A Level III Cultural Resources Evaluation of Powertech (USA) Incorporated's Proposed Dewey-Burdock Uranium Project Locality within the Southern Black Hills, Custer and Fall River Counties, South Dakota

Addendum 1

Black Hills Archeological Region

Volume 1:
Evaluative Testing Report

by

Linda Palmer

Archeological Contract Series Number 227

Prepared by:

Archeology Laboratory, Augustana College
2032 S. Grange Ave.
Sioux Falls, SD 57105

Prepared for:

Powertech (USA) Incorporated
5575 FYC Parkway, STE 140
Greenwood Village, CO 80111

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October 17, 2008

L. Adrien Hannus
Principal Investigator

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Abstract

Evaluative subsurface testing was conducted in the Black Archeological Region for Powertech (USA) Incorporated. The 14 sites selected for testing are located within Custer and Fall River counties, South Dakota. The selected sites are located in portions of the Dewey-Burdock uranium project area that will be impacted by proposed mining and/or construction of plant facilities within the next five years. The sites tested are 39CU3567 (prehistoric artifact scatter/stone circle); 39CU3571 (prehistoric artifact scatter/hearth; historic cairn); 39CU3572 and 39CU3771 (prehistoric artifact scatters); 39CU3583 (prehistoric artifact scatter; historic depression/artifact scatter); 39CU3584 (prehistoric artifact scatter/cairn), 39CU3592, and 39FA1895 (prehistoric artifact scatters/hearths), 39FA97 (prehistoric artifact scatter; historic farmstead/artifact scatter); 39FA1893, 39FA1894, 39FA1914, and 39FA1909 (prehistoric isolated finds); and 39FA1911 (historic non farm ruins/artifact scatter).

Based on the results of the evaluative testing, site 39CU3592 meets the specifications for Criterion D and is recommended as eligible for listing on the National Register of Historic Places (NRHP). It is recommended that site 39CU3592 be avoided by mining and plant facilities development impacts. If avoidance is not possible, a data recovery plan should be developed and implemented by the appropriate parties. The remaining 13 sites do not meet Criteria A, B, C, or D and are recommended as not eligible for listing on the NRHP.

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PROJECT OVERVIEW

Description

This report is an addendum to the report: *A Level III Cultural Resources Evaluation of Powertech (USA) Incorporated's Proposed Dewey-Burdock Uranium Project Locality within the Southern Black Hills, Custer and Fall River Counties, South Dakota* (Kruse et al. 2008). The addendum addresses the results of the evaluative testing of 14 sites (39CU3567, 39CU3571, 39CU3572, 39CU3583, 39CU3584, 39CU3592, 39CU3771, 39FA97, 39FA1893, 39FA1894, 39FA1895, 39FA1909, 39FA1911, and 39FA1914). These sites were documented by the Archeology Laboratory, Augustana College (ALAC), during the 2007 survey (Kruse et. al. 2008); however, evaluative testing was not completed due to time constraints. The selected sites are located in portions of the Dewey-Burdock uranium project area that will be impacted by proposed mining and/or construction of plant facilities within the next five years. The primary objective of this investigation was to complete the evaluation of the eligibility status of each of the 14 sites for listing on the National Register of Historic Places (NRHP). These properties were also evaluated in terms of the effect of the undertaking on the resources, and management recommendations have been provided accordingly.

The 14 sites are located in the southern Black Hills in Custer and Fall River counties (Figure 1; Appendix A, Maps A1 and A2) within the Black Hills Archeological Region. The combined area of the seven Custer County sites that were evaluated during the current investigation is approximately 169 acres; the combined area of the seven Fall River County sites is approximately 13 acres. Two of the sites (39FA1893 and 39FA1894) are owned by the United States Department of the Interior, Bureau of Land Management (BLM) (Appendix A, Map A2). These federal sites were tested under Permit for Archeological Investigations number M 98125 and Field Work Authorization number MT-040-M98125-15 (Appendix B). Fieldwork was conducted by ALAC on July 9-16 and July 23-29, 2008.

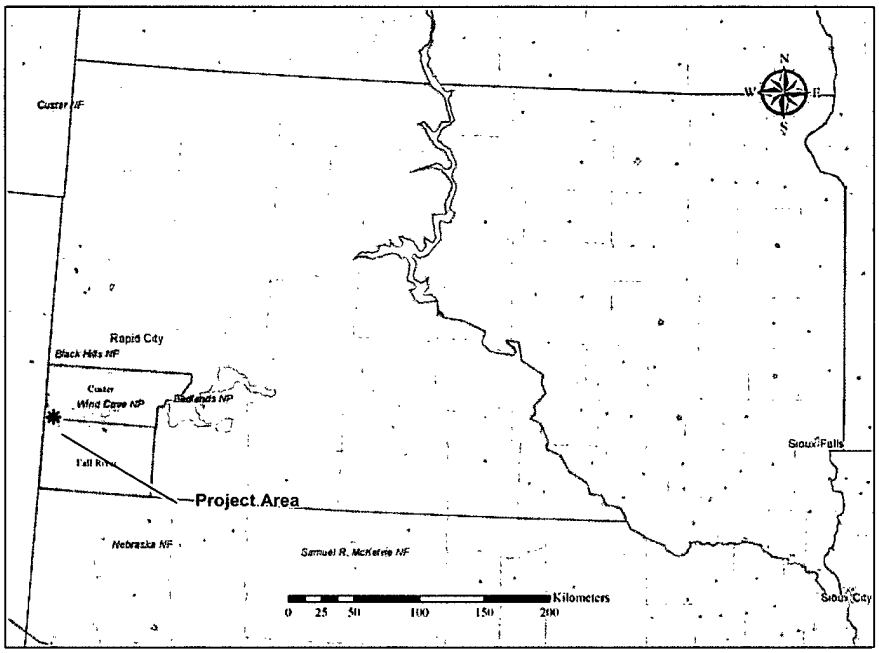


Figure 1. General location of project area in Custer and Fall River counties, South Dakota (adapted from ESRI ArcGIS 9 United States Data and Maps Media Kit 2005).

Personnel

L. Adrien Hannus served as ALAC Principal Investigator for the project. Linda Palmer acted as field director and as author of the report. Carlton Bates, Landon Karr, and Jason Kruse were the field crew members. Lynette Rossum conducted technical editing of the report.

Report Framework

This addendum comprises two volumes. Volume 1 contains the evaluative testing report. Volume 2 contains the report appendices. The appendices have been compiled in a separate volume because they contain information that is considered inappropriate for future public use and/or dissemination.

ENVIRONMENTAL CONTEXT

A general description of the environmental context for the portion of the southern Black Hills and plains periphery in which the 14 concerned sites are located, can be referenced in Kruse et al. (2008). Specific soils mapped in each of the 14 site areas (Ensz 1990; Kalvels 1982) are presented in Table 1.

Table 1. Specific Soil Types Mapped in the Site Areas.

Site #	Specific Soil Name	Slope (%)	Description
39CU3567	Grummit-Rock outcrop complex (GrD)	6-15	Shallow, well-drained, moderately sloping and strongly sloping soil intermingled with areas of outcrop; on upland ridges and hills; formed in clayey material weathered from acid shale
39CU3571	Grummit-Rock outcrop complex (GrD)	6-15	Shallow, well-drained, moderately sloping and strongly sloping soil intermingled with areas of outcrop; on upland ridges and hills; formed in clayey material weathered from acid shale
39CU3572	Arvada-Slickspots complex (AsA)	0-3	Deep, well-drained, nearly level and gently sloping soil closely intermingled with Slickspots; on uplands and terraces; Arvada soil formed in clayey and loamy alluvium and colluvium; Slickspots are in depressions and have a light gray surface crust over dense massive clay
	Demar-Grummit-Slickspots complex (DgB)	0-6	Nearly level to gently sloping soils on low terraces and uplands along streams and drainage ways; the Demar and Grummit soils formed in clayey material weathered from acid shale
	Pierre-Grummit clays (PgC)	2-9	Well-drained, gently sloping and moderately sloping soils on uplands; formed in clayey material weathered from acid shale
39CU3583	Arvada-Slickspots complex (AsA)	0-3	Deep, well-drained, nearly level and gently sloping soil closely intermingled with Slickspots; on uplands and terraces; Arvada soil formed in clayey and loamy alluvium and colluvium; Slickspots are in depressions and have a light gray surface crust over dense massive clay
	Pierre-Grummit clays (PgC)	2-9	Well-drained, gently sloping and moderately sloping soils on uplands; formed in clayey material weathered from acid shale

Table 1. (continued)

Site #	Specific Soil Name	Slope (%)	Description
39CU3584	Pierre-Grummit clays (PgC) Zigweid-Nihill complex (ZnD)	2-9 6-15	Well-drained, gently sloping and moderately sloping soils on uplands; formed in clayey material weathered from acid shale Deep, well-drained, moderately sloping and rolling soils on ridges and side slopes on old terraces; formed in loamy and gravelly alluvium
35CU3592	Arvada-Slickspots complex (AsA)	0-3	Deep, well-drained, nearly level and gently sloping soil closely intermingled with Slickspots; on uplands and terraces; Arvada soil formed in clayey and loamy alluvium and colluvium; Slickspots are in depressions and have a light gray surface crust over dense massive clay
39CU3771	Grummit-Rock outcrop complex (GrF)	15-60	Shallow, well-drained, moderately steep to very steep soil intermingled with areas of Rock outcrop on upland ridges
39FA97	Broadhurst clay (Brd) Grummit-Snomo clays (GsD)	2-15 3-15	Well-drained, gently sloping soil on alluvial fans and terraces; formed in clayey alluvium Shallow, well-drained, gently sloping to strongly sloping soils in areas on uplands where slopes are long and are rough or broken; formed in material weathered from acid shale
39FA1893	Kyle clay (KyB)	2-6	Well-drained, gently sloping soil on uplands and terraces; formed in clayey material weathered from calcareous shale
39FA1894	Kyle clay (KyB)	2-6	Well-drained, gently sloping soil on uplands and terraces; formed in clayey material weathered from calcareous shale
39FA1895	Grummit-Snomo clays (GsD)	3-15	Shallow, well-drained, gently sloping to strongly sloping soils in areas on uplands where slopes are long and are rough or broken; formed in material weathered from acid shale
39FA1909	Kyle clay (KyB)	2-6	Well-drained, gently sloping soil on uplands and terraces; formed in clayey material weathered from calcareous shale
39FA1911	Pierre Samsil clays	6-25	Well-drained, moderately sloping to steep soils on uplands; formed in clayey material weathered from shale
39FA1914	Pierre Samsil clays	6-25	Well-drained, moderately sloping to steep soils on uplands; formed in clayey material weathered from shale

CULTURAL CONTEXT

Information concerning the culture history for the portion of the southern Black Hills and plains periphery in which the 14 concerned sites are located, can be referenced in Kruse et al. (2008).

REVIEW OF PRIOR CULTURAL RESOURCE STUDIES

The 14 sites evaluated during the current phase of testing were documented during the 2007 ALAC survey of Powertech (USA) Incorporated's proposed Dewey-Burdock uranium project locality (Kruse et al. 2008). A comprehensive literature search and records review of the entire project area, including the localities of the sites currently selected for evaluative testing, was completed on April 11, 2007 by Michael R. Fosha, Assistant State Archaeologist, South Dakota State Historical Society, Archaeological Research Center (ARC). The results of that study can be referenced in Kruse et al. (2008). Numerous sites documented in the 2007 survey (Kruse et al. 2008) lie within a one-mile radius of each of the 14 sites evaluated (Table 2).

