

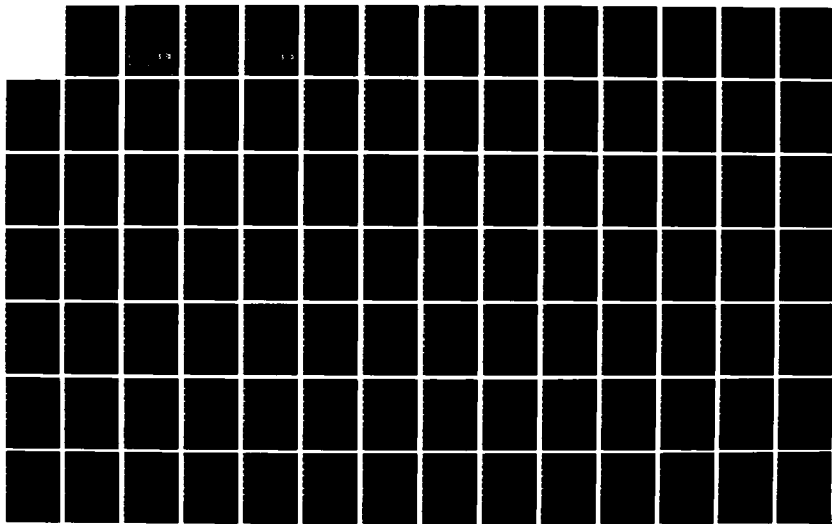
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PRELIMINARY CULTURAL RESOURCE INVESTIGATION OF THE
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PRELIMINARY CULTURAL RESOURCE INVESTIGATION OF THE
UPPER SOURIS RIVER BASIN, NORTH DAKOTA

by

Fred E. Schneider
Department of Anthropology & Archaeology
University of North Dakota

September 9, 1977

A research report prepared for the U.S. Army Corps
of Engineers, St. Paul District, under Purchase
Order Number, DACW37, 77M-1387.

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ABSTRACT

A preliminary field reconnaissance and literature search of cultural resources in the Burlington Dam Project indicates that few archaeological, historical, or paleontological sites have been reported in the project locale and that few field investigations have been conducted by specialists in these disciplines in the project locale.

A five-day preliminary field reconnaissance and literature search by Fred Schneider-Archaeology, Kurt Schweigert-History, and F.D. Holland-Paleontology provides the strong suggestion that the area has a potential for an abundance of cultural resources. Previous archaeological investigations in the area had recorded eight archaeological sites, however, there are numerous site leads recorded for the area. One historic site, the Eastwook Park bridge, in Minot has been nominated to the National Register of Historic Places. While a wealth of literature exists on the history of the region, little of it is synthetic in nature and there is little mention of historic sites, structures, or architectural styles. Paleontological investigations in this region have proceeded at a slower pace than those of the archaeologist or historian. No fossil sites have been recorded in the project area, and it is not anticipated that completion of current project plans will have an adverse impact on this resource.

It appears that the project area will yield a considerable abundance and variety of archaeological and historical resources, and it is suggested that further investigations are necessary to inventory these resources. It is estimated that such work will entail at least one year's work at a cost ranging from \$60-80,000.

INTRODUCTION

A cultural resource reconnaissance was conducted as part of the planning for the proposed Burlington Dam flood control project for the Upper Souris basin, North Dakota. The reconnaissance was composed of a preliminary field survey and a literature and records search for information as regards cultural resources in the proposed project areas. The disciplines of Archaeology, History, and Paleontology were represented in this reconnaissance.

The purpose of the field investigation was to gain first-hand familiarity with the project area through the following objectives: to meet with persons having familiarity with local cultural resources, to identify sites, objects, structures, and ruins of interest of importance to local, State, regional, and/or national prehistory and history, to evaluate the potential of the area in terms of yielding data on cultural resources to future intensive investigations, and to provide input for the planning of these future investigations. The literature and records search summarizes the scholarly knowledge of the cultural resources in the area, provides a list of pertinent references, and records the nature and location of presently documented cultural resources.

The study area includes the proposed projects as outlined in the Final Updated Environmental Impact Statement, Flood Control, Burlington Dam (1975) and includes the Burlington Dam and Des Lacs Diversion projects; areas within the maximum floodpool of the Burlington

Dam ; levee construction in the Minot, Sawyer, and Velva areas; and an area along the Souris River between Towner and the J. Clark Salyer Wildlife Refuge proposed for channel clearing and snagging.

Theoretical Orientation - Research Bias

The Principal Investigator (P.I.) is trained as an anthropologist/ archaeologist and as such his research interests have mainly been directed towards the study of prehistoric cultures. Because of this interest and research bias, concentrated attempts were made to provide ample opportunity for the other two members of the research group, a paleontologist and a historian, to have sufficient time to gather data, observe the research area, and develop local informants. Knowing that sites and site leads have been recorded in the area, that artifact collectors were finding evidence of prehistoric and early historic settlement in the area, and that the area had potential for containing prehistoric archaeological sites allowed the P.I. to operate in the above manner.

The P.I. operates with the assumption that any research area contains archaeological sites until evidence is accumulated which disproves the assumption. The lack of recorded sites in an area does not indicate that no archaeological sites (or any other cultural resource) occur in the area, but simply that no professionally trained individuals have looked for this resource.

Because of the P.I.'s widespread and general familiarity with the archaeology of North Dakota, it is assumed that prehistoric sites will be found in the research areas. This assumption is based on the literature

review presented in a later section of this report. It is suggested that sites will be found in greater concentrations and representing a wider diversity of culture-types in the research areas north and west of the Minot than in the levee project areas and channel clearing and snagging areas east of Minot. The areas north of Minot have a greater diversity of topography, floral and animal communities, and offer greater opportunities for shelter than the areas east of Minot.

Field Reconnaissance

The field party consisted of Dr. Fred Schneider, Principal Investigator and Archaeologist, Dr. F.D. Holland, Paleontologist, and Kurt Schweigert, Historian. The field party spent five days in the project areas from May 15th through May 19th, 1977.

Prior to the field reconnaissance each individual initiated a literature and records search so as to have some familiarity with the research area. North Dakota County Highway Maps and U.S.G.S. Quadrangle Maps were acquired and discussions took place concerning areas of potential interest in the project area. Previously recorded sites or areas of interest were plotted on field maps. The P.I. consulted with Nick Franke and Chris Dill of the North Dakota State Historical Society concerning their earlier survey in the project area, knowledge of site locations, and information about local artifact collectors.

The field party visited archaeological, historical, and paleontological sites together. It was discovered that a considerable amount of "trade-off" occurred as all individuals gained insights to their research interests through close exchange of information with the other

research participants. During the field investigation an attempt was made to visit as wide a variety of topographic, geologic, and habitat situations as possible.

The field investigation was hampered by rain, and most of the second day's work was halted by rainfall and extremely muddy roads. During the field trip, visits were made to the Minot Public Library, the Renville County Historical Society Museum; historic, archaeologic, and paleontologic sites; and several landowners and artifact collectors were contacted. These sites, individuals, and findings are made more explicit later in this report.

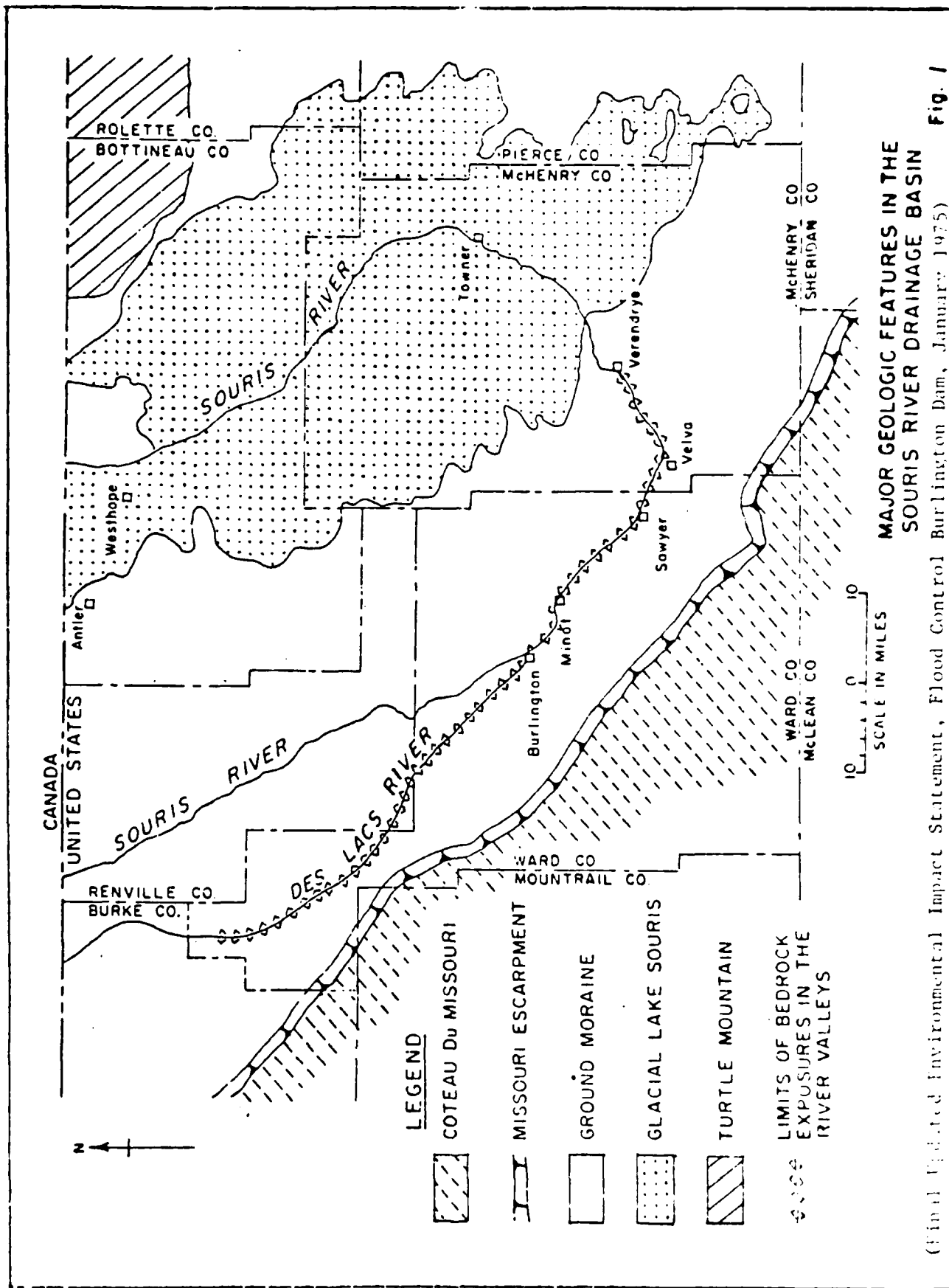
The P.I. returned to Minot on May 23-23, 1977, to give a talk on North Dakota Archaeology at the Minot Public Library. At this time, he took the opportunity to talk to persons interested in local history and prehistory about the Burlington Dam project. A list of individuals interested in regional history and/or possessing collections of artifacts from the area was gathered as a result of this talk.

REGIONAL ENVIRONMENTAL CONTEXT

The environmental setting of the research area has been described in the U.S. Army Corps of Engineers Final Updated Environmental Impact Statement, Flood Control, Burlington Dam (1975) and in the U.S. Bureau of Reclamation, Final Environmental Statement, Initial Stage, Garrison Diversion Unit (1974). Rather than repeat the previous descriptions, a brief synopsis is presented and the reader advised to consult references provided in the aforementioned reports.

The Souris River basin includes an area of approximately 24,800 square miles. The United States portion of the Souris River basin lies in the Drift Prairie section of the Central Lowland physiographic province and the Coteau Du Missouri, which forms the eastern border of the Great Plains physiographic province. Four major geologic and topographic features are recognized for this region, the Missouri Coteau, the ground-moraine plain, the bed of glacial Lake Souris, and the southwest portion of Turtle Mountain (Figure 1).

The entire length of the Des Lacs River valley and that portion of the Souris River valley upstream from Verendrye are in the area of the ground-moraine plain. The floor of the Souris River valley averages three-fourths of a mile in width and lies 100 to 200 feet below the ground-moraine plain. The valley walls are fairly steep-sided. The tributary drainages take the form of short, steep-sided coulees with intermittent streamflow which gives the river a slightly dendritic form



(Final Updated Environmental Impact Statement, Flood Control Burlington Dam, January 1975)

with little or no outwash terrace development. The Des Lacs River valley is similar in form; however, the valley floor averages one-half mile in width and is incised up to 225 feet below the surrounding plain.

The Souris River valley downstream from Verendrye is formed in the glacial Lake Souris area. The valley width varies from $\frac{1}{2}$ to 3 miles, and it is entrenched less than 100 feet below the surrounding plain and in places shows practically no valley incision.

Most of the ground-moraine plain is covered with a natural vegetation of wheatgrass-bluestem-needlegrass while the Souris is bordered by Northern Floodplain Forests. The latter, occurring along the Souris and Des Lacs Rivers, consists of a generally thin belt (up to about one-half mile wide in places) connecting intermittent 1 to 25 acre tracts which are generally located within oxbow meanders. The majority of the river bottom woodland is confined to the primary floodplain. However, a somewhat similar forest community also is developed in the deeper coulees on east-facing slopes. Oak savannah and aspen parklands occur in the sandhills southwest of Towner and are found northward to the J. Clark Salyer National Wildlife Refuge.

A wide variety of birds, mammals, reptiles, insects, and fish inhabit the area. Seasonally, the number and distribution of these species fluctuate greatly. Species which are inferred to have been of economic importance to prehistoric and early historic inhabitants include: white-tailed deer, eastern cottontail rabbit, snowshoe rabbit, white-tailed jackrabbit, raccoon, beaver, mink, red fox, gray fox, weasel, muskrat, and probably buffalo, moose, elk, and bear. Important game

birds include: greater prairie chicken, sharp-tailed grouse, gray partridge, and a wide variety of ducks and geese. Larger fish include: northern pike, walleye, suckers, bullheads, and perch. Numerous other species were hunted, trapped, and fished, but those listed above most likely figure more prominently in the economic life of the early inhabitants.

ARCHAEOLOGICAL INVESTIGATIONS

Fred Schneider
Principal Investigator, Archaeologist

Previous Archaeological Investigations

Project Locale

The only previous archaeological field investigation in the project area was that of the North Dakota State Historical Society in 1974 and 1975 (Franke 1975). This work examined the areas affected by construction of the Des Lacs Diversion Tunnel and the Burlington Dam, as well as areas affected by channel modification in the Minot area. Eight archaeological sites consisting of three rock cairns, one destroyed burial mound, and four rock alignment sites were recorded in the project area. In addition, two isolated artifacts were found in the Burlington Dam project area. No sites were located in the channel modification areas in and around Minot. This work consists of the sole archaeological field investigation in the project area.

Souris Basin

Within the Souris Basin there have been few archaeological sites recorded (Table 1); however, there are numerous site leads. Site leads consist of:

those sites which may be lacking a record of their legal description, information as to the type of site, information as to who recorded the site, or may consist only of general comments or observations about sites or artifacts. Many of them were taken from historic journals, books, informants, or are the result of poor record-keeping by archaeologists (Schneider 1977).

TABLE 1
ARCHAEOLOGICAL SITE LOCATIONS

COUNTY:	NO. OF SITES*:	NO. OF SITE LEADS:
Bottineau	1	41
McHenry	-	160
Renville	-	124
Ward	11	461
TOTAL	12	786

*Legal descriptions of sites are found in Appendix A

The overwhelming majority of the site leads for the counties in the Souris Basin are those collected by Thad Hecker in 1937-38 for the Works Progress Administration (W.P.A.). Past experience with similar records indicates that many have faulty legal descriptions, site descriptions, and/or site identifications. At times, the sites turn out to be natural features rather than mounds, cairns, tipi rings, or petroforms. Problems also arise in that many of the sites over the past forty years have been greatly modified or destroyed due to agricultural activities, road construction, or urban expansion (Schneider et al. 1976:7-8). In general, the site leads file has proven to be of limited utility.

An examination of the archaeological literature on the area indicates that there are few reports on the archaeology of the North Dakota section of the basin. In 1947, the Smithsonian Institution River Basin Surveys conducted a preliminary examination of the Des Lacs Reservoir project area. No sites were recorded by this preliminary survey (Bauxer 1947). The only other archaeological field surveys conducted in the North Dakota section of the Souris basin are a linear survey along a proposed pipeline route in McHenry and Bottineau counties (Carmichael 1974), a cultural resource inventory of the Boundary Creek area in Bottineau County (Carmichael 1975), and a cultural resource inventory of a mine area near Velva, Ward County (Dill 1976). On the basis of examination of collections of the North Dakota State Historical Society, two Woodland sites are reported for McHenry County. One site is mentioned as being located fourteen miles north of Towner near the Souris

River (Wood 1962). The description of an atlatl weight from near Kenmare also indicates the presence of Woodland sites in the Souris basin (Metcalf and Carlson 1971). An interesting artifact, a carved stone buffalo effigy, found near Carpio, is of unknown cultural origin (Woolworth 1959). A carved stone human effigy pipe of unknown cultural origin is reported as being found near Velva (Johnson 1955). A historic homestead, 39BU401, was recorded as being located near the town of Mohall, Bottineau County (Carmichael 1974). Obviously, few archaeological field investigations have been conducted in the North Dakota section of the Souris basin. No sites have been excavated in the North Dakota section of the Souris basin.

Regional Archaeology

When one considers the entire Souris basin including the Canadian portion and adjacent areas both in the United States and Canada, there is evidence to suggest that one should expect to find a considerable quantity and diversity of cultural remains in the project locale. Discussion of these recorded sites follows the major recognized chronological phases of human settlement in the Northern and Northwestern Plains.

Early Man or PaleoIndian artifacts have been found in North Dakota concentrated primarily west of the Missouri Coteau. The New Town locale approximately 100 miles southwest of the project area has revealed the locations of sites at which surface collections have recovered Clovis, Folsom, Plainview, Milnesand, Agate Basin, and Angostura projectile points (Hiller 1942; Haberman and Schneider 1975; Schneider 1975).

Similar artifacts are reported from western and southwestern Manitoba (Pettipas 1970, 1975, 1976; Haug 1975; Loveridge 1974). These artifacts usually occur as isolated surface finds. No PaleoIndian sites have been excavated and no radiocarbon dates have been obtained for this culture in North Dakota and western Manitoba.

