

MANUSCRIPT DATA RECORD FORM

1. Manuscript Number:
2. SHPO Reference #:
3. Author(s): Andrea Kulevsky
4. Title: BakkenLink Pipeline Beaver Lodge to Dry Creek: Phase II of the BakkenLink Pipeline in McKenzie and Williams Counties, North Dakota
5. Report Date: November 2014
6. Number of Pages: 271
7. Type: I
8. Acres: 1791.2 Acres
9. Legal Location(s):

County	TWP	R	SEC	SU
McKenzie	150N	95W	1, 6, 7, 8	GA
McKenzie	150N	96W	1, 12, 13	GA
McKenzie	151N	96W	1, 12, 13, 24, 25, 36	GA
McKenzie	152N	96W	1, 12, 13, 24, 25, 36	GA
McKenzie	152N	95W	3, 4, 15, 16, 22, 27, 28, 33	GA
McKenzie	153N	95W	3, 4, 9, 15, 16, 22, 27, 28, 33	GA
McKenzie	154N	95W	34	GA
Williams	154N	95W	9, 16, 21, 27, 28	GA
Williams	155N	95W	6, 7, 8, 17, 20, 21, 27, 28, 29, 33, 34	GA
Williams	156N	95W	31	GA

**BAKKENLINK PIPELINE
BEAVER LODGE TO DRY CREEK:
PHASE II OF THE BAKKENLINK PIPELINE
IN MCKENZIE AND WILLIAMS COUNTIES
NORTH DAKOTA**

NDSHPO Reference # 11-0238
BLM Permit #: M101521
Exp. Date: 4-8-2017
USFS Permit #: MED478
Exp. Date: 12-2017
USACE Permit: DACW45-3-14-6016
Exp. Date: 5-31-2015

Prepared for:
Bartlett & West Engineering
Bismarck, North Dakota

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November 2014



EXECUTIVE SUMMARY

BakkenLink Pipeline, LLC (BakkenLink) plans to construct a crude oil pipeline, the BakkenLink Pipeline, in western North Dakota originating near Beaver Lodge, North Dakota and terminating near Fryburg, North Dakota. The BakkenLink Pipeline will be approximately 160.5 miles long and cross Williams, McKenzie, Dunn, Stark, and Billings Counties in North Dakota. BakkenLink divided the environmental analyses for and construction of the pipeline into two phases: Phase I is the Dry Creek to Fryburg segment, and Phase II is the Beaver Lodge to Dry Creek segment. Construction for the Phase I segment has been completed, and the segment is now operational. BakkenLink has not begun construction for the Phase II segment. Bartlett & West, the primary engineering contractor for the pipeline project, contracted with Metcalf Archaeological Consultants, Inc. (Metcalf) to conduct cultural resource investigations for the entire project. Consulting Native American tribes also conducted a survey of the area of potential effects. Metcalf provided technical assistance during this phase of work but was not otherwise associated with producing or documenting the results of the tribal survey.

The proposed Phase II route crosses private, state, and federal lands administered by the U.S. Forest Service and the U.S. Army Corps of Engineers. The Bureau of Land Management is the lead federal agency and North Dakota Public Services Commission is the lead state agency for this undertaking.

Following the completion of the cultural resource inventory, the Bureau of Land Management and U.S. Forest Service requested that Metcalf revisit four locations where cultural resources had been recorded during investigations for an adjacent but unrelated undertaking. Metcalf agrees that one location is a site but disagrees with the assessment at three of these locations. Metcalf's assessment of one location, originally recorded as containing human-created features, is a natural rock scatter. Two sites, originally recorded "features," are the result of recent (i.e., less than 50 years old) activity. For consistency and clarity, the three "non-sites" are included in the discussion below.

Cultural resources investigations for the BakkenLink Pipeline began in July 2011 and continued through May 2012. Following the decision to stage pipeline environmental review and construction in two phases, work on the Phase II segment was postponed until 2014. When planning for Phase II resumed in 2014, the proposed pipeline route had undergone numerous changes. Only approximately 2.25 miles of the original route and a block for extra workspace on the south side of Lake Sakakawea remain within the area of potential effects, as now defined. The cultural resources inventory in 2014 focused on the new route(s) and was conducted between March 25, 2014 and October 21, 2014. In all, approximately 1,791 acres were inventoried. This report comprises data from the 2014 Phase II cultural resource inventory and a portion (2.25 miles) of the



original route and a temporary workspace inventoried during the 2011-2012 BakkenLink Pipeline surveys.

