

A Class III Intensive Cultural Resource Inventory for the Dore Loop in McKenzie County, North Dakota

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On Behalf of:
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COUNTY	TWP	R	SEC	SU
McKenzie	151N	102W	6	YE
	151N	103W	1, 2, 3, 4, 5	YE
	151N	104W	1, 2, 3, 4, 5	YE
	152N	103W	31, 32, 33, 34	GA
	152N	104W	33, 34, 35, 36	YE

Abstract

The purpose of this investigation was to survey for cultural resources within the 560-acre survey area for the proposed Dore Loop in McKenzie County, North Dakota. Four hundred and twenty-five acres of the survey area has been previously inventoried so only 135 acres were surveyed during the current inventory.

This project is proposed on private property. Due to the Public Service Commission (PSC) involvement in the project, the applicant must comply with Section 106 of the National Historic Preservation Act (NHPA). The NHPA requires the applicant to consider what effects the undertaking will have on Historic Properties within the survey area.

Keitu Engineers & Consultants, Inc. on behalf of Hiland Crude, LLC contracted Beaver Creek Archaeology, Inc. (BCA) to conduct this study to fulfill the Section 106 obligations for this project. On September 8, 2014 and November 8, 2014, Wade Burns (Principal Investigator), Tara Friend (Archaeological Assistant), and Michael Rohrer (Archaeological Assistant) conducted the Class III Cultural Resource Inventory.

During the inventory, BCA archaeologists identified two previously recorded sites (32MZ1174 and 32MZ2206). Cultural Resources include one Native American stone feature site (32MZ2206) and one Architectural site (32MZ1174). Due to cultural resources within the proposed survey area, a plan of avoidance is proposed, and as long as this is followed, Beaver Creek Archaeology, Inc. recommends a finding of *No Historic Properties Affected* for this project.

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Introduction

Keitu Engineers & Consultants, Inc. contracted Beaver Creek Archaeology, Inc. (BCA) to perform a Class III Cultural Resource Inventory of the Dore Loop in McKenzie County, North Dakota. The survey area covers approximately 560 acres; however, only 135 acres were inventoried to Class III standards as 425 acres were previously inventoried (see map in Appendix B). The land status is private property.

The legal locations for the survey area are presented below in a tabular format as depicted on the USGS 7.5' Cartwright NE, Buford, and Dore (MT) quadrangle maps:

Table 1. Project Location:

Township	Range	Sections	USGS Quad. Map
151N	102W	6	Cartwright NE
151N	103W	1, 2, 3, 4, 5	Cartwright NE & Buford
151N	104W	1, 2, 3, 4, 5	Buford & Dore (MT)
152N	103W	31, 32, 33, 34	Cartwright NE & Buford
152N	104W	33, 34, 35, 36	Buford & Dore (MT)

On September 8, 2014 and November 8, 2014, BCA conducted a Class III inventory for the Dore Loop. This report will detail the result of that inventory.

During the inventory, BCA archaeologists identified two previously recorded sites (32MN1174 and 32MZ2206). Cultural Resources include one Native American stone feature site (32MZ2206) and one Architectural site (32MZ1174).

The Native American stone feature site (32MZ2206) has been recommended potentially *eligible* for the National Register of Historic Places (NRHP), and BCA recommends that the site be avoided during pipeline construction by staying within a previously disturbed pipeline disturbance. The site will need to be avoided by a minimum of 50 feet (from the site boundary). Temporary fencing along the 50-foot site buffer line in conjunction with site monitoring during construction would minimize any adverse effect to the site.

The Architectural site (32MZ1174), the Lower Yellowstone Irrigation Project (LYIP), has been recommended potentially *eligible* for the NRHP. During the inventory, a new segment of the site was recorded. This newly recorded segment is not eligible for the NRHP as it is only a few years old; however, as the LYIP is still in use, BCA recommends that the site and the ineligible segment be avoided during pipeline construction by boring under the site.

Land use throughout the survey area consists of pastureland, fallow grasslands, and agricultural lands. Ground Surface Visibility (GSV) in these areas did not go below 30%, so no shovel probes were excavated.

Project Background and Inventory Methodology

The proposed project consists of the construction of a petroleum pipeline for Hiland Crude, LLC. The survey area is approximately 560 acres in size; however, 425 acres were previously inventoried (see MS#s 11818, 12246, and 14475), so only 135 acres were inventoried to Class III

Standards for cultural resources within the survey area (see map Appendix B). The 560-acre project area is a corridor that measures 12.9 miles long and a variable 300 to 473 feet wide.

BCA cultural resource staff conducted the Class III Cultural Resource Inventory of the proposed project area on September 8, 2014 and November 8, 2014. The Secretary of the Interior (SOI) qualified archaeologist Wade Burns (Principal Investigator) along with Tara Friend (Archaeological Assistant) and Michael Rohrer (Archaeological Assistant) surveyed the proposed project area. Brittany Brooks prepared the report. Jay Ell (GIS Coordinator) created the project maps. The report and fieldwork preparation included a review of previously identified cultural resources and intensive pedestrian surveys of the survey area.

The pedestrian survey was performed by the BCA archaeologists walking linear pedestrian transects 10-15 meters apart based upon terrain probability for cultural resources. Shovel probes were implemented if the Ground Surface Visibility (GSV) dropped below 30%.