The next major cultural-historical period, the Middle Prehistoric or Plains Archaic, dates from circa 3,000 B.C. to 1,000-500 B.C. The projectile points which serve as horizon markers are the Ducan, Hanna McKean, and Oxbow types. During this period, the habitation of western North Dakota may have reached its greatest extent in terms of the number of sites occupied. This idea is based on the result of limited surveys conducted along the shoreline of Lake Sakakawea (Garrison Reservoir) by Haberman and Schneider (1975) and Leaf (1976), surveys in Dunn and Mercer counties (Fox et al. 1976; Lawrence Loendorf, Personal Communication) and the author's personal observation of artifact collections from western North Dakota. Sites of this period are frequently encountered in adjacent portions of Manitoba (Joyes 1970; Syms 1969, 1970, 1974; Haug 1976; MacNeish and Capes 1958; Vickers 1945) and southern Saskatchewan (Wettlaufer and Mayer-Oakes 1960; Nero and McCorquodale 1958; Blood 1977). In North Dakota, no sites of this period have been excavated and all information is from surface collections.

The next major cultural-historical period is the Woodland Culture. This culture is primarily noted for the appearance of pottery, the construction of large conical and/or linear-shaped burial mounds, and the projectile point types Pelican Lake, Besant, and Avonlea. Within

the Souris basin reports by Wood (1962), Neuman (1967), Metcalf and Carlson (1971) indicate the presence of campsites in the North Dakota portion of the Souris basin. Regionally, campsites are reported by Joyes (1967, 1970, 1973); Haug (1976); Hlady (1967); Reeves (1970); Braddell et al. (1967); Wettlaufer and Mayer-Oakes (1960); Wood (1956, 1959); Johnson (1977); Schneider and Kinney (ms.); and reports of mounds in Manitoba and Saskatchewan by, among others, Montgomery (1910); Capes (1963); and Hanna (1976). Much of the knowledge of Woodland sites in southwestern Manitoba consists of reports of burial mound excavations while all of the knowledge from north-central North Dakota consists of reports of surface collections. It appears that the project locale is at the northwestern limits of the distribution of burial mounds on the Plains; however, it must be remembered that this portion of North Dakota has received little attention from archaeologists and few field investigations have been conducted in northwestern North Dakota. The only mound (Woodland ?) reported in the North Dakota section of the Souris basin is that reported by Franke (1975) in the Burlington Dam project area.

Following the Woodland Culture are the Plains Village and late Nomadic cultures. The Plains Village Culture noted by its characteristic earthlodge dwellings, ceramic styles, and frequent occurrence of fortified villages makes its appearance in North Dakota at about circa A.D. 1200. The late Nomadic cultures probably develop somewhat later, perhaps circa A.D. 1650. While these cultures supercede the earlier Woodland Culture, it may be that the Woodland Culture, in a modified form, continues to exist to perhaps as late as A.D. 12-1300.

Historically, the Plains Village and Nomadic cultures terminate in peoples recognized in this region as the Assiniboiné, Chippewa, Dakota, Mandan, Hidatsa, Crow, Cree and Cheyenne. Cultural materials related to these peoples have not been reported in the North Dakota section of the Souris basin with the possible exception of four rock alignment sites reported by Franke (1975) in the proposed Burlington Dam project. Archaeological investigations in northern portions of the Garrison Reservoir (Metcalf 1963; Lehmer 1971; Smith 1972; Haberman and Schneider 1975; Malouf 1951, 1963; Muller 1968) and along the Little Knife River (Garrett 1952; Schneider and Kinney ms.) have reported sites and artifacts of these cultures. Surveys and excavations in the Lonetree Reservoir project located approximately 75 miles southeast of the Souris River in Sheridan County, North Dakota, revealed an abundance of late prehistoric nomadic site (tipi rings) (Schneider 1974; Schneider and Treat 1974; Schneider 1976) as well as a late prehistoric bison kill site (Larson 1976). Manitoba Phase sites associated with the Assiniboiné and/or Cree are found in adjacent portions of the Souris basin in southwestern Manitoba (MacNeish 1954; MacNeish and Capes 1958; Joyes 1970).

Archaeological Site Records

The archaeological site survey files of the University of North Dakota were consulted to determine what sites had been recorded in Bottineau, McHenry, Renville, and Ward counties. The results of this search are presented in Appendix A. In addition, the North Dakota State Historical Society was consulted concerning the presence of National Register of Historic Places properties in the project area.

The Eastwood Park Bridge in Minot is the only site in the project area which has been placed on the Register.

Few archaeological sites have been recorded in the North Dakota section of the Souris basin. The scarcity of sites reflects the lack of archaeological field investigations in this area, and not the lack of past human settlement in the area. There are a sizable number of site leads which support the belief that the area has had considerably more occupation by past human occupants than indicated by the site records.

Collectors and Informants

There are several Indian artifact collectors in the greater Minot area. Mr. Robert Clark of Glenburn is perhaps the most prominent of these. He has collected from throughout the Souris basin over a number of years and has a widespread knowledge of sites and other collectors. An article about Mr. Clark has appeared in the Minot Daily News, Page 12, Saturday, December 11, 1976. It is suggested that anyone working in this area contact Mr. Clark at the initiation of their research. Other collectors in the area include: Bud Johnson, Burlington; Art Hetlan, Deering; Mr. Victor Matehs, Upham; Lauren Bowers, Sherwood; and Richard Johnson, rural Sherwood.

Information about sites was obtained from Mr. Harkness, SE $\frac{1}{4}$, NE $\frac{1}{4}$, Section 33, T164N, R87W who found a spearpoint on his property. Mr. Richard Johnson, center Section 36, T163N, R87W has a ceramic site on his land, a large artifact collection, and knows of nearby sites. Mr. Oliver Wisdahl who lives north of the Johnson's "near the bridge" has a ceramic site on his land. This location would be approximately Section 23 or 26, T163N, R87W. Mr. Ivern Rostad, employee at Lake Darling Headquarters, observed tipi rings in either Section 31 or 32, on the left side of the Souris River, T161N, R85W. North of Towner, Mrs. Hannratty (sp?) center, Section 19, 157N, R75W related that "hammers and arrowpoints" had been found $\frac{1}{2}$ mile

north of the "Elliot place." Mr. Varlan Tagestad provided information that at one time a tipi camp extended from his farm to Towner, and that over the years numerous hammers and points had been found in the area.

Undoubtedly, there are more collectors and informants in the project area, and once a field survey is initiated one should attempt to contact more of these individuals. All individuals contacted were interested in the current project and will most likely provide invaluable aid once a field survey is initiated.

ARCHAEOLOGICAL SITES: ASSESSMENT

Site Types

Since few archaeological sites have been recorded in the project locale, all that are recorded are of great interest. Until further field surveys are conducted those few sites which are recorded provide the only information, no matter how limited, on the prehistoric habitation of the project locale. The question must be posed at this point as to whether the lack of sites is due to a limited occupation of the locale by prehistoric peoples or due to the lack of field investigations by archaeologists? The latter explanation seems most reasonable, but must be verified by field surveys.

It is expected, on the basis of literature review and observation of the physical characteristics of the project locale, that additional archaeological sites will be recorded. It is anticipated that burial mounds, rock cairns, rock alignment sites (tipi rings), campsites, and lithic scatter sites will be recorded in the project locale. The burial mounds should be related to the Woodland Culture, while the remaining site types should be related to a diversity of cultures. Rock cairns have been investigated elsewhere in North Dakota (Schneider 1974, 1976; Metcalf 1963; Mallory 1966), but as of yet their function and cultural affiliation is poorly understood. Perhaps they functioned as trail markers, burial cairns, stockpiles or rocks to anchor tipi hide-coverings, and/or as cache coverings. Rock alignment sites, controversial as to

their function and cultural affiliation, are inferred to represent the former locations of tipis. The rocks were used to anchor the hide-covering and once the tipi was removed, a circular arrangement of rocks was left behind. Excavations of these sites in North Dakota have been reported by Schneider (1974, 1976); Schneider and Treat (1974); and Mallory (1966). These sites may date from as early as the Middle Prehistoric Period and were used until the early Historic Period.

Campsites are identified as areas of ground surface on which are found lithic artifacts, debitage, ceramics, animal bone, mussel shell, charcoal, and/or fire-cracked rock. Lithic scatter sites have only lithic debitage and/or lithic artifacts exposed on the ground surface. These two site types are expected to occur in the project locale as opposed to village sites. Village sites have evidence of earthlodge depressions, and may have a variety of artifacts on their ground surface. The use of the terms "campsite" and "lithic scatter site" implies a functional difference between the two site types while the use of the term "village site" implies both a functional and temporal difference. A "village site" is an earthlodge village of the Plains Village Tradition, a site constructed between circa A.D. 1200 and A.D. 1875 at which are found earthlodges, fortification ditches, distinctive artifact styles, evidence of agricultural pursuits, and a permanent population. The terms "campsite" and "lithic scatter site" refer to sites which may have been occupied at the same period as the village sites of during earlier periods, but are sites at which there is no evidence of earthlodge construction or fortification ditches, and rarely evidence of

horticultural pursuits. To date, village sites have not been reported north and east of Garrison Reservoir.

Despite the lack of extensive field investigations in the Souris basin, it is not anticipated that village sites will be found in the Basin. Such sites are quite noticeable, are noted for their abundance of artifacts, and become artifact "mines" for Indian relic collectors. If such sites occurred in the Souris basin, surely they would have been brought to the attention of archaeologists or historians.

Cultural Affiliation

While several examples of PaleoIndian projectile points were observed in artifact collections, it is not clear as to whether these specimens are from the immediate vicinity or from areas outside the Souris basin. Collectors reported several Eden points as being found in the Coteau area west of Minot. Several Folsom points are most likely from the New Town locale. It is not anticipated that PaleoIndian sites will be located in or immediately adjacent the project areas. These sites would most likely occupy high, upland areas perhaps along the Missouri Coteau. If such sites did occur in valley slopes or bottoms, they must have long ago been destroyed by meandering streams and valley slope erosion, and artifacts would be deeply buried under present flood-plain and valley slope deposits. The land surfaces in the Souris valley are most likely too recent for occupation by the PaleoIndians. Observations of artifact collections from the project locale indicate that artifacts associated with the McKean Complex of the Middle Prehistoric Period and artifacts associated with the following Late Middle Prehistoric

or Woodland Culture are commonly found in this area. It is anticipated that most of the artifacts and sites located in the project area will be associated with these cultures.

Observation of hilltops adjacent section roads did not reveal the presence of burial mounds during the preliminary reconnaissance of the area. Despite the lack of discovery of these structures, and lack of knowledge of such structures by local informants, it is anticipated that such structures will be found in the project locale. The abundance of these structures in the Canadian portion of the Souris basin, as well as their presence in areas south and east of the Minot area, provides the suggestion that such structures would be found in the project locale. It is also anticipated that campsites of the Middle Prehistoric and Woodland cultures will be found in the Souris bottomlands, particularly along small terraces near the juncture of tributary streams.

Artifacts related to late prehistoric village cultures and nomadic cultures were also observed in artifact collections and tipi rings were mentioned by local informants as being in the project locale. It may be that small campsites related to the village cultures will be found to exist in the bottomlands of the Souris, and that tipi rings related to the nomadic cultures will be found along high terraces or higher slopes adjacent to tributary streams or springs. Also within the artifact collections are historic trade items (beads, metal points, White military objects) which may indicate that early historic trading posts, military sites, or

historic Indian or Metis sites may exist in the project locale.

Additional site types which may occur in the project locale are bison kill sites and rock cairn mounds. These site types could be associated with any of the culture types recognized in the Northern Plains region.

In sum, it is suggested that within the project locale, and in particular within the project area, one would expect to find artifacts and sites associated with cultures as early as the Middle Prehistoric Period to those as late as the early Historic Period.

PROPOSED ARCHAEOLOGICAL FIELD SURVEY

General Recommendations

Field survey in the project areas should proceed in two manners; a foot survey should be implemented with the aid of aerial observations and/or use of aerial photographs, and a survey should be conducted along river banks and the shoreline of Lake Darling with the use of a boat and motor. Prior to initiating field work, it is advised that the archaeologist visit with local collectors in hopes of gaining their cooperation in the locating of archaeological sites as well as recording observations on their collections and their knowledge of the prehistory of the area. It is also advised that all site leads be plotted on U.S.G.S. quadrangle maps prior to conducting field surveys. Trucks should be used as field vehicles, for most of the roads are sand and gravel and after a rain are difficult to traverse. It may be difficult to find housing for a field party in much of the project area as most abandoned structures are too run-down to serve as a field camp. It may be advisable to establish a tent camp perhaps near the north end of Lake Darling and again when conducting the work north of Towner. Due to the abundance of water and vegetation, it is anticipated that mosquitoes will be a problem. An archaeological field project in North Dakota can function effectively from approximately May 15 through November 1st. Fieldwork conducted earlier or later than these dates

can anticipate inhospitable weather.

Canadian Border to Lake Darling

This area is covered with an abundance of vegetation, large groves of trees grow along the Souris River and in tributary coulees. The valley slopes and adjacent uplands are covered with short grasses and are used for pasture. Large plowed agricultural fields occur along the Souris bottomland. As one approaches the north end of Lake Darling the bottomlands become quite marshy and heavily vegetated.

A field survey of this area might most efficiently be conducted during late Fall or early Spring, a time when crop and vegetation cover is at a minimum and when permission to walk agricultural fields might be most easily obtained. Prior to conducting the field survey, several weeks might be spent visiting local inhabitants, obtaining advance permission to walk over fields, and making records of artifact collections. During this same time, a survey of the Souris riverbanks might be conducted through use of either a canoe or shallow draft boat. Also during this time, one should conduct preliminary investigations to determine the presence of burial mounds and tipi ring sites. One might conduct this work through the examination of aerial photographs and/or use of a light plane. The latter should be flown over the area during early morning and again in the early evening when shadows would best be cast from these archaeological sites. It is anticipated that if these sites occur in this area that they will be positioned either on high valley slopes overlooking the Souris valley, or on lower slopes adjacent to large coulees.

The operation of a field project in this area would require the use of trucks since the roads are composed of gravel and dirt, and when wet are difficult to traverse. There appear to be few if any abandoned houses to field a crew, and it may be necessary to either establish a tent camp or seek housing in one of the surrounding towns. During the summer, mosquitoes will be a problem in this area.

Lake Darling

Lake Darling has covered areas in which one might expect to find prehistoric campsites. It may be that areas adjacent the present shoreline will contain such sites, but it is anticipated that the only types of sites to be found in the Lake Darling area are burial mounds and tipi rings both of which are expected to occur along higher valley slopes and along the valley rim. The existing valley slopes and adjacent uplands are covered with short grasses and coulees are filled with small trees and shrubs.

It is suggested that a shoreline survey be conducted, and that it might be best to selectively sample areas of the shoreline rather than the entire Lake Darling shoreline. Prior to conducting such an investigation, it might be helpful to determine if the water level of Lake Darling fluctuates more than a few feet each year. If the level does fluctuate to such a degree, it might be best to attempt a survey when the water level is lowest. One might investigate areas of the shoreline that vary in terms of slope, vegetation, soil type, presence-absence of coulees, and presence-absence of tributaries. On the basis of that survey one might predict the type, frequency,

and distribution of sites along the entire shoreline of the lake. At the same time, a survey party would examine the adjacent upland slopes for the presence of archaeological sites. The use of aerial photographs and/or a plane would aid in the discovery of tipi ring and burial mound sites if they are present in this area.

Due to the size of the lake, a motorboat will be needed to conduct the shoreline survey. There are not an abundance of access roads to the lake, and it may be advisable to have the use of a truck in order to gain access to portions of the lake shore. A field camp might be quartered in one of several adjacent small towns or in a tent camp near the refuge headquarters.

Burlington Dam and Des Lacs Diversion

The valley in this area is narrow and steep-sided compared to areas upstream on the Souris. The preliminary field survey conducted by the North Dakota State Historical Society located eight sites and recovered isolated artifacts at two locations in this area. The bottomland has been modified extensively by agricultural activities, and it should be fairly easy to observe the ground surface for the location of sites. The river in this area should be floated so as to examine the river banks for the exposure of cultural materials. The valley slopes are covered with short grasses and the coulees are wooded. The slope areas should be examined for the location of tipi rings, and the adjacent uplands for the location of burial mounds.

Access to the area is relatively easy; however, many of the roads are gravel and it is suggested that a truck be used. A field camp

could be established in Burlington or any one of several adjacent towns.

The Des lacs Diversion crosses a steep, relatively wide divide between the Des Lacs and Souris rivers. Most of the upland area has been extensively modified by agricultural activities and the fields are extensively plowed. More than likely, any sites which might exist in the area would be placed on high points overlooking either the Des Lacs or Souris valleys. One would not expect to find sites in the center of the upland divide. The Des Lacs valley is not as well-watered or vegetated as the Souris and it is not expected that evidence of prehistoric occupation will be found in the area affected by the Des Lacs Diversion Tunnel.

Levee Construction in the Minot, Sawyer, and Velva Areas

Much of the land surface in these areas has already been extensively modified by construction of levees, roads, and homes. It is suggested that whatever cultural resources existed in these areas have been intensively modified, destroyed, or buried from view by levee construction. It would be almost impossible to locate sites by examination of the ground surface. It might be possible to use a boat to float the river and examine the riverbank for the exposure of cultural materials, however, it should be pointed out that determination of the nature and extent of these materials would require excavation and temporary disturbance of existing levees.

It is suggested that future cultural resource inventories of these areas be confined to examination of borrow pit areas and development of

access roads.

Channel Clearing and Snagging in the Towner Area

Much of the area adjacent the Souris River is low, marshy land and therefore an area in which it is not anticipated one would find archaeological sites. It would be advisable to use a boat to float the river and examine the river banks for cultural materials. There are archaeological sites in the vicinity and there may be sites near present riverbanks. The survey of this area would probably not involve more than a few days of field work.

Future Research

It is suggested that field investigations of the project area, Burlington Dam to the Canadian border and channel clearing and snagging north of Towner, would entail 4 to 5 months if only the bottomland areas within project boundaries are investigated. However, it is strongly advised that areas outside but adjacent the project boundaries be included in the field survey. These areas would include the valley slopes and adjacent uplands. These additional areas are necessary if one is to provide a better evaluation of the cultural resources within the project boundaries. While cultural resources will be recorded in project boundaries, it may be discovered that similar resources occur in adjacent areas and occur in greater abundance and/or better states of preservation than those in the project area. Such a discovery will greatly influence decisions as to approaches to project mitigation, and the understanding of local culture history.

If the valley slopes and adjacent uplands are included in the survey area, it is suggested that these areas be subject to a sampling design. One might sample 10 to 25% of the valley slope and upland area. Such a sampling design should take into consideration differences in topography, vegetation cover, soil type, distance from river, distance from tributary streams and springs, and side of valley.

In addition, during the field project, the field investigators should attempt to consult with artifact collectors. One should determine where their artifacts were found, visit sites with collectors,

and take photos and/or make drawings of their collections. Some collections or artifacts may be of sufficient value and interest that the materials should be described and analyzed. It may be necessary to do this in the home of the collector.