Table 2. Sites Located within a One-Mile Radius of Current Evaluative Testing Sites*

Evaluation Site #	Sites Within One-Mile Radius (General Categories)		
	Prehistoric	Historic	Historic/Prehistoric Multi-Component
39CU3567	39CU271, 39CU557, 39CU648, 39CU3565, 39CU3568, 39CU3569, 39CU3570, 35CU3571, 39CU3572, 39CU3573, 39CU3574, 39CU3576 39CU3578, 39CU3579, 39CU3580, 39CU3581, 39CU3582, 39CU3584, 39CU3598, 39CU3608, 39CU3771		39CU3566, 39CU3583
39CU3571	39CU271, 39CU463, 39CU464, 39CU530, 39CU531, 39CU557, 39CU559, 39CU648, 39CU3561, 39CU3564, 39CU3565, 39CU3567, 39CU3568, 39CU3569, 39CU3570, 39CU3572, 39CU3573, 39CU3574, 39CU3578, 39CU3582, 39CU3586, 39CU3590, 39CU3591, 39CU3592, 39CU3593, 39CU3594, 39CU3595, 39CU3596, 39CU3598, 39CU3608, 39CU3609, 39CU3610, 39CU3611, 39CU3771		39CU3566, 39CU3583, 39CU3603
38CU3572	39CU271, 39CU463, 39CU464, 39CU530, 39CU557, 39CU559, 39CU648, 39CU3564, 39CU3565, 39CU3567, 39CU3568, 39CU3569, 39CU3570, 39CU3571, 39CU3573, 39CU3574, 39CU3576, 39CU3578, 39CU3579, 39CU3580, 39CU3581, 39CU3582, 39CU3584, 39CU3586, 39CU3590, 39CU3591, 39CU3592, 39CU3593, 39CU3594, 39CU3595, 39CU3596, 39CU3597, 39CU3598, 39CU3608, 39CU3609, 39CU3610, 39CU3611, 39CU3612, 39CU3771, 39CU3772	39CU3599	39CU531, 39CU3566, 39CU3583, 39CU3603
39CU3583	39CU271, 39CU464, 39CU557, 39CU559, 39CU648, 39CU3567, 39CU3568, 39CU3569, 39CU3570, 39CU3571, 39CU3572, 39CU3573, 39CU3574, 39CU3576, 39CU3578, 39CU3579, 39CU3580, 39CU3581, 39CU3582, 39CU3584, 39CU3586, 39CU3590, 39CU3591, 39CU3592, 39CU3593, 39CU3595, 39CU3596, 39CU3598, 39CU3771	39CU3599	39CU3566, 39CU3585
39CU3584	39CU271, 39CU648, 39CU3568, 39CU3569, 39CU3570, 39CU3572, 39CU3574, 39CU3576, 39CU3578, 39CU3579, 39CU3580, 39CU3581, 39CU3582		39CU3566, 39CU3583
39CU3592	39CU271, 39CU463, 39CU464, 39CU532, 39CU557, 39CU559, 39CU3565, 39CU3570, 39CU3571, 39CU3572, 39CU3573, 39CU3586, 39CU3588, 39CU3589, 39CU3590, 39CU3591, 39CU3593, 39CU3594, 39CU3595, 39CU3596, 39CU3597, 39CU3598, 39CU3608, 39CU3609, 39CU3610, 39CU3611, 39CU3612, 39CU3613, 39CU3771, 39CU3772	39CU557, 39CU3599	39CU531, 39CU3583, 39CU3587, 39CU3603

Table 2. (continued)

Evaluation Site #	Sites Within One-Mile Radius (General Categories)		
	Prehistoric	Historic	Historic/Prehistoric Multi-Component
39CU3771	39CU271, 39CU459, 39CU460, 39CU463, 39CU464, 39CU530, 39CU532, 39CU557, 39CU559, 39CU648, 39CU3564, 39CU3565, 39CU3567, 39CU3568, 39CU3569, 39CU3570, 39CU3571, 39CU3572, 39CU3573, 39CU3574, 39CU3586, 39CU3588, 39CU3589, 39CU3590, 39CU3591, 39CU3592, 39CU3593, 39CU3594, 39CU3595, 39CU35996, 39CU3597, 39CU3598, 39CU3600, 39CU3602, 39CU3605, 39C8U3606, 39CU3607, 39CU3608, 39CU3609, 39CU3610, 39CU3611, 39CU3612, 39CU3613, 39CU3772, 39CU3783	39CU3599	39CU531, 39CU3583, 39CU3603
39FA97	39FA1883, 39FA1884, 39FA1885, 39FA1886, 39FA1887, 39FA1888, 39FA1889, 39FA1890, 39FA1891, 39FA1892, 39FA1893, 39FA1894, 39FA1895, 39FA1899, 39FA1900, 39FA1909, 39FA1912, 39FA1913, 39FA1914, 39FA1933, 39FA1934, 39FA1935, 39FA1936, 39FA1937, 39FA1938, 39FA1939, 39FA1940	39FA1882, 39FA1911	39FA96, 39FA1896
39FA1893	39FA272, 39FA273, 39FA740, 39FA1875, 39FA1877, 39FA1878, 39FA1879, 39FA1880, 39FA1883, 39FA1884, 39FA1885, 39FA1886, 39FA1887, 39FA1888, 39FA1889, 39FA1891, 39FA1892, 39FA1895, 39FA1897, 39FA1898, 39FA1899, 39FA1900, 39FA1903, 39FA1904, 39FA1908, 39FA1909, 39FA1912, 39FA1913, 39FA1914, 39FA1915, 39FA1916, 39FA1934, 39FA1936, 39FA1941, 39FA1944	39FA778, 39FA1905, 39FA1911	39FA96, 39FA97, 39FA1896, 39FA1901, 39FA1902, 39FA1907
39FA1894	39FA272, 39FA740, 39FA778, 39FA1875, 39FA1877, 39FA1883, 39FA1884, 39FA1885, 39FA1886, 39FA1887, 39FA1888, 39FA1889, 39FA1891, 39FA1892, 39FA1893, 39FA1895, 39FA1897, 39FA1898, 39FA1899, 39FA1900, 39FA1903, 39FA1909, 39FA1910, 39FA1912, 39FA1913, 39FA1914, 39FA1915, 39FA1916, 39FA1934, 39FA1935, 39FA1936, 39FA1937, 39FA1941, 39FA1944	39FA1911	39FA96, 39FA97, 39FA1896, 39FA1901, 39FA1902, 39FA1907
39FA1895	39FA1883, 39FA1884, 39FA1885, 39FA1886, 39FA1887, 39FA1888, 39FA1890, 39FA1891, 39FA1892, 39FA1893, 39FA1894, 39FA1909, 39FA1914, 39FA1933, 39FA1935, 39FA1936, 39FA1937, 39FA1938, 39FA1939, 39FA1940, 39FA1942	39FA1882, 39FA1911	39FA96, 39FA97

Table 2. (continued)

Evaluation Site #	Sites Within One-Mile Radius (General Categories)		
	Prehistoric	Historic	Historic/Prehistoric Multi-Component
39FA1909	39FA272, 39FA1875, 39FA1877, 39FA1883, 39FA1884, 39FA1885, 39FA1886, 39FA1887, 39FA1888, 39F1889, 39FA1891,39FA1892, 39FA1893, 39FA1894, 39FA1895, 39FA1899, 39FA1910, 39FA1912, 39FA1913, 39FA1914, 39FA1915, 39FA1918, 39FA1929, 39FA1933, 39FA1934, 39FA1935, 39FA1936, 39FA1937, 39FA1938, 39FA1944	39FA1882, 39FA1911	39FA96, 39FA97, 39FA1896
39FA1911	39FA272, 39FA1877, 39FA1883,39FA1884, 39FA1885, 39FA1888, 39FA1889, 39FA1891, 39FA1892, 39FA1893, 39FA1894, 39FA1895, 39FA1909, 39FA1910, 39FA1912, 39FA1913, 39FA1914, 39FA1915, 39FA1916, 39FA1918, 39FA1922, 39FA1929, 39F1930, 39FA1931, 39FA1933, 39FA1934, 39FA1935, 39FA1936, 39FA1937, 39FA1944	39FA1882	39FA96, 39FA97, 39FA1896
39FA1914	39FA272, 39FA1875, 39FA1877, 39FA1883, 39FA1884, 39FA1885, 39FA1886, 39FA1888, 39FA1889, 39FA1891, 39FA1892, 39FA1893, 39FA1894, 39FA1895, 39FA1909, 39FA1910, 39FA1912, 39FA1913, 39FA1914, 39FA1915, 39FA1918, 39FA1929, 39FA1933, 39FA1934, 39FA1935, 39FA1937, 39FA1938, 39FA1944	39FA1882, 39FA1911	39FA96, 39FA97, 39FA1896

*Only those sites documented within the boundaries of the 2007 Powertech (USA) Incorporated's Dewey-Burdock proposed uranium project survey are represented.

METHODOLOGY

Fieldwork Methods

Prior to the fieldwork, a general evaluation plan was presented via telephone discussion to Michael Fosha, South Dakota State Historical Society, ARC. Mr. Fosha concurred with ALAC's proposed testing plan. The general plan indicated that the 14 individual sites were to be tested using varying numbers of shovel or posthole tests and formal excavation units. The number, size, and spacing of test units per site were based on factors such as size of the site, presence and quantity of recorded features, location and density of surface scatters, type of landform, and degree of soil erosion.

Prior to the excavation of test units, the surface of each site was reexamined with informal (not parallel) zigzag transects. Surface artifact inventories were not recorded unless a diagnostic artifact was observed and collected or artifacts were observed beyond the previously recorded site boundaries.

The test units were excavated by shovel-skimming and/or troweling based on the presence or absence of surface features and the density of cultural materials. The matrix was screened through 1/4-inch hardware mesh. All recovered subsurface cultural materials, with the exception of large quantities of fire-cracked rock (FCR) from hearth features, were bagged and transported to ALAC for analysis. The screened matrix was used to backfill each completed test unit.

Prehistoric hearth features were documented at sites 39CU3571, 39CU3592, and 39FA1895. A sample of the hearth features on each of these sites was cross-sectioned. The recovered hearth fill was bagged as flotation samples and transported to ALAC for processing. The tested hearth features were planned and photographed prior to, during, and following excavation. The FCR recovered from each tested feature was counted, and the size range and types of lithic material

were documented. The FCR was not collected; it was used to backfill the corresponding cross-sectioned features.

Mapping of the test unit locations, changes to site boundaries, features or artifacts not previously documented, and other pertinent site data was accomplished using a Trimble (Juno) with 1-3 m accuracy. Site overviews, test units, and features were documented with digital and color print photographs. Daily notes were recorded in field notebooks and on shovel test and excavation unit forms by the field director and the crew members.

Laboratory Methods

Recovered cultural materials were washed in plain water, with the exception of metal and fragile materials. Those items were gently brushed to remove the loose dirt. The materials were then sorted into categories (per provenience) and cataloged.

Soil samples, primarily consisting of hearth fill, were processed by bucket flotation utilizing five-gallon buckets and water. The soil samples were divided into manageable portions and poured into the buckets. The buckets were filled with water and the soil/water mixture was stirred. The light fraction material was skimmed into a fine mesh material (<.25 mm). The heavy fraction was left at the bottom of the bucket and then water screened through 1/8-inch hardware mesh. The light and heavy fraction materials were thoroughly air dried, re-bagged, and labeled. Finally, each sample was sorted into categories; the gravel, roots, and non-cultural materials were discarded. The artifacts were then cataloged.

The ARC, Rapid City, South Dakota, will be the permanent repository for the artifacts, records, and photographic materials associated with this project provided the landowners give their consent to donate the artifacts. If consent is not obtained, the artifacts will be returned to the landowners. No cultural materials were collected from the sites located on BLM land (39FA1893 and 39FA1894).

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION

Evaluation Criteria

Evaluation of the significance of the historic/prehistoric archeological sites is based on the following established criteria of eligibility as set forth in the NRHP:

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:
>
> A) That are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> B) That are associated with the lives of persons significant in our past; or
>
> C) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> D) That have yielded, or may be likely to yield, information important in prehistory or history [NPS 1991:37].

Criterion D is regarded as the most appropriate for the evaluation of archeological sites, which, like the 14 sites evaluated in this study, lack association with specific events (Criterion A) and significant individuals (Criterion B), and do not represent distinctive characteristics (Criterion C). While the Black Hills are recognized as a sacred area by Native American tribes, the archeological sites discussed in this report at present lack the documentation to qualify individually as Traditional Cultural Properties (TCPs).

In order to be eligible for listing on the NRHP under Criterion D, a site must have yielded, or have demonstrated the potential to yield, important information that contributes to our understanding of prehistory or history. To demonstrate this potential, the site must display on the surface, or produce through subsurface testing, evidence that it contains specific datasets that can be used to answer specific, important research questions (Deaver and Peterson 1999).

Overview

Fourteen sites were selected for evaluative testing based on their location in areas expected to be heavily impacted within the next five years by Powertech (USA) Incorporated's proposed mining and construction activities. The evaluative testing was initiated on July 9, 2008. Fourteen sites, which were documented but not tested in the ALAC survey of 2007 (Kruse et al. 2008), were revisited and evaluated (Appendix A, Maps A1 and A2). The sites are summarized in Table 3. The respective updated site forms are presented in Appendix C. The sites are all located within the Black Hills Archeological Region. A detailed description of each site was presented in Kruse et al. (2008). Summarized site descriptions, including any changes to the previously recorded information, descriptions of the evaluative fieldwork, and interpretations and NRHP eligibility recommendations per site are provided below.

Table 3. Archeological Sites Evaluated.

