

**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 2**

Black Hills Archaeological Region

**Volume 1:**  
**Additional Survey Report**  
Sections 27, 31, and 34, T6S, R1E and Sections 4, 5, and 14, T7S, R1E

by

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## **Abstract**

A Level III cultural resources survey was conducted in the Black Hills Archaeological Region for Powertech (USA) Incorporated, Greenwood Village, Colorado. Personnel from the Archeology Laboratory, Augustana College, Sioux Falls, South Dakota conducted the field investigations between July 30, 2008 and September 23, 2008. Approximately 1300 acres of land associated with the proposed Dewey-Burdock Uranium Project in the southern Black Hills, Custer and Fall River counties, South Dakota were surveyed during the current investigation. Twenty-nine archeological sites were documented during the current investigation. It is recommended that 18 sites (39CU3810, 39CU3811, 39CU3812, 39CU3814, 39CU3815, 39CU3816, 39CU3820, 39CU3823, 39FA1953, 39FA1954, 39FA1956, 39FA1957, 39FA1959, 39FA1960, 39FA1961, 39FA1962, 39FA1963, and 39FA1966) be considered not eligible for listing on the National Register of Historic Places. No further work is recommended for these properties. Additional archeological work prior to any project impacts is recommended to assess eligibility status for the remaining 11 unevaluated sites (39CU3813, 39CU3817, 39CU3818, 39CU3819, 39CU3821, 39CU3822, 39FA1952, 39FA1955, 39FA1958, 39FA1964, and 39FA1965). Two historic structures (CU00000050 and CU00000212), one historic district (90000949), and one historic mine (CU00000146) were previously recorded within the survey areas. The historic district and standing structure CU00000050 are listed on the National Register of Historic Places. The mine and standing structure CU00000212 are currently unevaluated. Assessment of eligibility status by a qualified architectural historian is recommended for these unevaluated historic properties prior to any mining or development impacts. Avoidance of the listed or eligible historic properties is recommended. If avoidance is not possible, intensive documentation as well as development and implementation of a data recovery plan are recommended prior to impacts.

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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). This addendum addresses the results of a Level III cultural resources survey of an additional 1300 acres of land that have been added to the Dewey-Burdock Uranium Project area initially surveyed by the Archeology Laboratory, Augustana College (ALAC) in 2007 (Kruse et al. 2008). The proposed project is located in the southern Black Hills in Custer and Fall River counties, South Dakota (Figure 1; Appendix A, Maps A1 and A2) within the Black Hills Archaeological Region. The Fall River County project areas are located in the W1/2, W1/2 of Section 4, all of Section 5, and the N1/2 of Section 14, T7S, R1E. The Custer County project areas are located in the S1/2 of Section 27, the E1/2 of Section 31, and the N1/2 of Section 34, T6S, R1E (Appendix A). The field investigations were undertaken by ALAC between July 30, 2008 and September 23, 2008. The project area in Section 28, T6S, R1E was previously surveyed by ALAC in 2000 (Winham et al. 2001) and was not resurveyed during the current investigation.



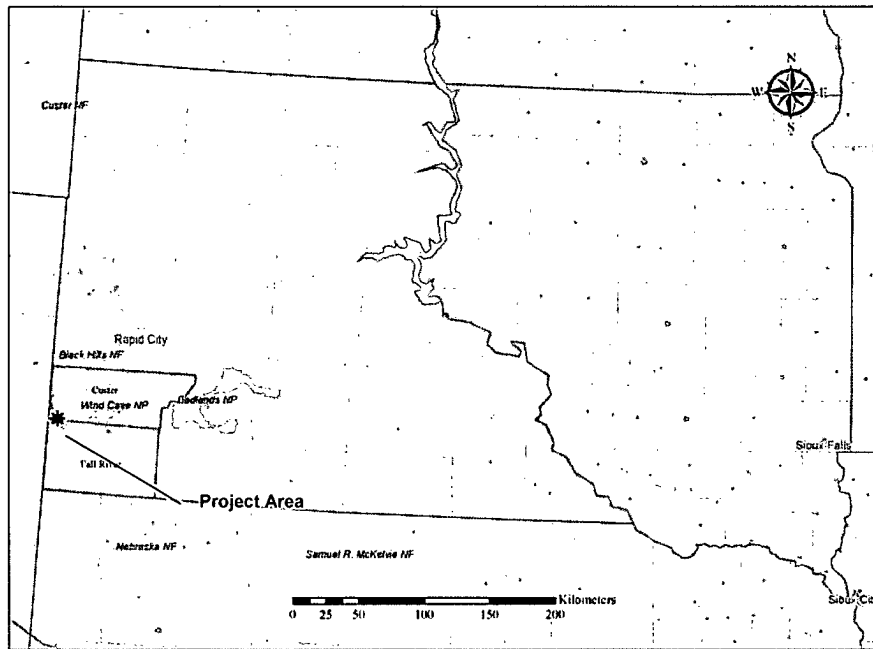


Figure 1. General location of project area in Custer and Fall River counties, South Dakota (adapted from ESRI ArcGIS 9 United States Data and Maps Media Kit 2005).

## Personnel

L. Adrien Hannus served as ALAC Principal Investigator for the project. Linda Palmer was the primary author of the report. Jason Kruse acted as field director and as co-author of the report. Edward Lueck, Jessica Kleinschmit, Landon Karr, and Ed Fosha 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 survey areas are located, can be referenced in Kruse et al. (2008). Specific soils mapped in the survey areas (Ensz 1990; Kalvels 1982) are presented in Table 1.

The elevations of the survey areas range from a low of 3580 ft (1091 m) amsl in Fall River County to a high of 3800 ft (1158 m) amsl in Custer County. The project areas are primarily in short grass pasture and scrubland, with good ground surface visibility (60 percent or greater). Smaller portions of the survey areas are characterized by soybean fields and conifer forest, also with good surface visibility (50 percent or greater).

Numerous unnamed, intermittent drainages are within the survey areas. Named water sources crossing the survey areas include Pass Creek, Beaver Creek, and Lone Tree Creek.

