

Attachment E

Archaeology / Historic Structures

Nick Bonow

From: Cinadr, Thomas [Thomas.Cinadr@MNHS.ORG]

Sent: Wednesday, August 12, 2009 7:19 AM

To: Nick Bonow

Subject: RE: Records search request

THIS EMAIL IS NOT A PROJECT CLEARANCE.

This message simply reports the results of the cultural resources database search you requested. The database search produced results for only previously known archaeological sites and historic properties. Please read the note below carefully.

No archaeological sites and historic properties were identified in a search of the Minnesota Archaeological Inventory and Historic Structures Inventory for the search area requested.

The result of this database search provides a listing of recorded archaeological sites and historic architectural properties that are included in the current SHPO databases. Because the majority of archaeological sites in the state and many historic architectural properties have not been recorded, important sites or structures may exist within the search area and may be affected by development projects within that area. Additional research, including field survey, may be necessary to adequately assess the area's potential to contain historic properties.

If you require a comprehensive assessment of a project's potential to impact archaeological sites or historic architectural properties, you may need to hire a qualified archaeologist and/or historian. If you need assistance with a project review, please contact Kelly Gragg-Johnson in Review and Compliance @ 651-259-3455 or by email at kelly.graggjohnson@mnhs.org.

The Minnesota SHPO Survey Manuals and Database Metadata and Contractor Lists can be found at <http://www.mnhs.org/shpo/survey/inventories.htm>

SHPO research hours are 8:00 AM – 4:00 PM Tuesday-Friday.

The Office is closed on Mondays.

9/28/2009

Tom Cinadr
Survey and Information Management Coordinator
Minnesota State Historic Preservation Office
Minnesota Historical Society
345 Kellogg Blvd. West
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651-259-3453

From: Nick Bonow [mailto:nbonow@mccainassociates.com]
Sent: Thursday, August 06, 2009 4:31 PM
To: Cinadr, Thomas
Subject: Records search request

Tom,

My company is in the process of permitting a mining project in Scott County and I would like to request a search of the Structures Inventory and Archeology Inventory for the proposed mine property. The property is located at:

17825 Valley View Drive
Jordan, Scott County, MN

The property occupies portions of:
SW quarter of Section 8 and NW quarter of Section 17 Township 114N Range 23W

The site is approximately 100 acres and the majority of the land is used exclusively for cropland. The homestead has one house and 4 outbuildings.

Please let me know if you need any additional information.

Thanks,

Nick

Nick Bonow, P.E.
Project Engineer/Geologist
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9/28/2009

**An Archaeological Investigation of
the Hentges Parcel, Scott County, Minnesota**

**by
Steven J. Blondo, MA
Principal Investigator
Blondo Consulting, LLC**

SHPO Review and Compliance Number: n/a

July 25, 2009

Management Summary/Abstract

Blondo Consulting, LLC was retained to complete an archaeological investigation of the Hentges Parcel located in Scott County, Minnesota. Mining is planned for a portion of the project. Prior to mining activities on the parcel, Scott County officials requested an archaeological investigation of the property. This survey is in answer to that request. Steven J. Blondo, MA was the Principal Investigator for the project. Fieldwork was completed between July 20 and 24, 2009. Pedestrian Survey was completed over the site, as surface visibility was good (>25 percent). No archaeological materials were encountered. The farmstead buildings, although reportedly built in the 1890s lacks sufficient integrity for *National Register of Historic Places* consideration. Blondo Consulting, LLC recommends no additional work for the proposed project area.

Introduction

In July 2009, McCain Associates, Inc. (McCain Associates) retained Blondo Consulting, LLC (Blondo Consulting) to complete an archaeological investigation for the Hentges Parcel proposed mining project located in Scott County, Minnesota. The purpose of the investigation is to identify if previously unrecorded archaeological sites exist within the project area.

The archaeological investigation involves a background literature search included a review of known archaeological sites and previously completed surveys and a field reconnaissance survey. The results of the investigation and recommendations are also included in this report.

Project and Site Description

The project contains approximately 100 acres located between U.S. Highway 169 and Valley View Road in Scott County (Exhibit 1). The nearest town is Jordan, located to the southwest of the project area. The Area of Potential Effect (APE) has been defined as the area where direct adverse effect is likely to occur. This includes all areas where mining activities may occur. Property lines delineate the APE on the northern and southern boundaries, the eastern boundary is Sand Creek, and the western boundary is Valley View Road.