Site Number	Cultural Affiliation	Site Type	County	NRHP Recommendation
39CU3567	Native American	Artifact Scatter Stone Circle	Custer	Not Eligible
39CU3571	Native American Euroamerican	Artifact Scatter Hearth Cairn	Custer	Not Eligible
39CU3572	Native American	Artifact Scatter	Custer	Not Eligible
39CU3583	Native American Euroamerican	Artifact Scatter Artifact Scatter Depression	Custer	Not Eligible
39CU3584	Native American	Artifact Scatter Cairn	Custer	Not Eligible
39CU3592	Native American	Artifact Scatter Hearth	Custer	Eligible
39CU3771	Native American	Artifact Scatter	Custer	Not Eligible
39FA97	Native American Euroamerican	Artifact Scatter Farmstead Artifact Scatter	Fall River	Not Eligible
39FA1893	Native American	Isolated Find	Fall River	Not Eligible
39FA1894	Native American	Isolated Find	Fall River	Not Eligible
39FA1895	Native American	Artifact Scatter Hearth	Fall River	Not Eligible
39FA1909	Native American	Isolated Find	Fall River	Not Eligible
39FA1911	Euroamerican	Non Farm Ruins Artifact Scatter	Fall River	Not Eligible
39FA1914	Native American	Isolated Find	Fall River	Not Eligible

SITE 39CU3567

Site Number: 39CU3567
Site Type: Artifact Scatter, Stone Circle
Cultural Affiliation: Native American (Late Archaic/Woodland)
Subsurface Testing: 6 shovel tests; 3 1-x-1-m units
Landscape Position: Rolling Plain

Landowner: Private
NRHP Evaluation: Not Eligible
Site Condition: Disturbed
Date Tested: 7/9/08 and 7/10/08
Map Reference: A1

Site Description

Site 39CU3567 (Figures 2 and 3) was documented in Kruse et al. (2008) as a sparse lithic scatter associated with one stone circle (SC1). An additional stone half-circle was recorded during the current evaluative field work. The new feature (SC2) is situated within the previously recorded site boundaries, approximately 20 m north of SC1. The site is in overgrazed pasture with intrusive sage brush and prickly pear. Ground surface visibility averaged 70 percent at the time of the site evaluation.

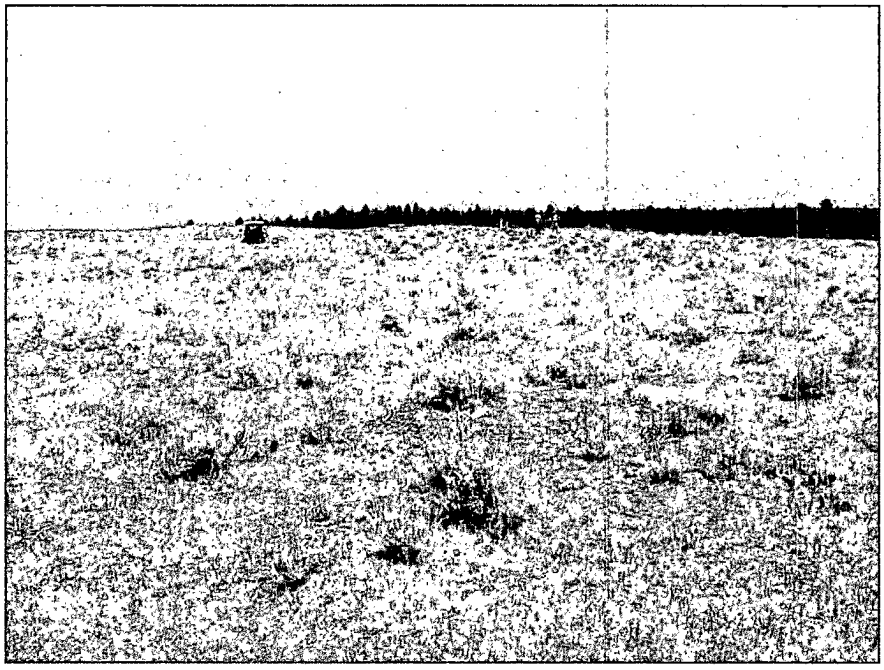


Figure 2. Overview of site 39CU3567, facing north.

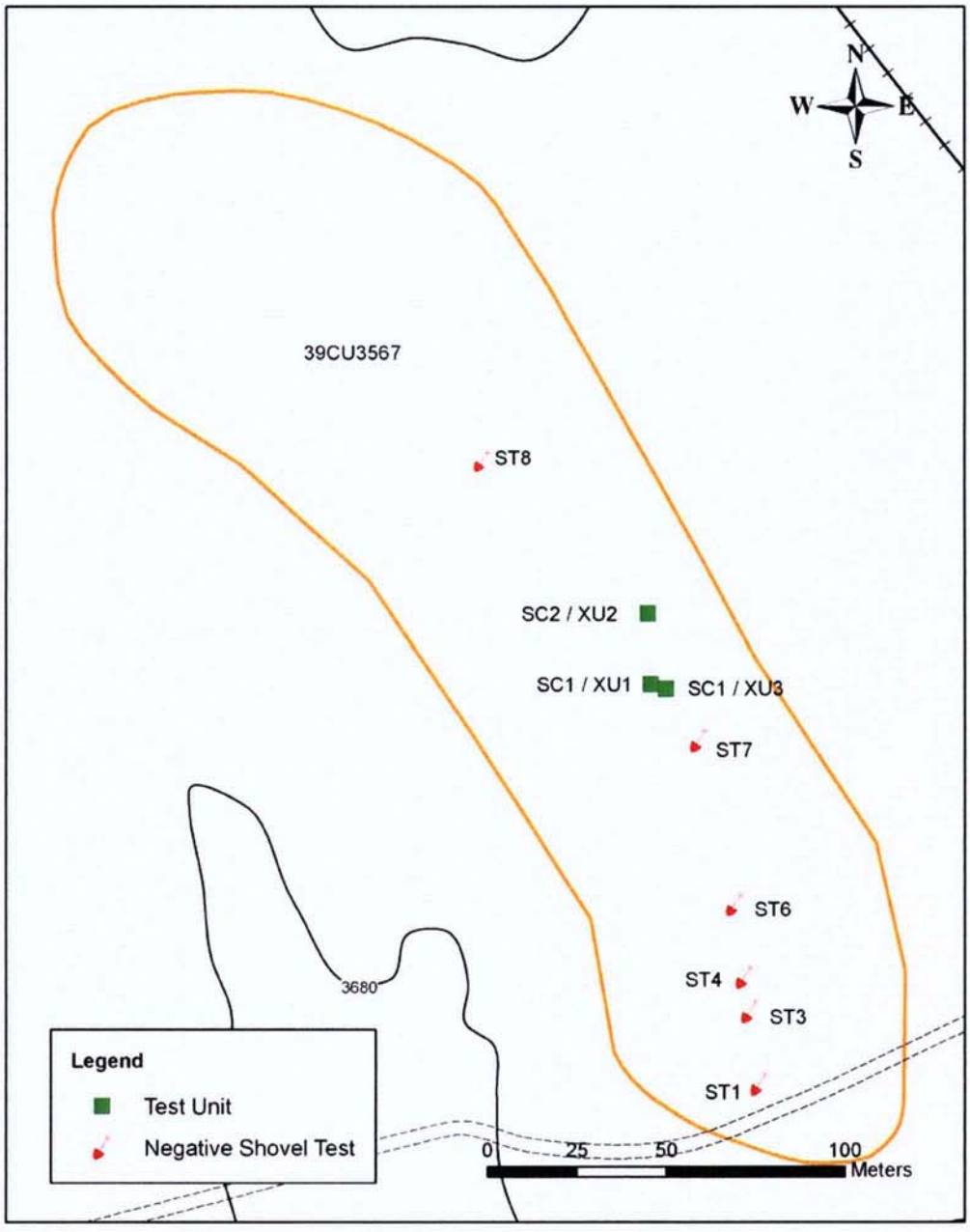


Figure 3. Plan map of site 39CU3567, showing features and test locations.

Evaluation Field Work

Reexamination of the site surface indicated that the north half of the site is severely eroded to gravel and bedrock exposures. It appeared that there was some intact soil on the south half of the site, although it was likely the result of redeposition due to sheet wash erosion. No test units were excavated in the severely eroded north half of the site. A line of eight shovel test locations (ST1-ST8) was flagged from south to north across the approximate center of the south half of the site (Figure 3). Two of the flagged locations (ST2 and ST5) were not excavated. The profiles of the shovel tests are presented in Table 4.

Table 4. Shovel Test Soil Profiles, Site 39CU3567.

ST #	Diam (cm)	Depth (cm)	Soil Description	Munsell-Color	Cultural Material
1	37	0-7	Silt with some gravel; slope wash	10YR 5/2-brown	No
		7-50	Concreted silt, peds, Bk horizon, calcium carbonates increase with depth	10YR 3/1-very dark gray	No
3	35	0-5	Silt; loose, powdery	10YR 5/2-brown	No
		5-17	Silt; more compact	10YR 5/2-brown	No
		17-50	Concreted silt, peds, Bk horizon, calcium carbonates increase with depth	10YR 3/1-very dark gray	No
4	31	0-5	Silt; loose, powdery	10YR 5/2-brown	No
		5-16	Silt; more compact; no calcium carbonate	10YR 5/2-brown	No
		16-50	Concreted silt, peds, Bk horizon, calcium carbonates increase with depth	10YR 3/1-very dark gray	No
6	35	0-7	Silt with some gravel; slope wash	10YR 5/2-brown	No
		7-50	Concreted silt; peds, Bk horizon, calcium carbonates increase with depth	10YR 3/1-very dark gray	No
7	35	0-16	Silt; loose	10YR 5/2-brown	No
		16-50	Concreted silt, peds, Bk horizon, heavy calcium carbonates; very little moisture	10YR 3/1-very dark gray	No
8	35	0-28	Concreted silt; loamy with a few gravels	10YR 5/2-5/3-brown	No
		28-45	Silt; very compact Bk horizon, peds, calcium carbonates	10YR 3/1-very dark gray	

The soil profiles of the tests are comparable to those of the Grummit-Rock complex soil type (Ensz 1990) mapped in the site area (see Table 1). The shallow soil, which formed in shale and likely has been redeposited by sheet wash erosion onto the lower, southern portion of the site, has very low potential for intact subsurface cultural deposits. No cultural materials were recovered from the shovel tests.

Scaled plans were drawn of SC1 (Figure 4) and SC2 (Figure 5). Two 1-x-1-m excavation units were established to test SC1. The unit (XU1) placed in the approximate middle of the feature was aligned with the drawing grid (Figure 4). The unit was excavated to a maximum depth of 20 cmbs (Figure 6). One grayish red chert tertiary flake and 47 pieces of FCR were recovered from 0-10 cmbs in XU1. The FCR is a mixture of chert, quartzite, limestone, ironstone, and sandstone, and ranges in size from 1-9 cm (maximum length). The recovered FCR was scattered throughout the unit fill, with no particular concentration areas noted. The soil profile of the unit (Figures 7 and 8; Table 5) was very similar to the shovel test profiles. Excavation Unit 3 (XU3) was placed outside of SC1, approximately 4 m southeast of XU1 (see Figure 3). The soil profile of XU3 (Table 5) was virtually identical to that of XU1 and was not drawn. One pale yellowish brown chert core fragment and two unidentifiable bone fragments (large mammal) were recovered from 0-10 cmbs in XU3.

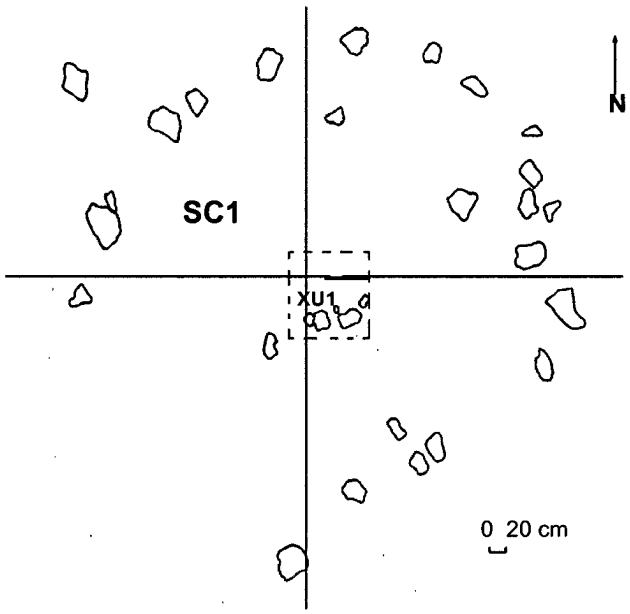


Figure 4. Plan of SC1, showing location of XU1, site 39CU3567.

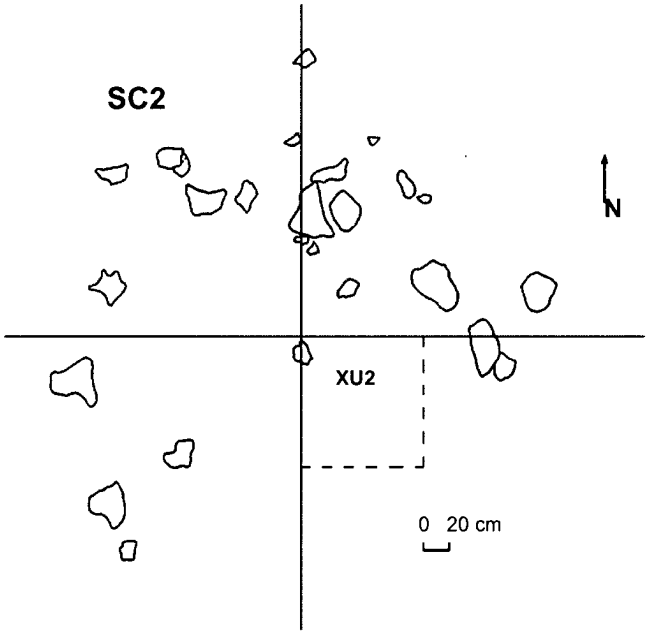


Figure 5. Plan of SC2, showing location of XU2, site 39CU3567.