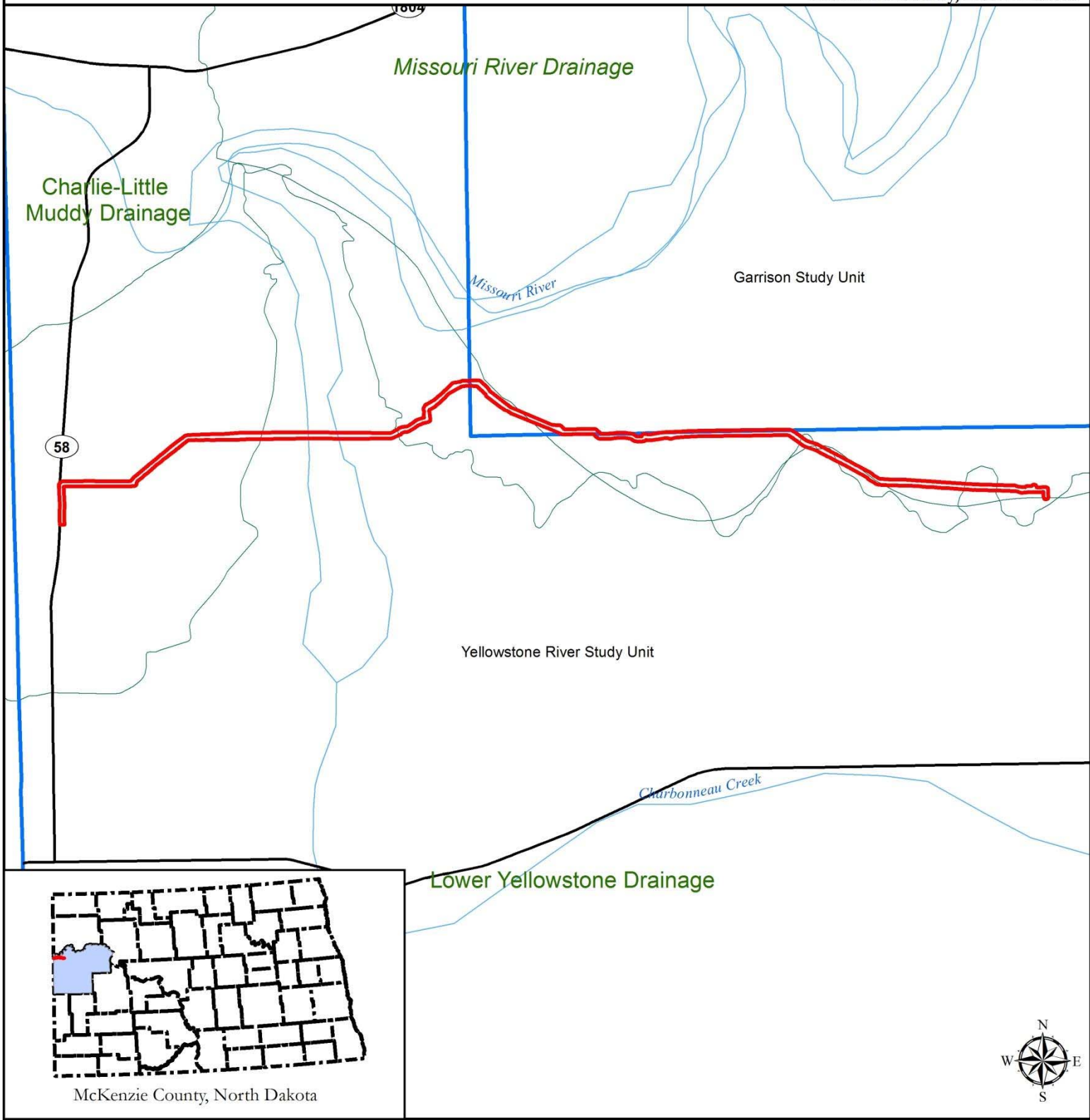
If a cultural resource was encountered, the location was marked with pin-flags and the surrounding area was intensely scrutinized to determine the nature and extent of the resource. The resource was then plotted on a USGS 7.5' Quadrangle map and a sketch-map utilizing a Trimble GPS unit was made. Cultural Resources consist of any historic or prehistoric district, site, structure, or object (usually) over 50 years of age.

Throughout the survey, field notes and overview pictures of the survey area were taken (see photos in Appendix A). Copies of maps, field notes, and photographs are located at the BCA main office in Bismarck, North Dakota.



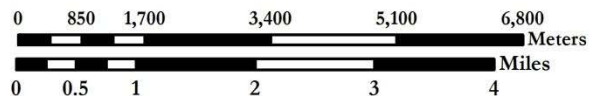
Beaver Creek ARCHAEOLOGY

Project Location for:
Dore Loop
For: Keitu Engineers & Consultants, Inc.
On Behalf of Hiland Crude, LLC
Missouri River, Lower Yellowstone River
& Charlie-Little Muddy Drainage
McKenzie County, North Dakota



Legend

- Survey Area (560 acres)
- Project Area



Base Map: USGS 7.5'
Scale: 1:24,000
UTM NAD83 Zone 13

Figure 1. Project location.

Environmental Setting

The proposed project is located within two environmental settings, the Garrison Study Unit and the Yellowstone River Study Unit.

Garrison Study Unit

The project lies partially within the Garrison Study Unit (GSU), which is located in the northwestern part of North Dakota. The study unit is situated within the Glaciated Missouri Plateau Subsection, of the Great Plains Physiographic Province (SHSND 2008b:6.1). Knob-and-kettle glaciated terrain and other glacial features are common on the Coteau du Missouri. Named streams include the Big Muddy Creek, Painted Woods Creek, Douglas Creek, Shell Creek and Deepwater Creek. Named rivers include Little Muddy River, Little Knife River and White Earth River (SHSND 2008b:6.1-6.6).

Temperatures vary immensely by season with warm summers and cold winters. Precipitation averages around 16 inches annually, most of which falls as rain during the spring and summer months. Prevailing winds throughout the year average around 16 mph from the west-northwest (SHSND 2008b:6.6).

Landforms in this area consist of glaciated uplands, breaks terrain, valley wall side slopes and foot slopes, draws, alluvial terraces, and floodplains. This area of North Dakota is situated in the Northern Temperate Grasslands biome. The mixed grass prairie is dominated by western wheatgrass, blue grama, and needle-and-thread. This grassland provided good habitat for large game animals, such as bison and antelope. Gallery forests grew along the Missouri River and other tributaries and provided a suitable environment for white-tailed deer and small mammals such as muskrat and porcupine. Hardwood draws of bur oak, green ash, and juniper are part of transition zones between the grasslands and floodplain forests. Food plants in the area include chokecherry, buffaloberry, and gooseberry (SHSND 2008b:6.7).

In general, the faunal diversity in the area at contact time was as great as or greater than anywhere in the state (SHSND 2008b:6.8). Animals that could be hunted for meat, hides, feathers, teeth, bones, etc., included bison, elk, antelope, white-tailed deer, mule deer, bighorn sheep, mountain lion, coyote, foxes, eagles, hawks, owls, and a variety of waterfowl, fish, turtles, and mussels (SHSND 2008b:6.8).

Today the area contains an agricultural-based economy. Wheat, corn, sunflowers and grasslands comprise the project area. Tree cover is limited to wind blocks surrounding farmsteads and along riparian areas.

This biotic diversity along with the availability of water makes this setting favorable for human settlement, both during prehistoric and historic time-periods. One prominent natural resource in this area is Knife River Flint (KRF), which is abundant and has been quarried for centuries by native peoples. In addition, good quality Tongue River Silicified sediment, chalcedonies, and silicified wood attracted people to the area. These stones are capable of conchoidal fracturing and are ideal for stone tool production.

Yellowstone River Study Unit

Most of the project area lies within the Yellowstone River Study Unit (YRSU), which is located in part of McKenzie County and one township in Golden Valley County as well as the township in Williams County containing the Yellowstone-Missouri river confluence. The study unit is situated within the McKenzie Upland physiographic region (SHSND 2008b:13.1). The area is comprised of rolling plains and prominent buttes in the badlands. Named streams include the Horse Creek, O'Neil Creek, Charbonneau Creek, and Antelope Creek. Named rivers include Yellowstone River and Missouri River (SHSND 2008b:13.1-13.6).

This is one of the warmer parts of the state with the annual mean temperature of approximately 42°F. Precipitation averages around 14 inches annually, most of which falls as rain during the spring and summer months. The area gets less snow than the rest of the state (SHSND 2008b: 13.6).

Landforms in this area consist of badlands terrain with horizontally bedded clay and silt bedrock exposures formed into canyons, ridges, and buttes and gently rolling shortgrass prairie. In addition, in the Yellowstone valley, prominent landforms include valley wall side slopes and foot slopes, alluvial fans, river terraces, and floodplains. This area of North Dakota is situated in the mixed grass prairie and floodplain forest biomes. Grama grass, sage, buckbrush, prickly pear, juniper, hawthorne, and buffaloberry dominate the mixed grass prairie. This grassland provided good habitat for bison and antelope. The floodplain forest is situated along the bottomlands and is dominated by cottonwood, box elder, aspen, and other grasses, forbs, and shrubs (SHSND 2008b:13.6).