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

Legal Description	Specific Soil Name	Slope (%)	Description
W1/2 W1/2, Sec 4, T7S, R1E	Grummit-Rock outcrop complex (GrE)	3-40	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
	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
	Haverson loam (Ha)		Deep, well-drained, gently undulating to gently rolling soil on the foot slopes of steep rocky hills and mountains; formed in alluvium on flood plains
	Hisle-Slickspots complex (He)		Moderately deep, well-drained, nearly level and gently sloping soil intermingled with Slickspots on uplands and terraces; formed in material weathered from shale
	Pierre clay (PeB)	2-6	Moderately deep, well-drained, gently sloping soil on uplands; when dry, it is characterized by cracks; formed in material weathered from shale
	Pierre-Grummit clays (PgE)	6-25	Well-drained, gently rolling to hilly soils in areas on uplands where slopes are rough or broken; formed in material weathered from shale
	Schamber-Eckley complex (SmE)	9-40	Strongly sloping to steep soils on high terraces or terrace remnants; formed in gravelly deposits on terraces and in loamy sediments over gravelly sand
	Stetter clay (St)		Deep, well-drained, nearly level soil on flood plains along drainage ways and creeks that have meandering channels; formed in clayey alluvium on flood plains
Sec 5, T7S, R1E	Arvada loam (Ar)		Deep, well-drained, nearly level on broad flats, in drainage ways, and on alluvial fans; formed in clayey and loamy alluvium on broad flats, in drainage ways, and on alluvial fans
	Ascalon fine sandy loam (AsB)	0-6	Deep, well-drained, nearly level and gently sloping soil on uplands; formed in loamy material on uplands
	Dwyer loamy fine sand (DwB)	2-6	Deep, somewhat excessively drained, gently sloping soil on uplands; formed in sandy material on terraces and uplands

Table 1 (continued).

Legal Description	Specific Soil Name	Slope (%)	Description
Sec 5, T7S, R1E (cont.)	Grummit-Rock outcrop complex (GrE)	3-40	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
	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
	Haverson loam (Ha)		Deep, well-drained, gently undulating to gently rolling soil on the foot slopes of steep rocky hills and mountains; formed in alluvium on flood plains
	Hisle-Slickspots complex (He)		Moderately deep, well-drained, nearly level and gently sloping soil intermingled with Slickspots on uplands and terraces; formed in material weathered from shale
	Lohmiller silty clay loam (Lo)		Deep, well-drained, nearly level soil on flood plains that in some areas are dissected by deep channels; formed in silty and loamy alluvium on flood plains
	Manzanola silty clay loam (MbB)	2-6	Deep, well-drained, gently sloping soil on uplands; formed in alluvium on terraces, fans, and uplands
	Pierre clay (PeB)	2-6	Moderately deep, well-drained, gently sloping soil on uplands; when dry, it is characterized by cracks; formed in material weathered from shale
	Pierre-Grummit clays (PgE)	6-25	Well-drained, gently rolling to hilly soils in areas on uplands where slopes are rough or broken; formed in material weathered from shale
	Satanta loam (ScB)	2-6	Deep, well-drained, gently sloping soil on terraces; formed in loamy sediments on terraces
	Stetter clay (St)		Deep, well-drained, nearly level soil on flood plains along drainage ways and creeks that have meandering channels; formed in clayey alluvium on flood plains
	Zigweid-Nihill complex (ZnE)	6-20	Deep, gently rolling to hilly soils in areas on ridges, fans, and terrace escarpments where slopes are short and convex; formed in calcareous, loamy sediments on uplands and terrace escarpments

Table 1 (continued).

Legal Description	Specific Soil Name	Slope (%)	Description
N1/2, Sec 14, T7S, R1E	Hisle-Slickspots complex (He)		Moderately deep, well-drained, nearly level and gently sloping soil intermingled with Slickspots on uplands and terraces; formed in material weathered from shale
	Pierre-Samsil clays (PsE)	6-25	Well-drained, moderately sloping to moderately steep soils are on uplands; formed in clayey material formed from shale on uplands
S1/2, Sec 27, T6S, R1E	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
	Barnum very fine sandy loam (BdA)	0-3	Deep, well-drained, rarely flooded, nearly level, and very gently sloping soil on terraces and flood plains in the Red Valley; formed in calcareous, loamy alluvium weathered from reddish siltstone, sandstone, and silty shale
	Barnum-Winetti complex (BeB)	0-6	Deep, rarely flooded, nearly level to gently sloping soils on flood plains and terraces along the major creeks; formed in alluvium derived from reddish sandstone, silty shale, and other sedimentary rock
	Demar-Grummit-Slickspots complex (DgB)	0-6	Nearly level to gently sloping soils and Slickspots on low terraces and uplands; formed in clayey material weathered from acid shale
	Grummit-Rock outcrop complex (GrE)	15-60	Shallow, well-drained, moderately steep to very steep soil intermingled with areas of Rock outcrop on upland ridges
	Nihil-Zigweid complex (NfE)	15-50	Deep, well-drained, moderately steep to very steep soils on upland ridges and on slope breaks of old terraces; formed in gravelly alluvium
	Pierre-Grummit clays (PgC)	2-9	Well-drained, gently sloping and moderately sloping soils on uplands; formed in clayey material weathered from acid shale
E1/2, Sec 31, T6S, R1E	Grummit-Rock outcrop complex (GrD)	6-15	Shallow, well-drained, moderately sloping and strongly sloping soil intermingled with areas of Rock outcrop on upland ridges and hills; formed in clayey material weathered from acid shale

Table 1 (continued).

Legal Description	Specific Soil Name	Slope (%)	Description
E1/2, Sec 31, T6S, R1E (cont.)	Haverson loam (Ha)	0-2	Deep, well-drained, gently undulating to gently rolling soil on the foot slopes of steep rocky hills and mountains; formed in alluvium on flood plains
	Satanta-Arvada complex (SfB)	2-6	Deep, well-drained, gently sloping soils on upland terraces; formed in loamy alluvium
N1/2, Sec 34, T6S, R1E	Demar-Grummit-Slickspots complex (DgB)	0-6	Nearly level to gently sloping soils and Slickspots on low terraces and uplands; formed in clayey material weathered from acid shale
	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; formed in clayey material weathered from acid shale
	Nihill-Zigweid complex (NfE)	2-6	Deep, well-drained, moderately steep to very steep soils on upland ridges and on slope breaks of old terraces; formed in gravelly alluvium and calcareous, loamy sediments