In sum, it is suggested that at least one full year will be necessary to conduct an archaeological survey of the Burlington Dam project and the channel clearing and snagging project. This work would entail using a boat to float the Souris River from the Canadian border to Lake Darling, to examine the shoreline of Lake Darling, and to float the Souris between Towner and the J. Clark Salyer Wildlife Refuge. The bottomlands between the Canadian border and Lake Darling, and between Lake Darling and the location of the proposed Burlington Dam, would be examined by a foot survey. The valley slopes and adjacent uplands between the Canadian border and the Burlington Dam site would be subject to sampling design and examined by foot survey. It is also recommended that aerial photos and/or flights via a small aircraft be utilized in the survey of the upland slopes.

One should plan at least one month for designing this survey and should include at least one 2 to 4 day field trip to the project area. The field work would be conducted by a crew of 5 to 6 individuals who would work between 5 and 6 months in the field. A laboratory crew consisting of three individuals would work an additional 4 to 6 months on describing, analyzing, and writing-up the results of the work. Without more specific planning, it is difficult to estimate costs of

such a project. Minimally, the costs would approximate \$50,000 and maximumly the costs might approach \$70,000. These estimates are based on present (1977) costs of the University of North Dakota and the personnel costs of the Department of Anthropology and Archaeology at the same institution.

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HISTORICAL INVESTIGATIONS

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Introduction

Previous investigations of cultural resources in the project locale and adjoining areas have been primarily concerned with the recovery and recording of prehistoric artifacts and locations. To this time there have been no historic sites recorded within the boundaries of proposed project areas, with the possible exception of the Eastwood Park bridge in Minot which has been nominated to the National Register of Historic Places as an historic structure. The scarcity of recorded historic sites in proposed project areas and adjoining areas in the valleys of the Souris and Des Lacs rivers does not reflect an actual absence of sites of historical and architectural interest, but rather reflects the lack of previous in-depth historical investigation of these areas and the general region. The lack of previous investigations in this area is not unusual, since a large portion of the rural areas of North Dakota have not been systematically and professionally surveyed for historic and architectural sites. Projection of the kinds of historic sites and structures that may exist in the Souris River area is further hindered by the lack of published reference material dealing with early settlement era architecture in North Dakota, and by the unique Canadian orientation of the early history of the region. The Canadian orientation of the region's early history refers to (1) the origin of the early fur trade activities in the

region and (2) to the origin of many of the initial Euro-American settlers. In the matter of the early fur trade activities, which were conducted by the Hudson Bay Company, Northwest Company, and possibly the XY Company and independent traders, much of the primary source material on sites will be found in Canadian archives. In many cases these materials can not be removed from their respective repositories, but can be used there upon approval to prior request. The Canadian origin of many of the original settlers in the Souris Valley may be reflected in folk architecture influenced by French, Scottish, and English styles. Although recognition of distinctive folk architecture of these peoples in this region has not been determined, the possibility of its existence must be considered. Because of the broadcast nature of folk architecture studies, consultation of Canadian materials should not be undertaken until completion of field survey activities including photography of all sites suspected to be of historic and/or architectural significance. However, historical documents indicate that many sites may exist which reflect the aboriginal occupation, fur-trade and exploration, initial Euro-American settlement, and frontier industry and trade facets of the region's past.

History Prior to Euro-American Settlement

The historic period in the Souris River "loop" probably began in 1738 when French-Canadian trader and explorer La Verendrye passed through the area enroute to the Mandan villages on the Missouri River. At the time of La Verendrye's visit, the Souris

Valley was occupied by Assiniboiné and Hidatsa tribes who were apparently living in permanent villages near the river (Burpee 1927:313). The valley was also probably frequented by parties of the Cree, Chippewa, Mandan, and Dakota. The Souris River is a tributary of the Assiniboiné River, draining eventually into Hudsons Bay, and was a natural route for commerce between tribes in North Dakota and Central Canada. Shortly after the Hudson Bay Company began operations on Hudsons Bay in 1672 an aboriginal trade route was established extending from the Mandan villages on the Missouri to Hudsons Bay, via the Hidatsa, Assiniboiné, and Cree tribes.

La Verendrye discovered this trade route and its obvious importance to his Montreal-based operations, and in October of 1738 built Fort La Reine at the junction of the trail and the Assiniboiné River. Fort La Reine dominated fur trade activities in the Souris River area for many years, and was later replaced by trading posts further up the Assiniboiné at the mouth of the Souris. The trail led southwestward from Fort La Reine, and La Verendrye followed it into the Souris River Valley to an Hidatsa village probably near the present city of Minot (Robinson 1966:28-32).

From this village La Verendrye traveled in the company of Assiniboiné warriors to the Mandan villages, and in December of 1738, he returned to Fort La Reine.

Although the particular route of La Verendrye through the Souris region is not known, it was probably along portions of the

east side of the Souris Loop downstream from present Minot. In one instance, he reported having found a river flowing westward, which may have been the Souris above the northwestward bend in McHenry County, or possibly Willow Creek which joins the river in northern McHenry County (Burpee 1927:24, 360). Several campsites of the Verendrye party were probably near the river or a tributary stream, but none of these possible sites have been located to this time. The party may have stopped at well-used aboriginal campsites on the trade route, and the archaeological remains of the Verendrye camps could then be indistinguishable from other late aboriginal sites. The La Verendrye campsites may be very difficult to locate either from documentary or field survey work due to the short-term occupation of each site or due to the extensive flooding and agricultural activities that have occurred in the Valley since 1738. Documentary study was not completed during the preliminary investigation, and some of the documents that may reveal site locations are in Canadian archives. Use of these documents may be limited to in-house examination in the repositories. Actual location of the sites will depend primarily on archaeological field work, which may uncover trade goods from France and Venice. Such trade goods will probably not be diagnostic of Verendrye sites as the goods carried by the Verendrye party were likely common trading items of the Montreal-based French Canadians. The La Verendrye penetration into North Dakota in 1738 was an event of large historical importance, however, and the definite location of any of his campsites should

be considered a major concern of historical investigations in the region.

The fur trade of the area remained in the hands of the French traders until the 1780's, but by 1785 the inter-tribe trade system had broken down and the Mandans were themselves coming to trade at Fort Epinette on the Assiniboine River (Wagner 1955:Map portfolio; Innis 1956:192). By the early 1870's the Hudson Bay Company had entered into active competition with the French traders in the Assiniboine-Souris area. Both groups had by 1794 sent traders to winter with the Mandans on the Missouri, and it is possible that semi-permanent trading posts had been established on the middle Souris by that time (Innis 1956:233). It is known that Northwest Company trader Charles Chaboillez, Jr. wintered on the Souris in 1803, although the location of his establishment is not clear (Coues 1965:208). Wintering posts were either established in existing Indian dwellings or were small log structures in the vicinity of Indian villages. Although no major fur trade posts are known to have been built on the middle Souris, careful consideration should be given in further studies to possible remains of English and French posts on the river. Associated with the wintering posts may be wintering camps of Chippewa, who by 1800 had penetrated the region with the traders.

In 1797, David Thompson, geographer and cartographer for the Northwest Company, traveled through the Souris loop on his way to the Mandan villages. Thompson followed what may have been the main

route between the Assiniboine River and the Mandan villages, which likely ran along the east side of the loop in Bottineau, McHenry, and Ward counties. Thompson crossed both Willow Creek and the Souris at a point near the bottom of the loop (Coues 1965:301-302, 313-315). Fur trader Alexander Henry followed Thompson's route in returning northward from the Mandan villages in 1806. Henry crossed the river near what was once the community of Mouse River in McHenry County and camped on the north side of the stream. Following the river northward, he then camped about ten miles north of Towner on the west side (Coues 1965:408-411). The camps of Thompson and Henry were probably not of an extensive nature and it is likely that little evidence remains of them. However, the route these two men followed seems to have been a major avenue of trade and should be located if possible. The trail has probably been obliterated in many areas by agricultural activities, but portions may be visible in uncultivated acreage and on aerial photographs. Crossings of the Souris River by "Indian trails" are reported to have been in sections 14 and 25, T.161N, R.86W (Renvill County History 1976:12).

The Souris River area officially became the territory of the United States in 1818, but probably remained within the economic sphere of British Canada until the 1840's. In 1823 the Hudson Bay Company abandoned its fur trade activities below the 49th Parallel, and the void was quickly filled by the American Fur Company and the Columbia Fur Company. Independent traders also

proliferated during this period, and a number of these traders may have entered the Souris loop area in search of furs. By mid-1840's the region was in the control of the American Fur Company and several affiliated companies, including the establishments of Antoine Gringas and Norman W. Kittson. Gringas and Kittson operated posts in the late pre-settlement period among the Turtle Mountain Chippewa and the Metis of the international border region to the east of the Souris drainage, but may have extended their operations into the valley. According to a manuscript on file at the State Historical Society in Bismarck, an American Company post was operated on the Souris from 1843 to 1845 by Pierre Garrioch (Garrioch m.s. 1846?). It is possible that extensive archaeological and trade good remains exist of late-period trading posts on the Souris. These remains might be located by archival and field research.

At least two U.S. Army expeditions penetrated the Souris region in the period 1818-1880. In 1865 General Alfred Sully led a force to the Souris River in search of hostile Indians who had taken part in the 1862 Minnesota Uprising. The Sully force apparently did not find hostile Indians on the river and soon departed. Large numbers of Dakota or Sioux are known to have been on the river in 1867; however, they probably camped near the bottom of the loop in McHenry and Ward counties. Olaf Tagestad, rancher north of Towner, stated that a large encampment of Indians had been visited by a trader to the south and west of his homesite at an unknown date. In 1873 the international boundary was surveyed through the region under the direction of Major W.J. Twining of the U.S. Army. Both

the Sully and Twining expedition made use of already existing trails along the river, and both expeditions were large enough and in the area long enough to deposit extensive camp remains. These remains could include various metal, leather, and wood refuse, and in the case of the Sully expedition the camps could have been served by earthen breastworks. military artifacts have been found in at least one location on the Richard Johnson farm in northern Renville County (Sec. 36, T.163N R.87W), including musket balls, several sizes of rifle bullets and both centerfire and rimfire cartridge casings, and a large crimped button face stamped "US". Johnson has a large collection of prehistoric and historic artifacts that were found on his property, which is within the proposed project area and should be thoroughly surveyed for other remains. Archival sources should be extensively examined for possible routes and campsite locations of these and other possible military operations in the area of the proposed projects.

Settlement Period

The permanent Euro-American occupation of the Souris Valley began in 1882-83, when several persons established stock ranches along the river. Among these ranches were the Gray Brothers Ranch, established in 1883, 1½ miles north of Green; the Clyde Joslyn Ranch, established in 1884, 13 miles below the Canadian border (Renville County); and the Hohn Stammen Ranch, established 1885 in sections 31 or 33, T.161N R.86W. The ranchers took advantage of the rich grass growth and water supply of the valley, and the

unlimited upland grazing. In 1884, individual homesteaders began to arrive in the valley, coming from the Devils Lake area, the Missouri River, and Canada. One of these claims was that of James Harkness, who settled in a log cabin about two miles below the Canadian border in Renville County. The Harkness claim is now occupied by Elmer Harkness, grandson of the settler, but none of the early buildings remain on the site. When interviewed, Harkness stated that the river bottom lands of the area were homesteaded as ranch headquarters and the upland grazing areas were not purchased until much later. The pattern of settlement was confirmed by Olaf Tagestad, rural Towner, whose father established a ranch in McHenry County in 1883. Tagestad and Harkness are good sources of information of settlement and ranching, and should be consulted in future investigations.

The early settlement of the valley area by large ranching operations appears to have had a large effect on the subsequent settlement history of the surrounding area. The settlement of the region occurred in two phases: 1882-1890 and 1904-1910. The first of these phases conforms to the "Great Boom" of Dakota settlement, and it was probably during the early years of this period that most of the well-watered bottomlands were claimed. A period of retrenchment in settlement probably occurred in the late 1890's, when drought and unusually low water levels in the river forced at least one rancher, W.M. Harkness, to drive his stock to the Missouri River area. The second phase of settlement began about 1904, and conforms

to the "Second Boom" in Northern Plains settlement. According to Olaf Tagestad, most of the upland region of McHenry County was settled in 1904 but vacated again as soon as 1910. Tagestad believes that the failure of these homesteads was due to attempts by settlers to cultivate sandy areas that would have been better left for grazing. The control of the well-watered Souris valley by ranchers may have expedited the failure of the small farmsteads by disallowing diversification of the farmsteads into stock-raising. Remnants of farmsteads observed during field reconnaissance indicate that as many as 75% of all homesteads have been abandoned and consolidated into larger units. Further study of the economic factors of the area's historic settlement patterns should be part of future investigations.

The historic folk architecture of the Souris Valley and surrounding areas appears to be as diverse as anywhere in the Northern Plains. Both geographic and ethnic factors contribute to this diversity. The first settlers in the Souris Valley found extensive woods from which to build log structures, and several of these buildings are reported to be still standing. Two cabins that were visited during the reconnaissance survey were reportedly built by Norwegian settlers about 1886 (SE $\frac{1}{4}$ of NW $\frac{1}{4}$ Sec. 6, T.162N R.86W; NW $\frac{1}{4}$ Sec. 25, T.161N R.86W). These two cabins exhibited quite different forms of construction and materials, and it appears that both were occupied for a long period of time. Other log structures or their remains are reported to have existed as parts of modern

farmsteads or as independent units north and south of Towner near the river; on the Farrel Nelson Farm (NE $\frac{1}{4}$ of SE $\frac{1}{4}$ Sec. 6, T.157N R.75W); on the Waldreth farm near Surrey, four miles east of Minot, one mile east of Minot; and the Peter Ramstad cabin in a park in Minot (Haugland m.s. 1927; Tagestad and Johnson, Personal Communications).

The construction of log dwellings and barns appears to have been limited to the Souris Valley itself. Upland settlers built some structures of sod, rammed earth, and stone, but most of their dwellings and outbuildings were of wood-frame construction. One stone house is reportedly still standing on the Andrew Foss homestead (Sec. 1, T.163N R.86W), but it is unlikely that sod or rammed-earth structures remain standing at this late date (Hudson 1975:12). Wood-frame structures of the settlement period appear to have been of two principal designs, simple gabled roof and arched roof. Standing structures that appear to be of homestead origin were observed during field reconnaissance, especially in the upland and valley fringe areas of McHenry County. The gable-roofed structures are characteristically rather small, and many have been converted into granaries (See Schweigert 1977:39). The arch-roofed structures are less amenable to such conversion and have largely disappeared in North Dakota. A complete survey of buildings of possible historic significance in the Souris Valley should be undertaken, and might yield valuable information on ethnic architectural preferences and material utilization.

With the advancement of settlement into the Souris region several townsites and post offices were established, most of which were of transient nature. As early as 1882, the townsite of Hackett Falls may have been laid out above the present site of Towner by Edmond Hackett. By 1884 a second townsite, Villard, was established on the river in northern McHenry County (Andreas 1884:208). In 1886 the St. Paul, Minneapolis and Manitoba Railroad crossed the Souris at the present site of Towner and a town developed; the rails then extended westward to Minot. As early as 1884 the loop country was served by a stage line from Devils Lake, and the stage line continued in operation until about 1905. Known stage stops and post offices were located at Overholt (SE $\frac{1}{4}$ Sec. 22, T.159N R.85W), Glenn (SW $\frac{1}{4}$ Sec. 21, T.160N R.85W), Greene (NE $\frac{1}{4}$ Sec. 30 T. 160N R.85W), McKinney (SW $\frac{1}{4}$ Sec. 24, T.161N R.86W), and Alderman (NW $\frac{1}{4}$ Sec. 1, T.160N R.86W). Other known townsites and post offices were at Barber (Sec. 6, T.163N R.86W), Edson (SW $\frac{1}{4}$ Sec. 29, T.163N R.87W), Grano (NE $\frac{1}{4}$ Sec. 12, T.159N R.85W), Pleasant (SE $\frac{1}{4}$ of NE $\frac{1}{4}$ Sec. 16, T.163N R.87W), and Wuestad (SW $\frac{1}{4}$ Sec. 11, T.158N R.85).

Most of the townsites developed as a response to the 1904-1910 phase of settlement and ceased to be viable townsites by about 1920. The townsite of McKinney was visited during field reconnaissance and was found to contain only a log cabin (previously mentioned), a cemetery, several cellar depressions, and the concrete and stone foundation remains of a large grain mill. The mill was rather prominent in local history, having been built in 1903 and operated

until 1928. The structure was moved from the foundation in 1934 and later demolished (Renville County History 1976:538). According to Ervin Rostad of the Upper Souris Wildlife Refuge, in which the site is located, the weir that once retained water for power is still in the river below the foundation. Many of the other town-sites and post offices of the settlement period may yield architectural and pioneer industrial information, and all of these sites should be thoroughly surveyed.

Several other early industrial sites may also lie within proposed project areas or peripheral areas. Joseph Colter established a brickyard at Burlington in 1927. Another brickyard was built in 1896 by a Davis, and was in operation as late as 1927 (Haugland m.s., 1927:25-26). One of these kilns may have been located in Ward County at SW $\frac{1}{4}$ Sec. 12, T.155N R84W. This site now contains a brickwork of unknown origin. Several coal mines were reported to have been operated in the Burlington area in the early settlement period. In addition to industrial sites, several bridges over the Souris River many have historical and structural significance. Two of these bridges in McHenry County were visited during field reconnaissance (Center of Sec. 19, T.157N R.75W; SE $\frac{1}{4}$ Sec. 14, T.158N R.76W), and were found to have been built in 1909 and 1912, respectively, by the Fargo Bridge and Iron Company.

RECOMMENDATIONS FOR FURTHER HISTORICAL STUDIES

Although the Souris River Basin contains a wide range of sites and objects of historic interest, very few investigations of these resources has taken place. Extensive archival research and field survey efforts will be necessary in order to locate and record possible historic sites, and in order to establish the regional context within which specific sites can be evaluated. Regional context will be especially crucial in assessing historic significance of vernacular architecture and ethnic settlement patterns. For this reason, any future intensive investigation of historic cultural resources should not be limited to the specific project areas in the Souris Valley, but should also include consideration of peripheral and adjacent areas in the valley fringes and uplands. Expansion of the area of investigation in this manner will also allow for the examination and possible development in the public interest of sites not directly affected by the proposed projects but which may be endangered by future private development of peripheral areas.

Archival research into history, historic sites, and ethnic settlement will require a two-month period prior to the commencement of field survey operation. Research concerning pre-settlement era history is expected to consume about half of this time, due to the need to consult documents, manuscripts, and published sources on the fur trade and aboriginal occupation of the region. Sources of information on these subjects are often not readily apparent or

available for use, but may indicate location of important archaeological remains. Field operation in proposed project areas and peripheral areas would take about three months' time for one person, and would ideally be carried on during the months of June, July, and August. The method of survey for historic sites should include an on-foot examination of all proposed project areas and all areas in which historic sites have been indicated by archival sources. Project and peripheral areas should be examined in full square units whenever possible, such as full quarter-sections of full sections. Peripheral areas in which historic sites have not been indicated can in some cases be surveyed for structures from roads, but in cases of obstructed or distant vision, these areas should be surveyed on foot. Aerial photographs should be consulted as to possible locations of trails and sites.