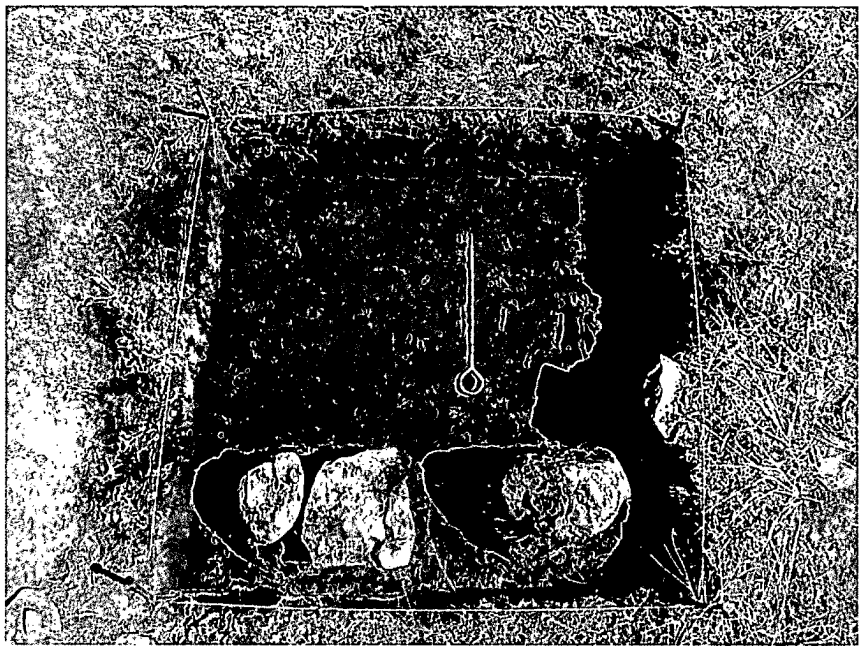


Figure 6. View of XU1 in SC1 at 20 cmbs, site 39CU3567, facing north.

Table 5. Excavation Unit Soil Profiles, Site 39CU3567.

XU #	Size	Depth (cm)	Soil Description	Munsell-Color	Cultural Material
1	1 x 1 m	0-10	Clayey silt with few gravels; slope wash; shale flecks present	10YR 5/2-brown	Yes
		10-20	Hard compacted silt; peds, calcium carbonates	10YR 3/2-very dark grayish brown	No
2	1 x 1 m	0-10	Silt, fine grained	2.5Y 4/1-dark gray	Yes
		10-20	Clayey silt, slightly more coarse shale bits and calcium carbonates, almost no gravel	2.5Y 3/1 and 2.5Y 4/2-very dark gray and dark grayish brown	No
3	1 x 1 m	0-10	Clayey silt with few gravels; slope wash; shale flecks present	10YR 5/2-brown	Yes
		10-20	Hard compacted silt; peds, calcium carbonates; krotovina in NW corner	10YR 3/2-very dark grayish brown	No

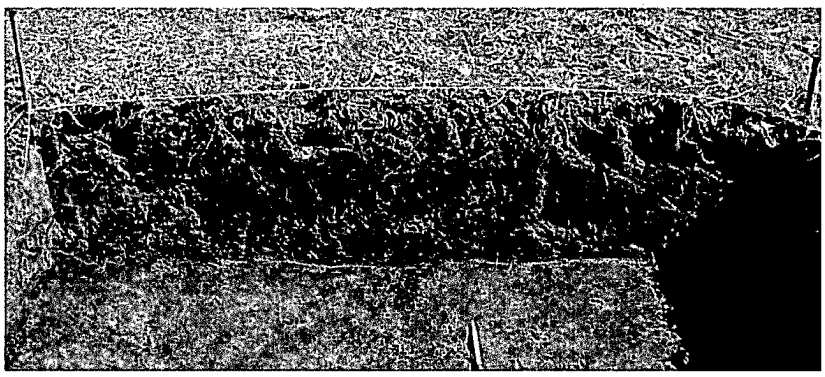
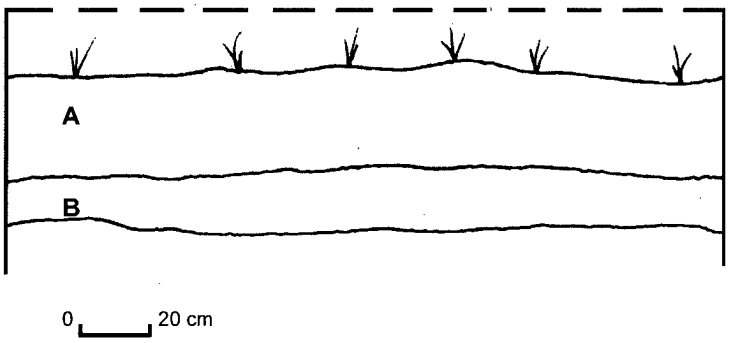


Figure 7. View of north wall profile of XU1 in SC1, site 39CU3567.



A = Silt with some gravel and shale flecks; slope wash; 10YR 5/2, brown
B = Concreted silt, peds, Bk horizon, calcium carbonates increase with depth; 10YR 3/2, very dark grayish brown

Figure 8. Profile of north wall of XU1 in SC1, site 39CU3567.

One unit (XU2) was excavated in the southeast quarter of SC2 (see Table 5; Figures 9 and10). A pale red and moderate yellowish brown chert retouched secondary flake, a pale red chert tertiary flake, and a piece of chert FCR were recovered from 0-10 cmbs in XU2. A small sample of charcoal was recovered from 14 cmbs; however, it appeared to represent an in situ burned plant root and likely is not directly associated with the cultural site.

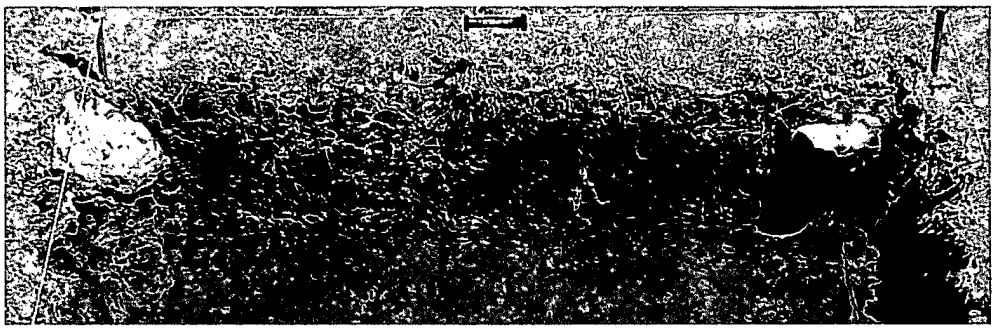
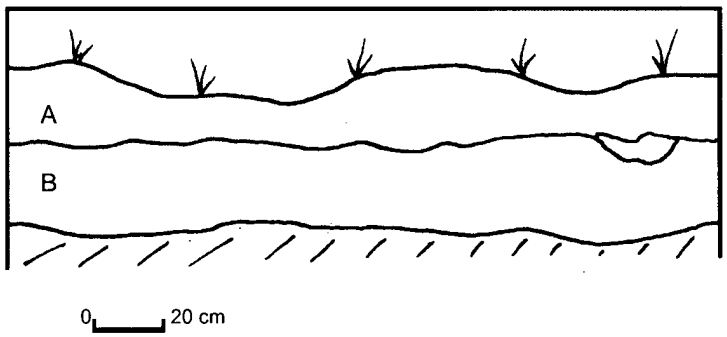


Figure 9. View of north wall profile of XU2 in SC2, site 39CU3567.



A = Slightly clayey silt; fine-grained; 2.5Y 4/1, dark gray
B = Clayey silt, slightly more coarse shale bits and calcium carbonates, almost no gravel; 2.5Y 3/1 and 2.5Y 4/2, very dark gray and dark grayish brown

Figure 10. Profile of north wall of XU2 in SC2, site 39CU3567.

Interpretation and Recommendations

Site 39CU3567 represents a sparse lithic scatter, a stone circle, and a stone half-circle. The site exhibits severe wind and water erosion. The north half of the site is eroded to gravel and bedrock; the south half has approximately 10 cm of redeposited soil, displaced by sheet wash erosion. The stone circles exhibit similar shallow, redeposited soil and very low artifact density. No internal or external features or diagnostic/datable materials were observed in association with the features or encountered in the test excavations. The only documented diagnostic artifact from the site is a Late Archaic/Early Middle Plains Woodland projectile point (Kruse et al. 2008), which was recovered from the surface of the severely eroded

northern portion of the site. The time period of the stone circle features cannot be definitively determined through analysis of this single diagnostic surface artifact.

The NRHP eligibility status of site 39CU3567 is considered under Criterion D of the NRHP (NPS 1991:37). The site has produced only one diagnostic artifact on a severely eroded surface and cannot be definitely evaluated in a specific historic context. The integrity of the site has been severely comprised by wind and sheet wash erosion. The deflated nature of the landform on which the site is located, the displacement and redeposition of the eroded soil, and the results of the test excavations indicate an extremely low potential for intact cultural deposits or additional features. The two stone circles have been documented with scale drawings and investigated with excavation units that did not produce associated datable/diagnostic materials or features. All of these factors suggest that the site does not possess the potential to yield information capable of addressing specific research questions that would further our understanding of prehistoric cultures in the area.

Site 39CU3567 does not satisfy the specifications set forth in Criterion D of the NRHP (NPS 1991:37). ALAC recommends that this site be considered not eligible for listing on the NRHP. No further archeological work is recommended.

SITE 39CU3571

Site Number: 39CU3571
Site Type: Artifact Scatter, Hearth/Cairn
Cultural Affiliation: Native American/Euroamerican
Subsurface Testing: 4 shovel tests; 1 1-x-1m unit; 1 50-x-100-cm unit
Landscape Position: Rolling Plain
Landowner: Private
NRHP Evaluation: Not Eligible
Site Condition: Disturbed
Date Tested: 7-13-08 and 7-14-08
Map Reference: A1

Site Description

Site 39CU3571 (Figures 11 and 12) was documented in Kruse et al. (2008) as a Native American artifact scatter. Three hearths and a historic cairn were recorded during the current evaluation field work. The new features (H1-H3 and C1) are situated within the previously recorded site boundaries. The site boundaries were extended to encompass a projectile point recovered from the surface south of the

original site boundaries. The site is in short grass pasture with intrusive brush and prickly pear. Ground surface visibility averaged 50 percent at the time of the site evaluation.

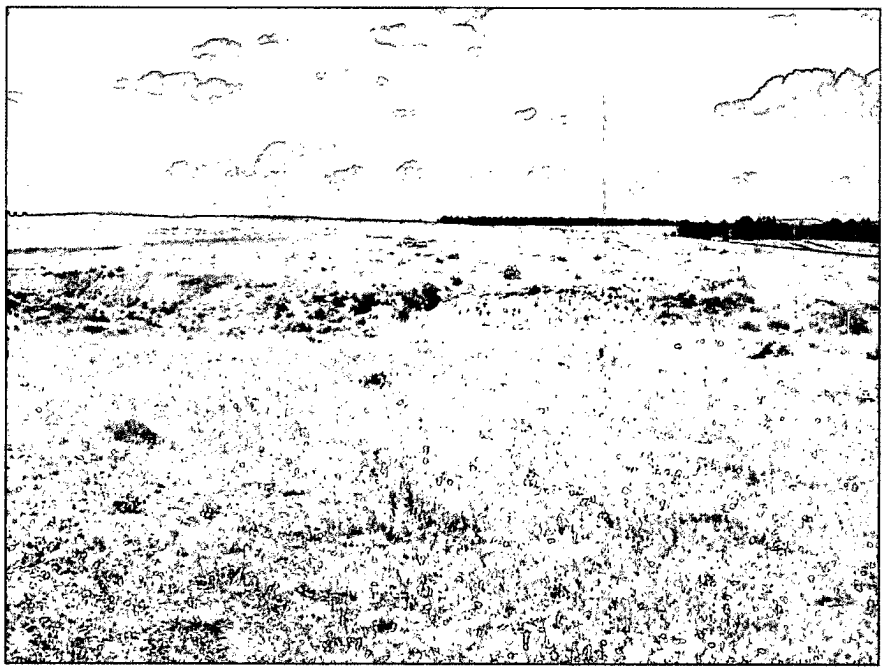


Figure 11. Overview of site 39CU3571, facing north-northwest.

