

MANUSCRIPT DATA RECORD FORM

1. Manuscript Number:
2. SHPO Reference #: 10-1847
3. Author(s): Damien S. Reinhart
4. Title: Enbridge's Bakken Pipeline US Reroute and Lignite Pipe Yard: A Class III Cultural Resource Inventory in Burke County, North Dakota
5. Report Date: May 2011
6. Number of Pages: 7
7. Type: I
8. Acres: 14.39 acres
9. Legal Location(s):

<u>County</u>	<u>TWP</u>	<u>R</u>	<u>SEC</u>	<u>SU</u>
Burke	162	92	1 & 3	SO
	163	92	34	SO

Small Survey Report

Submitted by Metcalf Archaeological Consultants, Inc.
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1. **Report Title:** Enbridge's Bakken Pipeline US Reroute and Lignite Pipe Yard: A Class III Cultural Resource Inventory in Burke County, North Dakota
2. **North Dakota State Historic Preservation Office Reference #:** 10-1847
3. **Author:** Damien S. Reinhart, Metcalf Archaeological Consultants, Inc. (MAC)
4. **Report Date:** May 25, 2011
5. **Description of Undertaking:** The undertaking consists of a pipeline reroute for the Bakken Pipeline US project and a small block for the Lignite pipe yard.
6. **Legal Description/Location of Undertaking Area of Potential Effects:** The undertaking areas of potential effects (APE) are located just north of, and 1.25 miles northwest of, Lignite, North Dakota, in Burke County (Figure 1). The APE is the surface and subsurface that may be directly affected by pipeline construction activities. Above ground surfaces will not be affected. The legal descriptions are sections 1 and 3, T 162 N, R 92W and Section 34, T 163N, R 92W. The project areas are depicted on the USGS 7.5' Portal (1949) quadrangle (Map 1).

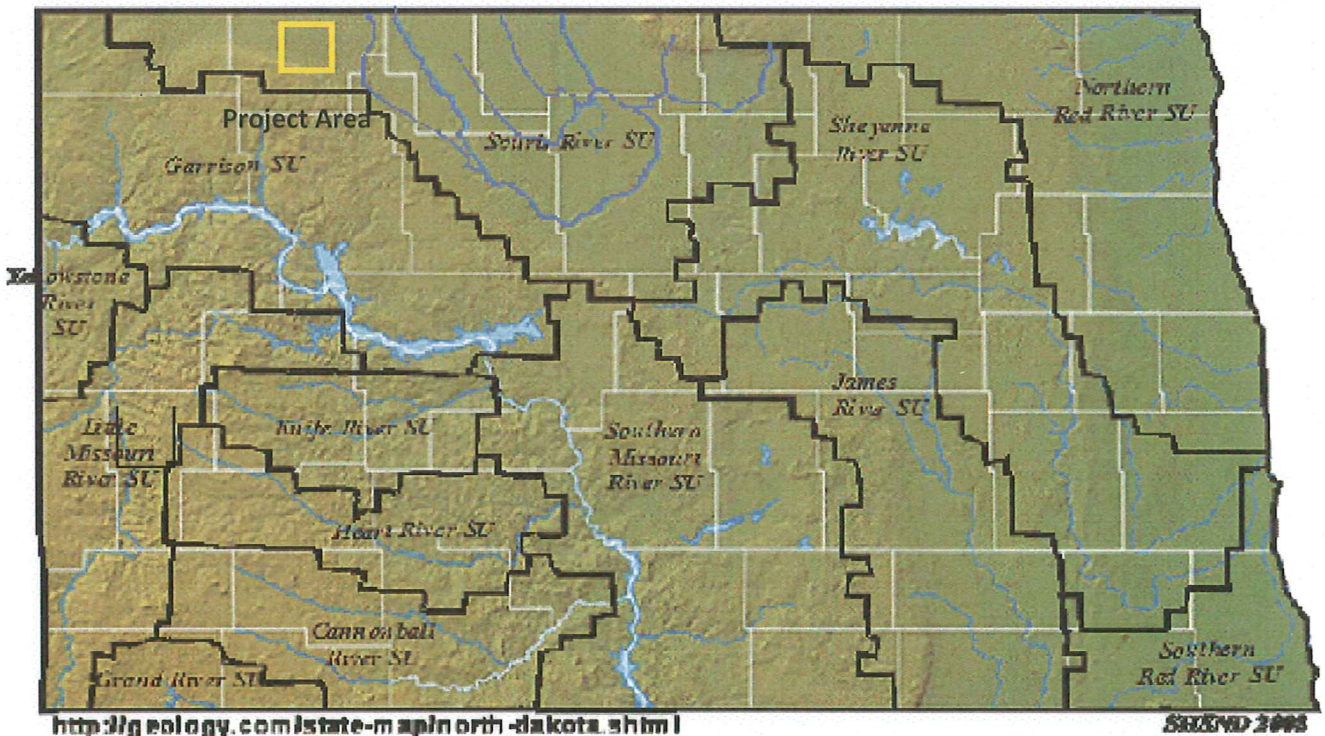


Figure 1: General location of the undertaking area of potential effects.