## **CULTURAL CONTEXT**

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

### **REVIEW OF PRIOR CULTURAL RESOURCE STUDIES**

A comprehensive literature search and records review of the survey area in Fall River County was completed on August 8, 2008 by Terri Holts, South Dakota State Historical Society, Archaeological Research Center (ARC). The records review of the survey area in Custer County was completed on September 22, 2008 by Jane Watts, Records Manager, ARC. A review of the previously recorded sites and surveys in Section 28 was completed in the ALAC office in September and October, 2008 by Jason Kruse and Linda Palmer, ALAC staff. The results of these studies indicate that three surveys have been previously conducted within the survey areas (Table 2). Two archeological sites have been previously identified directly adjacent to the east edge of the survey area in Section 14 (Table 3); however, it was determined that they do not extend into the current area. Seven previous surveys have been conducted within the portion of the project area in Section 28, which was not resurveyed during the current investigation (Table 4); 10 sites have been documented in that area (Table 5). Twenty previous surveys have been conducted within a one-mile radius of the survey areas (Table 6); 213 sites have been documented in those areas (Table 7). Nine previous surveys have been conducted within a one-mile radius of the survey areas in Section 28 (Table 8); 142 sites have been documented in that section (Table 9). Two historic structures, one historic district, and one historic mine have been previously recorded within the survey areas (Table 10) and were not reassessed during the current investigation. Five historic structures have been previously recorded within a one-mile radius of the survey areas (Table 11).

Table 2. Previously Recorded Archeological Surveys within the Survey Areas.

Survey Number	Report Author	Report Date	County
BLH-0015	Robert Jolley and John S. Sigstad	1975	Custer and Fall River
BLH-0035	Kerry Lippincott	1982	Fall River
AFA-0042	Kerry Lippincott	1979	Fall River

Table 3. Previously Recorded Archeological Sites Directly Adjacent to the Survey Area in Section 14.

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39FA1933	Native American (Late Archaic/Woodland)	Artifact scatter	Rolling plain	Unevaluated
39FA1935	Native American	Artifact scatter	Hill crest	Unevaluated

Table 4. Previously Recorded Archeological Surveys within Section 28.

Survey Number	Report Author	Report Date	County
	Jason Kruse, Timothy Gillen, John R. Bozell, Linda Palmer, and Austin A. Buhta	2008	Custer
BLH-0015	Robert Jolley and John S. Sigstad	1975	Custer and Fall River
BLH-0021	Nicholas Chevance	1978a	Custer
BLH-0023	Nicholas Chevance	1978b	Custer
BLH-0030	Kerry Lippincott	1980a	Custer and Fall River
BLH-0032	Kerry Lippincott	1980b	Custer
BLH-0039	Charles Reher	1981	Custer

Table 5. Previously Recorded Archeological Sites within Section 28.

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU271	Native American (Late Archaic, Middle Archaic)	Artifact scatter (occupation)	Ridge slope	Eligible
39CU529	Native American	Occupation	Valley	Unevaluated
39CU530	Native American	Isolated find	Valley	Unevaluated
39CU533	Unknown	Cairn	Ridge slope	Unevaluated
39CU555	Native American (Late Archaic, Late Prehistoric)	Artifact scatter	Ridge slope	Eligible
39CU585	Native American	Isolated find	Hill slope	Not eligible
39CU1748	Native American	Artifact scatter	Ridge base	Not eligible
39CU1760	Native American	Isolated find	Ridge slope	Not eligible
39CU3564	Native American	Quarry, cairn	Hill top	Unevaluated
39CU3565	Native American	Artifact scatter	Valley floor	Unevaluated



Table 6. Previously Recorded Archeological Surveys within a One-Mile Radius of the Survey Areas.

Survey Number	Report Author	Report Date	County
	Jason Kruse, Timothy Gillen, John R. Bozell, Linda Palmer, and Austin A. Buhta	2008	Custer
ACU-0086	Nicholas Chevance	1986	Custer
ACU-0258	Brad Noisat	1991	Custer
ACU-0345	Dan Flemmer	1996	Custer
ACU-0402	Dan Flemmer	1998	Custer
ACU-0412	Jeffrey V. Buechler	1999	Custer
ACU-0672	Thomas Willems and Molly Karnopp	2005	Custer
AFA-0275	Charles Armitage	2002	Fall River
BLH-0015	Robert Jolley and John S. Sigstad	1975	Custer and Fall River
BLH-0018	James Haug	1978	Custer and Fall River
BLH-0021	Nicholas Chevance	1978a	Custer
BLH-0023	Nicholas Chevance	1978b	Custer
BLH-0030	Kerry Lippincott	1980a	Custer and Fall River
BLH-0032	Kerry Lippincott	1980b	Custer
BLH-0038	Kerry Lippincott	1983	Custer and Fall River
BLH-0039	Charles A. Reher	1981	Custer
BLH-0058	Paul V. Miller	1987	Custer
BLH-0157	Brad Noisat	1999	Custer and Fall River
BLH-0225	Brad Noisat	2001	Custer and Fall River
WSD-0044	Terry A. Girouard	1983	Custer and Fall River

Table 7. Previously Recorded Archeological Sites within a One-Mile Radius of the Survey Areas.

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU34	Native American (Late Archaic)	Artifact scatter	Ridge crest	Unevaluated
39CU36	Native American	Artifact scatter	Ridge crest	Unevaluated
39CU241	Native American (Early Archaic)	Alignment (artifact scatter)	Hill base	Not eligible
39CU252	Native American (Plainview)	Artifact scatter	Ridge crest	Unevaluated
39CU253	Native American (McKean)	Artifact scatter	Ridge crest	Eligible
39CU271	Native American (Late Archaic; Middle Archaic)	Artifact scatter (occupation)	Ridge slope	Eligible
39CU451	Native American	Artifact scatter	Rolling plain	Unevaluated
39CU456	Native American	Artifact scatter	Ridge crest	Unevaluated
39CU459	Native American	Artifact scatter	Ridge	Unevaluated
39CU460	Native American	Artifact scatter	Ridge	Unevaluated
39CU461	Native American	Isolated find		Not eligible
39CU463	Native American	Artifact scatter	Hill	Unevaluated
39CU528	Native American	Isolated find	Ridge slope	Unevaluated
39CU529	Native American	Occupation	Valley	Unevaluated
39CU530	Native American	Isolated find	Valley	Unevaluated

Table 7 (continued).