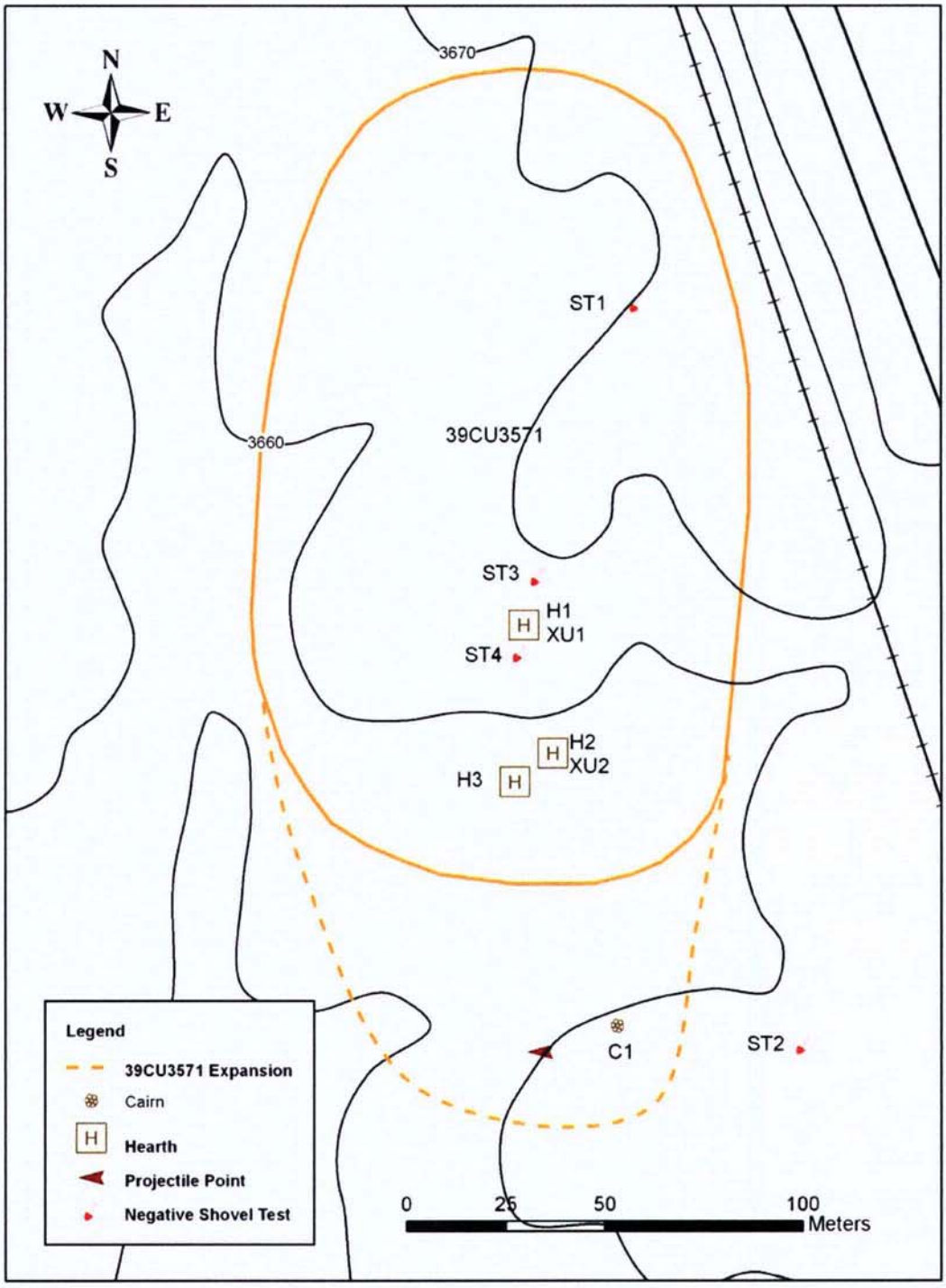


Figure 12. Plan map of site 39CU3571, showing features and test locations.

Evaluation Field Work

Reexamination of the site surface indicated that the south half of the site is severely eroded to gravel and bedrock exposures. One projectile point (Figure 13) was observed and collected from the eroded surface (cat. no. 3571-1). The projectile point was identified as a Yonkee type, associated with the Middle/Late Archaic (Appendix E). It appeared that there was a limited potential for some intact soil on the north half of the site, although it was likely the result of redeposition due to sheet wash erosion. Three previously unrecorded prehistoric hearths and one historic cairn were documented.

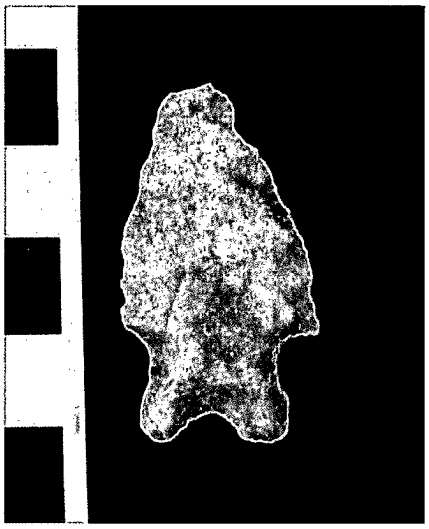


Figure 13. Yonkee projectile point (cat. no. 3571-1) recovered from site 39CU3571.

Four shovel tests (ST1-ST4) were excavated (see Figure 12). One test (ST2) was excavated on a rise southeast of the site to confirm the severity of erosion in that area. One test (ST1) was placed on a slight ridge in the northeast portion of the site that appeared to have potential for some intact soil. Two tests (ST3 and ST4) were excavated in the vicinity of the hearths. The profiles of the shovel tests are presented in Table 6.

Table 6. Shovel Test Soil Profiles, Site 39CU3571.

ST #	Diam (cm)	Depth (cm)	Soil Description	Munsell-Color	Cultural Material
1	35	0-7	Sandy silt, windblown/ slopewash, weathered shale	10YR 4/2-dark grayish brown	No
		7-27	Shale and calcium carbonates	10YR 3/1-very dark gray	No
2	35	0-14	Sandy silt with shale	10YR 4/2-dark grayish brown	No
		14-29	Shale and calcium carbonates	10YR 3/1-very dark gray	No
		29+	Shale	10YR 3/1-very dark gray	No
3	35	0-4	Sandy silt, windblown, very dry and powdery	10YR 4/1-dark gray	No
		4-29	Silt with calcium carbonate, very dry	10YR 4/1-dark gray	No
		29-37	Shale bits and calcium carbonates	10YR 4/1-dark gray	No
		37-70	Shale	10YR 4/1-dark gray	No
4	35	0-22	Sandy silt, dry	10YR 4/2-dark grayish brown	No
		22-107	Sandy silt, slopewash/colluvial, some shale and iron deposits, not uniformly layered	10YR 4/3-brown	No
		107-117	Shale/clay peds	10YR 3/1-very dark gray	No

The soil profiles of the tests are comparable to those of the Grummit-Rock complex soil type (Ensz 1990) mapped in the site area (see Table 1). The shallow soil, which formed in shale and currently exhibits severe erosion and redeposition, has very low potential for intact, unrecorded, subsurface cultural deposits. No cultural materials were recovered from the shovel tests. The hearth features are exposed on an eroded surface and are deflated.

A scaled plan (Figure 14) was drawn of the historic cairn C1 (Figures 14 and 15). The cairn appears to be relatively recent. The rocks rest on an exposed gravel surface with no intact or redeposited soil surrounding or beneath them and no grass growing around or between them. No cultural materials were observed in the vicinity of C1.

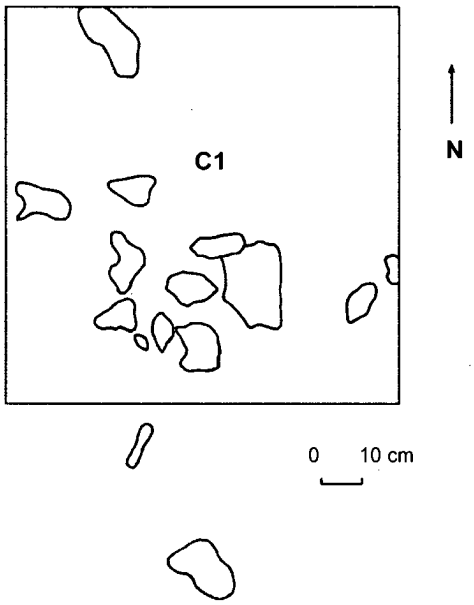


Figure 14. Plan of top of C1, site 39CU3571.

Figure 15. View of C1, site 39CU3571, facing north.

A scaled plan was drawn of the exposed surface of H1 (Figures 16 and 17). A 50-x-100-cm excavation unit was established to cross-section H1, and was later expanded to a 1-x-1-m unit. The fill was removed from the south half of the feature and a profile was drawn of the cross-section wall (Figures 18 and 19). The perimeter of the hearth was defined (Figure 20), although the hearth appeared to have slumped and washed down slope during a past erosional episode. The FCR was subsequently covered with slopewash sediment. The FCR sloped downward to the south from the base perimeter of H1 at 25 cmbs to the south edge of the unit at ca. 50 cmbs. It appeared that the FCR continued to slope to the south beyond the south wall of the unit. Cultural materials recovered from the fill soil samples are summarized in Table 7. Approximately 350 FCR removed from the south half of H1 were not collected. The FCR was a mixture of chert, quartzite, quartz, ironstone, and sandstone, and ranged in size from 1-33 cm (maximum length).

Figure 16. View of top of H1, site 39CU3571, facing north.

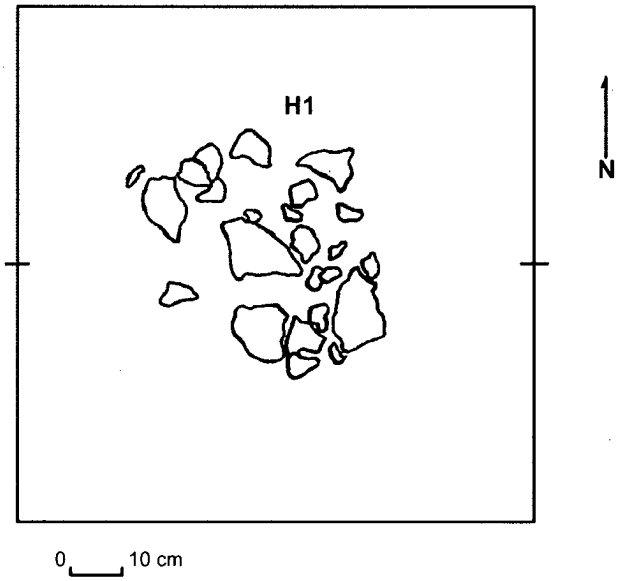


Figure 17. Plan of top of H1, site 39CU3571.

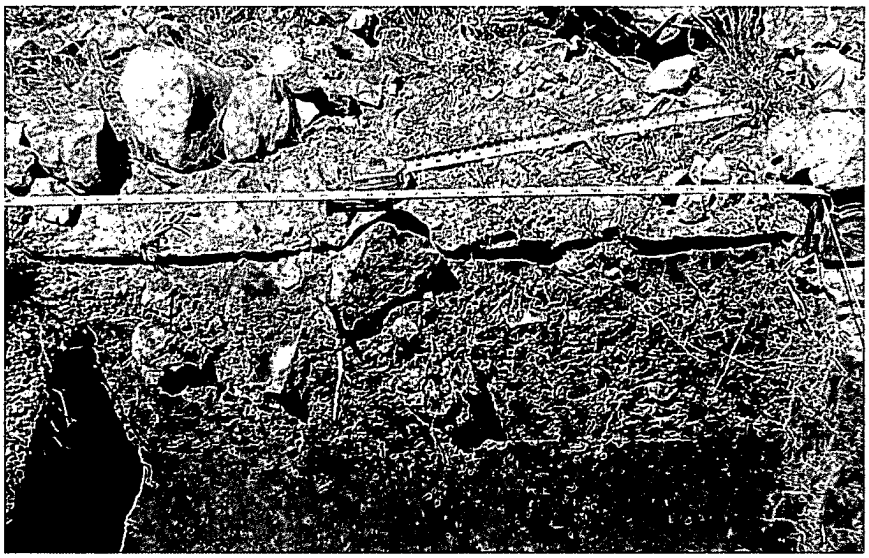
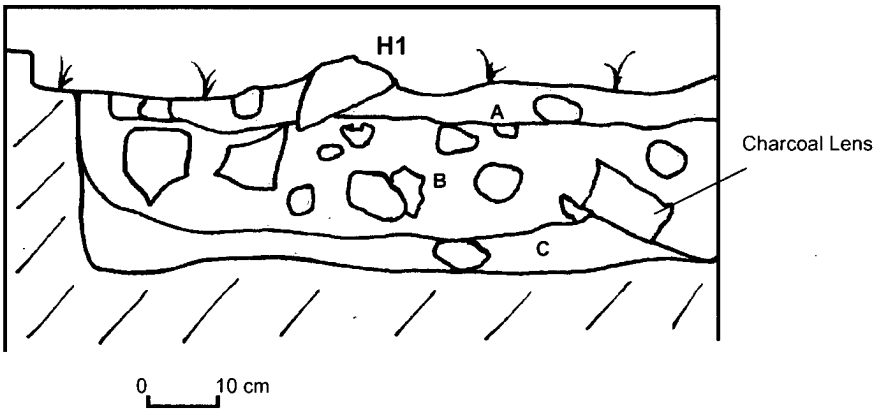


Figure 18. View of cross-section profile of H1 in XU1, site 39CU3571, facing north.