The faunal diversity in the area provided local groups animals which could be exploited for food, hides, feathers, teeth, bones, etc., included bison, antelope, big horn sheep, white-tailed deer, mule deer, coyote, white-tail jackrabbit, beaver, raccoon, prairie rattlesnake, bullsnake, eagles, hawks, owls, and a variety of fish and freshwater mussels (SHSND 2008b: 13.7).

Today the area contains an agricultural-based economy. Wheat, corn, sunflowers, and grasslands comprise the project area. Tree cover is limited to wind blocks surrounding farmsteads and along riparian areas.

This biotic diversity along with the availability of water makes this setting favorable for human settlement, both during prehistoric and historic time-periods. One prominent natural resource in this area is Knife River Flint (KRF), which is abundant and has been quarried for centuries by native peoples. In addition, good quality Yellowstone agate, chalcedonies, and silicified wood attracted people to the area. These stones are capable of conchoidal fracturing and are ideal for stone tool production.

Native American Cultural Background

The proposed project is located within two cultural units, the Garrison Study Unit and the Yellowstone River Study Unit. The Euro-American cultural background is the same for both study units.

Garrison Study Unit

The majority of archaeological sites found within the Garrison Study Unit are stone circle sites, followed by cultural material scatters and cairn sites. These types of sites are most often found on ridge and hill settings (SHSND 2008b:6.9). The project is located near the Missouri River, and the site distribution is light within a one-mile radius of the survey area (where the file search was conducted). The archaeological horizons encountered in North Dakota are as follows:

Paleo-Indian Period (9500-5500 B.C.)

Due to the amount of sediment erosion and deposition that has taken place across the landscape since early Holocene times, it is difficult to locate intact Paleo components in the GSU. However, areas near tributaries on ridgetop and terrace settings have yielded plant and animal remains and shed light on Paleo-Indian subsistence patterns and lithic technologies. The Beacon Island site (32MN243A), for example, is an Agate Basin site that contains intact, unmixed, and datable remains of *Bison antiquus* and the Moe site (32MN101), which contains Folsom and later Paleo remnants, was found above today's reservoir water level. The most significant areas to discover Paleo-Indian remnants have been in the Knife River flint (KRF) principal source area and in or near the Missouri River valley. Knife River flint was the flint of choice to early groups producing lithics in this region (SHSND 2008b:6.63-6.65). "Two lithic technological procedures prominently represented at sites in the GSU are Folsom fluting and blade production" (SHSND 2008b:6.64). The Moe site yielded Folsom, Plainview (or Goshen), Agate Basin, Parallel-Oblique Flakes, and Scottsbluff points.

Plains Archaic Period (5500-400 B.C.)

Middle and Late Plains Archaic deposits are found in quickly deposited sedimentary context, which correlate with erosion in the uplands from subsequent drought. Plains Archaic remnants have frequently been discovered in upland settings as well as in terrace and riverbank locations. The Middle and Late Archaic components at the Mondrian Tree site (32MZ58) yielded bone remains of bison, antelope, elk, deer, beaver, and canids. This site also has evidence of summertime collecting and processing of plant foods, such as goosefoot, marsh elder, knotweed, dogbane, wild grape, hedge nettle, and mallow, with a sandstone grinding slab and quartzite mano (SHSND 2008b:6.66-6.67).

Early Plains Archaic components are indicated by finds of Simonsen points. Middle Plains Archaic components are represented by Oxbow, McKean, Duncan, and Hanna points. Late Plains Archaic components are indicated by finds of Yonkee and Sandy Creek points. Numerous Early, Middle, and Late Plains Archaic projectile point styles have proven to be reliable cultural/temporal indicators for relative dating in the GSU (SHSND 2008b:6.67-6.68).

Plains Woodland Period (400 B.C.–A.D. 1200)

Environmentally favorable conditions, the development of biomass, peaked twice during the Plains Woodland period, which coincide with the peak of the Besant/Sonota culture of the Middle Plains Woodland period and Late Plains Woodland period to early Plains Village period. Besant/Sonota components are rather common. Mortuary sites, such as the Boeckel-Renner site (32ME799), along with a large number of sites in the area indicate that people with the Middle Plains Woodland Besant/Sonota material culture had permanent occupation within the GSU. Site

32ME947 is a stratified, multi-component bison kill and processing site with a Middle and Late Plains Woodland components, which is associated with the Old Women's complex. Other Late Plains Woodland cultures in the GSU are represented by Avonlea and Mortlach (SHSND 2008b:6.69-6.70). "Subsistence remains from the Mortlach component at the Evans site (32MN301) include bison, swift fox, coyote, deer, duck, and charred plum seed. Bison scapula digging tools were found, but not any remains of garden crops" (SHSND 2008b:6.71).

Ceramic technologies in the area show up around the Middle Plains Woodland period at sites such as the Nightwalker's Butte (32ML39), the Evans site, and the Mondrian Tree site (32MZ58). Mortlach ceramics display substantial variability in decoration and vessel form. Lithic technologies also show stylistic variation in the Late Plains Woodland period with Prairie Side-Notched points, Avonlea points, and other variations of side- and corner-notched points. Obsidian, from southeastern Idaho, of possible Besant/Sonota cultural affiliation was recovered from the Boeckel-Renner site (SHSND 2008b:6.71-6.73).

Plains Village Period (A.D. 1200-1780)

Prior to 1780, the GSU was mainly an area of hunting camps and temporary settlements. "Field camps were established in a sheltered tributary stream valley setting at the Mondrian Tree site (32MZ58)" and specialized activities went on in an adjacent open upland rim setting at the Edna Mae site (32MZ369) (SHSND 2008b:6.74-6.75). Sometime within the middle of the Plains Village period, there was a drought episode, during which time the subsistence base was diminished and conflict arose. As a result, settlements, such as the White Earth Creek site (32MN101), had fortification ditches and palisade walls with bastions to protect their people (SHSND 2008b:6.73-6.75).

Besides hunting, the Plains Villagers grew corn, melons, pumpkins, and beans. Several ceramic temporal trends occurred during the Plains Village period via vessel forms and types of decoration. These are associated with the Knife River phase and Scattered Village complex. Exotic nonlocal shell, such as dentalium and abalone shell, and other trade goods have been found at the Mondrian Tree site (SHSND 2008b:6.75-6.76).

Equestrian/Fur Trade Period (A.D. 1780-1880)

The advent of the Fur Trade and increased Euro-American contact in the 19th century brought about many changes in the traditional culture of groups such as the Mandan, Hidatsa, and Arikara. The Fort Berthold Reservation was established in 1870 for the Mandan, Hidatsa, and Arikara to protect them from hostile Equestrian Nomads (SHSND 2008b:6.76). Metal tools and implements obtained via trade replaced traditional items of stone, bone, wood, shell, and clay. The gun ascended to a place alongside the bow and arrow in basic weaponry. Hunting parties set up temporary tipi camps during different seasons of the year, and these settlements functioned as the field camps of pedestrian hunter-gatherers. Many of these locations, unless repeatedly reoccupied or marked by stone circles, probably contain little in the way of identifiable material traces in the archaeological record. The horse-mounted hunting and gathering peoples subsisted on bison; however, wild plant foods, other wild animal foods, and garden produce received in exchange with settled Village gardeners also were significant components of the diet (SHSND 2008b:6.76-6.78).