Following completion of field work, continued research will be necessary in order to assess and evaluate sites, especially architectural sites, and time will be needed for the preparation of the final report. It is expected that at least two months time will be required for this phase of operations, including preparation of site forms, production of photographic plates, and the printing of the report. It is recommended that a portion of the final report be in the form of a narrative history of the area that can be made available to the general public as a contribution to local and regional historical research. The investigation of historical cultural resources will, in total, require between seven and eight

months time for one person.

The total cost of recommended historic work is expected to be between \$11,000 and \$13,000 based on current personnel, supply, and overhead costs of the University of North Dakota. This cost estimate is based on salary and subsistence provisions for a single investigator, and may be slightly higher if an assistant is needed. Estimated costs include salary for on person for eight months, \$8,000; subsistence of \$18 per day for 100 days, \$1800; transportation, \$600 to \$700; materials and supplies, \$200; and report perparation (including clerical, photo production, printing) \$500. It is recommended that contract arrangements be completed by mid-winter, so that the investigator will be allowed sufficient time for archival research and preparation prior to beginning field activities.

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Ward County Reporter (Minot), 1894-1914
Westhope Standard (Westhope), 1904-1971
Willow City Review (Willow City), 1930-1946

COUNTY HISTORICAL SOCIETIES

Bottineau County Historical Society.

Olive Benson, president, Bottineau, North Dakota 58318
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Burke County and White Earth Valley Historical Society

Eugene Rohe, president, Bowbells, North Dakota 58721
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McHenry County Historical Society.

Oscar Oium, president, Towner, North Dakota 58788
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Renville County Historical Society

Henry Sullivan, president, Mohall, North Dakota 58761
(756-6674)

Rolette County Historical Society.

Lola Lajimodiere, president, Dunseith, North Dakota 58329
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Ward County Historical Society

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PALEONTOLOGICAL RESOURCES OF THE SOURIS RIVER AREA

F. D. Holland
Consultant Palentologist

Western Part of the Area

The western half of the area from Minot along the Souris and Des Lacs rivers is underlain by the Tongue River Formation ¹ of the Fort Union Group, Paleocene age. It is mantled by Pleistocene drift of the Cole Harbor Group, Wisconsinan age and stream alluvium of the Walsh Group of Holocene age which occurs in the river valleys. The Tongue River Formation crops out along the Des Lacs River north to Kenmare and in the valley of the Souris below Burlington.

Fossils have been reported from Tongue River strata near Donnybrook (Secs. 14, 15, T. 158N., F. 87W) by Lemke (1960) and Bickel (1976). These localities, however, are above the area of the proposed Des Lacs diversion tunnel and should not be affected by proposed action. Tongue River fossils have been reported by Bickel (1976) from the Tongue River in the Souris valley walls south of Burlington but these localities are below the location of proposed activity. The localities below (south) of Burlington as given by Bickel (1976, p. 50 and 51, respectively) are:

SW $\frac{1}{4}$, Sec. 12, T. 155N., R. 84W., about 1.2 miles SE of Burlington, 1585 feet above mean sea level.

NE $\frac{1}{4}$, Sec. 12, T. 155N., R. 84W., 1 mile SE of Burlington, 1600-1616 feet above mean sea level.

Fossils found at these localities and to be expected elsewhere in the Tongue River Formation consist of species of: the "fingernail

clams" Pisidium, Eupera, and Sphaerium; larger bivalves such as Plesielliptio; trochiform gastropods such as Viviparus and Campeloma; and high-spined gastropods such as Lioplacodes and Hydrobia. (The only other fossils reported in the literature from Ward County were collected on the Missouri Coteau west of southwest of proposed project areas and collections from the Cannonball Formation near Sawyer; these will be discussed below.)

No fossils have been reported from Renville County and collections made by Freers (1973) in Burke County lie well to the west of the Des Lacs and Souris Rivers on the Missouri Coteau.

Therefore, it is deemed that paleontological resources would not be endangered by the proposed Des Lacs diversion tunnel, Burlington dam, nor levee work in Minot. It should be pointed out, however, that borrow pits and access roads should avoid the outcrops of Tongue River strata between Burlington and Donnybrook. Also, construction of the tunnel might expose or penetrate fossiliferous strata; in these cases, provision for work stoppage should be made until a paleontologist could collect specimens uncovered.

Eastern Part of the Area

The area between Logan and Verendrye is underlain by the Tongue River and Cannonball Formations of Ft. Union Group, Paleocene in age. The Cannonball Formation is exposed in cut-banks along the river from west of Sawyer to the vicinity of Verendrye.

This formation was named from exposures along the Cannonball River and most of the surface expression of the unit is in North

Dakota. It consists of the youngest deposits of the great inland seas that penetrated the continental interior of North America in the geologic past. After the retreat of the Cannonball sea, the interior of the continent was never again covered by marine waters and all younger deposits are of non-marine origin. Thus exposures of the Cannonball Formation are both limited and of extreme value for unravelling this portion of geologic history. The Cannonball outcrops of the area consist of the northernmost exposures of the formation. These outcrops should be protected at all costs. Marine fossils in the Cannonball are not abundant and hence are of especial value.

Fossils have been reported in Ward County from the Cannonball Formation along the cut-banks of the Souris River just above and below Sawyer by Brown (1948), Swain (1949), and Lemke (1960). In McHenry County, fossils have been reported from the Cannonball Formation along the valley of the Souris by Brown (1948), Lemke (1960), and Cvancara (1966).

Preliminary reconnaissance of the area indicates that alteration of the current levees in the Sawyer-Velva area will not damage the existing Cannonball outcrops if fill is not taken from the river cut-banks. Detailed field examination of the area by a paleontologist together with an engineer with detailed plans should be undertaken prior to letting of contracts to ensure protection of these valuable outcrops. This could be accomplished within five days for under \$1,000 by a paleontologist in the field.

No fossils have been reported from the area north of Towner to the J. Clark Salyer Refuge. It is deemed that snagging operations along this stretch of the river will not harm any paleontological resource.

Recommendations

Study of literature and field reconnaissance during the week of 16 May 1977 indicates that no paleontological resource will be endangered by the proposed dam, tunnel, levee alteration or snagging.

As Holland and Klosterman (1977) have pointed out, excavation often exposes new paleontological resources of either bedrock or from Pleistocene deposits. This seems especially possible during construction of the Burlington dam and the Des Lacs diversion tunnel. General environmental damage can be mitigated and potential paleontologic information gained during construction if there is a contractual agreement that includes both the notification of a paleontologist and work stoppage long enough to allow the collection of exposed fossils. Work stoppage would most likely involve the loss of less than one work day in any given area. Appropriate persons to contact for inspection, notification, or collections would be:

Dr. David Bickel
Earth Science Department
Minot State College

Dr. F. D. Holland, Jr., or
Dr. Alan M. Cvancara
Geology Department
University of North Dakota

Dr. Alan Ashworth
Geology Department
North Dakota State University

The biases of the writer (F. D. Holland) are clearly explained in Holland and Klosterman (1977). Briefly they are (1) that too little consideration is given by professional geologists and the public alike to the benefits that can be obtained from study of fossils, and (2) that fossils are an extremely valuable resource because of their rarity and antiquity. They are valuable for (a) the scientific information they can provide for the serious geologist and, for (b) the general cultural enrichment that can be gained by their study.

Underlying bias augmented during the reconnaissance study of this beautiful area is that "the floodplain belongs to the river." With such an expanse of relatively drab, uninspiring, rolling or level upland available in North Dakota, it seems unwise to alter (or drown) the richly vegetated upper Souris River.

¹⁾ It might be noted that strata herein referred to as the Tongue River Formation are now more precisely called the Bullion Creek Formation according to information published since the original preparation of this report (Clayton and others, 1977; Bluemle 1977)

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SELECTED REFERENCES (PALEONTOLOGY) Cont.

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SUMMARY

A preliminary field reconnaissance and literature survey of archaeological, historical, and paleontological resources in the Burlington Dam project have indicated that the project locale is one in which few field investigations have taken place and one which is poorly represented in the professional literature of each of the above disciplines. However, indications are that the area is one which will require a great deal of investigation, particularly so in terms of archaeological and historical studies, prior to construction phases of the Burlington Dam and associated projects.

While there are few archaeological sites recorded in the project locale, there are a considerable number of site leads recorded throughout the Souris basin. Examination of artifact collections and a literature examination provide the suggestion that one may find sites and artifacts of prehistoric man in this area dating as old as 3,000 B.C. and perhaps as old as 9,000 B.C. It is anticipated that burial mounds, tipi rings, rock cairns, campsites, and lithic scattered sites will be found in the project area.

Examination of the literature on the early White settlement of the area indicates that trading posts, military campsites, homesteads, abandoned townsites, trails, post offices, bridges, and a mill can be found in the project area. In addition, there is evidence of historic Indian and Metis sites throughout the area.

Fossil sites do occur in the project locale though paleontological field investigations have not been of common occurrence in

the area. It is not anticipated, however, that fossil sites will be greatly modified by construction of the project and it has been recommended here that a paleontologist be informed of any fossil exposure.

In general, it appears that it will require at least one year to conduct field inventories of the cultural resources in the project area. This work would search out, record, and evaluate site, buildings, trails, bridges, and locations of cultural interest. Cost of this work could range from \$60,000 to \$80,000.

APPENDIX A

ARCHAEOLOGICAL SITES AND SITE LEADS

APPENDIX A

ARCHAEOLOGICAL SITES

Bottineau County

32BU401

NW $\frac{1}{4}$, NW $\frac{1}{4}$, NW $\frac{1}{4}$ Sec. 35 T. 163N R. 83W

"Many Rooms Homestead"

Historic

Site appears to be the remains of an old homestead. Rock foundations for four structures are well sodded in but still visible on the surface. Structures 1 and 2 are fairly large. Two partitions in structure #2. #3 has been used as a dump.

Recorded by: G. Carmichael 7/23/74

McHenry County

No archaeological sites have been recorded in McHenry County to date.

Renville County

No archaeological sites have been recorded in Renville County to date.

Ward County

- 32WD1 SE $\frac{1}{4}$ Sec.31 T.161N R.88W
Undetermined
Cultural Affiliation - Unknown
Bison bone found on surface but no cultural
material found on surface or in test pits.
Recorded by: J. Bauxar 9/10/46
- 32WD101 NE $\frac{1}{4}$,SW $\frac{1}{4}$,NW $\frac{1}{4}$ Sec.26 T.156N R.84W
Rock Cairn
Cultural Affiliation - Unknown
Site consists of a pile of rock partially
sodded-in. Cairn is roughly circular, 3.8
feet long E-W and 3.3 feet long N-S.
Recorded by: N. Franke 10/15/74
- 32WD102 SE $\frac{1}{4}$,SE $\frac{1}{4}$,NW $\frac{1}{4}$ Sec.26 T.156N R.84W
Rock Cairn
Cultural Affiliation - Unknown
A single, partially sodded-in, rock cairn
which is 3.7 feet E-W and 3.4 feet N-S
composes this site.
Recorded by: N. Franke 10/15/74
- 32WD103 NW $\frac{1}{4}$,NW $\frac{1}{4}$ Sec.25 T.156N R.84W
Mound
Cultural Affiliation - Unknown
A single, disturbed mound 6 feet in diameter
and 0.5 feet tall comprises this site.
Recorded by: N. Franke 11/6/74
- 32WD104 NW $\frac{1}{4}$,NW $\frac{1}{4}$ Sec.25 T.156N R.84W
Rock Cairn
Cultural Affiliation - Unknown
A single rock cairn approximately 5 by 8
feet and oval-shaped comprises this site.
Recorded by: N. Franke 11/6/74
- 32WD105 SE $\frac{1}{4}$,NW $\frac{1}{4}$ Sec.5 T.156N R.84W
Stone Alignment
Cultural Affiliation - Unknown
Nine stones, partially sodded-in, forming
an arc or semi-circle with one stone in the
approximate center inside the arc.
Recorded by: N. Franke 11/7/74

Ward County (Cont.)

- 32WD106 SE $\frac{1}{4}$, SE $\frac{1}{4}$ Sec.16 T.156N R.84W
Stone Alignment/Stone Circle
Cultural Affiliation - Unknown
Site consists of a rectangular stone alignment (possible fireplace) and a stone arc (remaining half of a tipi ring or stone circle).
Recorded by: N. Franke 11/74
- 32WD107 NE $\frac{1}{4}$, SW $\frac{1}{4}$ Sec.14 T.156N R.84W
Stone Circles
Cultural Affiliation - Unknown
Site consists of 2 stone rings, each approximately 16 feet in diameter.
Recorded by: N. Franke 11/74
- 32WD108 SE $\frac{1}{4}$, SE $\frac{1}{4}$ Sec.10 T.156N R.84W
Stone Circle
Cultural Affiliation - Unknown
Site consists of a stone circle, the east half of which consists of 2 rows of stone. The circle is 15.8 feet in diameter and appears to be associated with a fire basin.
Recorded by: N. Franke 11/74
- 32WD109 Center E $\frac{1}{2}$ Sec.29 T.152N R.81W
Lithic Scatter
Cultural Affiliation - Unknown
Scatter of flakes on surface of a field. Stone tools collected include one "eared" projectile point and one thumbnail end-scraper.
Recorded by: C. Dill 4/28/76
- 32WD110 Center NE $\frac{1}{4}$ Sec.29 T.152N R.81W
"Wyman Mine (1942-43); Wagner Coal Mine (1944-47); Nelson Coal Mine (1948-49)"
Historic
Historic underground mining area. Most of tipple standing. Many collapsed areas surround the complex. Several standing buildings and other features.
Recorded by: C. Dill 4/28/76

ARCHAEOLOGICAL SITE LEADS

Bottineau County

T.159N R.82W SW $\frac{1}{4}$ S.17	2. Stone Circle 4. Eva Hanadel - 1930 - data form - SHSND survey files	3.
T.160N R.79W SW $\frac{1}{4}$, NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.1	2. Campsite 4. Thad Hecker - 1937	3.
T.160N R.79W NW $\frac{1}{4}$, SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.12	2. Campsite 4. Thad Hecker - 1937	3.
T.160N R.79W W $\frac{1}{2}$, NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.13	2. Campsite 4. Thad Hecker - 1937	3.
T. 160N R.79W SW $\frac{1}{4}$, SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.36	2. Campsite 4. Thad Hecker - 1937	3.
T.160N R.79W S $\frac{1}{2}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.36	2. Campsite 4. Thad Hecker - 1937	3.
T.160N R.79W Center, SE $\frac{1}{4}$ S.36	2. Campsite 4. Thad Hecker - 1937	3.
T.160N R.82W Center S.1	2. Campsite 4. Thad Hecker - 1937	3. In blow out area
T.160N R.82W NE $\frac{1}{4}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.9	2. Campsite 4. Thad Hecker - 1937	3.
T.160N R.82W SW $\frac{1}{4}$, NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.13	2. Campsite 4. Thad Hecker - 1937	3.
T.160N R.82W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.13	2. Campsite 4. Thad Hecker - 1937	3. Fair

BOTTINEAU COUNTY (Cont.)

T.161N R.79W	2. Campsite	3.
NW $\frac{1}{4}$, NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.3	4. Thad Hecker - 1937	
W. side of river		

T.161N R.79W	2. Campsite	3.
NW $\frac{1}{4}$, SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.3	4. Thad Hecker - 1937	
W. side of river		

T.161N R.79W	2. Campsite	3.
NE $\frac{1}{4}$, NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.3	4. Thad Hecker - 1937	
W. side of river		

T.161N R.79W	2. Campsite	3.
Center N $\frac{1}{2}$, SW $\frac{1}{4}$ S.11	4. Thad Hecker - 1937	
W. side of river		

T.161N R.79W	2. Campsite	3.
NW $\frac{1}{4}$, SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.11	4. Thad Hecker - 1937	
W. side of river		

T.161N R.79W	2. Campsite	3.
SE $\frac{1}{4}$, NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.13	4. Thad Hecker - 1937	

T.161N R.79W	2. Campsite	3.
Center NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.13	4. Thad Hecker - 1937	

T.161N R.79W	2. Campsite	3.
NW $\frac{1}{4}$, NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.14	4. Thad Hecker - 1937	

T.161 R.79W	2. Campsite	3.
SE $\frac{1}{4}$, NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.14	4. Thad Hecker - 1937	

T.161N R.79W	2. Campsite	3.
SW $\frac{1}{4}$, SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.24	4. Thad Hecker - 1937	

BOTTINEAU COUNTY (Cont.)

T.161N R.79W Center, NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.35	2. Campsite 4. Thad Hecker - 1937	3.
T.162N R.72W NW $\frac{1}{4}$, NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.32	2. Campsite 4. Thad Hecker - 1937 (Oct.)	3.
T.162N R.79W NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.7	2. Campsite 4. Thad Hecker - 1937 (Oct.)	3.
T.162N R.79W NE $\frac{1}{4}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.17	2. Campsite 4. Thad Hecker - 1937 (Oct.)	3.
T.162N R.79W NW $\frac{1}{4}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.20	2. Campsite 4. Thad Hecker - 1937 (Oct.)	3.
T.162N R.79W NW $\frac{1}{4}$, SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.20	2. Campsite 4. Thad Hecker - 1937 (Oct.)	3.
T.162N R.79W SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.20	2. Campsite 4. Thad Hecker - 1937 (oct.)	3.
T.162N R.79W Center, N $\frac{1}{2}$, SW $\frac{1}{4}$ S.21	2. Campsite 4. Thad Hecker - 1937 (oct.)	3.
T.162N R.79W Center, NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.21	2. Campsite 4. Thad Hecker - 1937 (Oct.)	3.
T.162N R.79W Center, SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.28	2. Campsite 4. Thad Hecker - 1937 (Oct.)	3.
T.162N R.79W NE $\frac{1}{4}$, NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.29	2. Campsite 4. Thad Hecker - 1937 (Oct.)	3.

BOTTINEAU COUNTY (Cont.)

T.162N R.79W 2. Campsite 3.
Center, N $\frac{1}{2}$, NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.29 4. Thad Hecker - 1937 (Oct.)

T.162N R.79W 2. Campsite 3.
Center, N $\frac{1}{2}$, NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.32 4. Thad Hecker - 1937 (Oct.)

T.162N R.79W 2. Campsite 3.
NW $\frac{1}{4}$, NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.33 4. Thad Hecker - 1937 (Oct.)