= FCR

A = Sandy silt, powdery; 2.5Y 5/2, grayish brown
B = Sandy silt with traces of burned earth and ash, friable; 10YR 4/3, brown
C = Sandy silt with shale bits and carbonates; 2.5Y 4/2, dark grayish brown

Figure 19. Cross-section profile of H1 in XU1, site 39CU3571.

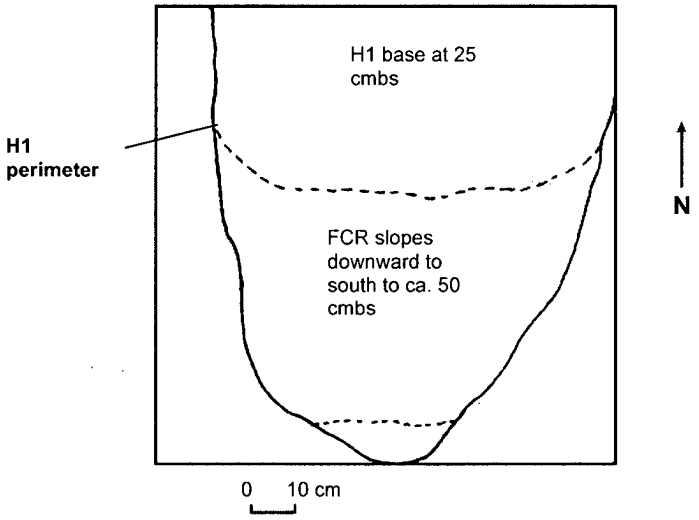


Figure 20. Plan of base of H1 in XU1, site 39CU3571.

Table 7. Artifacts Recovered from Processed H1 Fill Samples, Site 39CU3571.

Count	Artifact Type	Material	Colors	Comments
3	Tertiary flake	Chert	Moderate yellowish brown, light brown	
1	Tertiary flake	Quartzite	Grayish red purple	
2	Unidentifiable bone			
536	FCR	Limestone, chert, quartzite, ironstone, sandstone, granite, chalcedony		
15	Seed			Not identified
22	Sample	Charcoal		

A scaled plan was drawn of the exposed surface of H2 (Figures 21 and 22). A 50-x-100-cm excavation unit (XU2) was established to cross-section H2. The fill was removed from the south half of the feature and a profile was drawn of the cross-section wall (Figures 23 and 24). The perimeter of the hearth was well-defined (Figure 25). Very little of H2 is intact. It appears that only the truncated base remains. Cultural materials recovered from the fill soil samples are summarized in Table 8. Approximately 340 FCR removed from the south half of H2 were not collected. The FCR was a mixture of chert, quartzite, granite, silicified sediment, and sandstone ranging in size from 1-20 cm (maximum length).

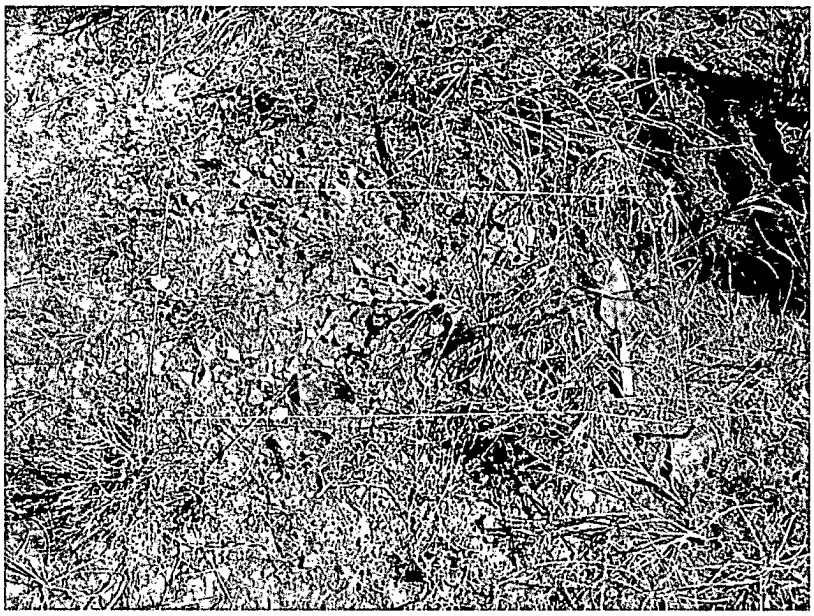


Figure 21. View of top of H2, site 39CU3571, facing north.

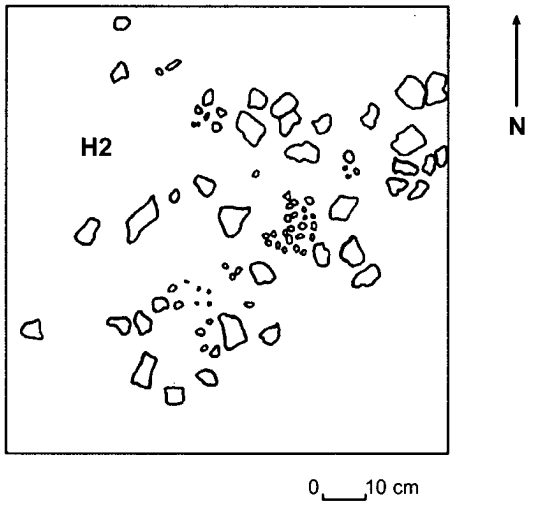


Figure 22. Plan of top of H2, site 39CU3571.

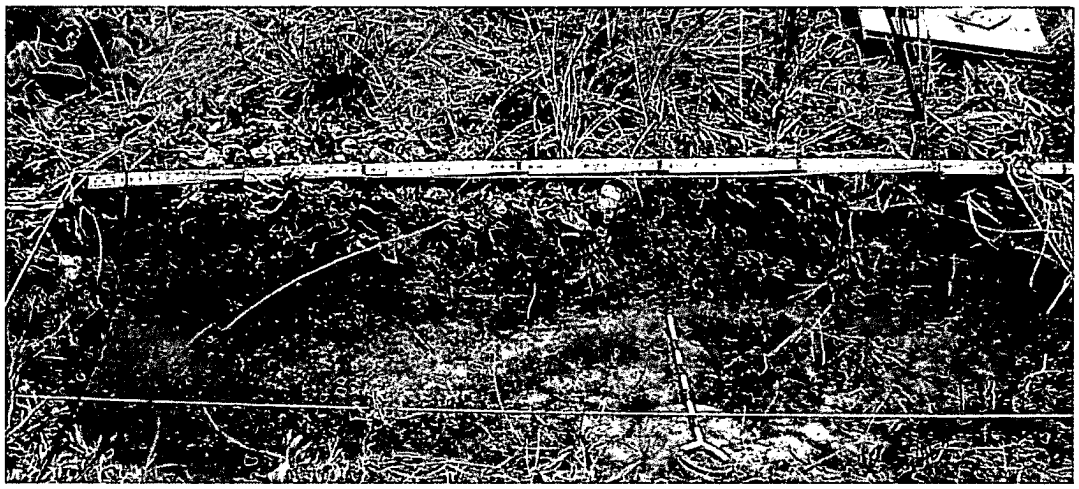
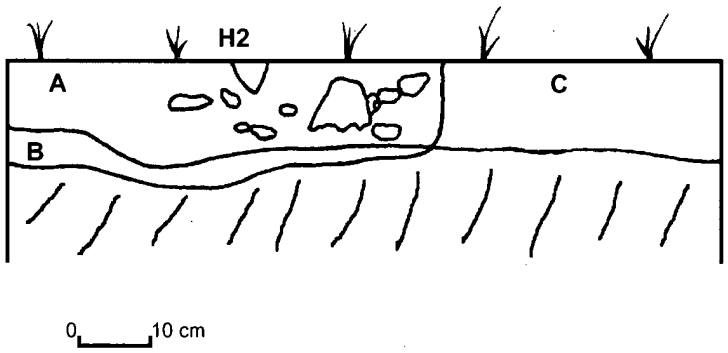
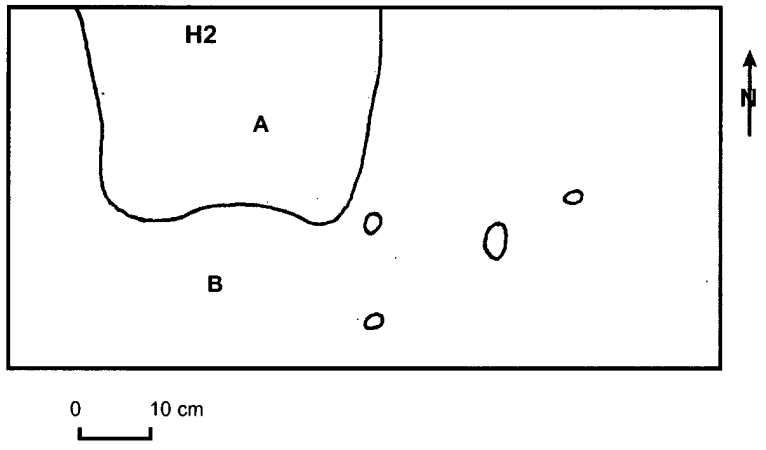


Figure 23. View of cross-section profile of H2 in XU2, site 39CU3571, facing north.



A = Charcoal mixed with silt; 10YR 3/1, very dark gray
B = Shale; 10YR 4/1, dark gray
C = Silt with shale bits; 10YR 4/3, brown

Figure 24. Cross-section profile of H2 in XU2, site 39CU3571, facing north.



A = Charcoal hearth fill
B = Silt with shale bits, 10YR 5/3, brown

Figure 25. Plan of perimeter of south half of H2 in XU2, 6-11 cmbs, site 39CU3571.

Table 8. Artifacts Recovered from Processed H2 Fill Samples, Site 39CU3571.

Count	Artifact Type	Material	Colors	Comments
1	Core	Silicified sediment	Grayish red	
1	Tertiary flake	Chert	Dusky red	
3	Unidentifiable bone			Two burned fragments
284	FCR	Chert, granite, limestone, silicified sediment, quartzite		
6	Seed			Not identified
6	Sample	Charcoal		

A scaled plan was drawn of the exposed surface of H3 (Figures 26 and 27). This feature appeared to be scattered and severely deflated; it was not cross-sectioned.

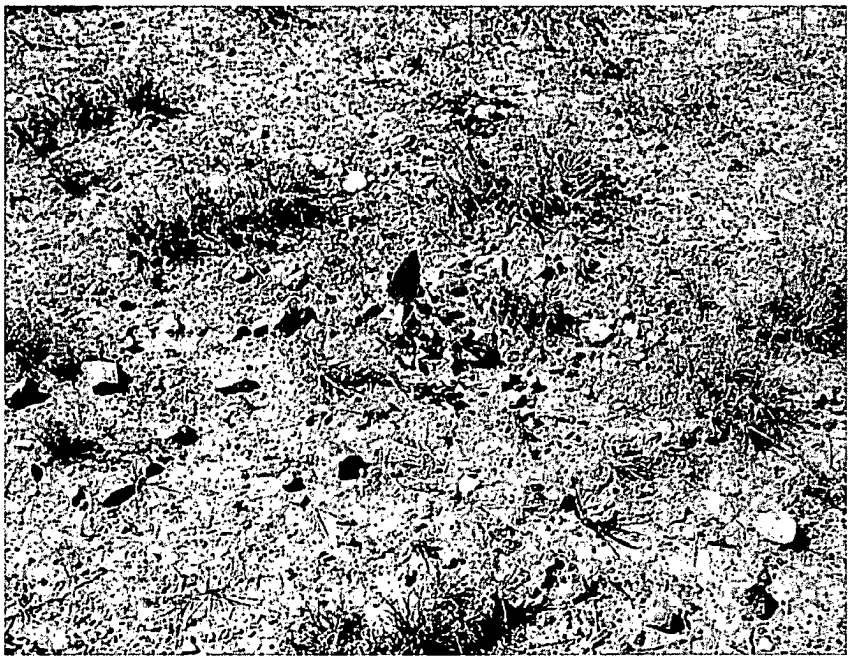


Figure 26. View of top of H3, site 39CU3571, facing north.