BakkenLink initiated route changes during the course of the inventory to accommodate landowner requests, engineering limitations, and areas without access. Many of these areas were subjected to a cultural resource inventory prior to the route changes, resulting in 25.6 miles, approximately 689.4 acres, of inventoried centerline that was subsequently abandoned. The inventory of these abandoned segments is also documented herein.

Metcalf inventoried the centerline, ancillary facilities, and a culturally sensitive block for Phase II. The Phase II segment is approximately 37.2 miles long. The construction corridor is 100 feet wide centered on the proposed centerline except on U.S. Forest Service land, where the construction corridor is 50 feet wide. Bartlett & West requested that Metcalf survey a 200-foot-wide corridor centered on the proposed centerline to provide flexibility for routing the pipeline to avoid cultural resources. Thus, the inventory area of potential effects for the centerline measures approximately 37.2 miles long by 200 feet wide.

The ancillary facilities include 46 access roads, 4 additional temporary workspaces, and two receipt facilities (Table X1). Thirty-five access roads are existing, improved roads. Eleven roads will need improvement consisting of either lightly graveling the trail or laying down construction mats during use of the road and removing the mats upon completion of construction. The survey area for the additional temporary workspaces covers the footprint of the proposed disturbance. Disturbance will include leveling of the workspaces and stripping of topsoil. Where access road improvement is necessary, the road right-of-ways will be 12 feet wide. Survey width for access roads was 30 meters (100 feet). A 72-acre block at the upper edge of the Missouri River Valley—the North Lake Block—was inventoried to provide flexibility in routing the pipeline through this archaeologically and culturally sensitive area.

Besides the North Lake Block, another area of concern is the Missouri River/Lake Sakakawea crossing. Consulting tribes were apprehensive about the impact that the pipeline construction beneath the lake might have on inundated cultural resources. Project Consulting Services, Inc., the engineering subcontractor for the lake crossing, employed remote sensing to assess the viability of the crossing. The remote sensing did not reveal evidence of cultural resources along the centerline. Historical sources also do not indicate the presence of precontact or postcontact cultural resources in or immediately adjacent to the lake crossing; although, four cultural resources are located in the vicinity. Three of these cultural resources are postcontact site leads: 32Wix37 is the Grinnel Post Office, 32MZx141 is the Elk Landing Post Office, and 32MZx140 is described as a postcontact cultural material scatter with no additional information provided. The fourth cultural resource is 32MZ12, a precontact occupation. All four sites are inundated by water and will not be affected by pipeline construction.



Metcalf documented 66 cultural resources during this inventory: 11 precontact isolated finds, 48 precontact sites, 3 postcontact sites, and 4 previously recorded cultural resources that Metcalf believes are either natural rock scatters or modern features (Tables X2-X5). Of the 48 precontact sites, 32 contain stone features, 14 contain cultural material scatters, and 2 contain stone features and a cultural material scatter. The postcontact sites include two farmsteads and one abandoned roadway. Eleven of the cultural resources are isolated finds. Isolated finds are *not eligible* for inclusion in the National Register of Historic Places and, therefore, not further discussed in this Executive Summary.

Twenty-five cultural resources are located within the 200-foot survey pipeline corridor and ancillary facility locations; that is, within the area defined as the current area of potential effects. Twenty-three sites are located within the 200-foot survey pipeline corridor. These sites comprise 2 postcontact sites, 11 precontact stone feature sites, 8 precontact cultural material scatters, and 1 site with stone features and a precontact cultural material scatter. Four sites within the current area of potential effects were determined to be modern or natural features.

Sixteen of these sites are within 50 feet of the construction right-of-way, within the current area of potential effects. The sites comprise 6 precontact stone features, 7 precontact cultural material scatters, one site with stone features and a precontact cultural material scatter, and 2 post contact sites, and two sites determined modern or natural. Of the 16 sites, thirteen are unevaluated for inclusion in the National Register of Historic Places, and three sites are recommended not eligible. One of the sites recommended not eligible is part of the proposed Elm Tree National Register District (nomination in progress).

