regulatory Branch, Operations Division

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

---

(TRANSFEREE)

(DATE)

\*U.S. GPO: 1988-520-324

## DEPARTMENT OF THE ARMY PERMIT CONDITIONS

### • SPECIAL CONDITIONS.

#### General Environmental Conditions

[a] That EPND shall be fully responsible for obtaining all other permits and/or authorizations in accordance with local, state and Federal regulations and shall be fully responsible for compliance with the terms and conditions of those permits and/or authorizations. That EPND shall provide NDRO copies of all permits and/or authorizations obtained, including conditions, within fifteen (15) days of receipt by EPND. Any permits and/or authorizations received by EPND prior to issuance of this Department of the Army permit shall be provided to NDRO within fifteen (15) days of permit issuance.

[b] That EPND agrees to make every reasonable effort to prosecute the construction or work authorized herein in a manner so as to minimize any adverse impact of the construction or work on fish, wildlife, and natural environmental values.

[c] That EPND agrees that it will prosecute the construction of work authorized herein in a manner so as to minimize any degradation of water quality.

[d] That all work in the waterway is performed in such a manner so as to minimize increases in suspended solids and turbidity which may degrade water quality and damage aquatic life outside the immediate area of operation.

[e] That EPND shall comply with North Dakota Department of Health's conditioned water quality certification provided by email dated **March 17, 2011** which includes the following conditions: **1)** Implementation of the Department's construction and environmental disturbance requirements.

- This certification has been attached to and made a part of this permit. [Reference Attachment B].

[f] That only clean rock material from a non-streambed source will be utilized for riprap in order to avoid the percolation of fines which would result in excessive local turbidity.

[g] That all construction debris will be disposed of on land in such a manner that it cannot enter the waterway or a wetland.

[h] That EPND shall establish and carry out a program for immediate removal of debris during construction in order to prevent the accumulation of unsightly, deleterious and/or potentially polluted materials.

[i] That equipment for handling and conveying materials during construction shall be operated to prevent

dumping or spilling the materials into the waterway, except as approved herein.

[j] That measures will be employed to prevent or control spilled petroleum products, chemicals, or other deleterious materials from entering a waterway or wetland and, the permittee will formulate a contingency plan to be effective in the event of a spill.

[k] That steps will be taken to prevent materials spilled or stored on shore from washing into the water as a result of cleanup activities, natural runoff, or flooding, and that, during construction, any materials which are accidentally spilled into the water will be retrieved.

[l] That the use of machinery in the waterway or wetland will be kept to a minimum.

[m] That when the District Engineer has been notified that a filling activity is adversely affecting fish or wildlife resources or the harvest thereof and the District Engineer subsequently directs remedial measures, EPND will comply with such directions as may be received to suspend or modify the activity to the extent necessary to mitigate or eliminate the adverse effect as required.

[n] That fuel storage tanks above ground shall be diked or curbed or other suitable means provided to prevent the spread of liquids in case of leakage in the tanks or piping.

[o] All trees and shrubbery which are not specifically required to be cleared or removed for construction purposes shall be preserved and shall be protected from any damage by the Contractor's construction operations and equipment. EPND will comply with mitigation requirements for vegetation set forth by the North Dakota Regulatory Office.

[p] That all areas disturbed or newly created by the construction activity, which will not be riprapped, will be seeded with vegetation indigenous to the area for protection against subsequent erosion.

[q] That the clearing of vegetation will be limited to that which is absolutely necessary for construction of the project.

[r] That owners of water supply intakes, or other activities that may be affected by suspended solids and turbidity increases caused by construction activity in the watercourse, shall be given sufficient notice to allow preparation for any changes in water quality.

[s] That all dredged or excavated materials, with the exception of that authorized herein, will be placed on an upland site above the ordinary high water line in a confined area, not classified as a wetland, to prevent the return of such materials to the waterway.

[t] That deposition of excavated materials on shore and all earthwork operations on shore will be carried out in

such a way that sediment runoff and soil erosion to the water are controlled.

#### **Cultural Resource Conditions**

[u] That EPND and his contractor, or any of the employees, subcontractors or other persons working in the performance of the contract and/or contracts shall immediately cease work and report the discovery of subsurface features to the North Dakota State Historic Preservation Office [ND SHPO] and NDRO. Work shall not resume until notified by the NDRO.

[v] That EPND and his contractor, or any of the employees, subcontractors or other persons working in the performance of the contract and/or contracts shall immediately report the discovery of possible scientific, prehistorical, historical, or archaeological data, giving the location and nature of the findings to the ND SHPO and/or NDRO. Written confirmation shall be forwarded to NDRO within two (2) calendar days.