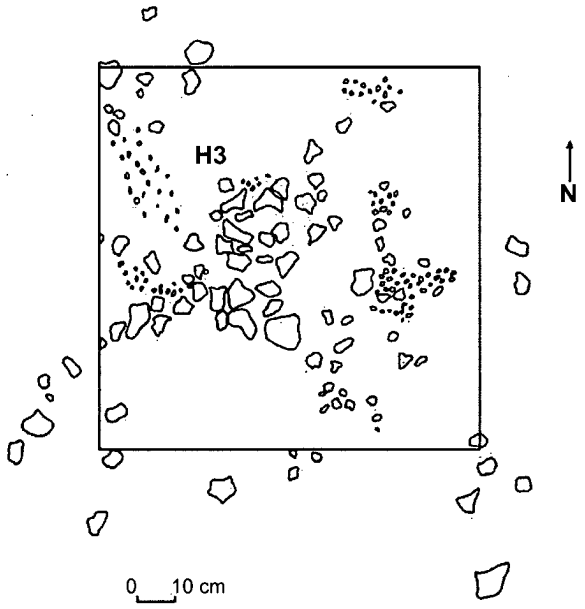


Figure 27. Plan of top of H3, site 39CU3571.

Interpretation and Recommendations

Site 39CU3571 represents a sparse lithic scatter, three hearths, and a historic cairn. The majority of the site is eroded to gravel and bedrock; the remainder of the site exhibits evidence of wind and water erosion and subsequent redeposition of sheet wash sediments. Two of the three hearths were cross-sectioned, and datable samples of charcoal were recovered. The hearths all exhibit severe impacts from erosion. The only documented diagnostic artifact from the site is a Late/Middle Archaic projectile point, which was recovered from the surface of the severely eroded southern portion of the site.

The NRHP eligibility status of site 39CU3571 is considered under Criterion D of the NRHP (NPS 1991:37). The integrity of the site has been severely comprised by wind and sheet wash erosion. The deflated nature of the landform on which the site is located, the displacement and redeposition of the eroded soil, and the results of the test excavations indicate an extremely low potential for intact cultural deposits or additional features. The features have all been documented with scale drawings and

photographs. Two of the three hearths have been investigated with excavation units, and the fill has been collected and processed. The features have been severely compromised by erosion, and are unlikely to produce significant information beyond that already recovered. All of these factors suggest that the site does not possess the potential to yield information capable of addressing specific research questions that would further our understanding of prehistoric cultures in the area.

Site 39CU3571 does not satisfy the specifications set forth in Criterion D of the NRHP (NPS 1991:37). ALAC recommends that this site be considered not eligible for listing on the NRHP. No further archeological work is recommended.

Site 39CU3572

Site Number: 39CU3572
Site Type: Artifact Scatter
Cultural Affiliation: Late Paleoindian, Late Archaic/Woodland
Subsurface Testing: 11 shovel tests
Landscape Position: Rolling Plain

Landowner: Private
NRHP Evaluation: Not Eligible
Site Condition: Disturbed
Date Tested: 7-13-08
Map Reference: A-1

Site Description

Site 39CU3572 (Figures 28 and 29) was documented in Kruse et al. (2008) as a sparse artifact scatter associated with one stone circle. The site area exhibits the effects of severe wind and water erosion. The site is in overgrazed pasture with intrusive sage brush and prickly pear. Ground surface visibility averaged 50 percent at the time of the site evaluation.

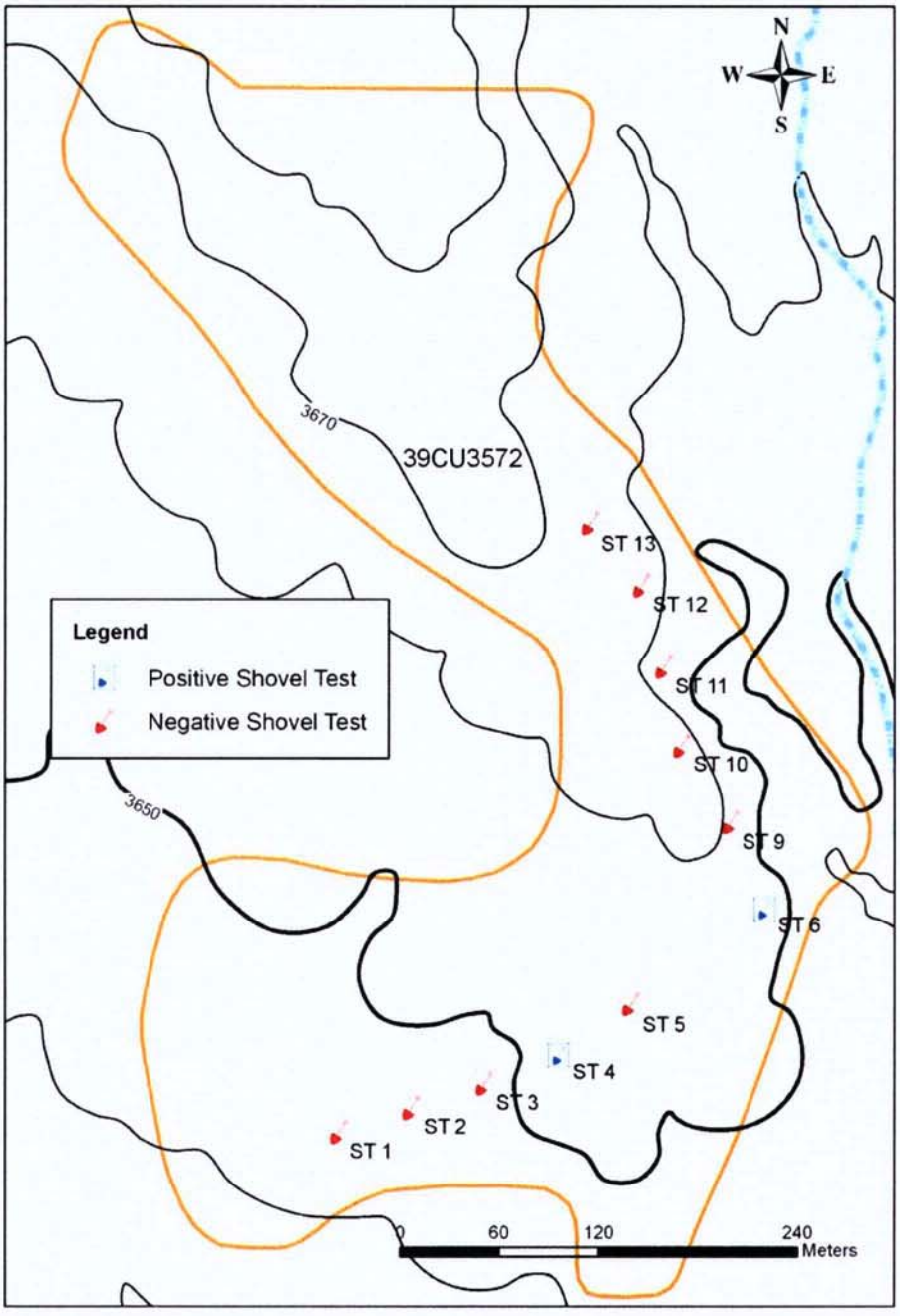


Figure 28. Plan map of site 39CU3572, showing shovel test locations.

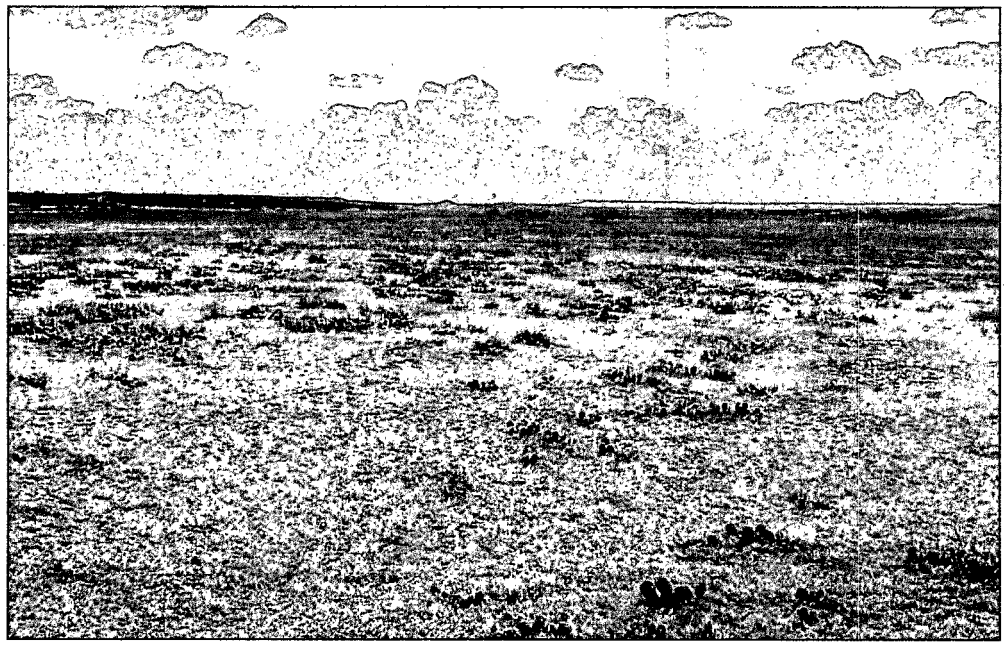


Figure 29. Overview of site 39CU3572, facing southeast.

Evaluation Field Work

Reexamination of the site surface indicated that the majority of the site is severely eroded to gravel and bedrock exposures. It appeared that there was some possibly intact soil along the south and southeast edges of the site, above and parallel to a large drainage valley.

The stone circle (Figure 30) documented during the 2007 ALAC survey (Kruse 2008) was reassessed and determined to be a natural rock grouping rather than a cultural feature. The purported circle is very small in diameter (<2 m) and more elliptical than circular. The stones are very large (up to 63 x 36 cm), approximately twice the size of stones typically associated with stone circles. Stones of this size would be extremely difficult to lift or transport to form a circle. The rock configuration is situated in the midst of a natural boulder field surrounded by numerous, similar, natural rock groupings as well as scattered boulders.

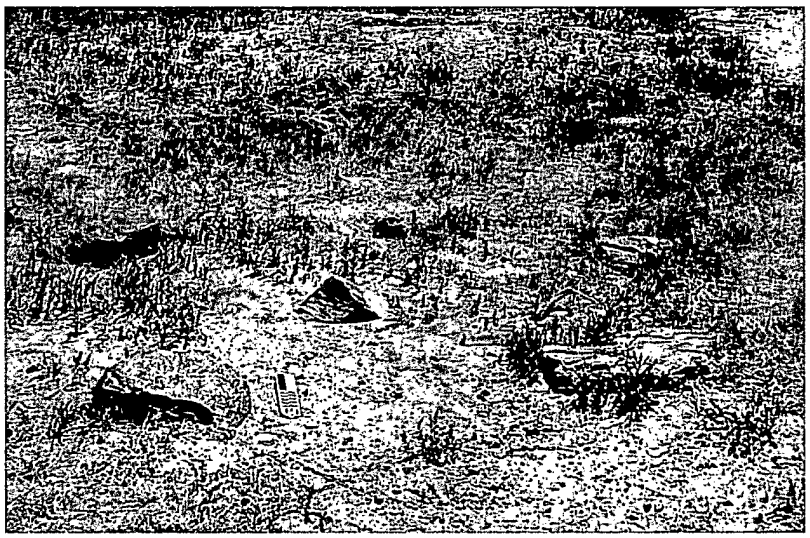


Figure 30. View of rock configuration determined to be a natural grouping, site 39CU3572.

No test units were excavated in the severely eroded portions of the site. A line of 11 shovel test locations (ST1-ST6 and ST9-ST13) was excavated along the south and southeast site perimeters above the adjacent drainage cut in the only portions of the site with potential for intact soil (see Figure 28). The soil profiles of the shovel tests are presented in Table 9.

Table 9. Shovel Test Soil Profiles, Site 39CU3572.