Intertribal trade that occurred during the Equestrian period has its beginning in prehistoric times. The Hidatsa traded with the Crow, Dakotas, Cheyenne, and others to the south and southwest (SHSND 2008b:6.78). Fur trade between Indians and non-Indians within the GSU, such as between the Assiniboine and Fort Kipp, began around 1826. Besides trading, there are a number of written and ethnographic accounts of horse-mounted Indian groups using this area, such as the Crow, Dakota, Cheyenne, Assiniboine, and Hidatsa. The Crows traveled through here going between their Big Horn Mountain territory and their Missouri River village homeland. There may have been territorial continuity between the Crow and the Hidatsa from the time the two split in the 1500s until the Hidatsa were drastically weakened by the plagues in the late 1700s (SHSND 2008b:6.77-6.79).

Reservation Era (A.D. 1880-present)

Between 1850 and 1870, the United States government created reservations to separate the Native Americans and the influx of settlers. Where they were once able to move freely, Native Americans were now restricted to a designated area. In 1887, the Dawes Act divided tribal land into individual land allotments as a means of assimilating Native Americans into Euro-American society. By using individual land allotments as a means of breaking tribal culture, the United States government sought to cease their way of life and force conversion to Christianity, farming, and education of children at boarding schools. Children were taken from their family and placed in boarding schools (Indian schools), such as the Fort Stevenson Indian School, Bismarck Indian School, and the Carlisle Indian School in Pennsylvania, and were prohibited from using their language, practices, and culture and emphasized Euro-American culture. Today, the Dawes Act is considered the most destructive policy dealing with Native peoples (MHA Nation 2012a and 2012b; SHSND 2008c).

In 1934, in an effort to rectify some of the damage done, the Indian Reorganization Act was established that secured certain rights to Native Americans. This included the reversal of the Dawes Act and a return to local self-government on a tribal basis. However, in the late 1940s and early 1950s the Indian Reorganization Act was disassembled. The plan was to establish a policy that would eliminate tribal status all together. In 1975, the Indian Self-Determination and Education Assistance Act was enabled. This policy meant to allow tribal autonomy while still benefitting from government treaty obligations. American Indian Religious Freedom Act of 1978 was created to protect and preserve the traditional religious rights and cultural practices of Native Americans. In addition to Self-Determination, other laws were passed such as the Indian Civil Rights Act, the Indian Financing Act, and the Indian Child Welfare Act (SHSND 2008c).

Today, reservations have tribal government, which administers many governmental, economic, health, welfare, and educational programs. There are still problems on Indian Reservation, such as poverty, crime, and alcoholism; however, there is also economic growth because of small independent business, farming, and gaming (MHA Nation 2012c).

Yellowstone River Study Unit

The majority of archaeological sites found within the Yellowstone River Study Unit are cultural material scatters, followed by cairn sites, and stone circle sites. These types of sites are most often found on ridge, terrace, and hill settings (SHSND 2008b:13.9). The project is located near Dore and crosses the Yellowstone River, and the site distribution is moderate within a one-mile radius

of the survey area (where the file search was conducted). The archaeological horizons encountered in North Dakota are as follows:

Paleo-Indian Period (9500–5500 B.C.)

Finds of only a few distinctively styled lanceolate projectile points provide the only evidence of Paleo-Indian settlement in the YRSU and include a Scottsbluff point found at 32W1102, a possible kill site. Older terraces of the Yellowstone valley and surrounding uplands would have provided a favorable habitat for plant and animal species that would attract human settlement to the area. Pleistocene megafauna were found in the region and would have been available to early hunter-gatherers. Knife River flint was the flint of choice to early groups producing lithics in this region as well as locally available stone such as Porcellanite and Antelope Chert (SHSND 2008b:13.57-13.59).

Plains Archaic Period (5500–400 B.C.)

Middle and Late Archaic deposits are found in quickly deposited sedimentary context, which correlate with erosion in the uplands from subsequent drought. Plains Archaic remnants have frequently been discovered in upland settings as well as in terrace and riverbank locations. Early, Middle, and Late Plains Archaic complexes such as the Logan Creek, Oxbow, Hanna, Duncan, and Pelican Lake are some of the best represented components presently known from the YRSU. A low-density lithic scatter at site 32MN473 indicated a brief Late Plains Archaic encampment located on a terrace between two intermittent streams. Subsistence strategies are thought to have involved a mixture of hunting and gathering practices as indicated by bison, antelope, deer, and canid remains as well as the presence of grinding slabs and manos at Middle and Late Plains Archaic sites. Furthermore, evidence of large quantities of fire-cracked rock indicates the importance of stone boiling to prepare food at campsites (SHSND 2008b:13.59-13.60).

Early Plains Archaic components are indicated by finds of Simonsen and Oxbow points as evident of a Simonsen point found near the head waters of Cherry Creek, which is a sign of the Logan Creek-Mummy Cave culture as well as a KRF Oxbow point found at the headwaters of Lonesome Creek, indicative of the Oxbow culture. McKean, Duncan, Hanna, and Yonkee points represent Middle Plains Archaic components. Late Plains Archaic components are indicated by finds of Pelican Lake and Sandy Creek points. Projectile points were made of locally available raw materials such as KRF, Yellowstone agate, and Porcellanite (SHSND 2008b:13.59-13.61).

Plains Woodland Period (400 B.C.–A.D. 1200)

The Plains Woodland period is represented by the Middle Plains Woodland Besant/Sonota complex and the Late Plains Woodland Avonlea and Mortlach components. Site 32MZ333 and 32MZ334 are two Besant/Sonota complex sites dating to 2,000 years ago. Site 32MZ333 yielded stone tools, flaking debris from tool production and repair, bone from food processing, potsherds, and hearths. The type and amount of culture material present as well as the site location indicates that the site was a hunting or field camp rather than a residential base. The potsherds recovered from 32MZ333 had crushed granite temper and a smoothed-over cord marked exterior, a style and technique of the Besant/Sonota complex (SHSND 2008b:13.61-13.63).

Lithic technologies show variation in the Late Plains Woodland period with Prairie Side-Notched points, Avonlea points, and other variations of side- and corner-notched points. Avonlea points

have been found at several sites in McKenzie County. Obsidian, from the northern Rockies, suggests direct or indirect contact with people in the Rocky Mountain region (SHSND 2008b: 13.62-13.63).

Plains Village Period (A.D. 1200–1780)

The lower Yellowstone valley appears to have been used occasionally by Plains Villages as a core area within which permanent settlements, most likely fortified, were established. Some Plains Village sites in the YRSU include the Scraper site (32WI34), the Cheney Creek site (32MZ27), the Highway site (32MZ484) and site 32MZ767, none of which are permanent settlements. Ethnographic information indicates that the Hidatsa exploited the Yellowstone basin during seasonal bison hunts. Besides hunting, the Plains Villagers grew corn, melons, pumpkins, and beans (SHSND 2008b:13.64-13.65).

Several ceramic temporal trends occurred during the Plains Village period via vessel forms and types of decoration. These are associated with the Mortlach complex and Scattered Village complex. Lithic assemblages of the Plains Villages include large, thin, bifacially flaked, unilateral cutting tools set in bison rib hafts and bipolar flakes and were used to process meat and hides. Plains Villagers were active in long distance trade with other Northern Plains groups. The Highway site is a probably Plains Village field camp that yielded obsidian flakes, indicating regional trade of exotic resources (SHSND 2008b:13.65-13.66).