The current land use is predominantly agricultural with a small tenant residence also present. The house, granary, barn/garage, cellar/storage shed, two greenhouses, and other ancillary structures are located in the approximate center of the property. The yard is well landscaped with trees, shrubs, and flowers. The northern and western sides of the parcel are currently planted with rye. Corn dominates the remainder of the parcel. A small grassland portion of land is present in the southwest corner of the property.

Methodology

The proposed project is located in a region where recorded archaeological properties are not numerous, though this may be because of a lack of formal survey. Archaeological properties related to American Indian occupation and activities are usually found along lakes and streams, or former large permanent bodies of water on prominent topographic features (i.e. uplands or terraces).

Steven Blondo conducted background research and literature review at the State Historical Preservation Office (SHPO), and Office of the State Archaeologist (OSA) in July 2009. During this research, Mr. Blondo examined the state archaeological site files, *National Register of Historic Places* (NRHP), historic maps (including Trygg maps, and the Andreas Atlas), and current and historic aerial photographs. Winchell's *Aborigines of Minnesota* (1911) was also reviewed to further identify reported archaeological sites and

potential for burial mounds and unplatted cemeteries. Scott County's online GIS system was also reviewed for additional information including locations of wetlands, soil data, and historic use of the parcel.

Fieldwork was conducted July 20-24, 2009. Field methods included pedestrian survey of areas with 25 percent visibility or better. As the majority of the parcel was covered in agricultural fields (rye and corn) which provided >25 percent visibility, pedestrian survey dominated the fieldwork methods. An examination of rodent backfill piles supplemented the pedestrian survey.

Environment

The project area falls in Anfinson's Archaeological Region 2: Prairie Lake. Anfinson's archaeological regions allow us to understand the prehistoric environment and better predict where archaeological sites may be located.

Region 2: Prairie Lake topography consists of "swell and swale topography of a ground moraine" (Anfinson 1988:288). The Coteau des Prairie rises in the western edge of the region and extends to the south and east into Southwestern Minnesota and to the north and west into South Dakota. The Minnesota River Valley runs through the northern portion of the region from West to East. There are numerous shallow lakes (most less than 10 feet deep) (Anfinson 1988:288). Anfinson tells us that the area was covered by glacial ice until the Des Moines Lobe retreated between 12,500 and 11,700 years ago (1988:289). Though forested early on during the prehistoric period, by ca 9,000 B.P. prairie vegetation had begun to take over. Early animals present would have included megafauna, which were replaced by bison, elk, and white tailed deer.

In pre-settlement times, most of the project area's vegetation consisted of 'Hardwood Forest' (Marschner 1930). These 'Hardwood Forest – Big Woods' areas contained Oaks (Bur, White, Red and Black), Elm, Basswood, Soft Maple, Willow, Aspen, Hackberry, etc. with occasional Pines and Arborvitae in the Pine Region. These are examples of what Anfinson refers to as "narrow river bottom forests and oak woods along the major river valleys" (1990:146).

Today the area is located in the Eastern Broadleaf Forest Province of the Department of Natural Resources Ecological Classification System (DNR ECS). The project area lies in the Minnesota and Northeast Iowa Morainal section and Oak Savanna subsection.

Soils

Anfinson gives a general description of the soils in the area as "fine to medium textured prairie soils" (1990:146). County soil data shows a variety of soils within the project area. These soils can be divided into hydric "soils that are water-saturated for long enough periods to produce reduced conditions and affect the growth of plants" (Brady 1999:533)

and non-hydric. Hydric soils have less potential to produce archaeological sites than non-hydric soils.

Geological Background

The Coteau des Prairies “highland of the prairie” forms the most prominent topographic feature in the southern part of the Prairie region. Rising 500 to 800 feet above the gently rolling prairie, it contains some of the highest points in the state. The Coteau is the result of glacial activity and is “associated with the spread of the Des Moines lobe of Cary ice down the Red River Valley and into Iowa where it reached its southern terminus by 14,000 years ago” (Gibbon 1980:10). By 13,000 B.P. the ice had receded from Iowa and Minnesota.