ST #	Diam (cm)	Depth (cm)	Soil Description	Munsell-Color	Cultural Material
1	35	0-31 31-42	Sandy silt, very powdery, slopewash Sandy silt with calcium carbonates	10YR 5/1-gray 10YR 4/3-brown	No No
2	35	0-22 22-40	Sandy silt, very powdery, slopewash Sandy silt loam with calcium carbonates	10YR 5/1-gray 10YR 4/1-dark gray	No No
3	35	0-27 27-34	Sandy silt loam Sandy silt loam with calcium carbonates	10YR 5/1-gray 10YR 4/2-dark grayish brown	No No
4	35	0-26 26+	Sandy silt loam Sandy silt loam with calcium carbonates	10YR 5/1-gray 10YR 4/1-dark gray	Yes No
5	35	0-40 40+	Silt with some sand, very compacted Sandy silt with calcium carbonates	10YR 5/1-gray 10YR 4/2-dark grayish brown	No No

Table 9. (continued)

ST #	Diam (cm)	Depth (cm)	Soil Description	Munsell-Color	Cultural Material
6	35	0-31	Silt, windblown	10YR 4/4-dark yellowish brown	Yes
		31-35	Sandy silt with calcium carbonates	10YR 4/2-dark grayish brown	No
9	40	0-10	Sandy silt, dry and compact, very few small pebbles	2.5Y 4/3-olive brown	No
		10-22	Sandy silt, more friable and moist, very few pebbles	2.5Y 4/2-dark grayish brown	No
		22-40	Sandy silt with carbonates, compact, very few pebbles	2.5Y 4/1-dark gray	No
10	34	0-11	Sandy silt, dry and compact, very few small pebbles	2.5Y 4/3-olive brown	No
		11-22	Sandy silt, more friable and moist, very few pebbles	2.5Y 4/2-dark grayish brown	No
		22-40	Sandy silt with carbonates, compact, very few pebbles	2.5Y 4/1-dark gray	No
11	40	0-10	Sandy silt, dry and powdery, few pebbles	2.5Y 6/2-light brownish gray	No
		10-20	Sandy silt, dry and clumpy, very few pebbles	2.5Y 3/2-very dark grayish brown	No
		20-42	Sandy silt, dry and blocky, few pebbles	2.5Y 4/1-dark gray	No
12	36	0-12	Sandy silt, dry and friable, some gravel	2.5Y 5/3-light olive brown	No
		12-24	Sandy silt, moist and blocky, few pebbles	2.5Y 4/2-dark grayish brown	No
		24-35	Sandy silt with calcium carbonates, dry and blocky, no pebbles	2.5Y 4/1-dark gray	No
13	42	0-12	Sandy silt, dry and friable, some gravel	2.5Y 5/3-light olive brown	No
		12-32	Sandy silt, moist and blocky, few pebbles	2.5Y 4/2-dark grayish brown	No
		32-41	Sandy silt with calcium carbonates, dry and blocky, no pebbles	2.5Y 4/1-dark gray	No

The soil profiles of the tests are comparable to those of the Arvada-Slickspots complex and the Demar-Grummit-Slickspots complex (Ensz 1990) mapped in the site area (see Table 1), with some modification of the surface layer due to wind and sheet wash erosion. The shallow soil formed in shale and likely redeposited by erosion along the southern and southeastern perimeters of the site has very low potential for intact, subsurface cultural deposits. Two of the shovel tests were

positive for cultural material within 0-5 cmbs. A light brownish gray chert secondary flake was recovered from ST4. A pale yellowish brown quartzite tertiary flake was recovered from ST6.

Interpretation and Recommendations

Site 39CU3572 represents a sparse lithic scatter. The site exhibits severe wind and water erosion. The majority of the site area is eroded to gravel and bedrock. The southern and southeastern perimeters of the site retain some soil and/or redeposited soil; however, no cultural materials were recovered at greater than 5 cmbs from the tests in those locations. The only two documented diagnostic artifacts from the site are a Late Archaic/Plains Woodland projectile point and a Paleoindian projectile point (Kruse et al. 2008), which were recovered out of context from the surface of the severely eroded portion of the site.

The NRHP eligibility status of site 39CU3572 is considered under Criterion D of the NRHP (NPS 1991:37). The site has produced only two diagnostic artifacts on a severely eroded surface and cannot be definitely evaluated within those specific historic contexts. The integrity of the site has been severely comprised by wind and sheet wash erosion. The deflated nature of the landform on which the site is located, the displacement and redeposition of the eroded soil, and the results of the test excavations indicate an extremely low potential for intact cultural deposits or additional features. All of these factors suggest that the site does not possess the potential to yield information capable of addressing specific research questions that would further our understanding of prehistoric cultures in the area.

Site 39CU3572 does not satisfy the specifications set forth in Criterion D of the NRHP (NPS 1991:37). ALAC recommends that this site be considered not eligible for listing on the NRHP. No further archeological work is recommended.

Site 39CU3583

Site Number: 39CU3583
Site Type: Artifact Scatter/Artifact Scatter, Depression
Cultural Affiliation: Native American/Euroamerican
Subsurface Testing: 17 shovel tests; 3 1-x-1-m units; 1 50-x-50-cm unit
Landscape Position: Rolling Plain

Landowner: Private
NRHP Evaluation: Not Eligible
Site Condition: Disturbed
Date Tested: 7-10-08, 7-11-08, and 7-12-08
Map Reference: A1

Site Description

Site 39CU3583 (Figures 31 and 32) was documented in Kruse et al. (2008) as a multi-component site consisting of a Native American artifact scatter and a Euroamerican artifact scatter and depression. A stone fire ring is also associated with the Euroamerican component. The Euroamerican component of the site, as reported in Kruse et al. (2008), has exhibited diagnostic artifacts consistent with material from the late nineteenth-early twentieth centuries through the mid-twentieth century. The site is in short grass pasture with intrusive sage brush and prickly pear. Ground surface visibility averaged 70 percent at the time of the site evaluation.

Figure 31. Overview of site 39CU3583, facing southeast.

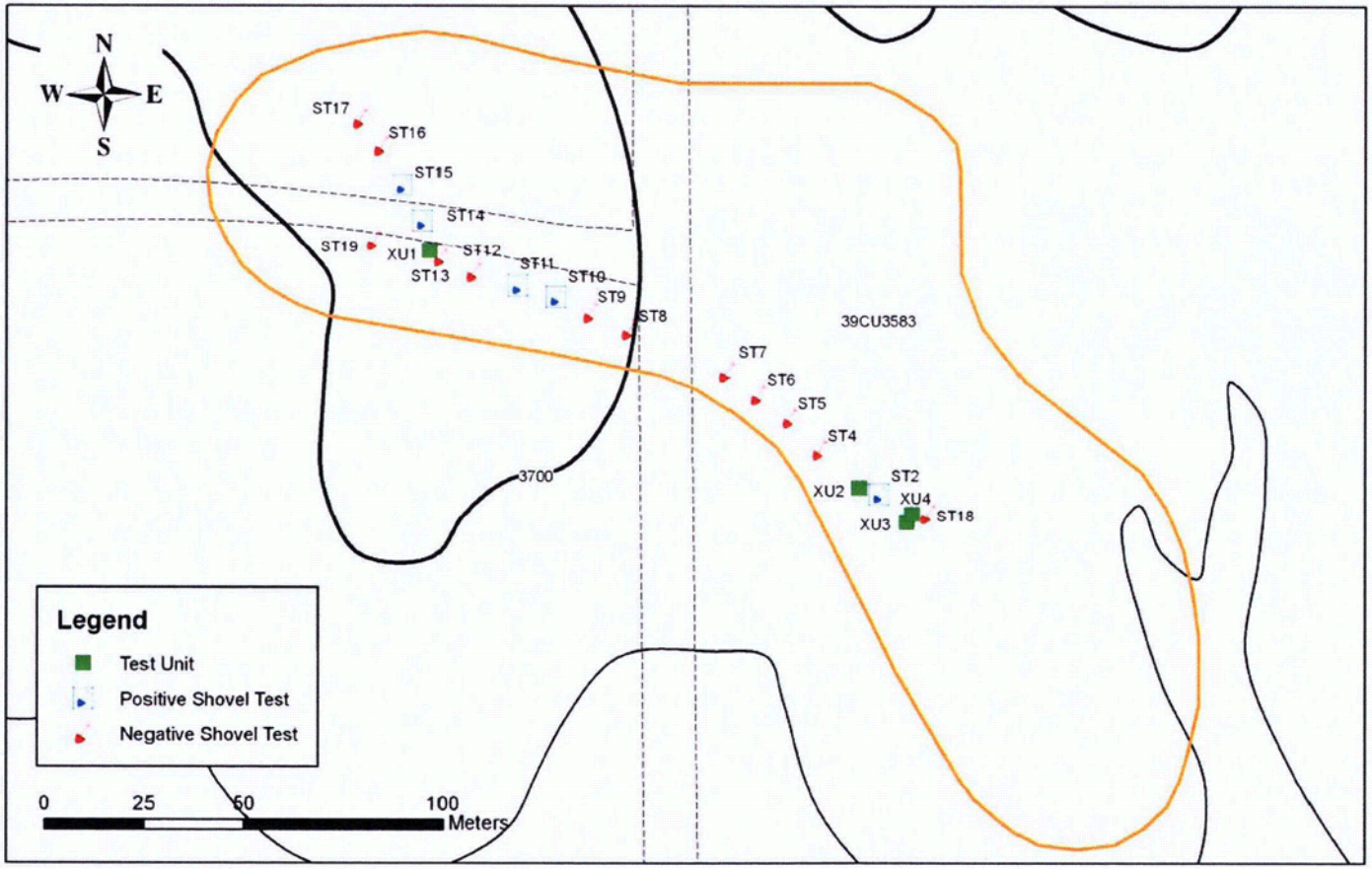


Figure 32. Plan map of site 39CU3583, showing shovel test and excavation unit locations.

Evaluation Field Work

Following reexamination of the site surface a line of shovel test locations (ST1-ST19) was flagged at approximately 10-m intervals across the site (Figure 32). Two of the flagged locations (ST1 and ST3) were not excavated. The soil profiles of the shovel tests are presented in Table 10.

Table 10. Shovel Test Soil Profiles, Site 39CU3583.

ST #	Diam (cm)	Depth (cm)	Soil Description	Munsell-Color	Cultural Material
2	41	0-11	Silty clay with gravel; dry and blocky	2.5Y 4/2-dark grayish brown	Yes
		11-36	Clayey silt with carbonates; hard, dry and blocky; no gravel	2.5Y 4/1-dark gray	No
4	40	0-11	Silty clay with some gravel	10YR 5/2-grayish brown	No
		11-50	Silty clay with calcium carbonates; peds	10YR 3/1 to 3/2-very dark gray to very dark grayish brown	No
5	40	0-10	Silty clay; loose	2.5Y 4/2-dark grayish brown	No
		10-46	Clayey silt with increasing carbonates; hard and blocky	2.5Y 4/2-dark grayish brown	No
6	40	0-15	Silty clay with gravel	10YR 5/2-grayish brown	No
		15-50	Silty clay with calcium carbonates; some gravel; peds	10YR 4/1-dark gray	No
7	40	0-10	Silty clay; dry and blocky	2.5Y 4/2-dark grayish brown	No
		10-42	Clayey silt with calcium carbonates; hard and dry; very little gravel	2.5Y 4/1-dark gray	No
8	45	0-16	Silty clay; some gravel	10YR 5/2-grayish brown	No
		16-50	Silty clay with calcium carbonates; peds; some gravel	10YR 4/1-dark gray	No
9	40	0-12	Silty clay with gravel; dry and blocky	2.5Y 4/2-dark grayish brown	No
		12-53	Clayey silt with carbonates; blocky and dry; very little gravel	2.5Y 4/1-dark gray	No
10	40	0-20	Silty clay with gravel	10YR 5/2-grayish brown	Yes
		20-50	Silty clay with calcium carbonates and gravel; peds	10YR 4/1-dark gray	No

Table 10. (continued)

ST #	Diam (cm)	Depth (cm)	Soil Description	Munsell-Color	Cultural Material
11	41	0-12	Silty clay with gravel; dry and blocky	2.5Y 4/2-dark grayish brown	Yes
		12-42	Clayey silt with carbonates; dry and blocky; very little gravel	2.5Y 4/1-dark gray	No
12	40	0-23	Silty clay with gravel	10YR 5/2-grayish brown	No
		23+	Clayey silt with calcium carbonates; peds	10YR 4/1-dark gray	No
13	39	0-9	Silty clay with gravel; dry and blocky	2.5Y 4/2-dark grayish brown	No
		9-30	Clayey silt with calcium carbonates; hard, dry, and blocky; very little gravel	2.5Y 4/1-dark gray	No
14	40	0-20	Silty clay with some gravel	10YR 5/2-grayish brown	Yes
		20+	Clayey silt with calcium carbonates; peds	10YR 4/1-dark gray	No
15	40	0-11	Silty clay with some gravel	10YR 5/2-grayish brown	Yes
		11+	Clayey silt with calcium carbonates; peds	10YR 4/1-dark gray	No
16	42	0-10	Silty clay with gravel; dry and blocky	2.5Y 4/2-dark grayish brown	No
		10-35	Clayey silt with carbonates; hard, dry and blocky; very little gravel	2.5Y 4/1-dark gray	No
17	40	0-12	Silty clay with gravel; dry and blocky	2.5Y 4/2-dark grayish brown	No
		12-30	Clayey silt with calcium carbonates; hard, dry, and blocky; very little gravel	3.5Y 4/1-dark gray	No
18	40	0-10	Silty clay with gravel; dry and blocky	2.5Y 4/2-dark grayish brown	No
		10-31	Clayey silt with carbonates; hard, dry and blocky; no gravel	2.5Y 4/1-dark gray	No
19	40	0-16	Silty clay; loose	10YR 4/2-dark grayish brown	No
		16-40	Pedogenically altered shale; massive peds; lack of calcium carbonate deposits	10YR 4/4-dark yellowish brown	No

The soil profiles of the tests are comparable to those of the Arvada-Slickspots complex and Pierre Grummit clays (Ensz 1990) mapped in the site area (see Table 1). These shallow soils formed in shale have very low potential for intact, subsurface