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU531	Native American; Euroamerican	Artifact scatter; artifact scatter	Ridge	Unevaluated
39CU532	Native American	Artifact scatter	Gully	Unevaluated
39CU554	Native American	Artifact scatter	Valley floor	Unevaluated
39CU555	Native American (Late Archaic; Late Prehistoric)	Artifact scatter	Ridge slope	Eligible
39CU556	Native American (late Archaic)	Artifact scatter	Hill base	Unevaluated
39CU557	Native American	Artifact scatter	Hill	Unevaluated
39CU558	Native American (Late Archaic)	Artifact scatter	Hill slope	Unevaluated
39CU560	Euroamerican	Foundation	Hill top	Unevaluated
39CU561	Native American (Late Archaic)	Artifact scatter	Hill	Unevaluated
39CU562	Euroamerican	Industrial	Ridge	Unevaluated
39CU563	Native American	Artifact scatter	Valley slope	Unevaluated
39CU578	Euroamerican; Native American	Dump; occupation	Ridge slope	Unevaluated
39CU579	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU583	Native American	Artifact scatter	Hill top	Unevaluated
39CU584	Native American	Occupation, burial	Ridge slope	Unevaluated
39CU585	Native American	Isolated find	Hill slope	Not eligible
39CU586	Native American	Occupation	Ridge crest	Unevaluated
39CU588	Native American	Occupation	Ridge slope	Unevaluated
39CU589	Native American	Occupation	Hill top	Unevaluated
39CU590	Native American	Occupation	Ridge saddle	Unevaluated
39CU592	Native American	Occupation	Rolling plain	Unevaluated
39CU636	Native American	Artifact scatter	Butte base	Unevaluated
39CU637	Native American	Isolated find	Ridge slope	Unevaluated
39CU638	Native American	Occupation	Valley terrace	Unevaluated
39CU639	Native American	Occupation	Valley terrace	Unevaluated
39CU641	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU648	Native American	Kill, artifact scatter	Rolling plain	Unevaluated
39CU652	Euroamerican	Cabin	Valley terrace	Unevaluated
39CU653	Native American	Artifact scatter	Valley terrace	Unevaluated
39CU1128	Native American	Isolated find	Canyon talus	Not eligible
39CU1129	Native American	Isolated find	Valley slope	Not eligible
39CU1130	Native American	Isolated find	Valley slope	Not eligible
39CU1749	Native American	Artifact scatter	Ridge slope	Not eligible
39CU1750	Native American	Artifact scatter	Ridge slope	Not eligible
39CU1751	Native American	Artifact scatter	Hill top	Not eligible
39CU1752	Native American; Euroamerican	Artifact scatter; cabin, depression	Valley terrace	Unevaluated
39CU1753	Native American	Artifact scatter	Valley terrace	Not eligible
39CU1754	Native American	Artifact scatter	Hill top	Not eligible
39CU1755	Native American	Isolated find	Rolling plain	Not eligible
39CU1756	Native American	Artifact scatter	Rolling plain	Not eligible
39CU1757	Euroamerican	Artifact scatter	Ridge slope	Not eligible
39CU1759	Native American	Isolated find	Ridge slope	Not eligible

Table 7 (continued).

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU1760	Native American	Isolated find	Ridge slope	Not eligible
39CU2000	Euroamerican	Railroad	Canyon floor	Eligible
39CU2585	Native American	Artifact scatter	Canyon rimrock	Not eligible
39CU2618	Native American	Artifact scatter	Butte base	Unevaluated
39CU2619	Native American	Artifact scatter	Butte scarp	Unevaluated
39CU2620	Native American	Artifact scatter	Ridge crest	Unevaluated
39CU2622	Native American	Depression	Butte top	Unevaluated
39CU2623	Native American	Artifact scatter, stone circle	Butte top	Unevaluated
39CU2626	Native American	Isolated find	Ridge base	Unevaluated
39CU2690	Native American	Isolated find	Ridge slope	Unevaluated
39CU2726	Native American	Artifact scatter, hearth	Ridge slope	Unevaluated
39CU2730	Euroamerican	Dump	Ridge slope	Unevaluated
39CU2733	Native American	Hearth, artifact scatter	Ridge slope	Unevaluated
39CU2735	Native American	Occupation	Ridge slope	Eligible
39CU2738	Native American; Unknown	Occupation; alignment	Ridge crest	Unevaluated
39CU2740	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2742	Native American	Artifact scatter	Hill slope	Unevaluated
39CU2744	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2748	Native American	Artifact scatter; hearth	Ridge slope	Unevaluated
39CU2750	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2752	Native American	Occupation	Hill slope	Unevaluated
39CU2755	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2846	Native American	Artifact scatter	Canyon rimrock	Not eligible
39CU2847	Native American	Artifact scatter	Hill slope	Not eligible
39CU2848	Native American	Artifact scatter	Hill top	Not eligible
39CU2849	Native American	Artifact scatter	Ridge crest	Not eligible
39CU2850	Native American	Isolated find	Ridge crest	Not eligible
39CU2857	Native American	Artifact scatter	Ridge crest	Not eligible
39CU3508	Unknown	Alignment	Canyon rimrock	Unevaluated
39CU3562	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3563	Native American	Artifact scatter	Hill top	Not eligible
39CU3564	Native American	Quarry, cairn	Hill top	Unevaluated
39CU3568	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3570	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3572	Native American (Late Paleoindian, Late Archaic/Woodland)	Stone circle (artifact scatter)	Rolling plain	Unevaluated
39CU3576	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3577	Native American	Isolated find	Rolling plain	Not eligible
39CU3578	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3579	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3580	Native American	Isolated find	Rolling plain	Not eligible
39CU3581	Native American	Isolated find	Rolling plain	Not eligible
39CU3582	Native American	Isolated find	Rolling plain	Not eligible

Table 7 (continued).