T.163N R.77W 2. Occupation/Burials 3.
S.8 4. Informant: John M. Molberg, 809 Brander St.,
Bottineau, ND
Letter in site leads file - SHSND

T.164N R.82W 2. Campsite 3.
Center, SW $\frac{1}{4}$ S.25 4. Thad Hecker - 1937

T.164N R.82W 2. Campsite 3.
NW $\frac{1}{4}$, SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.28 4. Thad Hecker - 1937

T.164N R.82W 2. Campsite 3.
SE $\frac{1}{4}$, NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.34 4. Thad Hecker - 1937

T.164N R.82W 2. Campsite 3.
SW $\frac{1}{4}$, SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.34 4. Thad Hecker - 1937

T.164N R.82W 2. Campsite 3.
Center, NW $\frac{1}{4}$ S.35 4. Thad Hecker - 1937

McHENRY COUNTY
SITE LEADS

20 mi. NE of buffalo
lodge; 45 mi. NE of
Minot

2. Pottery - plain and roughened 3.
4. Wood, 1962, Vol. 7, No. 18, p. 232

T.151N R.75W
SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.7

2. Habitation 3.
4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.75W
SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.10

2. Habitation 3.
4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.75 W
NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.15

2. Habitation 3.
4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.75W
NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.16

2. Habitation 3.
4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.75W
NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.16

2. Habitation 3.
4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.75W
NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.18

2. Habitation 3.
4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.75W
NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.22

2. Habitation 3.
4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.75W
NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.22

2. Habitation 3.
4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.75W
SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.25

2. Habitation 3.
4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.75W
SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.26

2. Habitation 3.
4. Hecker - 1937 - W.P.A. Survey Report

McHENRY COUNTY (Cont.)

T.151N R.75W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.75W SW $\frac{1}{4}$,NE $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.75W NW $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.75W NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.28	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.75W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.76W NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.6	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R. 76 W SW $\frac{1}{4}$,SE $\frac{1}{4}$ S.7	2. Habitation 4. Hecker - 1937- W.P.A. Survey Report	3.
T.151N R.76W SW $\frac{1}{4}$,SE $\frac{1}{4}$ S.17	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.76W SW $\frac{1}{4}$,SW $\frac{1}{4}$ S.17	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.76W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.20	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.76W W $\frac{1}{2}$,NE $\frac{1}{4}$ S.20	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.

McHENRY COUNTY (Cont.)

T.151N R.76W SW $\frac{1}{4}$,SW $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.76W SE $\frac{1}{4}$,SW $\frac{1}{4}$ S.27	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.76W SW $\frac{1}{4}$,SW $\frac{1}{4}$ S.27	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.76W Center NE $\frac{1}{4}$ S.28	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.76W Center NW $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.76W Center NE $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.77W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.3	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.77W NE $\frac{1}{4}$,NE $\frac{1}{4}$ S.6	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.77W NW $\frac{1}{4}$,SE $\frac{1}{4}$ S.11 NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.11	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.77W N $\frac{1}{2}$,SE $\frac{1}{4}$ S.12	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.77W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.12	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.77W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.

McHENRY COUNTY (Cont.)

T.151N R.78W NW $\frac{1}{4}$,SE $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.78W NW $\frac{1}{4}$,NE $\frac{1}{4}$ S.8	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.78W Center W $\frac{1}{2}$,NW $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.78W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.78W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.17	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.78W NW $\frac{1}{4}$,SW $\frac{1}{4}$ S.17	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T. 151N R.78W SW $\frac{1}{4}$,SE $\frac{1}{4}$ S.17	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.78W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.17	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.78W NW $\frac{1}{4}$,SE $\frac{1}{4}$ S.20	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.78W Center SW $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.79W SW $\frac{1}{4}$,NE $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.151N R.79W SE $\frac{1}{4}$,SE $\frac{1}{4}$ S.23	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.

AD-A140 834

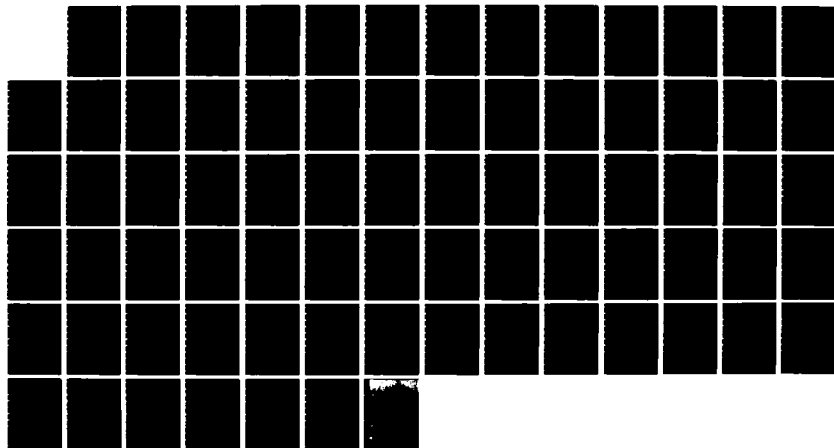
PRELIMINARY CULTURAL RESOURCE INVESTIGATION OF THE
UPPER SOURIS RIVER BAS. (U) NORTH DAKOTA UNIV GRAND
FORKS DEPT OF ANTHROPOLOGY AND ARCHEE. F E SCHNEIDER
09 SEP 77 DACW37-77-M-1387

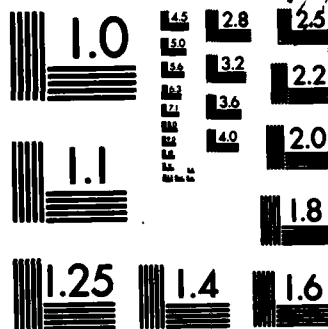
2/2

UNCLASSIFIED

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NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

McHENRY COUNTY (Cont.)

T.151N R.79W 2. Habitation 3.
Center NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.24 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.79W 2. Habitation 3.
Center SE $\frac{1}{4}$ S.31 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.79W 2. Habitation 3.
Center SW $\frac{1}{4}$ S.32 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.79W 2. Habitation 3.
SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.32 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.79W 2. Habitation 3.
SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.33 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.80W 2. Habitation 3.
Center SE $\frac{1}{4}$ S.1 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.80W 2. Habitation 3.
Center SW $\frac{1}{4}$ S.1 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.80 2. Habitation 3.
NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.1 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.80W 2. Habitation 3.
SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.2 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.80W 2. Habitation 3.
Center S.7 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.80W 2. Habitation 3.
Center SW $\frac{1}{4}$ S.16 4. Hecker - 1937 - W.P.A. Survey Report

T.151N R.80W 2. Habitation 3.
On line between 4. Hecker - 1937 - W.P.A. Survey Report
NE $\frac{1}{4}$, SW $\frac{1}{4}$ and NW $\frac{1}{4}$,
SE $\frac{1}{4}$ S.17

McHENRY COUNTY (Cont.)

T.151N R.80W Center S.20	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.151N R.80W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.21	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.151N R.80W NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.21	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.151N R.80W S $\frac{1}{2}$, NW $\frac{1}{4}$ S.22	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.151N R.80W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.22	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.151N R.80W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.23	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.151N R.80W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.24	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.151N R.80W Center S $\frac{1}{2}$, SE $\frac{1}{4}$ S.24	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.151N R.80W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.36	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.152N R.78W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.7	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.152N R.78W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.16	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report
T.152N R.78W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.20	2. Habitation 3. 4. Hecker - 1937 - W.P.A. Survey Report

McHENRY COUNTY (Cont.)

T.152N R.78W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.29	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.152N R.78W SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.152N R.78W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.152N R.78W Center N $\frac{1}{2}$, NE $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.152N R.78W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.152N R.80W NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.152N R.80W SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.152N R.80W Center SW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.75W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.3	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.75W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.8	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.75W S $\frac{1}{2}$, NW $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.

McHENRY COUNTY (Cont.)

T.153N R.75W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.11	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.75W NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.75W W $\frac{1}{2}$,SW $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.75W SW $\frac{1}{4}$,NW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.76W NW $\frac{1}{4}$,SE $\frac{1}{4}$ S.2	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.78W SW $\frac{1}{4}$,SW $\frac{1}{4}$ S.4	2. Village or camp 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.78W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.14	2. Village or camp 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.78W SW $\frac{1}{4}$,SE $\frac{1}{4}$ S.16	2. Village or camp 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.78W N $\frac{1}{2}$,NW $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.79W SE $\frac{1}{4}$,NW $\frac{1}{4}$ S.2	2. Round mound 4. Dana Wright - 1930 - data form; SHSND Survey file	3.
T.153N R.79W SE $\frac{1}{4}$,SW $\frac{1}{4}$ S.2	2. Long mound 4. Dana Wright - 1930 - data form; SHSND Survey file	3.
T.153N R.79W S $\frac{1}{2}$,NW $\frac{1}{4}$ S.3	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.

McHENRY COUNTY (Cont.)

T.153N R.79W SW $\frac{1}{4}$,NE $\frac{1}{4}$ S.4	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.79W NE $\frac{1}{4}$,NW $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.79W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.79W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.11	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.79W SE $\frac{1}{4}$,NW $\frac{1}{4}$ S.11	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.79W SE $\frac{1}{4}$,NW $\frac{1}{4}$ S.25 SW $\frac{1}{4}$,NE $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.79W N $\frac{1}{2}$,NW $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.80W SE $\frac{1}{4}$,NW $\frac{1}{4}$ S.24	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.80W SE $\frac{1}{4}$,SE $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.80W SW $\frac{1}{4}$,NW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.153N R.80W S $\frac{1}{2}$,SW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.

McHENRY COUNTY (Cont.)

T.153N R.80W S $\frac{1}{2}$,SE $\frac{1}{2}$ S.36	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.75W NW $\frac{1}{2}$ S.3	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.75W SE $\frac{1}{2}$,SW $\frac{1}{2}$ S.13	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.75W On border of SE $\frac{1}{2}$ S.14 and NE $\frac{1}{2}$ S.23	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.75W SW $\frac{1}{2}$,SW $\frac{1}{2}$ S.20	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.75W Center SW $\frac{1}{2}$ S.21	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.75W On the border between SE $\frac{1}{2}$ S.26 and NE $\frac{1}{2}$ S.35	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.75W S $\frac{1}{2}$,SE $\frac{1}{2}$ S.27	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.76W NW $\frac{1}{2}$,SE $\frac{1}{2}$ S.2	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.76W N $\frac{1}{2}$,NW $\frac{1}{2}$ S.2	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.76W NE $\frac{1}{2}$,NE $\frac{1}{2}$ S.3	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.

McHENRY COUNTY (Cont.)

T.154N R.77W NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.4	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.77W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.77W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.77W E side of SE $\frac{1}{4}$ S.14	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.77W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.27	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.78W NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.12	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.78W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.14	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.78W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.15	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.78W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.78W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.28	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.78W NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.31	2. David Thompson Memorial 4.	3.
T.154N R.79W Center NE $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.

McHENRY COUNTY (Cont.)

T.154N R.79W Center SW $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1939 - W.P.A. Survey Report	3.
T.154N R.79W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.33	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.79W SW $\frac{1}{4}$,NW $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.79W Center NE $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.79W NE $\frac{1}{4}$,NE $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.79W SE $\frac{1}{4}$,SW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.154N R.79W N $\frac{1}{2}$,SW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.155N R.75W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.22	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.155N R.75W NW $\frac{1}{4}$,NE $\frac{1}{4}$ S.23	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.155N R.75W NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.26 and NW $\frac{1}{4}$,SW $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.155N R.75W SW $\frac{1}{4}$,SE $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.155N R.75W NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.

McHENRY COUNTY (Cont.)

T.155N R.75W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.155N R.77W Center SW $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.155N R.77W Center NW $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.156N R.76W SW $\frac{1}{4}$, NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.24	2. Twining Expedition Campsite 4. National Register Historic Places Registry	3.
T.156N R.78W on the center of the line between Secs. 7 & 18	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.156N R.78W W $\frac{1}{2}$, SW $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.156N R.78W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.156N Between R.78W & R.79W	2. Pottery (cord-roughened) 4. UNDAR, 1962	3. Buffalo Lodge Lake
T.156N R.79W NE $\frac{1}{4}$ S.8 and SW $\frac{1}{4}$ S.5	2. 6 mounds 4. Informant was Ralph Thompson of Bismarck	3.
T.156N R.79W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.12	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.156N R.79W N $\frac{1}{2}$ of SW $\frac{1}{4}$ S.13	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.156N R.79W Center SW $\frac{1}{4}$ S.16	2. Buffalo jump or trap 4. Informant was Ralph Thompson of Bismarck, ND	3.

McHENRY COUNTY (Cont.)

T.156N R.79W Center S.21	2. Habitation 4. Informant was Ralph Thompson of Bismarck, ND	3.
T.156N R.79W SE $\frac{1}{4}$,SW $\frac{1}{4}$ S.24 and NE $\frac{1}{4}$,NW $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.156N R.80W NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.29	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.156N R. 80W NW $\frac{1}{4}$,SE $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.157N R.75W NW $\frac{1}{4}$,NE $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.157N R.75W SW $\frac{1}{4}$,NE $\frac{1}{4}$ and SE $\frac{1}{4}$,NW $\frac{1}{4}$ S.18	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.157N R.75W NW $\frac{1}{4}$,SE $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.157N R.76W NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.157N R.78W NW $\frac{1}{4}$,NE $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1937 - W.P.A. Survey Report	3.
T.159N R.76W SE $\frac{1}{4}$,NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.24	2. Military Campsite - Training Expedition - 1869 4. Informant: Robert C. Fields - J. Clark Salyer Refuge National Register Application	3.

RENVILLE COUNTY
SITE LEADS

T.158N R.82W NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.10	2. 4. Hecker - 1938	3.
T.158N R.82W NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.15	2. 4. Hecker - 1938	3.
T.158N R.82W Between SW $\frac{1}{4}$ S.16 and NW $\frac{1}{4}$ S.21	2. 4. Hecker - 1938	3.
T.158N R.82W NE $\frac{1}{4}$ S.34	2. 4. Hecker - 1938	3.
T.158N R.83W NE $\frac{1}{4}$ S.11	2. 4. Hecker - 1938	3.
T.158N R.83W NW $\frac{1}{4}$ S.19 SW $\frac{1}{4}$ S.30	2. 4. Hecker - 1938	3.
T.158N R.83W Center SW $\frac{1}{4}$ S.30	2. Campsite 4. Hecker - 1938	3.
T.158N R.83W NE $\frac{1}{4}$ S.35 N $\frac{1}{2}$, SW $\frac{1}{4}$ S.36	2. 4. Hecker 1938	3.
T.158N R.84W NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.6	2. Campsite 4. Hecker - 1938 (Jan.)	3. Cultivated
T.158N R.84W On line between NW $\frac{1}{4}$ and NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.7	2. Campsite 4. Hecker - 1938	3. Surface disturbed
T.158N R.84W Center W $\frac{1}{2}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$, S.8	2. Campsite 4. Hecker - 1938	3. Cultivated

RENVILLE COUNTY (Cont.)

T.158N R.84W Center SE $\frac{1}{4}$ S.9	2. Blown area with artifacts of 5 cultures 4. Hecker	3. Artifacts scattered and broken
T.158N R.84W SE $\frac{1}{4}$, NW $\frac{1}{4}$, SE $\frac{1}{4}$, S.9	2. Campsite 4. Hecker - 1938	3.
T.158N R.84W Center SE $\frac{1}{4}$ S.12	2. Campsite 4. Hecker - 1938	3. Cultivated
T.158N R.84W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.12	2. Large campsite of tipi rings (100 acres) 4. Hecker - 4/14/37	3. Covered with dirt - little evidence of campsite
T.158N R.84W Center of line between NE $\frac{1}{4}$ and SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.16	2. Campsite 4. Hecker - 1938	3. Cultivated
T.158N R.84W on line between NE $\frac{1}{4}$ and SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.18	2. Campsite 4. Hecker - 1938	3. Cultivated
T.158N R.84W SW $\frac{1}{4}$, NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.20 Center NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.21	2. Campsites 4. Hecker - 1938	3. Cultivated
T.158N R.84W SE $\frac{1}{4}$, NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.21	2. Campsite 4. Hecker - 1938	3. Cultivated
T.158N R.84W Center N $\frac{1}{2}$, NW $\frac{1}{4}$ S.27	2. Burial 4. Hecker	3.
T.158N R.84W SW $\frac{1}{4}$, NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.28	2. Campsite 4. Hecker - 1938	3. Surface disturbed

RENVILLE COUNTY (Cont.)

T.158N R.84W On line between NW $\frac{1}{4}$ and SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.29	2. Campsite 4. Hecker - 1938	3. Cultivated
T.158N R.84W Center of line between NE $\frac{1}{4}$ and SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.30	2. Campsite 4. Hecker - 1938	3. Disturbed surface
T.158N R.85W NE $\frac{1}{4}$, NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.1	2. Campsite 4. Hecker - 1938	3. Cultivated
T.158N R.85W SW $\frac{1}{4}$, SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.3	2. Campsite 4. Hecker - 1938	3.
T.158N R.85W SW $\frac{1}{4}$, NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.9	2. Campsite 4. Hecker - 1938	3. Surface disturbed
T.158N R.85W Center of SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.11	2. Campsite 4. Hecker - 1938	3. Surface disturbed
T.158N R.85W NE $\frac{1}{4}$, SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.19 SW $\frac{1}{4}$, NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.19	2. Campsite 4. Hecker - 1938	3.
T.158N R.85W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.34 SE $\frac{1}{4}$, NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.34	2. Campsite 4. Hecker - 1938	3. 1st site cultivated
T.158N R.85W NW $\frac{1}{4}$, NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.36 On line between NW $\frac{1}{4}$ and SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.36 NW $\frac{1}{4}$, NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.36	2. Campsites 4. Hecker - 1938	3.

RENVILLE COUNTY (Cont.)

T.158N R.86W NW $\frac{1}{4}$,SE $\frac{1}{4}$,SW $\frac{1}{4}$ S.19	2. Campsite 4. Hecker - 1938	3. Cultivated
T.158N R.86W S.28 (Also S.26, 1916-18)	2. Historic - White Ash Coal Mine 4. State Eng. Report, 1909-10	3.
T.158N R.86W NE $\frac{1}{4}$,SE $\frac{1}{4}$,SW $\frac{1}{4}$ S.28	2. Campsite 4. Hecker - 1938	3. Cultivated
T.158N R.86W SE $\frac{1}{4}$ S.28	2. Tipi rings 4. W.B. Paterson - 1930 - data form; SHSND survey file	3.
T.158N R.86W NW $\frac{1}{4}$,SW $\frac{1}{4}$ S.29	2. Historic - Jewell Coal Mine 4. State Eng. Report, 1909-10	3.
T.158N R.86W NW $\frac{1}{4}$,SE $\frac{1}{4}$,SE $\frac{1}{4}$ S.29 NW $\frac{1}{4}$,SE $\frac{1}{4}$,NW $\frac{1}{4}$ S.29	2. Campsite 4. Hecker - 1938	3. Cultivated
T.158N R.86W SW $\frac{1}{4}$,NW $\frac{1}{4}$,SW $\frac{1}{4}$ S.29	2. Campsite 4. Hecker - 1938	3. Cultivated
T.158N R.86W Center of line between NW $\frac{1}{4}$ and SW $\frac{1}{4}$ S.30	2. Campsite 4. Hecker - 1938	3.
T.158N R.86W On line between SE $\frac{1}{4}$ NE $\frac{1}{4}$ and the NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.31	2. Campsite 4. Hecker - 1938	3. Disturbed surface
T.158N R.86W Center of NE $\frac{1}{4}$ S.33 On line between NE $\frac{1}{4}$ and NW $\frac{1}{4}$,SE $\frac{1}{4}$ S.33	2. Campsite 4. Hecker - 1938	3. 1st site - cultivated; 2nd site - surface disturbed

RENVILLE COUNTY (Cont.)