7. **Acres:** The APE consists of three irregularly shaped blocks with block one beginning directly north of Lignite in Section 1. Block 2 is a small triangular block that is located 1.2 miles northwest of Lignite in Section 3. Block 3 is located approximately 200 meters

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west of Block 2. The block is boot shaped with half of the APE located north of Highway 5 in Section 34 with the remaining half of the project block located south of Highway 5 in Section 3. The APE for all of the project blocks totals approximately 14.39 acres.

- 8. Project Sponsor:** Merjent, Inc. on behalf of Enbridge, Inc.
- 9. Records Search Results:** Danielle Bailly of MAC conducted a search of the site and manuscript files of the APE and the surrounding one mile radius at the State Historical Society of North Dakota (SHSND) on May 5, 2011. The results of that search are documented in Tables 1 and 2. The search revealed that eleven cultural resource inventories have been conducted within the one-mile radius of the APE. The inventories pertain to highway development, telecommunications, and oil and gas development. Twenty architectural site leads are documented in the files search area with the majority pertaining to urban surveys of Lignite. Three architectural site leads are also associated with urban surveys and highway inventories. In addition, one historic site consisting of a cultural material scatter and one historic site lead consisting of the Rival Post Office are also recorded within the one-mile radius of the project areas. The sites and site leads are located outside of the APE.

Table 1: Files Search Results				
T/R-Section	SITS #	Site Type & Description	Recorder, Date	MS #
162/92-1	32BK91	Historic-cultural material scatter: ceramic, glass, metal	Shropshire/Randall/Pysarsky, 2010	5728, 5885, 8094, 11663, 11992
162/92-2	No Sites			8094, 10415, 11663, 11992
162/92-3	No Sites			8094, 11663, 11992
162/92-4	No Sites			8094
162/92-10	No Sites/No Surveys			
162/92-11	Results of an Urban Survey 32BK49, 32BKx600, 32BKx627, 32BKx762, 32BKx835, 32BKx865			5728, 8094, 10250
162/92-12	Results of an Urban Survey 32BK50-32BK52, 32BKx359-32BKx360, 32BKx394, 32BKx447, 32BKx456-32BKx459, 32BKx566, 32BKx594, 32BKx597, 32BKx931			5728, 7117, 8094
163/92-33	32BKx842	Historic- Rival Post office	Benson, 1980	8094
	32BKx977	Architectural- Bill Bywater Home	BM, 1996	
163/92-34	32BKx843	Historic- Rival Post office	Benson, 1980	5995, 6470, 8094, 11663, 11977, 11992
	32BKx978	Architectural- Rival Elevator	BM, 1996	
	32BKx981	Architectural- Old Grandpa Art's Home, claim shack	BM, 1996	
163/92-35	32BKx979	Architectural- Nelson Farm Barn Bly Farm Barn	BM, 1996	8094
	32BKx980	Architectural- Art Martin Farm	BM, 1996	

Table 2: Manuscript List	
MS #	Reference
5728	Foster, J., G. Wermers, and J. Borchert

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Table 2: Manuscript List	
MS #	Reference
	1992 Burke County Road Improvement Class III Cultural Resource Inventory Final Report (Project #DPI-0182(001)0701)
5885	Wermers, G. 1992 Williston Basin 8" Portal-Lignite Pipeline Class III Cultural Resource Inventory Burke County, North Dakota UW#1570
5995	Stine, E. 1993 Lignite to Ramberg Canadian Crude Project Cultural Resource Reconnaissance, Burke and Mountrail Counties, North Dakota
6470	Olson, B. 1995 Portal Pipeline Cultural Resources Inventory Burke County, North Dakota
7117	Wermers, G. 1997 Burke-Divide Electric Cooperative, Inc. Electric Facilities Replacement Project in Burke and Divide Counties, North Dakota UW#2002
8094	Borchert, J. 2002 Highway 5, East Junction 40 East to West Junction 52, Highway 89, Lignite Spur, Class II Inventory Report, Burke County, North Dakota
10250	Crawford, R. 2007 Cultural Resources Documentation for the Northwest Communication Cooperative Lignite Town Communication Tower, Burke County, North Dakota T162N R92W Section 11
10415	Payette, J., P. Pflapsen and P. Hendrix 2008 Phase I Cultural Resource Investigation of Proposed ND-01-Lignite Telecommunications Tower Project Area, Town of Lignite, Burke County, North Dakota
11663	Klinner, D. and J. Harty 2010 Bakken Expansion Pipeline: A Class III Cultural Resource Inventory, Burke County, North Dakota
11977	Randall, I. 2011 Kenaston and Lignite Pumping Stations: A Class III Cultural Resource Inventory, Ward and Burke Counties, North Dakota
11992	Shropshire, M., D. Klinner, And J. Harty 2010 Bakken Pipeline Project US: A Class III Cultural Resource Inventory, Burke County, North Dakota