Equestrian/Fur Trade Period (A.D. 1780–1880)

The advent of the Fur Trade increased Euro-American contact in the 19th century, and the reliance upon horse for transportation brought about many changes in the traditional culture of groups such as the Hidatsa and Assiniboine. Metal tools and implements obtained via trade replaced traditional items of stone, bone, wood, shell, and clay. The gun ascended to a place alongside the bow and arrow in basic weaponry. Hunting parties set up temporary camps, such as the Garden Coulee site (32WI18), during different seasons of the year, and these settlements functioned as the field camps of pedestrian hunter-gatherers. Many of these locations, unless repeatedly reoccupied or marked by stone circles, probably contain little in the way of identifiable material traces in the archaeological record. Subsistence of the horse-mounted hunting and gathering peoples was founded on bison; however, wild plant foods, other wild animal foods, and garden produce received in exchange with settled Village gardeners also were significant components of the diet (SHSND 2008b:13.67-13.68).

Intertribal trade that occurred during the Equestrian period has its beginning in prehistoric times. Fur trade between Indians and non-Indians within the YRSU, such as between the Blackfeet and Fort Union, began with the establishment of a fur post in 1828, later renamed Fort Union, which provided a local source of Euro-American trade goods to various native groups. In 1866, Fort Buford, a US military installation, took over trading operations. Besides trading, there are a number of written and ethnographic accounts of horse-mounted Indian groups using this area, such as the Crow, Dakota, Cheyenne, Assiniboine, and Hidatsa. The Crows traveled through here going between their Big Horn Mountain territory and their Missouri River village homeland. There may have been territorial continuity between the Crow and the Hidatsa from the time the two split in the 1500s until the Hidatsa were drastically weakened by the plagues in the late 1700s (SHSND 2008b:13.67-13.68).

Reservation Era (A.D. 1880-present)

Between 1850 and 1870, the United States government created reservations to separate the Native Americans and the influx of settlers. Where they were once able to move freely, Native Americans were now restricted to a designated area. In 1887, the Dawes Act divided tribal land into individual land allotments as a means of assimilating Native Americans into Euro-American society. By using individual land allotments as a means of breaking tribal culture, the United States government sought to cease their way of life and force conversion to Christianity, farming, and education of children at boarding schools. Children were taken from their family and placed in boarding schools (Indian schools), such as the Fort Stevenson Indian School, Bismarck Indian School, and the Carlisle Indian School in Pennsylvania, and were prohibited from using their language, practices, and culture and emphasized Euro-American culture. Today, the Dawes Act is considered the most destructive policy dealing with Native peoples (MHA Nation 2012a and 2012b; SHSND 2008c).

In 1934, in an effort to rectify some of the damage done, the Indian Reorganization Act was established that secured certain rights to Native Americans. This included the reversal of the Dawes Act and a return to local self-government on a tribal basis. However, in the late 1940s and early 1950s the Indian Reorganization Act was disassembled. The plan was to establish a policy that would eliminate tribal status all together. In 1975, the Indian Self-Determination and Education Assistance Act was enabled. This policy meant to allow tribal autonomy while still benefitting from government treaty obligations. American Indian Religious Freedom Act of 1978 was created to protect and preserve the traditional religious rights and cultural practices of Native Americans. In addition to Self-Determination, other laws were passed such as the Indian Civil Rights Act, the Indian Financing Act, and the Indian Child Welfare Act (SHSND 2008c).

Today, reservations have tribal government, which administers many governmental, economic, health, welfare, and educational programs. There are still problems on Indian Reservation, such as poverty, crime, and alcoholism; however, there is also economic growth because of small independent business, farming, and gaming (MHA Nation 2012c).

Euro-American Cultural Background

The majority of historic sites within North Dakota are farmsteads/homesteads from the late 19th century and early 20th century.

Dakota Territory (1858-1889)

The Dakota Territory consisted of the northernmost part of the land acquired from France in the 1803 Louisiana Purchase and in 1818, the United States acquired the northeastern portion of the Dakota Territory in a treaty with Great Britain. The Dakota Territory included North Dakota, South Dakota and much of present-day Montana and Wyoming. After becoming an incorporated territory in 1861, the population was slow to increase due to Indian attacks. Eventually, the population increased during the “Dakota Boom,” from 1870 to 1880, because of the railroad growth and the Homestead Act of 1862. Many of the settlers came from Germany and the Scandinavian countries of Norway and Sweden. The economic base was organized around agriculture, mining, and cattle ranching (FWP 1938).

Fur Trade – Before and after the Lewis and Clark 1803 expedition, explorers such as Sieur de la Vérendrye, David Thompson, Charles Chaboillez, Alexander Henry, and Manuel Lisa ventured into the area either looking for trade routes or to establish fur trading posts. Consequently, “between 1806 and 1850 Spaniards from St. Louis, Frenchmen from Quebec, Scots and Britons from Hudson’s Bay and Montreal, and Americans working either as free traders or engages for a dozen fur companies” headed into the region (FWP 1938; Lamar 1996:27).

Forts – The majority of the forts in the region were constructed in the 19th century. Their purpose included trading outposts, primarily fur trade and military posts for the protection of supply routes, trails, trade, and settlers. These forts, prior to the introduction of the railroad were along rivers such as the Missouri, Yellowstone, Heart, and Red rivers. Some of the more notable forts include Fort Mandan, Fort Lisa, Fort Henry, Fort Clark, Fort Union, Fort Abercrombie, Fort Berthold, Fort Buford, Fort Rice, Fort Totten, and Fort Abraham Lincoln (FWP 1938; SHSND 2008a).

Trails – Two major trails, the River Trail and the Ridge Trail, branches of the network of Red River Trails in the Red River Valley, originally were Native American trails that were later used by Euro-American fur traders. The Red River Trails connected fur trading posts, where they hauled furs and goods by ox cart. Later, the trails also connected military posts, where military supplies and men were sent. These military posts (e.g., Fort Abercrombie, Fort Totten, and Fort Ransom) also protected the trails as well as the people traveling up and down the trails. Eventually the trails and ox carts were replaced by the railroad (Gilman *et al.* 1979).

A notable trail in the western part of the region is the Bismarck-Deadwood Stage Trail (1887-1880). This trail was a stagecoach and supply line that ran between Bismarck, the western terminus of the Northern Pacific Railroad and the Black Hills gold town of Deadwood in Dakota Territory. There was transportation and economic booms associated with this trail and that boom ended when the railroad reached Pierre and an alternate line opened (SHSND 2008a).

Riverboats – The Missouri and Red rivers were important to the settlement and expansion of the Dakota Territory and were used the most for river transportation. Riverboats such as rafts, sailboats, rowboats, Mackinaws, keelboats, and steamboats brought explorers and fur traders into the Dakota Territory; however, the keelboat and steamboat were probably used more often due to their carrying capacity. “Keelboats were used primarily from 1800 to 1840, when they were replaced by steamboats” (Miller 2012). This type of boat floated high in the water allowing it to travel on shallow rivers and was able to carry 15 to 30 tons of cargo. River transportation becomes increasingly important for transporting goods to outposts and return furs downstream.