T.158N R.86W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.33	2. Historic - Spring Farm Coal Mine (Pehelka Coal Mine, 1911-12 4. State Eng. Report, 1909-10	3.
T.158N R.86W S.34	2. Historic - Wooster Coal Mine 4. State Eng. Report	3.
T.158N R.86W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.35	2. Historic - Christopher- son Coal Mine 4. State Eng. Report, 1909-10	3.
T.158N R.86W On line between SW $\frac{1}{4}$ and NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.35 NE $\frac{1}{4}$, SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.35	2. Campsites Hecker - 1938 4.	3. Both are cultivated
T.158N R.86W NW $\frac{1}{4}$, SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.36	2. Campsite Hecker - 1938 4.	3. Cultivated
T.159N R.84W NW $\frac{1}{4}$ S.11	2. Campsite Hecker - 1938 4.	3.
T.159N R.84W SW $\frac{1}{4}$ S.18	2. Hecker - 1938 4.	3.
T.159N R.84W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.23	2. Campsite Hecker - 1938 4.	3.
T.159N R.84W NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.31 E $\frac{1}{2}$, NE $\frac{1}{4}$ S.31, SW $\frac{1}{4}$ S.31	2. Campsite Hecker - 1938 4.	3.
T.159N R.85W SW $\frac{1}{4}$ S.2	2. Hecker - 1938 4.	3.

RENVILLE COUNTY (Cont.)

T.159N R.85W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.3	2. 4. Hecker - 1938	3.
T.159N R.85W NE $\frac{1}{4}$ S.10, NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.10	2. 4. Hecker - 1938	3.
T.159N R.85W NW $\frac{1}{4}$ S.14, SE $\frac{1}{4}$ S.14	2. Campsite 4. Hecker - 1938	3.
T.159N R.85W SE $\frac{1}{4}$ S.23	2. Campsite 4. Hecker - 1938	3.
T.159N R.85W NW $\frac{1}{4}$ S.24	2. Campsite 4. Hecker - 1938	3.
T.159N R.85W NW $\frac{1}{4}$,SE $\frac{1}{4}$ S.26, on S section line of S.26 and S.25	2. Campsite 4. Hecker - 1938	3.
T.159N R.85W SW $\frac{1}{4}$,NE $\frac{1}{4}$ S.36 SW $\frac{1}{4}$ S.36	2. 4. Hecker - 1938	3.
T.159N R.86W NW $\frac{1}{4}$ S.5	2. Campsite 4. Hecker - 1938	3.
T.159N R.86W SE $\frac{1}{4}$,SW $\frac{1}{4}$,S.17 SW $\frac{1}{4}$ S.16	2. Campsite 4. Hecker - 1936	3.
T.159N R.86W SE $\frac{1}{4}$ S.21, NW $\frac{1}{4}$ S.23 SE $\frac{1}{4}$ S.35	2. 4. Hecker - 1936	3.

RENVILLE COUNTY (Cont.)

T.160N R.84W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.6	2. Campsite 4. Hecker - 1938	3.
T.160N R.84W NE $\frac{1}{4}$ S.8	2. Campsite 4. Hecker - 1938	3.
T.160N R.84W SE $\frac{1}{4}$ S.16	2. Campsite 4. Hecker - 1938	3.
T.160N R.84W SE $\frac{1}{4}$ S.18	2. Campsite 4. Hecker - 1938	3.
T.160N R.84W NE $\frac{1}{4}$ S.27	2. Campsite 4. Hecker - 1938	3.
T.160N R.85W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.7	2. Campsite 4. Hecker - 1936	3.
T.160N R.85W NW $\frac{1}{4}$ S.18	2. 4. Hecker - 1936	3.
T.160N R.85W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.19	2. 4. Hecker - 1936	3.
T.160N R.85W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.20	2. 4. Hecker - 1936	3.
T.160N R.85W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.28	2. 4. Hecker - 1936	3.
T.160N R.85W NE $\frac{1}{4}$ S.31	2. 4. Hecker - 1936	3.
T.160N R.85W N $\frac{1}{2}$, SE $\frac{1}{4}$ S.32	2. 4. Hecker - 1936	3.

RENVILLE COUNTY (Cont.)

T.160N R.85W N $\frac{1}{2}$,NW $\frac{1}{4}$ S.33	2. 4. Hecker - 1936	3.
T.160N R.85W SW $\frac{1}{4}$ S.34	2. 4. Hecker - 1936	3.
T.160N R.85W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.36 NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.36	2. 4. Hecker - 1936	3.
T.160N R.86W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.1 NE $\frac{1}{4}$ S.1	2. 4. Hecker - 1938	3.
T.160N R.86W NW $\frac{1}{4}$,NE $\frac{1}{4}$ S.2	2. 4. Hecker - 1938	3.
T.160N R.86W NE $\frac{1}{4}$,NW $\frac{1}{4}$ S.7	2. 4. Hecker - 1938	3.
T.160N R.86W NE $\frac{1}{4}$,NE $\frac{1}{4}$ S.11 N $\frac{1}{2}$,SE $\frac{1}{4}$ S.11	2. 4. Hecker - 1938	3.
T.160N R.86W N $\frac{1}{2}$,SE $\frac{1}{4}$ S.12	2. 4. Hecker - 1938	3.
T.160N R.86W NW $\frac{1}{4}$,NE $\frac{1}{4}$ S.13	2. 4. Hecker 1938	3.
T.160N R.86W SE $\frac{1}{4}$ S.18	2. 4. Hecker - 1938	3.
T.161N R.83W SW $\frac{1}{4}$,SE $\frac{1}{4}$ S.20	2. Historic - Farmer's Lignite Coal Mine 4. State Eng. Report, 1911-12	3.

RENVILLE COUNTY (Cont.)

T.161N R.84W SW $\frac{1}{4}$ S.16	2. 4. Hecker - 1938	3.
T.161N R.84W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.19	2. 4. Hecker - 1938	3.
T.161N R.84W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.32	2. 4. Hecker - 1938	3.
T.161N R.85W NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.30 SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.30	2. Campsite 4. Hecker - 1938	3.
T.161N R.85W NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.31 NE $\frac{1}{2}$, SW $\frac{1}{4}$ S.31	2. Campsite 4. Hecker - 1938	3.
T.161N R.85W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.32 W $\frac{1}{2}$, NE $\frac{1}{4}$ S.32	2. Campsite 4. Hecker - 1938	3.
T.161N R.86W W $\frac{1}{2}$, SW $\frac{1}{4}$ S.2	2. 4. Hecker - 1938	3.
T.161N R.86W NW $\frac{1}{4}$ S.3	2. 4. Hecker - 1938	3.
T.161N R.86W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.11 S $\frac{1}{2}$, NE $\frac{1}{4}$ S.11	2. 4. Hecker - 1938	3.
T.161N R.86W On line on E $\frac{1}{2}$ of NE $\frac{1}{4}$ and SE $\frac{1}{4}$ S.14	2. 4. Hecker - 1938	3.
T.161N R.86W E $\frac{1}{2}$, NE $\frac{1}{4}$ S.24 S $\frac{1}{2}$, SW $\frac{1}{4}$ S.24	2. 4. Hecker - 1938	3.

RENVILLE COUNTY (Cont.)

T.161N R.86W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.25 SW $\frac{1}{4}$ S.25	2. 4. Hecker - 1938	3.
T.162N R.84W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.8	2. 4. Hecker - 1938	3.
T.162N R.84W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.22	2. 4. Hecker - 1938	3.
T.162N R.85W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.1	2. 4. Hecker - 1938	3.
T.162N R.86W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.6	2. 4. Hecker - 1938	3.
T.162N R.86W On line between SW $\frac{1}{4}$ and SE $\frac{1}{4}$ S.7	2. 4. Hecker - 1938	3.
T.162N R.86W NW $\frac{1}{4}$ S.14	2. 4. Hecker - 1938	3.
T.162N R.86W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.17 SE $\frac{1}{4}$ S.17	2. 4. Hecker - 1938	3.
T.162N R.86W SE $\frac{1}{4}$ S.20	2. 4. Hecker - 1938	3.
T.162N R.86W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.29	2. 4. Hecker - 1938	3.
T. 162N R.86W NE $\frac{1}{4}$ S.33	2. 4. Hecker - 1938	3.
T.162N R.86W SW $\frac{1}{4}$ S.34 SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.34	2. 4. Hecker - 1938	3.

RENVILLE COUNTY (Cont.)

T.162N R.86W NW $\frac{1}{2}$,SW $\frac{1}{2}$ S.36	2. 4. Hecker - 1938	3.
T. 162N R.87W SW $\frac{1}{2}$,NE $\frac{1}{2}$ S.1	2. Campsite 4. Hecker - 1938	3.
T.162N R.87W NW $\frac{1}{2}$ S.22	2. 4. Hecker - 1938	3.
T.163N R.84W NW $\frac{1}{2}$,SW $\frac{1}{2}$ S.4	2. 4. Hecker - 1938	3.
T.163N R.84W NE $\frac{1}{2}$ S.16	2. 4. Hecker - 1938	3.
T.163N R.84W S $\frac{1}{2}$,NW $\frac{1}{2}$ S.23	2. 4. Hecker - 1938	3.
T.163N R.84W W $\frac{1}{2}$,NE $\frac{1}{2}$ S.36	2. 4. Hecker - 1938	3.
T.163N R.85W SW $\frac{1}{2}$ S.13	2. 4. Hecker - 1938	3.
T.163N R.85W NW $\frac{1}{2}$ S.16	2. 4. Hecker - 1938	3.
T.163N R.86W NW $\frac{1}{2}$,NW $\frac{1}{2}$ S.8	2. 4. Hecker - 1938	3.
T.163N R.86W N $\frac{1}{2}$,NW $\frac{1}{2}$ S.20	2. 4. Hecker - 1938	3.
T.163N R.86W SE $\frac{1}{2}$ S.33	2. 4. Hecker - 1938	3.

RENVILLE COUNTY (Cont.)

T.163N R.87W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.3	2. 4. Hecker - 1938	3.
T.163N R.87W N $\frac{1}{2}$, NE $\frac{1}{4}$ S.10 SE $\frac{1}{4}$ S.10	2. 4. Hecker - 1938	3.
T.163N R.87W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.14	2. 4. Hecker - 1938	3.
T.163N R.87W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.25 SE $\frac{1}{4}$ S.25	2. 4. Hecker - 1938	3.
T.163N R.87W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.36 S $\frac{1}{2}$, SW $\frac{1}{4}$ S.36	2. 4. Hecker - 1938	3.
T.164N R.87W NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.33 SW $\frac{1}{4}$ S.33 SE $\frac{1}{4}$ S.33	2. 4. Hecker - 1938	3.

WARD COUNTY
SITE LEADS

1 mile from Baden	2. Historic - Ogborn Coal Mine	3.
	4. State Eng. Report, 1914-16; Site Leads File, SHSND	
1.5 miles N. of Carpio	2. Historic - Fihelly Coal Mine	3.
	4. State Eng. Report, 1913-14; Site Leads File, SHSND	
Baden, ND	2. Historic - Hodson Coal Mine	3.
	4. State Eng. Report, 1911-12; Site Leads File, SHSND	
T.151N R.82W SE $\frac{1}{4}$ S.24	2. Historic - Bartoshiuich Coal Mine	3.
	4. State Eng. Report, 1914-16; Site Leads File, SHSND	
T.152N R.81W NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.19	2. Historic - Leeson Coal Mine, No. 2	3.
	4. State Eng. Report, 1909-10; Site Leads File, SHSND	
T.152N R.81W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.21	2. Historic - Wood Coal Mine	3.
	4. State Eng. Report, 1916-18; Site Leads File, SHSND	
T.152N R.81W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.27 (Sec. 21. 1913-14)	2. Historic - Strong Coal Mine	3.
	4. State Eng. Report, 1909-19; Site Leads File, SHSND	
T.152N R.81W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.28 (Sec. 27, 1913-14)	2. Historic - Leeson Coal Mine, No. 1	3.
	4. State Eng. Report, 1911-12; Site Leads File, SHSND	
T.152N R.81W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.29	2. Historic - Calfish Coal Mine	3.
	4. State Eng. Report, 1913-14; Site Leads File, SHSND	

WARD COUNTY (Cont.)

T.152N R.81W SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.29	2. Historic - Murray Coal Mine	3.
	4. State Eng. Report, 1909-10; Site Leads File, SHSND	
T.152N R.81W SE $\frac{1}{4}$ S.30	2. Historic - Tree-Bosch Coal Mine	3.
	4. State Eng. Report, 1911-12; Site Leads File, SHSND	
T.152N R.81W NE $\frac{1}{4}$ S.30	2. Historic - Knorr Coal Mine	3.
	4. State Eng. Report, 1909-10; Site Leads File, SHSND	
T.152N R.81W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.35 (Sec. 31, 1913-14)	2. Historic - Red Flag Coal Mine	3.
	4. State Eng. Report, 1909-10; Site Leads File, SHSND	
T.152N R.82W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.15	2. Historic - Stafford Coal Mine	3.
	4. State Eng. Report, 1909-10; Site Leads File, SHSND	
T.153N R.81W E $\frac{1}{2}$, SE $\frac{1}{4}$ S.1	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.153N R.81W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.3	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.153N R.81W Center NE $\frac{1}{4}$ S.4	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.153N R.81W On border between NW $\frac{1}{4}$ & SW $\frac{1}{4}$ S.4	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.153N R.81W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.5	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.153N R.81W Center NE $\frac{1}{4}$ S.9	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	

WARD COUNTY (Cont.)

T.153N R.81W 2. Habitation 3.
On the border 4. Hecker - 1938 - W.P.A. Survey Report
between NE $\frac{1}{4}$ & SE $\frac{1}{4}$ S.9

T.153N R.81W 2. Habitation 3.
On line-SE $\frac{1}{4}$ S.11, 4. WPA Survey File, Hecker, 1938, SHSND
NE $\frac{1}{4}$ S.14

T.153N R.81W 2. Habitation 3.
NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.11 4. Hecker - 1938 - W.P.A. Survey Report

T.153N R.81W 2. Habitation 3.
On line: SE $\frac{1}{4}$ S.11 4. W.P.A. Survey File, Hecker - 1938, SHSND
NE $\frac{1}{4}$ S.14

T.153N R.81W 2. Habitation 3.
SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.12 4. Hecker - 1938 - W.P.A. Survey Report

T.153N R.81W 2. Habitation 3.
E $\frac{1}{2}$, NW $\frac{1}{2}$ S.12 4. Hecker - 1938 - W.P.A. Survey Report

T.153N. R.81W 2. Habitation 3.
NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.13 4. Hecker - 1938 - W.P.A. Survey Report

T.153N R.81W 2. Habitation 3.
On the border 4. Hecker - 1938 - W.P.A. Survey Report
between SE $\frac{1}{4}$ S.11 and NE $\frac{1}{4}$ S.14

T.153N R.81W 2. Habitation 3.
Center NW $\frac{1}{4}$ S.16 4. Hecker - 1938 - W.P.A. Survey Report

T.153N R.81W 2. Habitation 3.
Center SW $\frac{1}{4}$ S.16 4. Hecker - 1938 - W.P.A. Survey Report

T.153N R.81W 2. Habitation 3.
On border between 4. Hecker - 1938 - W.P.A. Survey Report
NE $\frac{1}{4}$ & SE $\frac{1}{4}$ S.26

WARD COUNTY (Cont.)

T.153N R.81W E $\frac{1}{2}$, NW $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.153N R.81W Center NW $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.153N R.81W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.153N R.82W NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.6	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.153N R.82W Center SE $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.153N R.82W S $\frac{1}{2}$, SW $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.153N R.82W Center NE $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.153N R.82W On border between SW $\frac{1}{4}$, NE $\frac{1}{4}$ & SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.23	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.153N R.82W N $\frac{1}{2}$, NW $\frac{1}{4}$ S.33	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.153N R.82W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.81W N $\frac{1}{2}$, NW $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.81W SE $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

WARD COUNTY (Cont.)

T.154N R.81W NE $\frac{1}{2}$,SW $\frac{1}{2}$ S.29	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.81W NE $\frac{1}{2}$,NW $\frac{1}{2}$ S.29	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.81W NE $\frac{1}{2}$,SE $\frac{1}{2}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.81W SW $\frac{1}{2}$,NE $\frac{1}{2}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.81W NE $\frac{1}{2}$,SW $\frac{1}{2}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.81W NW $\frac{1}{2}$,NW $\frac{1}{2}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.81W NE $\frac{1}{2}$,SW $\frac{1}{2}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.81W On the border between SE $\frac{1}{2}$ S.32 & SW $\frac{1}{2}$ S.33	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W S $\frac{1}{2}$,SW $\frac{1}{2}$ S.2	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W E $\frac{1}{2}$,NW $\frac{1}{2}$ S.3	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W NW $\frac{1}{2}$,NE $\frac{1}{2}$ S.3	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W NE $\frac{1}{2}$,SE $\frac{1}{2}$ S.3	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

WARD COUNTY (Cont.)

T.154N R.82W N $\frac{1}{2}$, NE $\frac{1}{2}$ S.4	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W Center NE $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W E $\frac{1}{2}$, NW $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W Center SW $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.11	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.11	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W S $\frac{1}{2}$, SE $\frac{1}{2}$ S.11	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W S $\frac{1}{2}$, SE $\frac{1}{4}$ S.12	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.13	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.24	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.154N R.82W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

WARD COUNTY (Cont.)

T.154N R.82W	2. Habitation	3.
N $\frac{1}{2}$, S $\frac{1}{2}$ S.36	4. W.P.A. Survey Report, Hecker - 1938;	
	Site Leads File, SHSND	

T.154N R.82W	2. Habitation	3.
NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.36	4. Hecker - 1938 - W.P.A. Survey Report	

T.154N R.82W	2. Habitation	3.
On border between	4. Hecker - 1938 - W.P.A. Survey Report	
NW $\frac{1}{4}$, SE $\frac{1}{4}$ & NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.36		

T.154N R.83W	2. Habitation	3.
SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.16	4. Hecker - 1938 - W.P.A. Survey Report	

T.154N R.84W	2. Habitation	3.
SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.3	4. Hecker - 1938 - W.P.A. Survey Report	

T.154N R.84W	2. Habitation	3.
Center SW $\frac{1}{4}$ S.15	4. Hecker - 1938 - W.P.A. Survey Report	

T.154N R.85W	2. Habitation	3.
Several sites are	4. Hecker - 1938 - W.P.A. Survey Report	
located around Mork Lake in Ss. 26-27		

T.155N R.81W	2. Habitation	3.
W $\frac{1}{2}$, NE $\frac{1}{4}$ S.8	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.82W	2. Habitation	3.
E $\frac{1}{2}$, SE $\frac{1}{4}$ S.20	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.82W	2. Habitation	3.
NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.28	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.82W	2. Habitation	3.
SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.29	4. Hecker - 1938 - W.P.A. Survey Report	

WARD COUNTY (Cont.)