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU3583	Native American; Euroamerican	Artifact scatter; artifact scatter, depression	Rolling plain	Not eligible
39CU3584	Native American (Middle Archaic)	Cairn (artifact scatter)	Hill top	Not eligible
39CU3586	Native American	Artifact scatter, hearth	Rolling plain	Unevaluated
39CU3587	Native American; Euroamerican	Artifact scatter; burial	Ridge top	Unevaluated
39CU3588	Native American	Quarry	Ridge top	Not eligible
39CU3589	Native American	Artifact scatter	Ridge top	Not eligible
39CU3590	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3592	Native American	Artifact scatter	Rolling plain	Unevaluated
39CU3593	Native American (Late Archaic/Plains Woodland)	Artifact scatter	Rolling plain	Not eligible
39CU3594	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3595	Native American	Isolated find	Rolling plain	Not eligible
39CU3597	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU3598	Native American (Late Archaic/Plains Woodland)	Artifact scatter	Rolling plain	Unevaluated
39CU3599	Euroamerican	Nonfarm ruins, depression, foundation, artifact scatter	Rolling plain	Unevaluated
39CU3600	Native American	Artifact scatter, stone alignment	Ridge top	Unevaluated
39CU3601	Native American	Artifact scatter, hearth	Ridge top	Unevaluated
39CU3602	Native American	Artifact scatter, hearth	Ridge slope	Unevaluated
39CU3603	Native American; Euroamerican	Artifact scatter, hearth; artifact scatter	Ridge slope	Unevaluated
39CU3604	Native American	Artifact scatter, hearth, stone circle	Ridge top/slope	Unevaluated
39CU3605	Native American	Artifact scatter, hearth	Ridge slope	Unevaluated
39CU3607	Native American	Artifact scatter, hearth	Ridge slope	Not eligible
39CU3608	Native American	Artifact scatter, hearth	Ridge slope	Unevaluated
39CU3610	Native American	Artifact scatter	Ridge slope	Not eligible
39CU3611	Native American	Artifact scatter, hearth	Ridge slope	Unevaluated
39CU3612	Native American	Artifact scatter, hearth	Rolling plain	Unevaluated
39CU3613	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3614	Native American	Artifact scatter	Ridge slope	Not eligible
39CU3615	Native American (Post Contact)	Artifact scatter	Terrace	Unevaluated

Table 7 (continued).

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU3616	Native American	Isolated find	Rolling plain	Not eligible
39CU3617	Native American (Middle Archaic-Oxbow)	Artifact scatter	Rolling plain	Not eligible
39CU3618	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3619	Euroamerican	Farmstead, artifact scatter	Terrace	Unevaluated
39CU3620	Native American	Artifact scatter, hearth, cairn	Ridge slope	Unevaluated
39CU3621	Native American	Artifact scatter	Ridge slope	Not eligible
39CU3622	Native American; Euroamerican	Artifact scatter; artifact scatter	Rolling plain	Not eligible
39CU3623	Native American (Middle Archaic/Late Archaic/Woodland)	Artifact scatter	Ridge slope	Unevaluated
39CU3624	Native American (Middle Archaic/Woodland)	Artifact scatter	Canyon terrace	Unevaluated
39CU3676	Euroamerican	Mine, artifact scatter	Ridge saddle	Not eligible
39CU3773	Native American	Isolated find	Valley terrace	Not eligible
39CU3774	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU3776	Native American	Artifact scatter, rock shelter	Ridge slope	Unevaluated
39CU3777	Native American	Isolated find	Ridge slope	Not eligible
39CU3778	Native American	Isolated find	Ridge slope	Not eligible
39CU3779	Native American	Artifact scatter, rock shelter, hearth	Canyon slope	Unevaluated
30CU3780	Native American	Artifact scatter	Ridge slope	Not eligible
39CU3781	Native American	Artifact scatter	Ridge crest/slope	Not eligible
39CU3782	Native American	Artifact scatter	Ridge slope	Not eligible
39FA96	Euroamerican	Farmstead	Hill slope	Unevaluated
39FA111	Native American	Occupation	Valley terrace	Unevaluated
39FA112	Native American	Artifact scatter	Valley terrace	Unevaluated
39FA114	Native American	Isolated find	Hill slope	Unevaluated
39FA118	Native American	Occupation	Hill base	Unevaluated
39FA120	Native American	Isolated find	Valley terrace	Unevaluated
39FA128	Native American	Isolated find	Valley terrace	Unevaluated
39FA251	Native American	Artifact scatter	Valley slope	Unevaluated
39FA269	Native American	Artifact scatter	Ridge crest	Unevaluated
39FA270	Native American	Artifact scatter	Hill base	Unevaluated
39FA271	Native American	Artifact scatter	Hill	Unevaluated
39FA274	Native American	Artifact scatter	Hill	Unevaluated
39FA556	Native American	Artifact scatter		Unevaluated
39FA578	Native American	Isolated find	Valley terrace	Unevaluated
39FA1349	Native American	Artifact scatter	Valley terrace	Not eligible
39FA1350	Native American	Isolated find	Valley terrace	Not eligible
39FA1352	Native American; Euroamerican	Artifact scatter; dump	Ridge slope	Unevaluated
39FA1353	Native American	Artifact scatter	Valley terrace	Unevaluated
39FA1779	Native American	Artifact scatter	Valley terrace	Not eligible

Table 7 (continued).

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39FA1780	Euroamerican	Artifact scatter	Valley terrace	Not eligible
39FA1784	Native American; Euroamerican	Occupation; farmstead	Valley terrace	Not eligible
39FA1859	Native American	Artifact scatter	Rolling plain	Unevaluated
39FA1862	Native American	Artifact scatter, cairn, stone circle	Ridge top	Unevaluated
39FA1863	Native American	Artifact scatter, stone alignment, stone circle, cairn	Ridge top	Unevaluated
39FA1864	Native American	Artifact scatter	Rolling plain	Unevaluated
39FA1865	Native American	Artifact scatter	Alluvial fan	Not eligible
39FA1880	Native American (Late Archaic/Plains Woodland)	Artifact scatter	Alluvial fan	Unevaluated
39FA1881	Native American	Artifact scatter, cairn	Ridge slope	Unevaluated
39FA1882	Euroamerican	Town site, road, school foundation	Rolling plain	Unevaluated
39FA1883	Native American	Artifact scatter	Rolling plain	Not eligible
39FA1884	Native American	Artifact scatter	Rolling plain	Not eligible
39FA1885	Native American	Artifact scatter	Rolling plain	Unevaluated
39FA1886	Native American	Artifact scatter	Rolling plain	Not eligible
39FA1887	Native American	Artifact scatter	Rolling plain	Unevaluated
39FA1888	Native American	Artifact scatter	Rolling plain	Not eligible
39FA1890	Native American	Artifact scatter, cairn	Ridge crest	Unevaluated
39FA1893	Native American	Isolated find	Rolling plain	Not eligible
39FA1894	Native American	Isolated find	Rolling plain	Not eligible
39FA1895	Native American (Middle to Late Archaic/Woodland)	Hearth (artifact scatter)	Rolling plain	Unevaluated
39FA1896	Native American (Paleoindian-Woodland); Euroamerican)	Artifact scatter; artifact scatter	Rolling plain	Unevaluated
39FA1909	Native American	Isolated find	Ridge slope	Not eligible
39FA1910	Native American	Isolated find	Ridge top	Not eligible
39FA1911	Euroamerican	Non farm ruins, artifact scatter	Rolling plain	Not eligible
39FA1912	Native American	Artifact scatter	Hill slope	Unevaluated
39FA1913	Native American	Artifact scatter	Hill slope	Not eligible
39FA1914	Native American	Isolated find	Ridge slope	Not eligible
39FA1915	Native American	Artifact scatter	Hill top	Not eligible
39FA1916	Native American	Artifact scatter	Rolling plain	Unevaluated
39FA1917	Native American (Late Archaic/Plains Woodland)	Artifact scatter	Hill slope	Not eligible
39FA1919	Native American	Isolated find	Ridge slope	Not eligible
39FA1920	Native American	Artifact scatter	Ridge slope	Unevaluated
39FA1921	Native American	Isolated find	Ridge slope	Not eligible
39FA1922	Native American	Unevaluated	Ridge slope	Unevaluated
39FA1923	Native American; Euroamerican	Artifact scatter; monument	Ridge slope	Unevaluated
39FA1924	Native American (Archaic)	Artifact scatter	Ridge crest	Not eligible