Steamboats eventually replaced the keelboats and were used for cargo and passenger transportation. The riverboat industry became a popular mode of transportation, as it was much easier to deliver goods to remote areas by boat than overland routes. In addition, “settlers and visitors could also travel much more safely by taking steamboats” (Burns 2004:14). The demise of riverboat transportation occurred for several reasons: (1) less shipping of passengers and cargo, (2) scarcity of wood yards, (3) inconvenient climate, (4) labor unrest, and (5) the railroad. Shipping on the Red River continued until 1912 and until the 1930s on the Missouri River (Burns 2004).

Railroad - Major development of the railroad in the Dakota Territory occurred in the 1870s and 1880s between the Northern Pacific Railroad and the Great Northern Railroad. Moreover, the success of the railroad was primarily because of agriculture and increasing settlement. Federal land grants were given to the Northern Pacific Railroad, who in turn sold the land, while the Great Northern Railroad bought its lands from the federal government and promoted settlement along its lines (FWP 1938).

Agriculture – The Federal Homestead Act of 1862 offered free land to anyone over 21 years-old who would cultivate and improve his 160 acres of land and live on it for 5 years. An additional 160 acres could be obtained for a tree claim and a third track of land could be acquired before or after the land was surveyed. Crops planted and harvested included spring wheat, durum, flaxseed, barley, oats, sugar beets, corn, hay, red clover, alfalfa, sweet clover, and seed potato. Ranching of cattle and sheep, poultry raising, and bee keeping was also done on farms (FWP 1938).

Bonanza farms or large farms so-called because of their almost fabulous yields of wheat open to settlement in 1863. The main purpose of Bonanza farms was to demonstrate the potential wealth of the Red River Valley. Most of these farms were owned by companies in the east, with resident managers, were run like factories with hundreds of men, and used advanced farming methods. Bonanza farms thrived in the Red River Valley during the last two decades of the 19th century; however, they were eventually subdivided into smaller farms (FWP 1938).

North Dakota (1889-Present)

North Dakota became the 39th state to enter the Union on November 2, 1889. After statehood, industrial development increased. The railroad industry expanded and peaked in 1905 through competition between the Great Northern Railway and the Soo Line. Large lignite mines opened and local brickworks and flourmills flourished in the state. Entrepreneurs built stores, shops, and offices along Main Street and town squares. While rural areas still relied on small local general stores, city consumers had more choice with locally owned department retail stores. In 1919, the Bank of North Dakota at Bismarck opened and has become a large and powerful economic force. “The State Mill and Elevator at Grand Forks, completed in 1922, provided a market for grain and a source of feed and seed [and] the state hail insurance program benefitted many farmers until its elimination in the 1960s” (SHSND 2012).

Farm homes in the eastern part of the state were small, close together with well-painted modernized buildings surrounded by neat lawns and tree groves. They had modern conveniences like electricity, telephones, radios, and cars. In the central part of the state, farms were not as modernized as eastern North Dakota but were well kept. In western North Dakota, the shacks erected to establish residence under the Federal Homestead Act were still in use in the early 20th century (FWP 1928).

For North Dakota, the 1920s and 1930s were an economic depression, starting with the 1920 collapse of wartime prices for grain. In 1921, more banks closed than in any other year, resulting in farm foreclosures. At the same time, farm size increased and many farmers mechanized their operations. A dramatic shift to motorized transportation put a greater emphasis on better roads and bridges (SHSND 2012).

The Great Depression of the 1930s slowed progress and spurred change. Rural population decreased while the city population grew. Because of the price decline of farm produce, cooperatives enjoyed a renewed popularity as farmers banded together to market their produce and reduce the cost of farming. Farmers Unions built local elevators and organized oil cooperatives that served the needs of the rural community. Despite economic problems, crop failures, dust storms, and extreme weather, North Dakota visibly modernized during the 1930s. Federal relief programs improved highways, state parks, and city services throughout the state. State departments undertook public health and safety problems, and a movement for consolidated law enforcement was started with the formation of a State Highway Patrol in 1935. “Rural schools consolidated at an increasing rate. Public utilities extended their reach through development of rural electric cooperatives; the first, Baker Electric of Cando, energized its lines in 1938” (SHSND 2012).

Immediately, after Franklin Roosevelt took the oath of office he began passing a series of laws aimed at putting people back to work, restore faith in the banking system, and shore up the economy (SHSND 2012). Among these laws included the Works Progress Administration (WPA) and the Civilian Conservation Corps (CCC). In North Dakota between 1935 and 1942, the WPA built 20,373 miles of highways and streets, 821 new bridges and viaducts, 166 miles of sidewalks, 15,012 culverts, 503 new public buildings, 61 building additions, 680 outdoor recreation facilities, 809 water wells, two irrigation projects, 39 sewage treatment plants, and nine water treatment plants, as well as other reconstructions and repairs (Robinson 1966:408). In June of 1933, some 235,000 men were enrolled in the CCC to work on federal and state public improvement projects. They built national forest trails, campsites, and visitor centers in state and national parks as well as roads and dams (SHSND 2012).

In the 1940s, with more favorable weather and improved crop yields, farmers benefitted by the higher prices stimulated by America’s entry into World War II. By the end of the war, farm debt had dropped noticeably. After the war, the industrial economy continued to prosper. “In 1946, the demand for Missouri River flood control and diversion of the river’s waters for irrigation and industrial development were rewarded with initiation of construction on the Garrison Dam” (SHSND 2012). The development of natural resources expanded in 1951 when oil was discovered within the Bakken near Tioga. Communication and interstate transportation systems improved and expanded in the 1950s. By the 1960s, two large Air Force Bases, one in Minot and the other in Grand Forks, had been built as a modern continuation of an historic role in Federal military strategy that began in the 1860s. In the 1950s, as private auto transportation increased, the use of passenger rail service declined, railroads had increasingly become a means of hauling freight (SHSND 2012).

The 1960s signified the start of large-scale energy development because of high demand, which lead to the development of power plants and coal strip mines. An oil boom occurred in 1978 as a result of high international crude oil prices, causing increase in the population of towns such as Dickinson, Williston, and Watford City. This oil boom and subsequent population increase did not last as worldwide oil prices declined in 1981 and oil workers moved away (SHSND 2012). Another oil boom started in 2008, is still ongoing, and resulted in enough oil and gas jobs to give North Dakota the lowest unemployment rate in the United States. In addition, the oil boom has supplied economic growth in other areas such as the service industry (Rocco 2013).

Research Goals

Due to a state agency's participation in the project, the applicant must comply with Section 106 of the National Historic Preservation Act (NHPA). The NHPA requires the applicant to consider what effects the undertaking will have on historic properties within the survey area. The three central objectives of this study are to assist the proponent with their Section 106 compliance obligations, identify and assess project impacts to cultural resources located within the survey area, and to provide NRHP recommendations for historic properties encountered within the survey area. Cultural resources consist of any historic and prehistoric district, site, building, structure, or object (usually) over 50 years of age.

To be eligible for inclusion on the NRHP, a site must usually be more than fifty years old, retain its integrity of location, design, setting, materials, workmanship, feeling, and association and it must meet one of the following criteria:

- (a) Associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) Associated with the lives of persons significant in our past; or
- (c) Embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinctions; or
- (d) Have yielded, or may be likely to yield, information important in prehistory or history.