T.155N R.82W Center SW $\frac{1}{4}$ S.29	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.82W SW $\frac{1}{4}$,SE $\frac{1}{4}$ S.29	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.82W Center NE $\frac{1}{4}$ S.29	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.82W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.82W N $\frac{1}{2}$,NE $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.82W N $\frac{1}{2}$,NW $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.82W N $\frac{1}{2}$,SE $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.82W Center S.33	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.82W N $\frac{1}{2}$,SW $\frac{1}{4}$ S.33	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.82W SE $\frac{1}{4}$,NW $\frac{1}{4}$ S.33	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center NE $\frac{1}{4}$ S.3	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center SW $\frac{1}{4}$ S.7	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.155N R.83W SW $\frac{1}{4}$,SW $\frac{1}{4}$ S.7	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center W $\frac{1}{2}$,E $\frac{1}{2}$ S.7	2. Historic - Wallin Coal 4. State Eng. Report, 1914-16, Site Leads File, SHSND	3. Mine
T.155N R.83W S.13 (Sec. 1, T.156, R.84, 1913-14)	2. Historic - Huncwell 4. State Eng. Report, 1909-10; Site Leads File, SHSND	3. Coal Mine
T.155N R.83W N $\frac{1}{2}$,SE $\frac{1}{4}$ S.13	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W N $\frac{1}{2}$,SW $\frac{1}{4}$ S.15	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W N $\frac{1}{2}$,NW $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W N $\frac{1}{2}$,NE $\frac{1}{4}$ S.17	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W E $\frac{1}{2}$,SE $\frac{1}{4}$ S.17	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.18	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W S $\frac{1}{2}$,NE $\frac{1}{4}$ S.18	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center SE $\frac{1}{4}$ S.18	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W S.18 (Sec. 1, T.155N, R.84W, 1914-16)	2. Historic - Conan Coal 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3. Mine

WARD COUNTY (Cont.)

T.155N R.83W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W N $\frac{1}{2}$, NW $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W N $\frac{1}{2}$, SE $\frac{1}{4}$ S.20	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center NE $\frac{1}{4}$ S.20	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W E $\frac{1}{2}$, NW $\frac{1}{4}$ S.20	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center SW $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center NE $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W N $\frac{1}{2}$, NW $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W E $\frac{1}{2}$, NW $\frac{1}{4}$ S.22	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W E $\frac{1}{2}$, SEP S.22	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W E $\frac{1}{2}$, SW $\frac{1}{4}$ S.22	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.155N R.83W 2. Habitation 3.
Center SW $\frac{1}{4}$ S.23 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
Center SE $\frac{1}{4}$ S.23 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
Center SE $\frac{1}{4}$ S.24 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.24 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
Center NE $\frac{1}{4}$ S.25 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
Center SE $\frac{1}{4}$ S.25 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
Center SW $\frac{1}{4}$ S.25 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
Center SW $\frac{1}{4}$ S.26 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
Center NW $\frac{1}{4}$ S.26 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
Center SE $\frac{1}{4}$ S.26 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
Center NE $\frac{1}{4}$ S.26 4. Hecker - 1938 - W.P.A. Survey Report

T.155N R.83W 2. Habitation 3.
Center SE $\frac{1}{4}$ S.27 4. Hecker - 1938 - W.P.A. Survey Report

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T.155N R.83W Center SW $\frac{1}{4}$ S.27	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R83W N $\frac{1}{2}$, NE $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center NE $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center SE $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center SW $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center NW $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center SE $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center SW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center NW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center NE $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.83W Center SE $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.155N R.84W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.84W N $\frac{1}{2}$, SE $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.84W E $\frac{1}{2}$, SW $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.84W Center NE $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.84W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.1	2. Historic - Scotty Coal Mine 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.
T.155N R.84W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.2	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155M R.84W Center SE $\frac{1}{4}$ S.2	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.84W NE $\frac{1}{4}$ S.2 (Sec. 11, 1916-18)	2. Historic - Burlington City Coal Mine 4. State Eng. Report, 1913-14, Site Leads File, SHSND	3.
T.155N R.84W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.2	2. Historic - Wallace Coal Mine 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.
T.155N R.84W S.3	2. Historic - Houston Coal Mine 4. State Eng. Report, 1916-18, Site Leads File, SHSND	3.
T.155N R.84W Lots 4&5 S.5	2. Historic - Forsythe Coal Mine 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.

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T.155N R.84W S.6	2. Historic - Superior Coal Mine	3.
	4. State Eng. Report, 1916-18, Site Leads File, SHSND	
T.155N R.84W Center SE $\frac{1}{4}$ S.9	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.155N R.84W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.12	2. Historic - Davis Coal Mine	3.
	4. State Eng. Report, 1909-10, Site Leads File, SHSND	
T.155N R.84W NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.12	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.155N R.84W S.12 (T.155N R84W S.6 & T.155N R.83W S.18, 1913-14) (T.155N R.84W S.1, 1914-16)	2. Historic - Colton Coal Mine	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.155N R.84W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.12	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.155N R.84W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.12	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.155N R.84W NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.12	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.155N R.84W NWP, SE $\frac{1}{4}$ S.13	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.155N R.84W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.14	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.155N R.84W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.14	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	

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T.155N R.84W	2. Habitation	3.
On border between NW $\frac{1}{4}$ & SW $\frac{1}{4}$ S.23	4. Hecker - 1938 - W.P.S. Survey Report	

T.155N R.84W	2. Habitation	3.
Center NE $\frac{1}{4}$ S.24	4. Hecker - 1938 - W.P.S. Survey Report	

T.155N R.84W	2. Habitation	3.
Center SE $\frac{1}{4}$ S.26	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.84W	2. Habitation	3.
On the border between N $\frac{1}{2}$, SW $\frac{1}{4}$ & N $\frac{1}{2}$, SE $\frac{1}{4}$ S.34	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.85W	2. Habitation	3.
NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.15	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.85W	2. Habitation	3.
NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.27	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.85W	2. Habitation	3.
SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.30	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.85W	2. Habitation	3.
NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.30	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.85W	2. Habitation	3.
SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.31	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.85W	2. Habitation	3.
W $\frac{1}{2}$, NE $\frac{1}{4}$ S.32	4. Hecker - 1938 - W.P.A. Survey Report	

T.155N R.85W	2. Habitation	3.
NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.33	4. Hecker - 1938 - W.P.A. Survey Report	

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T.155N R.86W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.86W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.86W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.29	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.86W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.86W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.86W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.86W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.155N R.86W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.81W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.6	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.81W NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.6	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.81W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.81W Center SE $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.156N R.81W W $\frac{1}{2}$, NE $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.81W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N 82W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.3	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.82W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.10	2. Habitation 3. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.82W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.15	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.82W Center NE $\frac{1}{4}$ S.18	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.82W W $\frac{1}{2}$, SE $\frac{1}{4}$ S.24	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.82W E $\frac{1}{2}$, SW $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.82W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.83W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.83W NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.17	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.83W Center NW $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.156N R.84W SE $\frac{1}{4}$ S.5 & SW $\frac{1}{4}$ S.4	2. Habitation 4. WPA Survey Report, Hecker, 1938, Site Leads File SHSND	3.
T.156N R.84W Center NW $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W W $\frac{1}{2}$, SE $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W On the border between SW $\frac{1}{4}$ S.4 & SE $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W Center NE $\frac{1}{4}$ S.8	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.14	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W N $\frac{1}{2}$, SW $\frac{1}{4}$ S.15	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.156N R.84W SE $\frac{1}{4}$,SE $\frac{1}{4}$ S.15	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N. R.84W SW $\frac{1}{4}$,NE $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W Center NW $\frac{1}{4}$ W.18	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W W $\frac{1}{2}$,SE $\frac{1}{4}$ S.18	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W N $\frac{1}{2}$,NE $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W NW $\frac{1}{4}$,SE $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.19 (Sec. 30, 1913-14)	2. Historic - McClure Coal Mine 4. State Eng. Report, 1909-10; Site Leads File, SHSND	3.
T.156N R.84W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1948 - W.P.A. Survey Report	3.
T.156N R.84W On the border between SW $\frac{1}{4}$,SW $\frac{1}{4}$ S.23 & SE $\frac{1}{4}$,SE $\frac{1}{4}$ S.22	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W Center SE $\frac{1}{4}$ S.23	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W SE $\frac{1}{4}$,NE $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.156N R.84W N $\frac{1}{2}$, SE $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W W $\frac{1}{2}$, NE $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N. R.84 SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.29	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.31 (Sec. 32, 1914-16)	2. Historic - Lloyd Coal Mine 4. State Eng. Report, 1909-10; Site Leads File, SHSND	3.
T.156N R.84W NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W E $\frac{1}{2}$, NW $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.32	2. Historic - Scott Coal Mine 4. State Eng. Report, 1909-10; Site Leads File, SHSND	3.
T.156N R.84W On the border between NW $\frac{1}{4}$ & SW $\frac{1}{4}$ S.33	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W S.34	2. Historic - Seed Coal Mine 4. State Eng. Report, 1916-18; Site Leads File, SHSND	3.
T.156N R.84W N $\frac{1}{2}$, SW $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.156N R.84W N $\frac{1}{2}$, SE $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W S $\frac{1}{2}$, SE $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W E $\frac{1}{2}$, NE $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W N $\frac{1}{2}$, SW $\frac{1}{4}$ S.35	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W W $\frac{1}{2}$, SE $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.84W Center SW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.85W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.85W NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.2	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.85W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.2	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.85W S $\frac{1}{2}$, NW $\frac{1}{4}$ S.2	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.156N R.85W W $\frac{1}{2}$ S.2	2. Historic - Foxholm Coal Mine 4. State Eng. Report, 1914-16; Site Leads File, SHSND	3.

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T.56N R.85W SE $\frac{1}{4}$ S.2	2. Historic - DesLacs Coal Mine	3.
	4. State Eng. Report, 1911-12; Site Leads File, SHSND	
T.156N R.85W Center SE $\frac{1}{4}$ S.3	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.156N R.84W & R.85W Secs. 3,19,24	2. Historic - Dakota Coal Mine Co. Coal Mine	3.
	4. State Eng. Report, 1916-18; Site Leads File, SHSND	
T.156N R.85W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.11	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.156N R.85W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.11	2. Historic - Little Minnie Coal Mine	3.
	4. State Eng. Report, 1909-10; Site Leads File, SHSND	
T.156N R.85W NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.12	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.156N R.85W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.12	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.156N R.85W N $\frac{1}{2}$, SW $\frac{1}{4}$ S.12	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.156N R.85W Center NW $\frac{1}{4}$ S.13	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.156N R.85W NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.14	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	
T.156N R.85W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.22	2. Habitation	3.
	4. Hecker - 1938 - W.P.A. Survey Report	

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T.156N R.87W SW $\frac{1}{4}$ S.15	2. Habitation 4. G. Patterson of Carpio wrote giving the location of the site as gotten from H. Flaherty who owns it. Note in survey folder.	3.
T.156N R.89W NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.5	2. Isolated finds; one 4. Recorded by: N. Franke 11/7/74 Form in Site Leads File - SHSND	3. Cultivated flake and one ground stone
T.157N R.81W Center SW $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.81W N $\frac{1}{2}$, SE $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.81W W $\frac{1}{2}$, SW $\frac{1}{4}$ S.6	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.81W Center SE $\frac{1}{4}$ S.6	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.81W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.8	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.81W Center NE $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.81W Center SW $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.81W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.81W N $\frac{1}{2}$, SW $\frac{1}{4}$ S.13	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.157N R.81W 2. Habitation 3.
Center NE $\frac{1}{4}$ S.15 4. Hecker - 1938 - W.P.A. Survey Report

T.1577N R.81W 2. Habitation 3.
On the border 4. Hecker - 1938 - W.P.A. Survey Report
between NW $\frac{1}{4}$ & NE $\frac{1}{4}$ S.16

T.1577 R.81W 2. Habitation 3.
SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.17 4. Hecker - 1938 - W.P.A. Survey Report

T.157N R.81W 2. Habitation 3.
NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.24 4. Hecker - 1938 - W.P.A. Survey Report

T.157N R.82W 2. Habitation 3.
N $\frac{1}{2}$, SW $\frac{1}{4}$ S.1 4. Hecker - 1938 - W.P.A. Survey Report

T.157N R.82W 2. Habitation 3.
W $\frac{1}{2}$, NE $\frac{1}{4}$ S.2 4. Hecker - 1938 - W.P.A. Survey Report

T.157N R.84W 2. Habitation 3.
S $\frac{1}{2}$, SE $\frac{1}{4}$ S.6 4. Hecker - 1938 - W.P.A. Survey Report

T.157N R.84W 2. Habitation 3.
NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.6 4. Hecker - 1938 - W.P.A. Survey Report

T.157N R.84W 2. Habitation 3.
W $\frac{1}{2}$, NW $\frac{1}{4}$ S.8 4. Hecker - 1938 - W.P.A. Survey Report

T.157N R.84W 2. Habitation 3.
SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.8 4. Hecker - 1938 - W.P.A. Survey Report

T.157N R.84W 2. Habitation 3.
S $\frac{1}{2}$, SW $\frac{1}{4}$ S.9 4. Hecker - 1938 - W.P.A. Survey Report

T.157N R.84W 2. Habitation 3.
SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.15 4. Hecker - 1938 - W.P.A. Survey Report

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T.157N R.84W Center NW $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W S $\frac{1}{2}$, SW $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W E $\frac{1}{2}$, SE $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W S $\frac{1}{2}$, SW $\frac{1}{4}$ S.22	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W Center SW $\frac{1}{4}$ S.27	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W Center SW $\frac{1}{4}$ S.27	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.28	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N F.84W NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.28	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W S $\frac{1}{2}$, NW $\frac{1}{4}$ S.28	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.157N R.84W SE $\frac{1}{4}$, NE $\frac{1}{4}$ S.33	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W NE $\frac{1}{4}$, NW $\frac{1}{4}$ W.34	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.84W W $\frac{1}{2}$, SW $\frac{1}{4}$ S.34	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W Center SW $\frac{1}{4}$ S.7	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W E $\frac{1}{2}$, NW $\frac{1}{4}$ S.8	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.17	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W N $\frac{1}{2}$, NE $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.22	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W Center SE $\frac{1}{4}$ S.22	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.157N R.85W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W N $\frac{1}{2}$, SW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.85W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.86W Center NW $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.86W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.86W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.86W S $\frac{1}{2}$, SE $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.86W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.2	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.86W NE $\frac{1}{4}$, SE $\frac{1}{4}$ S.2	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.86W NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.3	2. Historic - Christophoson Coal Mine 4. State Eng. Report, 1913-14; Site Leads File, SHSND	3.
T.157N R.86W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.12	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.157N R.86W NW $\frac{1}{4}$ S.12	2. Historic - Carpio Coal Mine 4. State Eng. Report, 1909-10; Site Leads File, SHSND	3.

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T.158N R.87W Center SW $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W Center SW $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W S $\frac{1}{2}$, NW $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W SW $\frac{1}{4}$, NW $\frac{1}{4}$ S.5	2. Historic - Hot Blast Coal Mine 4. State Eng. Report, 1909-10; Site Leads File, SHSND	3.
T.158M R.87W E $\frac{1}{2}$, NE $\frac{1}{4}$ S.8	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W N $\frac{1}{2}$, NW $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W Center SE $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.11	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W SW $\frac{1}{4}$, SW $\frac{1}{4}$ S.14	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.14	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W N $\frac{1}{2}$, SW $\frac{1}{4}$ S.15	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.158N R.87 N $\frac{1}{2}$,SE $\frac{1}{4}$ S.15	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.15	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W Center SE $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W SW $\frac{1}{4}$,NE $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W SE $\frac{1}{4}$,NW $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W SW $\frac{1}{4}$,NE $\frac{1}{4}$ S.23	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W E $\frac{1}{2}$,SW $\frac{1}{4}$ S.24	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W W $\frac{1}{2}$,SE $\frac{1}{4}$ S.26	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.29	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.158N R.87W N $\frac{1}{2}$,NW $\frac{1}{4}$ S.36	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.159N R.87W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.87W S.31	2. Historic - Spencer Coal Mine (Klondike Coal Mine, 1913-14) 4. State Eng. Report, 1909-10; Site Leads File, SHSND	3.
T.159N R.87W On the border between SW $\frac{1}{4}$ S.30 & NW $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.87W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.87W E $\frac{1}{2}$, SW $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.87W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.87W Center NW $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.87W Center SW $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.87W NE $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.87W Center SE $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T. 159N R.88W N $\frac{1}{2}$, SE $\frac{1}{4}$ S.3	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.159R.88W E $\frac{1}{2}$,SW $\frac{1}{4}$ S.3	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W NE $\frac{1}{4}$,NW $\frac{1}{4}$ S.3	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159 R.88W NE $\frac{1}{4}$,NE $\frac{1}{4}$ S.4	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W S.8	2. Historic - Kenmare Brick and Coal Co. Mine 4. State Eng. Report, 1909-10; Site Leads File, SHSND	3.
T.159N R.88W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W SW $\frac{1}{4}$,NW $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W NE $\frac{1}{4}$,NW $\frac{1}{4}$ S.11	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W N $\frac{1}{2}$,SE $\frac{1}{4}$ S.11	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W E $\frac{1}{2}$,NW $\frac{1}{4}$ S.13	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W NE $\frac{1}{4}$,SW $\frac{1}{4}$ S.13	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W N $\frac{1}{2}$,SE $\frac{1}{4}$ S.14	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W SW $\frac{1}{4}$,NE $\frac{1}{4}$ S.15	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

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T.159N R.88W Center SE $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.23	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.23	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W Center SW $\frac{1}{4}$ S.24	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W Center SE $\frac{1}{4}$ S.24	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.25	2. Historic - Square Deal Coal Mine 4. State Eng. Report, 1913-14; Site Leads File, SHSND	3.
T.159N R.88W Center NW $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W S $\frac{1}{2}$, NE $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W SW $\frac{1}{4}$, SE $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W Center SW $\frac{1}{4}$ S.25	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.159N R.88W NW $\frac{1}{4}$ S.26	2. Historic - Baden Coal Mine 4. State Eng. Report, 1909-10; Site Leads File, SHSND	3.

WARD COUNTY (Cont.)