Table 7 (continued).

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39FA1925	Native American	Artifact scatter	Ridge top	Not eligible
39FA1926	Native American	Artifact scatter	Ridge slope	Unevaluated
39FA1928	Native American	Rock shelter, artifact scatter	Ridge slope	Unevaluated
39FA1929	Native American	Isolated find	Ridge slope	Not eligible
39FA1931	Native American	Isolated find	Ridge slope	Not eligible
39FA1932	Native American	Artifact scatter, rock shelter, hearth	Ridge slope	Unevaluated
39FA1934	Native American	Artifact scatter	Hill slope	Not eligible
39FA1938	Native American	Artifact scatter, stone alignment	Hill top	Unevaluated
39FA1939	Native American	Isolated find	Rolling plain	Not eligible
39FA1941	Native American	Artifact scatter, hearth	Ridge top/slope	Unevaluated
39FA1944	Native American	Artifact scatter	Ridge top	Unevaluated
39FA2000	Euroamerican	Railroad	Canyon floor	Eligible

Table 8. Previously Recorded Archeological Surveys within a One-Mile Radius of Section 28.

Survey Number	Report Author	Report Date	County
ACU-0412	Jeffrey V. Buechler	1999	Custer
ACU-0477	R. Peter Winham, Edward Lueck, Linda Palmer, and Frederick Sellet	2001	Custer
ACU-0672	Thomas Willems and Molly Karnopp	2005	Custer
BLH-0015	Robert Jolley and John S. Sigstad	1975	Custer and Fall River
BLH-0021	Paul V. Miller, L. Adrien Hannus, and R. Peter Winham	1984	Custer
BLH-0023	Nicholas Chevance	1978b	Custer
BLH-0030	Kerry Lippincott	1980a	Custer and Fall River
BLH-0038	Kerry Lippincott	1983	Custer and Fall River
BLH-0039	Charles A. Reher	1981	Custer

Table 9. Previously Recorded Archeological Sites within a One-Mile Radius of Section 28.

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU241	Native American (Early Archaic)	Alignment (artifact scatter)	Hill base	Not eligible
39CU252	Native American (Plainview)	Artifact scatter	Ridge crest	Unevaluated
39CU273	Native American (Pelican Lake)	Artifact scatter	Hill top	Unevaluated
39CU455	Native American	Artifact scatter		Not eligible
39CU456	Native American	Artifact scatter	Ridge crest	Unevaluated

Table 9 (continued).

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU459	Native American	Artifact scatter	Ridge	Unevaluated
39CU460	Native American	Artifact scatter	Ridge	Unevaluated
39CU461	Native American	Isolated find		Not eligible
39CU462	Native American	Isolated find		Unevaluated
39CU463	Native American	Artifact scatter	Hill	Unevaluated
39CU464	Native American	Artifact scatter	Hill	Unevaluated
39CU527	Native American	Isolated find	Ridge slope	Unevaluated
39CU528	Native American	Isolated find	Ridge slope	Unevaluated
39CU531	Native American; Euroamerican	Artifact scatter; artifact scatter	Ridge	Unevaluated
39CU532	Native American	Artifact scatter	Gully	Unevaluated
39CU554	Native American	Artifact scatter	Valley floor	Unevaluated
39CU556	Native American (Late Archaic)	Artifact scatter	Hill base	Unevaluated
39CU557	Native American	Artifact scatter	Hill	Unevaluated
39CU559	Native American (Late Archaic)	Artifact scatter	Valley	Unevaluated
39CU577	Native American (Late Prehistoric); Euroamerican	Occupation; artifact scatter	Ridge slope	Eligible
39CU578	Euroamerican; Native American	Dump; occupation	Ridge slope	Eligible
39CU579	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU583	Native American	Artifact scatter	Hill top	Unevaluated
39CU584	Native American	Occupation, burial	Ridge slope	Eligible
39CU586	Native American (Late Archaic)	Occupation	Ridge crest	Eligible
39CU588	Native American	Occupation	Ridge slope	Eligible
39CU589	Native American	Occupation	Hill top	Not eligible
39CU590	Native American	Artifact scatter	Ridge saddle	Eligible
39CU591	Native American; Euroamerican	Occupation; artifact scatter	Butte scarp	Unevaluated
39CU592	Native American	Occupation	Rolling plain	Eligible
39CU593	Native American; Euroamerican	Occupation; artifact scatter	Hill slope	Eligible
39CU596	Native American	Isolated find	Valley terrace	Unevaluated
39CU636	Native American	Artifact scatter	Butte base	Unevaluated
39CU637	Native American	Isolated find	Ridge slope	Unevaluated
39CU638	Native American	Occupation	Valley terrace	Unevaluated
39CU639	Native American	Occupation	Valley terrace	Unevaluated
39CU640	Euroamerican	Cabin	Ridge	Unevaluated
39CU641	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU642	Native American	Artifact scatter, hearth	Rolling plain	Not eligible
39CU643	Native American	Artifact scatter	Valley terrace	Unevaluated
39CU645	Native American	Isolated find	Rolling plain	Not eligible
39CU646	Native American	Isolated find	Rolling plain	Not eligible
39CU647	Native American	Isolated find	Rolling plain	Not eligible
39CU648	Native American	Kill, artifact scatter	Rolling plain	Unevaluated
39CU652	Euroamerican	Cabin	Valley terrace	Unevaluated
39CU1749	Native American	Artifact scatter	Ridge slope	Not eligible



Table 9 (continued).