Project Results

Survey Conditions

On September 8, 2014, the weather conditions consisted of clear skies, and a temperature of 80°F. On November 8, 2014, the weather conditions consisted of overcast skies, and a temperature 32°F. The project area is located on the rolling plains and floodplain within the Missouri River, Lower Yellowstone River, and Charlie-Little Muddy drainage systems. The survey area is located within pastureland, fallow grasslands, and agricultural land. Vegetation in the area consists of wheat and native and non-native grasses, plants, forbs, trees and shrubs. The elevation of the survey area ranged from 1,870-2,240 feet. During the course of the inventory, the GSV ranged from 45-100%, varying on location. As a result, no shovel probes were implemented, as the GSV never dropped below 30%. Areas of higher visibility, such as erosion features, areas of sparse vegetation and rodent burrows were also closely examined for cultural material.

File Search

On September 3, 2014, Amanda Person of Beaver Creek Archaeology, Inc. conducted the file search at the State Historical Society of North Dakota (SHSND). The purpose of the file search is primarily to identify previously recorded archaeological and historical sites, and also to identify previous inventories in the area. The file search revealed 14 sites, two site leads, and nine isolated finds in a one-mile radius of the survey area (see Tables 4 and 5 in Appendix C). There are 29 manuscripts on file for the sections in which the survey area is located (see Table 6 in Appendix C). Previously recorded cultural resources within the survey area include one Archaeological site

(32MZ2206), one Architectural site (32MZ1174), and one Isolated Find (32MZx1102). In addition, there is one Site Lead (32MZx120) potentially located within the project area.

Intensive Pedestrian Survey

The Class III inventory covered approximately 135 acres. The location of the project area can be seen in Figure 1 and in the map located in Appendix B. The Dore Loop is a 12.9 mile long, variable 300 to 473 foot wide (560 acres) pipeline corridor. Four hundred and twenty-five acres of the survey area has been previously inventoried so only 135 acres were surveyed during the current inventory (see MS#s 11818, 12246, and 14475).

This inventory resulted in the identification of two previously recorded sites (32MZ1174 and 32MZ2206) (see Table 2). Cultural Resources include one Native American stone feature site (32MZ2206) and one Architectural site (32MZ1174). The findings are listed and described in Appendix D.

The Native American stone feature site (32MZ2206) has been recommended potentially *eligible* for the NRHP, and BCA recommends that the site be avoided during pipeline construction by staying within a previously disturbed pipeline disturbance. The site will need to be avoided by a minimum of 50 feet (from the site boundary). Temporary fencing along the 50-foot site buffer line in conjunction with site monitoring during construction would minimize any adverse effect to the site.

The Architectural site (32MZ1174), the LYIP, has been recommended potentially *eligible* for the NRHP. During the inventory, a new segment of the site was recorded. This newly recorded segment is not eligible for the NRHP as it is only a few years old; however, as the LYIP is still in use, BCA recommends that the site and the ineligible segment be avoided during pipeline construction by boring under the site.

The previously recorded Isolated Find (32MZx1102) was not relocated during the cultural resources inventory. Isolated Finds are recommended *not eligible* to the NRHP, and no avoidance is necessary.

During the pedestrian survey, no evidence of the Site Lead 32MZx120 was observed within the project area.

Table 2. Cultural Resources located within or near the survey area.

SITS #	Affiliation	Description	NRHP Status
32MZ1174	Architectural	Lower Yellowstone Irrigation Project	Unevaluated
32MZ2206	Period Unknown	Stone Circle	Unevaluated
32MZx120	Historic	Site Lead: Fort Henry	Unevaluated
32MZx1102	Period Unknown	Isolated Find: KRF Scraper	Not Eligible

Summary and Recommendations

On September 8, 2014 and November 8, 2014, BCA conducted a Class III Cultural Resource Inventory of the proposed project area. The Class III Inventory covered approximately 135 acres. The locations of the survey area can be seen on the map located in Appendix B.

The file search revealed 14 sites, two site leads, and nine isolated finds in a one-mile radius of the survey area.

During the inventory, BCA archaeologists identified two previously recorded sites (32MZ1174 and 32MZ2206). Cultural Resources include one Native American stone feature site (32MZ2206) and one Architectural site (32MZ1174).

The Native American stone feature site (32MZ2206) has been recommended potentially *eligible* for the NRHP, and BCA recommends that the site be avoided during pipeline construction by staying within a previously disturbed pipeline disturbance. The site will need to be avoided by a minimum of 50 feet (from the site boundary). Temporary fencing along the 50-foot site buffer line in conjunction with site monitoring during construction would minimize any adverse effect to the site.

The Architectural site (32MZ1174), the LYIP, has been recommended potentially *eligible* for the NRHP. During the inventory, a new segment of the site was recorded. This newly recorded segment is not eligible for the NRHP as it is only a few years old. BCA recommends that the site and the ineligible segment be avoided during pipeline construction by boring under the site because the LYIP is still in use.

The previously recorded Isolated Find (32MZx1102) was not relocated during the cultural resources inventory. Isolated Finds are recommended *not eligible* to the NRHP, and no avoidance is necessary.

During the pedestrian survey, no evidence of the Site Lead 32MZx120 was observed within the project area.

The survey area is located in areas where it could potentially have an adverse effect on cultural resources (see Table 3). See Appendix D for site avoidance measures.

Table 3. Summary of Cultural Resources identified during the inventory located in or near the survey area.

SITS #	Description	NRHP Status	Recommendation
32MZ1174	Lower Yellowstone Irrigation Project	Unevaluated	Avoidance via boring
32MZ2206	Stone Circle	Unevaluated	Avoidance via boring

Beaver Creek Archaeology, Inc. recommends that site 32MZ2206 have temporary site buffer fencing and monitoring with construction boring around the site (see Figure 11 in Appendix D). For site 32MZ1174, BCA recommends that construction bore under the site (see Figures 8-10 in Appendix D). BCA recommends that the “Unanticipated Discovery Plan” (UDP) approved by the ND SHPO and created by Keitu Engineers and Consulting, Inc. be used during the construction phase of the project.

Provided that the sites listed in Table 3 are avoided by the following recommendations of site buffer fencing, monitoring, and boring under or around the sites, Beaver Creek Archaeology, Inc. recommends that the project proceed under a *No Historic Properties Affected* as surveyed, mapped and described herein.

References Cited

Burns, Wade

- 2004 The Effect Transportation Routes had on Military Installation Placement, Settlement, and Agricultural Patterns in Dakota Territory: 1860-1890. Unpublished Master's thesis, Department of Sociology-Anthropology, North Dakota State University, Fargo.
- 2010 Site Form for Site 32MZx1102. On file at the North Dakota State Historic Preservation Office, Bismarck, North Dakota.

Federal Writers Project

- 1938 North Dakota: A Guide to the Northern Prairie State. Oxford University Press: New York.

Gilman, Rhoda, Carolyn Gilman, and Deborah Stultz

- 1979 The Red River Trails: Oxcart Routs between St. Paul and the Selkirk Settlement 1820-1870. Minnesota Historical Society Press: St. Paul.

Good, Kent

- 1992 Site Form for Site 32MZ1174. On file at the North Dakota State Historic Preservation Office, Bismarck, North Dakota.

Jackson, Carrie

- 1998 Site Form for Site 32MZ1174. On file at the North Dakota State Historic Preservation Office, Bismarck, North Dakota.

Jakel, Gwen

- 2011 Site Form for Site 32MZ2206. On file at the North Dakota State Historic Preservation Office, Bismarck, North Dakota.