The moraines, such as the Bemis moraine, which form the Coteau, mark the greatest lateral extent of the Des Moines lobe. Underlying the outwash (water-lain materials) and till that cover the Coteau is a pinkish red to dark reddish brown hard Sioux quartzite rock (also called red rock or jasper). It is this hard upward thrusting remnant of an ancient mountain system that gives the Coteau its great height (Gibbon 1980:10).

The crest of the Bemis moraine forms the divide between Mississippi and Missouri River drainages and is the dominant moraine in the three state region. It also divides landscape types and is a boundary for Anfinson’s archaeological regions.

Wright identifies the physiographic regions overlaying the state. Overlaying the project area is the Blue Earth Till Plain (#21), a generally featureless till plain” (Wright 1972:574). The Minnesota River Valley is characterized by glacial outwash terraces and is one of the most striking and scenic features of all of south-central Minnesota (Wright 1972:575).

Flora and Fauna

As prairies advanced into Western Minnesota, large herds of grazing animals followed. Bison were dominant in the region through the Woodland period and into the early historic period. Other game during the early period included white tailed deer, elk, bears, and gray wolves. Species including muskrats, beaver, mink, otters, and raccoons were present in wetlands, shallow lakes, and riverine areas. Wetlands, shallow lakes, and rivers also supported large populations of waterfowl and fish. Shallow lakes were also the source of “a rich floral assemblage which includes such edible plants as water lilies and cattails. Wild rice was present. . .but it was not extensive (Anfinson 1990:147). Upland areas supplied floral resources such as ground plum and prairie turnip.

After Euro-American settlement, much of the area was used for agricultural purposes. Today the tall grass prairie is almost completely gone, replaced by rows of corn and occasional pastureland.

Cultural History

Statewide contexts have been developed by the Minnesota State Historic Preservation Office (SHPO) which examine Minnesota's recent Prehistoric through Historic past. These contexts are based on archaeological and historic research. They describe the history of the state, and assist in predicting where specific types of sites may occur both geographically and temporally.

American Indian contexts are commonly divided into three major traditions: Paleoindian, Archaic, and Woodland based on significant changes these communities lived and what they ate. Historic contexts are generally divided into Contact and Post-Contact periods. The Contact period begins with early European exploration of the state and continues through the Post-Contact period including settlement and statehood.

Most archaeological sites found within Traverse County have only been dated to the Pre-Contact period. Exact dating is difficult based on limited testing, analysis, and quantity of artifacts. However, based on the types of artifacts found within the county, it can be assumed that almost all periods of prehistory have the potential to be represented within the project boundaries.

Pre-Contact Period

Paleoindian Tradition (12,000 to 8,000 Before Present [B.P.]

The Paleoindian Tradition begins at the close of the Pleistocene era and beginning of the Holocene era. Native Communities are small, mobile, and focused on hunting. The glacial ice retreats and Lake Agassiz (located on the edge of Traverse County) drains and prairie vegetation advances into western Minnesota. Archaeological evidence from Paleoindian sites in Minnesota includes the Browns Valley Site, 21TR0005, located near the project area reflect the same general characteristics and patterns noted for Paleoindian sites throughout the central United States and Canada. Based on the small number of artifacts recovered from these sites, it can be assumed that these communities hunted a limited number of large animals, mainly mammoth and mastadons. As the Pleistocene era ended and the Holocene era began, these mega fauna gradually died out. Ancient species of bison followed the advance of prairie vegetation, giving Paleoindian people a species to shift their hunting focus to. In addition to hunting large and smaller game, it is likely that gathering wild plant foods supplemented the diet of the Paleoindian people.

Paleoindian people are known for their distinctive stone tools. Projectile points of this period show advanced craftsmanship and include large lanceolate projectile points. Because Paleoindian communities were very small and nomadic, archaeologists have found only sparse, scattered evidence of the Paleoindian people throughout the region.

Archaic Tradition (8,000 to 2,800 B.P.)