Metcalf recommends 6 sites within the current APE as *not eligible* for inclusion in the National Register of Historic Places. The sites include the following: 32MZ2718, 32MZ2766, 32MZ2164, 32MZ2764, 32MZ2765, and 32WI1230. Site 32MZ2718 is a postcontact farmstead consisting of two foundations and lacking integrity of materials, workmanship, and design. The site is located at the Keene Receipt Facility. Site 32MZ2766 was originally recorded as a cairn and an associated cultural material scatter. Metcalf determined that the cairn is the recent product of road construction/maintenance. Metcalf further determined that the four recorded cultural resources (32MZ2164, 32MZ2764, 32MZ2765, and 32WI1230,) are natural rock scatters or modern (i.e., less than 50 years old) features. Site 32MZ2164 is a “stone feature” site reported to consist of a stone circle and an alignment. The site is located on U.S. Forest Service land. The site form indicates that the U.S. Forest Service considers the “features” to be glacial till and not cultural. Metcalf agrees with this assessment. Likewise, we determined that the “stone circle” at 32WI1230 is a natural outcrop of glacial till, and avoidance is not necessary. Similarly, the “chevron” at 32MZ2764 is natural. Site 32MZ2765 was recorded as a precontact cairn adjacent to a well pad. Metcalf determined that the rock pile is modern and associated with pipeline construction. Metcalf has recommended the removal of sites 32WI1230,



32MZ2764, and 32MZ2765 from the State Historical Society of North Dakota database.

One site, 32MZ1151, located within current area of potential effects, is recommended *eligible* for inclusion in the National Register of Historic Places. 32MZ1151 is a stone feature and cultural material scatter. A portion of the site lies on U.S. Forest Service lands and is included in the proposed Elm Tree National Register District. Metcalf considers that portion of the site on private land to be a contributing element to the eligibility of the site. The edges of all workspaces are located 15 meters (50 feet) or more from the site. Construction here will include a combination of traditional open trench construction and a horizontal directional drill. Pipeline construction will only have only a temporary visual impact on the District. There will be no adverse effect to the proposed Elm Tree National Register District. However, given the nature of 32MZ1151, Metcalf recommends archaeological monitoring during topsoil stripping and trenching activities in the vicinity.

BakkenLink intends to avoid impacts to cultural resources. To that end, they pursued a route in which the edge of the construction corridor is located a minimum of 15 meters (50 feet) from all sites, except on lands administered by the U.S. Army Corps of Engineers, where a minimum of 100 feet was maintained. This has largely been accomplished with two exceptions, in the vicinity of sites 32MZx1423 and 32MZ2767. The centerline is located 12 meters (38 feet) from 32MZx1423, a site comprising three artifacts observed in a pipe scar. The landowner did not grant Metcalf permission to excavate shovel probes to determine whether the artifacts are an isolated occurrence or part of a buried site. Although the resource meets the definition of an isolated find, Metcalf recommends necking down and archaeological monitoring during construction at this location. At site 32MZ2767, the centerline is 4 meters (12 feet) from the feature. At this location, pipeline construction will be accomplished using a horizontal direction drill with no ground-disturbing activities. Elimination of any extra workspace through this area will result in no impact to the site.

Metcalf recommends necking down, fencing, and monitoring at sites 32MZ2695 and 32MZ2741. These sites are separated from each other by 46 meters (151 feet); the pipeline passes midway between them. Although both sites are protected by the 15-meter buffer, because of the sites' proximity to each other, Metcalf recommends an archaeological monitor be present during construction activities. Finally, Metcalf recommends archaeological monitoring during earth-disturbing activities in three archaeologically sensitive areas with high site densities. These areas include the vicinity of site 32WI1124, the terrace system surrounding the Dry Fork Creek, and in the colluvium at the base of Camel Butte. Provided the above recommendations are followed, Metcalf recommends a finding of *No Historic Properties Affected* (36CFR800.4[d][1]) for the proposed undertaking as surveyed, mapped, and documented herein.