[w] That EPND shall cease construction or operation at the site of any cultural resource discovery and notify the NDRO and the ND SHPO by telephone within 24 hours of the discovery and, in writing, within 48 hours. Work shall not resume until notified by the NDRO.

#### **Engineering Conditions**

[x] That EPND shall notify the District Engineer at what time the activity authorized herein will be commenced, as far in advance of the time of commencement as the District Engineer may specify, and of any suspension of work, if for a period of more than one week, resumption of work and its completion.

[y] That EPND is responsible for ensuring all contractors or others executing the project authorized by this permit have knowledge of the terms and conditions of the permit; and that a copy of the permit is physically located at the project site during construction operations.

[z] That the NDRO shall be notified, in writing, and through verbal communication of any changes in the project design. No changes in design which impacts the waterway shall be undertaken without Corps authorization.

*[aa] EPND shall provide NDRO a complete set of as-built plans and design specifications for this project within one (1) year of project completion. These plans shall be attached to and made a part of the permit for compliance purposes.*

[bb] That EPND shall maintain the work authorized herein in good condition and in accordance with the plans and drawings attached hereto and those provided in accordance with Special Condition [aa] above.

### Mitigation Conditions

**[cc]** *It is EPND's responsibility to complete the required compensatory mitigation, as set forth in Special Conditions [dd-gg]. It will not be considered fulfilled until EPND has demonstrated compensatory mitigation project success and have received written verification of that success from the U.S. Army Corps of Engineers. Reference Attachment C: Monitoring Plan.*

**[dd]** The Mitigation Plan, reference **Attachment C**, shall be implemented prior to, or concurrent with project construction. The EPND shall restore no less than 1.78 acres of wetlands at the location indicated on the plans.

**[cc]** The DA will consider the Mitigation Plan successful, if within 5 years (growing seasons), the wetlands have met the conditions outlined in the 1987 Wetland Delineation Manual: Great Plains Regional Supplement, and its updates.

**[[ff]** That the EPND shall submit yearly Monitoring Reports (MR). The first report is due on November 1<sup>st</sup> after the first growing season following completion of the Plan. Subsequent reports shall be submitted from September 1<sup>st</sup> to November 1<sup>st</sup> for a period of 4 additional years, or until the DA determines the project is successful. The written report shall provide detailed information on any failings or problems encountered within the mitigation area. Photographs are required as part of the report. The format for the MR/Plan is attached to this permit instrument as **[Attachment D]**.

**[gg]** To protect the integrity of the mitigation area and avoid unanticipated future impacts, no roads, utility lines, trails, benches, equipment or fuel storage, grading, firebreaks, mowing/haying, grazing, planting, disking, pesticide use, burning, or other structures or activities shall be constructed or occur within the mitigation area without specific, advance written approval from the North Dakota Regulatory Office.



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, OMAHA DISTRICT  
NORTH DAKOTA REGULATORY OFFICE  
1513 SOUTH 12<sup>TH</sup> STREET  
BISMARCK ND 58504-6640  
March 30, 2012

North Dakota Regulatory Office

[NWO-2009-2882-BIS]

Ms. Angela Ronayne  
Merjent  
615 First Avenue NE  
Suite 425  
Minneapolis, Minnesota 55413

Dear Ms. Ronayne:

Reference is made to the Department of the Army authorization NWO-2009-2882-BIS Enbridge Pipelines Berthold Station Expansion authorized by Standard Permit June 2, 2011. The original authorization included a different location for the wetland mitigation of 1.78 acres.

Notification was received indicating a new location for the mitigation site that would take advantage of the natural flow regime of the South Fork of Arnold Creek and a stormwater outlet placed during construction of the expanded facilities, which will provide additional hydrology for successful wetland creation. The standard permit that was issued June 2, 2011 continues to authorize the project, and all terms and conditions of that permit remain in effect. The permit is hereby modified to reflect the new mitigation location. This authorization remains valid until May 17, 2014.

The Omaha District, North Dakota Regulatory Office is committed to providing quality and timely service to our customers. In an effort to improve customer service, please take a moment to complete our Customer Service Survey found on our website at <http://per2.nwp.usace.army.mil/survey.html>. If you do not have internet access, you may call and request a paper copy of the survey that you can complete and return to us by mail or fax.

If you have any questions regarding this authorization, please contact me or Patsy Crooke at the above address or by calling (701) 255-0015.

Sincerely,

Daniel E. Cimarosti  
Regulatory Program Manager  
North Dakota

Cc: Paul Meneghini, Enbridge