The beginning of the Archaic period is marked by adaptation to environmental changes in the form of diet and settlement patterns. Archaic People begin to use more diverse plant and animal resources. A broader range of tools including new projectile point forms, copper tools, and ground and pecked stone tools appear. Although some research suggests that community size increased during the Archaic period, some archaeological evidence counters that assumption, suggesting that community sizes remained small, and that day-to-day activities took place at a series of seasonal camps (Anfinson 1987: 1997). The hunting of bison remained an integral part of life for Archaic people. As with Paleoindian sites, Archaic sites are relatively small and ephemeral.

Woodland Tradition (2,800 B.P. to European Contact)

In the Midwest region, archaeologists tend to divide the Woodland Tradition into three periods: Early, Middle, and Late, however Anfinson (1987a) has suggested that in Minnesota it may be more appropriate to make a single division into Initial and Terminal periods. The manufacture of ceramic vessels, use of bows and arrows, construction of burial mounds, and cultivation of specific plant species, mark the transition into the Woodland Tradition. Archaeologists believe that the Woodland Tradition remained similar to that of the Archaic period, with a dependence upon a diverse, seasonal resource base of plants and animals (Johnson 1988; Anfinson 1987a:222).

Although community sizes have many similarities between the Early Woodland and Late Archaic period, by the Late Woodland period populations are on the rise. This may be due to increased efficiency in regards to how food was acquired. Woodland period sites range from burial mounds to small limited use sites to large village and habitation sites. Sites are located in areas where the community could focus on specific resources to environments capable of sustaining larger communities over longer periods of time.

Plains Village & Mississippian/Oneota Traditions (1,100 B.P. to European Contact)

Terminal Woodland period sites in Minnesota exhibit significant changes in subsistence and settlement patterns. Ceramic vessels with different form and decoration, settlement patterns shifting to larger and more permanent villages (usually near river settings) all mark a change archaeologists refer to as the Plains Village and Mississippian/Oneota Traditions. Archaeological evidence indicates that both the Plains Village and Mississippian complexes relied heavily on bison hunting and intensive corn horticulture.

Archaeologists are unsure how the Oneota complexes developed. Two common theories are prevalent. The first indicates that groups migrating into the Upper Midwest brought with them new cultural traditions. A second theory is that people already living in the area began to adopt cultural changes different from groups around them.

Plains Village and Oneota site types are similar to those associated with the Woodland Tradition. The archaeological remains of these complexes range from burial mounds to small, limited use sites and extensive habitation sites. Site location remains consistent with the Woodland Period.

Contact/Post-Contact Period (1630 to Present)

This period generally refers to the span of time extending from the first European explorations until intensive Euro-American settlement of the region. Minnesota's historical period began in 1673 when French explorers Marquette and Joliet discovered the upper portion of the Mississippi River. Ten years later, Catholic Missionary Father Louis Hennepin returned to France to write the first book about Minnesota, *Description de la Louisiane*, telling his story of exploring Minnesota and being held captive by the Dakota Indians.

In the southern part of the region, LeSueur's men visited the Omaha on Big Sioux River (near present Sioux Falls, South Dakota) in the late 1600's. This is the best record of the early visits in the area.

The territory containing modern-day Minnesota was claimed by Spain, France, Great Britain, and eventually the United States. Lieutenant Zebulon Montgomery Pike led the first United States expedition through Minnesota in 1805. Fort St. Anthony (later Ft. Snelling) was completed between 1819 and 1824, and in 1836 the Wisconsin Territory including a portion of Minnesota, was formed. Minnesota became a territory in 1849 and achieved statehood on May 11, 1858. The fur trade drove much of the European exploration and settlement in Minnesota through the mid-1800s.

While the fur trade impacted the American Indian communities throughout all of Minnesota, European settlement in the area exploded after the 1860s. At that time, intensive settlement and agriculture dramatically transformed the landscape, displacing a large number of American Indians. In 1862 tensions between white settlers and American Indians exploded resulting in the Dakota Conflict. Ultimately, this war left 462 whites and "an unknown but substantial number" of American Indians dead (Anderson and Woolworth 1988). This conflict concluded with the hanging of 38 Dakota Indians in Mankato and the deportation of many others to Santee, Nebraska.

As white settlers made Minnesota their home, farming became the predominant industry. Wheat was the cash crop, and mills sprang up along major waterways across the state, notably in Minneapolis. Minnesota dominated the world in wheat processing until the 1930s.