10. Historic Context (Study Unit): The APE is in the Souris River Study Unit (Unit #11 or SRSU) as defined in *The North Dakota Comprehensive Plan for Historic Preservation: Archeological Component* (SHSND 2008). The project area is located in northern Burke County, in a region known as the “Glaciated Plains” (Bluemle 2000, 2007). This region is characterized by rolling glaciated landscapes where more than 80 percent of the area is gently sloping with local relief generally less than 100 feet in most places, but ranging up to 300 feet in some places. (Bluemle 2000, 2007). Overall, the topography within the APE is gently rolling with an abundance of kettle lakes and seasonal water. Today, the area surrounding the APE consists of agricultural lands and the occasional pasture.

The SHSND Plan organizes the cultural history of this unit into five temporal periods or traditions: Paleo-Indian, Archaic, Woodland, Plains Village, and Historic. A total of 50 occurrences (sites or components of sites) can be ascribed to these different periods or traditions in the study unit with 1,912 archaeological resources with unknown affiliation (SHSND 2008: Table 11.16). Of these, the most prevalent is evidence for the Woodland

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period/tradition. The region seems low in overall site density but in comparison to the amount of survey work that has been done the density is actually quite high for the state.

Floral diversity in the SRSU would have been great during prehistoric times. Moose and caribou may have passed through the region during certain times in the past along with deer, pronghorn, elk, grizzly bear, and bison. A great variety of waterfowl would have been present in the marshes and kettle lakes that are abundant in the SRSU. Floral species such as goosefoot, buffalo berry, juneberry, and chokecherry, acorns, cottonwood, and willow trees are a testament to the diversity in the region (SHSND 2008). Knappable stones are present in glacial fill and alluvially transported Souris gravels and include quartzites, jaspers and cherts, agatized woods, as well as deposits that include Swan River chert.

11. **Fieldwork Date(s):** May 10, 2011
12. **Field Personnel:** Damien S. Reinhart and Peter A. Metzger of MAC
13. **Field Methods and Conditions:** The APE are located north and northwest of Lignite. Low lying areas filled with seasonal water exist in and around the project blocks (Figures 2 and 3). Location 1 is located just north of Lignite. The majority of the block is mowed grass. A stubble field forms the north border of the APE while an existing truck yard forms the east boundary. Ground surface visibility (GSV) in the mowed grass ranges from 20-40%. Soils in this location consist of silt clay loams that are mixed with gravels. The flatness of the block is most likely caused historically by some form of grading activity centered on the village of Lignite.

Location 2 is small and triangular in shape. The APE is covered by wheat stubble fields with 50-75% GSV. The south edge of the block suffered from a small amount of standing water courtesy of the spring thaw and precipitation on the day of the inventory. Soils in this area consisted of a fine silt clay loam with small to medium gravel inclusions.

Location 3 is a larger, boot-shaped block that is bisected by Highway 5. The north half of the block is disturbed by an existing truck yard. Only the extreme northern edge of the block has not been disturbed. This area is composed of tall grasses and seasonal freshwater. GSV in the tall grass is poor at 10-20%. The portion of the APE located south of Highway 5 is composed entirely of wheat stubble. GSV is high, ranging from 50-75%. Soils are identical to those in Location 2.

The inventory employed a pedestrian transect methodology. Each transect was spaced approximately 10-15 meters apart and ran along the length of each block. The APE/inventory area boundaries were mapped using a hand-held GPS CX unit. Field conditions were documented with digital photographs and detailed in the field notes. All of the electronic and paper records are on file at the MAC Bismarck Office. The

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weather on May 10 was overcast, 45 degrees, light, intermittent rain, with winds of 10-15 mph.

- 14. Results and Recommendations:** No cultural resources (buildings, structures, sites, objects, or districts, that are 50 years or older or properties of traditional religious and cultural importance to Native Americans) were encountered during the inventory. MAC recommends a determination of *No Historic Properties Affected* (36 CFR 800.4[d][1]) for the undertaking as described and mapped herein.

References Cited:

Bluemle, J. P.

2000 The Face of North Dakota (3RD Edition). North Dakota Geological Survey, Educational Series #26. Bismarck.

SHSND (State Historical Society of North Dakota)

2008 *The North Dakota Comprehensive Plan for Historic Preservation: Archaeological Component*. http://history.nd.gov/hp/stateplan_arch.html

Small Survey Report
Map and Photo Section



Figure 2: View to the north of Location 1 from the south end (Image #357).



Figure 3: View to the south of Location 3 from Highway 5 (Image #360).

**MAP/FIGURE REMOVED TO PROTECT
SENSITIVE GEOGRAPHIC INFORMATION**