Klinner, Duane

- 2007 Site Form for Site 32MZ1174. On file at the North Dakota State Historic Preservation Office, Bismarck, North Dakota.

Kordecki, Cynthia

- 1998 Site Form for Site 32MZ1174. On file at the North Dakota State Historic Preservation Office, Bismarck, North Dakota.

Lamar, Howard

- 1996 Dakota Territory 1861-1889. Institute for Regional Studies, NDSU: Fargo.

Mandan, Hidatsa, and Arikara Nation

- 2012a Allotment. Electronic document, <http://www.mhanation.com/main2/history/PDFs/Allotment.pdf>, accessed February 15, 2013.
- 2012b Early Education and Civilization. Electronic document, <http://www.mhanation.com/main2/history/PDFs/Early%20Education%20and%20Civilization.pdf>, accessed February 15, 2013.

- 2012c Present Day. Electronic document,
<http://www.mhanation.com/main2/history/PDFs/Present%20Day.pdf>, accessed
February 15, 2013.

McCormick, M.

- 1998 Site Form for Site 32MZ1174. On file at the North Dakota State Historic Preservation Office, Bismarck, North Dakota.
- 1999 Site Form for Site 32MZ1174. On file at the North Dakota State Historic Preservation Office, Bismarck, North Dakota.

Miller, Michael

- 2012 The Missouri River: Historical Overview. Electronic document,
<http://library.ndsu.edu/grhc/outreach/exhibit/riverexhibit.html>, accessed November 27,
2012.

Robinson, Elwyn

- 1966 History of North Dakota. University of Nebraska Press: Lincoln.

Rocco, Matthew

- 2013 North Dakota Oil Boom Driving Economic Development. Electronic document,
<http://www.foxbusiness.com/economy/2013/02/11/north-dakota-oil-boom-driving-economic-development/>, accessed February 15, 2013.

State Historical Society of North Dakota

- 2008a Historic Sites. Electronic document, <http://history.nd.gov/historicsites/index.html>,
accessed November 27, 2012.
- 2008b North Dakota Comprehensive Plan for Historic Preservation: Archaeological
Component. State Historical Society of North Dakota: Bismarck
- 2008c People Encountered – Government Policy. Electronic document,
<http://www.history.nd.gov/exhibits/lewisclark/govtpolicy.html>, accessed February 15,
2013.
- 2012 History of North Dakota. Electronic document,
<http://history.nd.gov/ndhistory/index.html>, accessed February 15, 2013.

Appendix A: Survey Area Photographs



Figure 2. Overview of the survey area. View to the east.



Figure 3. Overview of the survey area. View to the west.

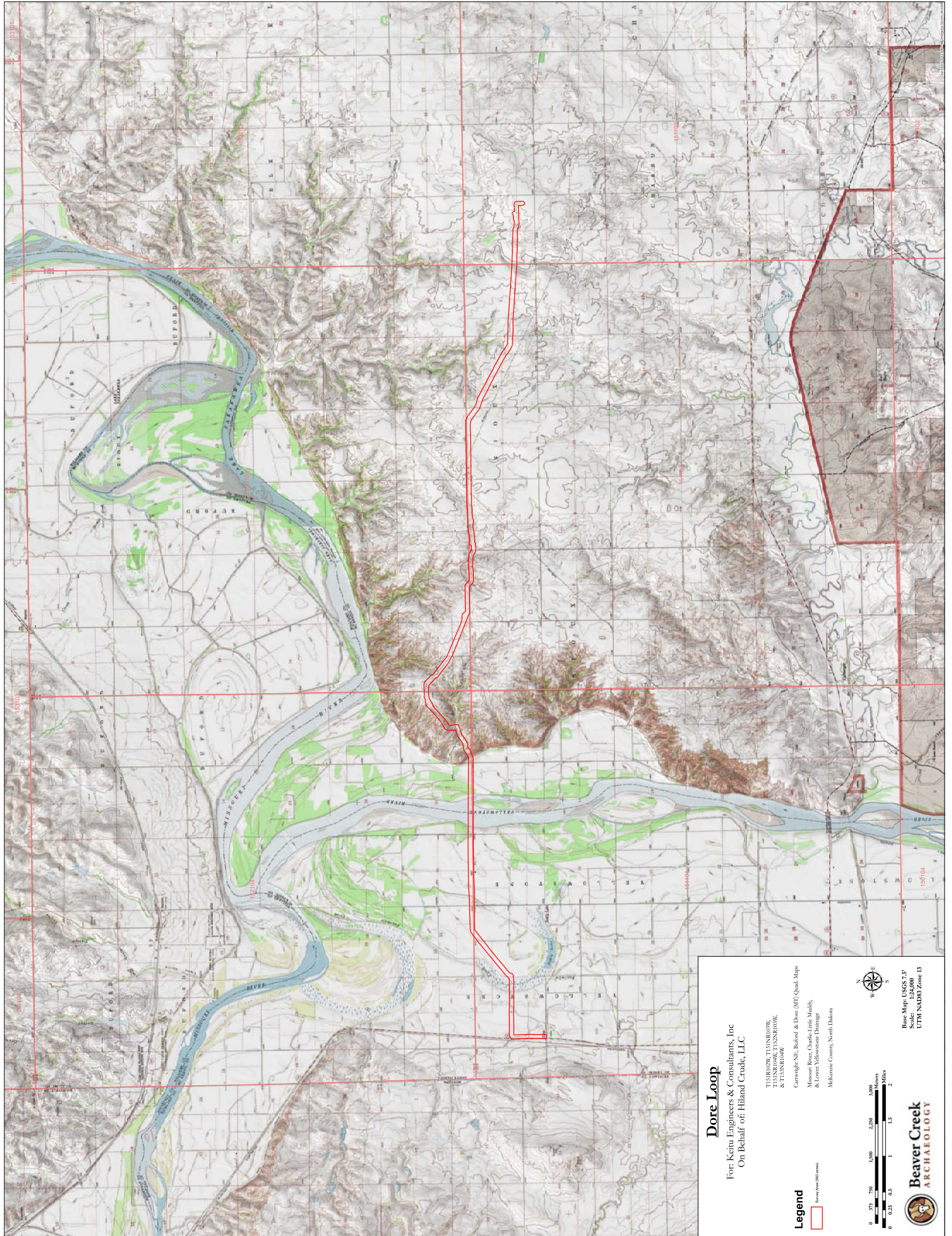


Figure 4. Overview of the survey area. View to the west.



Figure 5. Overview of the survey area. View to the east.

Appendix B: Maps



Dore Loop

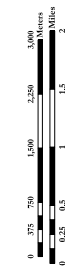
For: Keim Engineers & Consultants, Inc
 On Behalf of: Hilland Crude, LLC

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 & TISNIRIOW

Cartwright NE, Buford & Dore (MT) Quad Maps
 Missouri River Chertic Leds, Madly,
 & Lower Yellowstone Drainage
 McKean County, North Dakota

Legend

Survey Area (200 acres)



Base Map: USGS 7.5'
 Scale: 1:24,000
 UTM NAD83 Zone 13



Appendix C: Literature Search

Information Removed due to ND SHPO Regulations for Public Dispersal of Documents

Appendix D: Site Descriptions

Information Removed due to ND SHPO Regulations for Public Dispersal of Documents