In addition to milling, Minnesota was also a leader in lumbering and iron mining. Lumbering played a significant role in the development of northern Minnesota, with the industry peaking between 1899 and 1905, and iron mining began affecting the state's economy in 1884, when the Soudan Mine began shipping ore. The development of the Soudan Mine opened the Vermilion Iron Range, Minnesota's first of three iron ranges, and over the next two decades mines sprang up across the northern and central portions of the state. The Mesabi, Cuyuna, and Vermilion Iron Ranges employed thousands of people and brought millions of dollars into Minnesota's economy. Minnesota's iron industry spurred the rapid growth of mining cities such as Evelyth, Chisholm, Virginia,

and Hibbing as well as the port cities of Duluth, Minnesota and Superior, Wisconsin.” (Minnesota State University-Mankato 2006).

Possible archaeological site types associated with this period are generally consistent with those of earlier periods, but the influence of European and Euro-American traders, missionaries, settlers, and industries affected the locations of these sites. This period also includes the settlement patterns, subsistence activities, and economic strategies employed by Euro-American immigrants beginning in the mid 19th century. Associated archaeological and historic site types categorized in the Contact/Post-Contact period include standing structures as well as archaeological sites. A number of these sites can be found within the project area and include schools, farms, military and fur posts.

History of Scott County

Scott County takes its name from General Winfield Scott. Shakopee, the county seat, began as a trading post in 1851 near Dakota Chief Shakopee’s village. Townsites were established along transportation routes like the Minnesota River and ox cart trails. European immigrants, moved into the area bringing ethnic diversity that continues to today. (Scott County History website). Today, agricultural is still the dominant industry, but urban sprawl and suburbanization are changing rural character. Population has grown over the last 100 years, quite drastically as seen in Table 1.

Table 1. Recent Population of Scott County

Year	1990	2000	2005-2007
Population	57,846	88,592	122,013

Source: U.S. Census Bureau Website

Results of Background and Archival Research

Previously Identified Archaeological Sites

An inquiry by Mr. Blondo at the OSA and SHPO in July 2009 resulted in a finding of no previously recorded archaeological properties within the project area. However, one archaeological site is located approximately one mile north of the project area. Site 21Sc54 is a multi-component lithic scatter identified by the recovery of 770 lithic artifacts (including a portion of a small triangular woodland point recovered from the plowzone) in 1998 by the Institute for Minnesota Archaeology (IMAC). IMAC was conducting a survey for the Northern Natural Gas pipeline passing to the north of the current project area. The 1.44 hectare site is approximately 240 x 60 meters in size and 0 – 60 centimeters below surface (cmb) in depth. The site form describes the site as occupying a “complex geological position on what appears to be a braided stream terrace”. It goes on to state that “there is a buried cultural horizon which appears to post-date the final downcutting of the Minnesota River valley. The geological position of the buried cultural horizon suggests a fairly ancient date for the site, possibly dating to the late Paleo or Early Archaic periods”.

Previously Surveyed Historic Properties

An inquiry by Mr. Blondo at the SHPO in July 2009 resulted in a finding of no previously surveyed historic architectural properties within the project area. However, two are located within one mile of the project area. The Valley View Nursing Home and the Mudbaden Sulfur Springs Company.

The Valley View Nursing Home is located north of the project area. The property was a former mud bath – sulfur spring health resort known as Jordan Sulfur Springs. It was identified as a historic property in a survey conducted in 1979.

The Mudbaden Sulfur Springs Company (now the Abbot Northwestern Hospital and Family Treatment Center) was identified in the same 1979 survey. However, beyond the survey, this property was listed on the *National Register of Historic Places* (NRHP). The Mudbaden property is located south of the project area along between the Minnesota River and the railroad tracks. The history of Mudbaden is an interesting insight into the geological formations of the area. In the 1890s a University of Minnesota professor was hiking the Minnesota River valley when he became stuck in the mud. He noticed a familiar smell (sulfur) and remembering the curative springs he knew in his home country of Germany, he suggested the Minnesota River valley may have similar properties. The farmstead belonged to a poor millwright, Ole Rosendahl who opened the site as Rosendahl Sulfur Springs. The Springs became a popular operation drawing clients to the area. A railroad station was established at the site in 1913. In 1916 the value of the palatial sanitarium (including buildings and 80 acres) was estimated at a \$250,000. Two other spas entered competition during the first decade of the twentieth century: the aforementioned Jordan Sulfur Springs (now Valley View Nursing Home) and Mudcura (formerly known as Assumption Seminary – located on the west side of the Minnesota River in Carver County). According to the National Register Nomination form, Mudbaden remains the best preserved. The Springs operated until 1947 and in 1967 became a treatment and therapy center.