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU1750	Native American	Artifact scatter	Ridge slope	Not eligible
39CU1751	Native American	Artifact scatter	Hill top	Not eligible
39CU1752	Native American; Euroamerican	Artifact scatter; cabin, depression	Valley terrace	Unevaluated
39CU1753	Native American	Artifact scatter	Valley terrace	Not eligible
39CU1754	Native American	Artifact scatter	Hill top	Not eligible
39CU1755	Native American	Isolated find	Rolling plain	Not eligible
39CU1756	Native American	Artifact scatter	Rolling plain	Not eligible
39CU1757	Euroamerican	Artifact scatter	Ridge slope	Not eligible
39CU1759	Native American	Isolated find	Ridge slope	Not eligible
39CU2616	Native American	Artifact scatter	Butte top	Unevaluated
39CU2618	Native American	Artifact scatter	Butte base	Unevaluated
39CU2619	Native American	Artifact scatter	Butte scarp	Unevaluated
39CU2620	Native American	Artifact scatter	Ridge crest	Unevaluated
39CU2622	Native American	Depression	Butte top	Unevaluated
39CU2623	Native American	Artifact scatter, stone circle	Butte top	Unevaluated
39CU2730	Euroamerican	Dump	Ridge slope	Unevaluated
39CU2735	Native American	Occupation	Ridge slope	Unevaluated
39CU2678	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2679	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2680	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2681	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2682	Native American	Artifact scatter	Ridge slope	Not eligible
39CU2683	Native American	Isolated find	Ridge slope	Unevaluated
39CU2684	Native American	Artifact scatter	Ridge slope	Not eligible
39CU2685	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2687	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2688	Native American	Hearth, artifact scatter	Ridge slope	Not eligible
39CU2689	Native American	Isolated find	Ridge slope	Unevaluated
39CU2690	Native American	Isolated find	Ridge slope	Unevaluated
39CU2691	Native American	Artifact scatter	Ridge slope	Not eligible
39CU2693	Euroamerican	Dump	Ridge slope	Unevaluated
39CU2694	Native American (Goshen)	Artifact scatter	Ridge slope	Not eligible
39CU2695	Native American	Isolated find	Ridge slope	Unevaluated
39CU2696	Native American; Euroamerican	Artifact scatter, hearth; dump	Ridge slope	Eligible
39CU2697	Euroamerican	Farmstead	Ridge slope	Unevaluated
39CU2714	Native American	Isolated find	Ridge slope	Unevaluated
39CU2715	Euroamerican	Dump	Ridge slope	Unevaluated
39CU2717	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2718	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2720	Native American	Occupation	Ridge slope	Not eligible
39CU2721	Native American	Isolated find	Ridge slope	Unevaluated
39CU2723	Euroamerican; Native American	Dump; artifact scatter, hearth, stone circle	Ridge slope	Not eligible

Table 9 (continued).

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU2724	Native American; Euroamerican	Artifact scatter; artifact scatter	Ridge slope	Unevaluated
39CU2726	Native American	Artifact scatter, hearth	Ridge slope	Not eligible
39CU2733	Native American	Hearth, artifact scatter	Ridge slope	Eligible
39CU2736	Native American	Occupation	Ridge slope	Not eligible
39CU2738	Native American; Unknown	Occupation; alignment	Ridge crest	Eligible
39CU2740	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2742	Native American	Artifact scatter	Hill slope	Unevaluated
30CU2744	Native American	Artifact scatter	Ridge slope	Unevaluated
39CU2745	Native American	Isolated find	Ridge slope	Unevaluated
39CU2746	Native American	Occupation	Ridge slope	Not eligible
39CU2748	Native American	Artifact scatter, hearth	Ridge slope	Not eligible
39CU2750	Native American	Artifact scatter	Ridge slope	Not eligible
39CU2752	Native American	Occupation	Hill slope	Not eligible
39CU3566	Native American; Euroamerican	Artifact scatter; artifact scatter	Rolling plain	Not eligible
39CU3567	Native American (Late Archaic/Woodland)	Stone circle (artifact scatter)	Rolling plain	Not eligible
39CU3568	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3569	Native American	Isolated find	Rolling plain	Not eligible
39CU3570	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3572	Native American (Late Paleoindian/Late Archaic/Woodland)	Stone circle (artifact scatter)	Rolling plain	Not eligible
39CU3573	Native American	Artifact scatter, hearth	Ridge slope	Not eligible
39CU3574	Native American (Late Archaic/Early Prehistoric)	Hearth (artifact scatter)	Rolling plain	Unevaluated
39CU3575	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3590	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3592	Native American	Artifact scatter	Rolling plain	Eligible
39CU3593	Native American (Late Archaic/Plains Woodland)	Artifact scatter	Rolling plain	Not eligible
39CU3594	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3595	Native American	Isolated find	Rolling plain	Not eligible
39CU3596	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3598	Native American (Late Archaic/Plains Woodland)	Artifact scatter	Rolling plain	Unevaluated
39CU3600	Native American	Artifact scatter, stone alignment	Ridge top	Unevaluated
39CU3601	Native American	Artifact scatter, hearth	Ridge slope	Unevaluated
39CU3602	Native American	Artifact scatter, hearth	Ridge slope	Unevaluated

Table 9 (continued).