T.159N R.88W NW $\frac{1}{4}$ S.26	2. Historic - Coulee Coal Mine 3. 4. State Eng. Report, 1909-10, Site Leads File, SHSND
T.159N R.88W SE $\frac{1}{4}$, NW $\frac{1}{4}$ S.27	2. Habitation 3. 4. Hecker - 1938 - W.P.A. Survey Report
T.159N R.88W Center NE $\frac{1}{4}$ S.36	2. Habitation 3. 4. Hecker - 1938 - W.P.A. Survey Report
T.159N R.88W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.36	2. Historic - Broughton Coal Mine 3. 4. State Eng. Report, 1909-10, Site Leads File, SHSND
T.159N R.88W Center SW $\frac{1}{4}$ S.36	2. Habitation 3. 4. Hecker - 1938 - W.P.A. Survey Report
T.160N R.87W SE $\frac{1}{4}$ S.1	2. Habitation 3. 4. Hecker - 1938 - W.P.A. Survey Report
T.160N R.87W Center SW $\frac{1}{4}$ S.1	2. Habitation 3. 4. Hecker - 1938 - W.P.A. Survey Report
T.160N R.87W Center NE $\frac{1}{4}$ S.1	2. Habitation 3. 4. Hecker - 1938 - W.P.A. Survey Report
T.160N R.87W Center NW $\frac{1}{4}$ S.1	2. Habitation 3. 4. Hecker - 1938 - W.P.A. Survey Report
T.160N R.87W SE $\frac{1}{4}$ S.12	2. Habitation 3. 4. Hecker - 1938 - W.P.A. Survey Report
T.160N R.87W SW $\frac{1}{4}$ S.12	2. Habitation 3. 4. Hecker - 1938 - W.P.A. Survey Report
T.160N R.87W NW $\frac{1}{4}$ S.12	2. Habitation 3. 4. Hecker - 1938 - W.P.A. Survey Report

WARD COUNTY (Cont.)

T.160N R.87W NE $\frac{1}{4}$ S.12	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W Center NW $\frac{1}{4}$ S.6	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W Secs. 6, 7, 18	2. Historic - National Coal Mine 4. State Eng. Report, 1916-18, Site Leads File, SHSND	3.
T.160N R.88W Lot 1 S.7 (Secs. 6 & 18, 1913-14)	2. Historic - Smith Dry Coal Mine 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.
T.160N R.88W Center SW $\frac{1}{4}$ S.6	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W N $\frac{1}{2}$, SW $\frac{1}{4}$ S.7	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W Center NE $\frac{1}{4}$ S.7	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W NW $\frac{1}{4}$, SW $\frac{1}{4}$, S.7	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.7	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W Lot 1 S.9 (Sec. 20, 1913-14) (Sec. 29, 1913-16)	2. Historic - Diamond Coal Mine 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.
T.160N R.88W Center NE $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

WARD COUNTY (Cont.)

T.160N R.88W SW $\frac{1}{4}$, NE $\frac{1}{4}$, S.18	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W SW $\frac{1}{4}$, SW $\frac{1}{4}$, S.19	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W Lot 3 S.20	2. Historic - Hart Coal Mine 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.
T.160N R.88W E $\frac{1}{2}$, NW $\frac{1}{4}$ S.28 NW $\frac{1}{4}$ S.33	2. Historic - Mellon Coal Mine 4. State Eng. Report, 1914-16, Site Leads File, SHSND	3.
T.160N R.88W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.29	2. Historic - Vadneis Coal Mine 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.
T.160N R.88W Center SW $\frac{1}{4}$ S.29	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W NW $\frac{1}{4}$, NW $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W NW $\frac{1}{4}$, NE $\frac{1}{4}$ S.31	2. Stone Circles 4. Don Lindberg - DesLacs National Wildlife Refuge, Kenmare; Site Leads File, SHSND	3.
T.160N R.88W Center NW $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W Center NE $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

WARD COUNTY (Cont.)

T.160N R.88W Center SE $\frac{1}{4}$ S.31	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W NE $\frac{1}{4}$,NW $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W NE $\frac{1}{4}$ S.32	2. Historic - Brick Yard Coal Mine 4. State Eng. Report, 1913-14, Site Leads File, SHSND	3.
T.160N R.88W Center SE $\frac{1}{4}$ S.32	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W NW $\frac{1}{4}$,NW $\frac{1}{4}$ S.33	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W S.33	2. Historic - Pierce Coal Mine 4. State Eng. Report, 1913-14, Site Leads File, SHSND	3.
T.160N R.88W NE $\frac{1}{4}$,NE $\frac{1}{4}$ S.33	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.33	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.88W Center SW $\frac{1}{4}$ S?34	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W SW $\frac{1}{4}$,SW $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W Center NE $\frac{1}{4}$ S.1	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

WARD COUNTY (Cont.)

T.160N R.89W NE $\frac{1}{4}$,NE $\frac{1}{4}$ S.2	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W E $\frac{1}{2}$,SE $\frac{1}{4}$ S.8	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W SW $\frac{1}{4}$,SE $\frac{1}{4}$ S.10	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W SW $\frac{1}{4}$,NE $\frac{1}{4}$ S.11	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W S $\frac{1}{2}$,SE $\frac{1}{4}$ S.12	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W NE $\frac{1}{4}$,NW $\frac{1}{4}$ S.12	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W SE $\frac{1}{4}$,NW $\frac{1}{4}$ S.12	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W NE $\frac{1}{4}$,NW $\frac{1}{4}$ S.13	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W N $\frac{1}{2}$,SE $\frac{1}{4}$ S.13	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W N $\frac{1}{2}$,SW $\frac{1}{4}$ S.13	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W SE $\frac{1}{4}$,NW $\frac{1}{4}$ S.14	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.160N R.89W Center S.15	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

WARD COUNTY (Cont.)

T.161N R.88W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.5	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W E $\frac{1}{2}$, NE $\frac{1}{4}$ S.6	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W W $\frac{1}{2}$, NE $\frac{1}{4}$ S.7	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W On the border between NE $\frac{1}{4}$ S.7 & NW $\frac{1}{4}$ S.8	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.8	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W Center NW $\frac{1}{4}$ S.9	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W E $\frac{1}{2}$, NW $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W On the border between NW $\frac{1}{4}$ & SW $\frac{1}{4}$ S.16	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W N $\frac{1}{2}$, SWP S.17	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W W $\frac{1}{2}$, NE $\frac{1}{4}$ S.18	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W W $\frac{1}{2}$, NE $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W SE $\frac{1}{4}$, SE $\frac{1}{4}$ S.19	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.

WARD COUNTY (Cont.)

T.161N R.88W Center NW $\frac{1}{4}$ S.20	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W NW $\frac{1}{4}$, SW $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.21	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W SW $\frac{1}{4}$, NE $\frac{1}{4}$ S.28	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W NE $\frac{1}{4}$, NE $\frac{1}{4}$ S.29	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W SE $\frac{1}{4}$, SW $\frac{1}{4}$ S.29	2. Historic - Johnson Mine 4. State Eng. Report, 1914-16, Site Leads File, SHSND	3.
T.161N R.88W SE $\frac{1}{4}$ S.29	2. Historic - Bertelson Coal Mine, No. 1 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.
T.161N R.88W NW $\frac{1}{4}$, SE $\frac{1}{4}$ S.30	2. Historic - Crosby Coal Mine 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.
T.161N R.88W Lot 3 S.30	2. Historic - Ingison Coal Mine 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.
T.161N R.88W NE $\frac{1}{4}$, SW $\frac{1}{4}$ S.30	2. Habitation 4. Hecker - 1938 - W.P.A. Survey Report	3.
T.161N R.88W NE $\frac{1}{4}$, NW $\frac{1}{4}$ S.31	2. Historic - Soo Coal Mine 4. State Eng. Report, 1909-10, Site Leads File, SHSND	3.

WARD COUNTY (Cont.)

T.161N R.88W
NE $\frac{1}{4}$,NW $\frac{1}{4}$ S.31

2. Habitation 3.
4. Hecker - 1938 - W.P.A. Survey Report

T.161N R.88W
NE $\frac{1}{4}$,NE $\frac{1}{4}$ S.32

2. Habitation 3.
4. Hecker - 1938 - W.P.A. Survey Report

T.161N R.88W
NE $\frac{1}{4}$,NW $\frac{1}{4}$ S.32

2. Historic - Westergaard 3.
Coal Mine
4. State Eng. Report, 1909-10, Site Leads File, SHSND

T.161N R.88W
NE $\frac{1}{4}$,SE $\frac{1}{4}$ S.32

2. Habitation 3.
4. Hecker - 1938 - W.P.A. Survey Report

T.161N R.88W
Center NE $\frac{1}{4}$ S.33

2. Habitation 3.
4. Hecker - 1938 - W.P.A. Survey Report

APPENDIX B

VITAE

VITA

Name: Frederick E. Schneider

Present Position: Chairman and Associate Professor of Anthropology
and Archaeology

Office Address: 104B Babcock Hall, University of
North Dakota, Grand Forks, North
Dakota 58202

Office Phone: 701-777-3009

Education: Beloit College, 1960-1964, B.A.

University of Oklahoma, 1964-1967, M.A.

University of Missouri, 1967-1972, Ph.D., 1974

Professional Experience: 1966-1967, Research Assistant and Field
Director, Oklahoma River Basin Survey,
Norman, Oklahoma.

1967-1968, Field Assistant, Archaeological
Work in Missouri.

1969-1971, Research Assistant and Associate,
American Archaeology, University of Missouri.

1972, Preparation of environmental impact
statement for TVA, Knoxville, Tennessee.

1973-, Department of Anthropology and Archaeology,
University of North Dakota. Teaching, advisement,
and research duties.

Research conducted under contract for the U.S.
National Park Service, U.S. Bureau of Reclama-
tion, U.S. Army Corps of Engineers, Department
of Health, Education, and Welfare, State of
North Dakota.

Research: Archaeological fieldwork in Wisconsin, Oklahoma, Missouri,
Tennessee, and North Dakota.

Publications: 1965, Germansilver Work in the Anadarko, Oklahoma Area.
Co-authored with Michael Davis and James Gallagher.
Papers in Anthropology, Vol.6, pp.22-35. Anthropology
Club of the University of Oklahoma, Norman.

1966, The Harrell Point: A Discussion. Papers in Anthropology, Vol.7, pp.31-44. Anthropology Club of the University of Oklahoma, Norman.

1966, Oklahoma River Basin Survey Excavations. Newsletter of the Oklahoma Anthropological Society, Vol.14, No.8.

1966, Indian Burial Discovered. Newsletter of the Oklahoma Anthropological Society, Vol.14, No.8.

1967, Burial from Lake Atlas. Newsletter of the Oklahoma Anthropological Society, Vol.15, No.3.

1967, Eight Archaeological Sites in the Webbers Falls Area, Muskogee County, Oklahoma. Archaeological Site Report No.8, Oklahoma River Basin Survey, Norman.

1968, Indian Burials at Stark Caverns, 23MI55, Eldon, Missouri. Newsletter of the Missouri Archaeological Society, No.219.

1969, Test Excavations at Richardson's Cave, 23TE33. Newsletter of the Missouri Archaeological Society, No.229.

1969, The Roy Smith Site, Bv-14, Beaver County, Oklahoma. Bulletin of the Oklahoma Anthropological Society, Vol.18, pp.119-170.

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1972, An Analysis of Waste Flakes from the Upper Knife-Heart District, North Dakota. Plains Anthropologist, Vol.17, No.56, pp.91-100.

1975, Brain Size and Hominid Evolution. Proceedings of the IV Tri-College Convention, Moorhead, Minnesota.

Research Reports: 1971, Archaeological Investigations in the Proposed Union Reservoir, Franklin County, Missouri. Co-authored with Clarence Geier. Report prepared for the U.S. National Park Service.

1972, Archaeological Work in the Proposed Meramec Park Reservoir - 1969 Season. Co-authored with Clarence Geier. Report prepared for the U.S. National Park Service.

1973, Archaeological Work in the Proposed Meramec Park Reservoir - 1970 Season. Co-authored with Clarence Geier. Report prepared for the U.S. National Park Service.

1974, Archaeological Test Excavations in the Proposed Meramec Park Reservoir: 1971 Season. Co-authored with Danny Olinger. Report prepared for the U.S. National Park Service.

1974, Archaeological Excavations at the Sprenger Tipi Ring Site, 32SH205, Sheridan County, North Dakota: An Archaeological Salvage Project in the Garrison Diversion Unit. Co-authored with Patricia Treat. Report prepared for the U.S. National Park Service.

1974, Archaeological Investigations in the Proposed Lonetree Reservoir, Garrison Diversion Unit, North Dakota: 1973 Season. Report prepared for the U.S. National Park Service.

1975, 1974 Archaeological Survey of Portions of the Garrison Reservoir Shoreline, North Dakota. Co-authored with Thomas Haberman. Report prepared for the U.S. National Park Service.

1975, The Results of Archaeological Investigations at the Moe Site, 32MN101, North Dakota. Report prepared for the U.S. National Park Service.

1976, A File of Archaeological Sites in North Dakota. A report prepared for the North Dakota Legislative Council's Regional Environmental Assessment Program (REAP).

1976, Archaeological Investigations in the Proposed Lonetree Reservoir; Garrison Diversion Project, North Dakota: 1974 Investigations. Part 1, Survey, Test Excavations, and Recommendations. Report prepared for the U.S. National Park Service.

1976, Pembina River Cultural Resources Literature and Records Search. Report prepared for the U.S. Army Corps of Engineers, St. Paul District.

1976, Cultural Resource Inventory of Eggert's Landing, Lake Ashtabula. Report prepared for the U.S. Army Corps of Engineers, St. Paul District.

1976, Archaeological Survey of the Proposed Mandaree Water Supply Pipeline. Report prepared for Indian Health Service, Department of Health, Education, and Welfare.

1976, Archaeological Survey of the Proposed Route of the New Rockford Canal. In Archaeological Surveys in the Garrison Diversion Unit North Dakota, Section I. Report prepared for the U.S. National Park Service.

1976, Preliminary Report of Cultural Resource Inventory of Portions of the Central North Dakota Section, Garrison Diversion Unit, North Dakota. Co-authored with Kent Good and Kurt Schweigert. Report prepared for the U.S. Bureau of Reclamation.

1977, Archaeological and Historical Investigations in the Garrison Diversion Unit, North Dakota: Central and Southern Sections. A Summary of Work Conducted Under U.S. Bureau of Reclamation Contracts 14-06-600-1575A and 6-07-01-16050. Report prepared for the U.S. Bureau of Reclamation.

1977, Archaeological Investigations of the Hendrickson III Site, 32SN403. LaMoure-Oakes Project Area, Garrison Diversion Unit, North Dakota. Co-authored with Kent Good, James Dahlberg, Thomas Larson, and Bruce Benz. Report prepared for the U.S. Bureau of Reclamation.

Research Reports - Principal Investigator:

Carmichael, G. Alan

1974 Results of the Archaeological Survey of the Proposed Versippi Reservoir and Dickinson Reservoir Project. Report prepared for the U.S. National Park Service.

Good, Kent, James Dahlberg, William Tibesar, and Susan Vehik

1976 Archaeology Investigations in the LaMoure-Oakes Project Area, Garrison Diversion, North Dakota. Report prepared for the U.S. National Park Service.

Larson, Thomas

1976 Archaeological Investigations in the Proposed Lonetree Reservoir, Garrison Diversion Project, North Dakota: 1974 Investigations. Part II, The Archaeology of 32SH7: A Bison Kill Site in Central North Dakota. Report prepared for the U.S. Bureau of Reclamation.

Vehik, Rain

- 1976 Archaeological Survey of Bank Stabilization Areas Along the James River and of the Proposed Oakes Canal and Irrigation Areas. Report prepared for the U.S. National Park Service.

Good, Kent, Willard Kinney, Carmen Greenshields, and Bruce Benz

- 1977 Archaeological Investigations in the LaMoure-Oakes and Wild Rice River Project Areas. Report prepared for the U.S. Bureau of Reclamation.

Schweigert, Kurt

- 1977 Historic Sites Cultural Resource Inventory in the Devils Lake Region, Central North Dakota Section, Garrison Diversion Unit, North Dakota. Report prepared for the U.S. Bureau of Reclamation.

Research Interests: Archaeology, cultural ecology, settlement patterns, lithic technology.

Memberships: Sigma Xi

American Association for the Advancement of Science
Institute for Ecological Studies, University of North Dakota.

Institute for Remote Sensing, University of North Dakota.

North Dakota Academy of Sciences

President, Board of Directors, Plains Anthropologist

Society for American Archaeology

Plains Anthropological Conference

Missouri Archaeological Society

Montana Archaeological Society

Oklahoma Anthropological Society

Manitoba Archaeological Society

VITA

Dr. F.D. Holland, Jr.
Professor of Geology
University of North Dakota
Grand Forks, ND 58202

b. 6 March 1922, Leavenworth, Kansas
B.S. University of Kansas 1948
M.A. University of Missouri 1950
Ph.D. University of Cincinnati 1958

Academic Experience

Curator, University of Cincinnati Museum, 1951 - 1954
Asst. Professor Geology, University of North Dakota, 1954-1959
Assoc. Professor Geology, University of North Dakota 1959-1965
Professor Geology, University of North Dakota, 1965-

Work Experience

Professional:

Paleontologist, N. Dak. Geological Survey, Summers 1955-1965
NSF-American Geological Institute Visiting Geoscientist, Spring 1962
(guest lecturer to Hardin-Simmons University and Mississippi
Southern University)
Panelist, National Science Foundation (7 times since 1962-1972)
Invitational Speaker, North Dakota Academy of Science, 1961
Delegate (UND) International Zoological Congress, Washington, 1963
Panel Member, N. Central Sect., Nat'l Assoc. Geology Teachers, 1964
Consultant: NSF-AGI Earth Science Curriculum Project, 1965-1966
Worth Publishing Co.
Harcourt Brace Publishing Co.
Houghton-Mifflin Publishing Co.
NSF-AGI Earth Science Teacher Preparation Program,
1971-1972.
Member, ND Legislative Council - REAP Technical Task Force on
Historical, Archaeological, and Paleontological Considerations, 1975

Administrative:

Executive Officer, Dept. of Geology, 1961-1962
Associate Director, UND Academic Year Institute (NSF), 1966-1970
Director, NSF-Undergraduate Research Participation Grants (UND, Geology)
1965, 1966, 1967
Director, Summer Earth Science Institute for Secondary School
Teachers - ESCP(NSF), 1967, 1968
Director, Cooperative College-School Science Project, ESCP(NSF),
1969-1970
Director, Council on Education in the Geological Sciences and American
Geological Institute Director of Education and Manpower (Washington,DC),
1970-1972.

PUBLICATIONS

Holland, F.D., Jr., 1951, Mississippian stratigraphy in northeastern Utah and southwestern Montana: *Compass*, v. 28, no. 2, p. 124-131.

_____, 1952, Stratigraphic details of Lower Mississippian rocks in northeastern Utah and southwestern Montana: *American Association of Petroleum Geology Bulletin*, v. 36, no. 9, p. 1697-1734, 17 figs.

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