Previous Surveys

The region around the project area has been the subject of several important surveys. The earliest recorded survey was that of T.H. Lewis, who surveyed large areas of the state for earthworks during the latter part of the 19th century (Winchell 1911). Lewis recorded a number of mounds and earthworks in Scott County in 1883, especially along the Minnesota River Valley (Winchell 1911). More recently, compliance surveys have played an important role in understanding the distribution of cultural resources. Most of these compliance projects have fallen under general categories of pipelines (Federal Energy Regulatory Commission (FERC)), highway work (Department of Transportation - DOT), and United States Fish and Wildlife Service (USFWS) inventories. These project reports range from Phase I inventories to Phase III mitigations and data recoveries.

As mentioned in regards to previously identified archaeological site 21Sc54, a cultural resource survey was completed in 1998 in preparation for a proposed pipeline. The IMAC completed a survey for the Northern Natural Gas Pipeline across the region. The results of this survey can be found in the report *Northern Natural Gas Transmission*

Company, Wilmar Branchline Loop Project: Cultural Resource Investigations in Carver and Scott Counties, Minnesota, IMAC Reports of Investigation number 523. Tom Bailey was the Principal Investigator.

Field Results

Fieldwork was conducted July 20-24, 2009 by Steven J. Blondo, MA. Fieldwork commenced with a pedestrian survey of the entire APE. Discussions with the current tenant provided additional information regarding land use and tendency for flooding. For the following discussion, the parcel will be divided into areas to better describe field conditions and results.

The northern and western portions of the parcel are covered in rye fields. Visibility of these fields was good (>25 percent) and a pedestrian survey was conducted over the fields. The topography of the fields consists of gently rolling hills. Ridges and rises are present across the landform and offer a commanding view of the adjoining parcel. Soil across this area is sand. Continuous farming of the area has visibly taken its toll, edges of fields drop from the neighboring parcel to the field and topsoil development is limited. No cultural material was found during the pedestrian survey of the rye fields.

A small “island” of grassland is situated within the rye fields in the southwestern portion of the parcel. Field rock piles are present at the base of large cottonwood trees. An examination of rodent holes showed a large abundance of gravel intermixed with the sandy soil visible in the adjoining rye fields. A roofed structure consisting of an asphalt shingle roof atop an open pole frame is located in the center of this grassland “island”. The historic function of this structure is unknown and it currently stands vacant. Given the historic use of the vegetable farm, the structure may relate to irrigation of the vegetable fields. No additional cultural materials were found during the pedestrian survey of the grassland area.

Cornfields cover the southern portion of the parcel. Discussions with the local tenant explained that the farmer utilizes an older planting system that plants seed in wider rows than traditional farming techniques. This allowed for increased surface visibility (>25 percent), and for pedestrian survey in the cornfields. Exposed soil showed a silty loam composition, reminiscent of a floodplain setting. The topography of the fields is typical of a floodplain, and Sand Creek borders the easternmost edge of the cornfields. No cultural materials were found during the pedestrian survey of the cornfields.

The farmstead residence is located near the center of the parcel. Buildings consist of a house, barn/garage, granary, a storage cellar shed, two greenhouses, and ancillary structures. The yard is landscaped and well maintained. According to the current tenant, the house was probably constructed c. 1890. Renovations were done to the structures and property in the 1950s. The farm was used for vegetable farming and many of the existing structures point to this use (for example: greenhouses, storage cellar shed, irrigation piping, etc.). Although the farmstead is historic (at least 50 years old), there is little integrity left in the buildings reflecting past use. As with any continuously operating

farmstead, use leads to renovation and stabilization, old buildings are modernized or leveled. New buildings for new technologies are constructed.

Recommendations

Site Modeling

Because sites have been reported and recorded near the Area of Potential Effect (APE), it was the opinion of Blondo Consulting that there may have been some areas within the development parcel that have moderate potential for archaeological sites. This moderate to high potential is further evidenced in the amount of and proximity to earthworks and burial mounds (both reported and recorded) and high density of archaeological sites.

Early Paleoindian sites may be located on the beach ridges of Lake Agassiz (located in Traverse County on the western side of the state). Archaic sites may be deeply buried under alluvium. Few sites have been identified in the Prairie region. Though this may be due to a lack of professionally excavated sites (Anfinson 1988:291).

According to Anfinson, Woodland sites in this region should be located base camps will tend to be located near wooded areas especially near major rivers and lakes (1990:155). Large river valleys may be locations for winter camps. Resource procurement areas will also probably be located near water where the sought after resource is found. The “prairie potholes” and sloughs in the region made overland travel difficult and the Minnesota River wasn’t conducive to water travel (Anfinson 1990:155). Mound sites should be located along lakes or rivers on beach ridges (Anfinson 1990:159).

Historic sites should be located near the Minnesota River (a major east-west transportation route) or major lakes (Lake Traverse). Fur Posts and Military encampments are referenced in the historic documentation. The prevalence of agriculture in the area since settlement gives a context in which to review historic farmsteads.

Archaeological Resources

Good surface visibility (>25 percent) allowed for pedestrian survey of the APE. No cultural materials were recovered during this survey. Examination of the landforms present within the APE showed a lack of terrace features overlooking Sand Creek (a landform common for prehistoric settlement). Because no archaeological materials were recovered from the site, it is our recommendation that a finding of no historic properties be made. No additional work is recommended.

With any project there is the chance of unanticipated discovery. Should archaeological materials surface during construction, it is advised that a professional archaeologist be consulted. Minnesota Statute 307.08 protects unplatted cemeteries (including burial mounds) and issues guidelines for dealing with unexpected finds. Should human remains be encountered during earth moving activity, all work must stop and local law enforcement must be called.

Architectural Resources

For a historic architectural property to be considered important within a cultural resource management they must meet a level of significance and retain historic integrity for *National Register of Historic Places* listing. Although reportedly built in the 1890s, the farmstead on the property lacks the integrity needed for *National Register of Historic Places* listing. The significance of the property may be important, as the farmstead may represent an early vegetable farming operation in the county, however, without integrity the property would not be eligible for the National Register. No additional work is recommended for the architectural element of the parcel.

Conclusion

Mr. Steve Hentges is planning on proposed mining activities at the Hentges parcel in Scott County. Blondo Consulting was retained to identify known and assess potential for archaeological sites. An assessment of cultural contexts reveals that the parts of the county may have been inhabited for the past 10,000 to 12,000 years.

A background literature review for the project area, found one previously identified archaeological site approximately one mile from the Area of Potential Effect (APE). Looking at a combination of environmental data, regional models and identified archaeological sites, it was concluded that parts of the APE lie have moderate potential for unidentified archaeological sites.

A field examination of the APE revealed a finding of no historic properties. No archaeological materials were encountered during the investigations. No additional work is recommended for the proposed project area.

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<http://www.dnr.state.mn.us/ecs/index.html>, accessed 20 July 2009.

Minnesota State Historical Preservation Office Files

n.d. Various Files for recorded sites, archaeological as well as surveys conducted within the state.

Minnesota State University Mankato

Minnesota History, A Timeline Website found at
<http://www.mnsu.edu/emuseum/history/mnstatehistory/timeline.html#1659>. accessed 28 February 2007.

Office of the State Archaeologist Files

n.d. Various Files for recorded sites.

Scott County History Website

Found at: <http://www.scottcountyhistory.org/scotthistory.html>, accessed 20 July 2009.

United States Census Website

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Exhibits



Exhibit 1: Map of project area



Exhibit 2: Looking northwest from Sand Creek toward farmstead.



Exhibit 3: Looking east toward Sand Creek.
Rye field in foreground and cornfield in background.



Exhibit 4: Looking southeast toward rye fields.



Exhibit 5: View of house from yard.



Exhibit 6: View of greenhouses from yard.