Site Number	Cultural Affiliation	Site Type	Landform Position	NRHP Status
39CU3603	Native American; Euroamerican	Artifact scatter, hearth; artifact scatter	Ridge slope	Unevaluated
39CU3604	Native American	Artifact scatter, hearth, stone circle	Ridge top/slope	Unevaluated
39CU3605	Native American	Artifact scatter, hearth	Ridge slope	Unevaluated
39CU3606	Native American (Late Prehistoric)	Artifact scatter, hearth	Ridge slope	Unevaluated
39CU3607	Native American	Artifact scatter, hearth	Ridge slope	Not eligible
39CU3608	Native American	Artifact scatter, hearth	Ridge slope	Unevaluated
39CU3609	Native American	Artifact scatter	Ridge slope	Not eligible
39CU3610	Native American	Artifact scatter	Ridge slope	Not eligible
39CU3611	Native American	Artifact scatter, hearth	Ridge slope	Unevaluated
39CU3612	Native American	Artifact scatter, hearth	Rolling plain	Unevaluated
39CU3613	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3614	Native American	Artifact scatter	Ridge slope	Not eligible
39CU3615	Native American (Post Contact)	Artifact scatter	Terrace	Unevaluated
39CU3616	Native American	Isolated find	Rolling plain	Not eligible
39CU3617	Native American (Middle Archaic/Oxbow)	Artifact scatter	Rolling plain	Not eligible
39CU3618	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3619	Euroamerican	Farmstead, artifact scatter	Terrace	Unevaluated
39CU3620	Native American	Artifact scatter, hearth, cairn	Ridge slope	Unevaluated
39CU3671	Native American	Isolated find	Ridge	Not eligible
39CU3771	Native American	Artifact scatter	Rolling plain	Not eligible
39CU3772	Native American	Artifact scatter	Rolling plain	Unevaluated
39CU3783	Native American	Artifact scatter	Ridge slope	Not eligible

Table 10. Historic Structures Recorded within the Survey Areas.

Number	Description	Nomination Status
Historic District 90000949	Edna & Ernest Young ranch	Listed
Structure CU00000050	Bakewell ranch	Listed
Structure CU00000212	Doran ranch	Unevaluated
Structure CU00000146	Silver King Mine	Unevaluated

Table 11. Historic Structures Recorded within a One-Mile Radius of the Survey Areas.

Number	Description	Nomination Status
Structure CU00000038	George Darrow place	Unevaluated
Structure CU2502500001	Building 4 (39CU3619)	Eligible
Structure CU2502500001	Building 1 (39CU3619)	Eligible
Structure CU2502500001	Building 7 (39CU3619)	Eligible
Structure CU2502500001	Building 9 (39CU3619)	Eligible

## METHODOLOGY

### Fieldwork Methods

The survey areas were examined by conducting a 100 percent pedestrian ground survey utilizing parallel transects spaced at no greater-than 30-m intervals. Interval width was shortened to a minimum of 5 m in areas of high site potential or poor ground visibility, and to examine and record sites.

Recordation was accomplished through a written inventory of observed surface materials, mapping, photography, and collection of diagnostic artifacts. Some of the projectile points were temporarily collected, documented in the field, and returned to the landowner at his request. Mapping of the test unit locations, site boundaries, features and other pertinent site data was accomplished using a Trimble (Juno) with 1-3 m accuracy.

Limited testing to assess National Register of Historic Places (NRHP) eligibility status was conducted on 13 of the sites recorded. These sites were tested using varying numbers of shovel tests. The number and spacing of the shovel tests per site was 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. The matrix from the tests was screened through 1/4-inch hardware mesh. Cultural materials recovered from the tests were collected and returned to ALAC for cataloging and limited analysis.

Site overviews, test units, and features were documented with digital prints and color slides. 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. The materials were then sorted into categories (per provenience) and 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.

## **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 majority of the 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).

Sites that require more extensive testing to assess NRHP eligibility status than was possible within the time limits of this survey project are recommended as unevaluated. It is recommended that these sites be tested and eligibility status and project effects determined prior to any future mining or facilities development impacts.

## **SURVEY RESULTS**

Twenty-nine cultural resource sites were identified within the survey areas (sites 39CU3810-39CU3823 and 39FA1952-39FA1966) (Appendix A, Map A3). The sites are all located within the Black Hills Archaeological Region. Individual descriptions of these sites are presented below. The respective updated site forms are presented in Appendix B.

### **SITE 39CU3810**

**Site Type:** Artifact scatter  
**Cultural Affiliation:** Native American  
**Site Area:** .06 ha  
**Landscape Position:** Ridge base  
**Elevation (m):** 1130

**Field Number:** 27-1  
**Site Condition:** Disturbed  
**Subsurface Testing:** No  
**Map Reference:** A3  
**NRHP Recommendation:** Not eligible

### Site Description

Site 39CU3810 consists of a very sparse artifact scatter (Figures 2 and 3). The site is situated on a gentle, east-facing colluvial ridge slope. The site area measures approximately 36 m N-S x 40 m E-W. Vegetation in the site area consists of mixed grass, prickly pear, and sage. Ground surface visibility in the site area averages 60 percent.

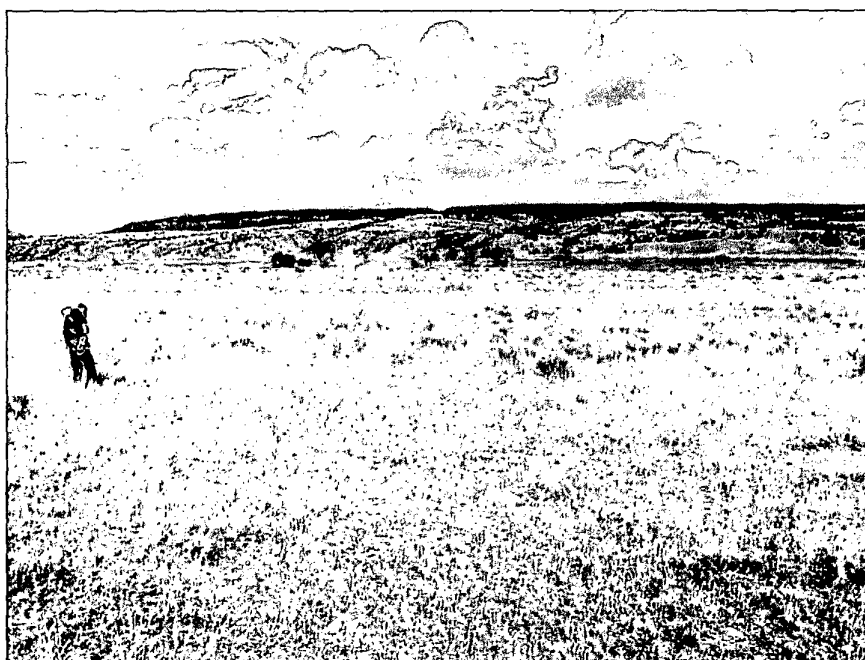


Figure 2. Overview of site 39CU3810, facing east-northeast.

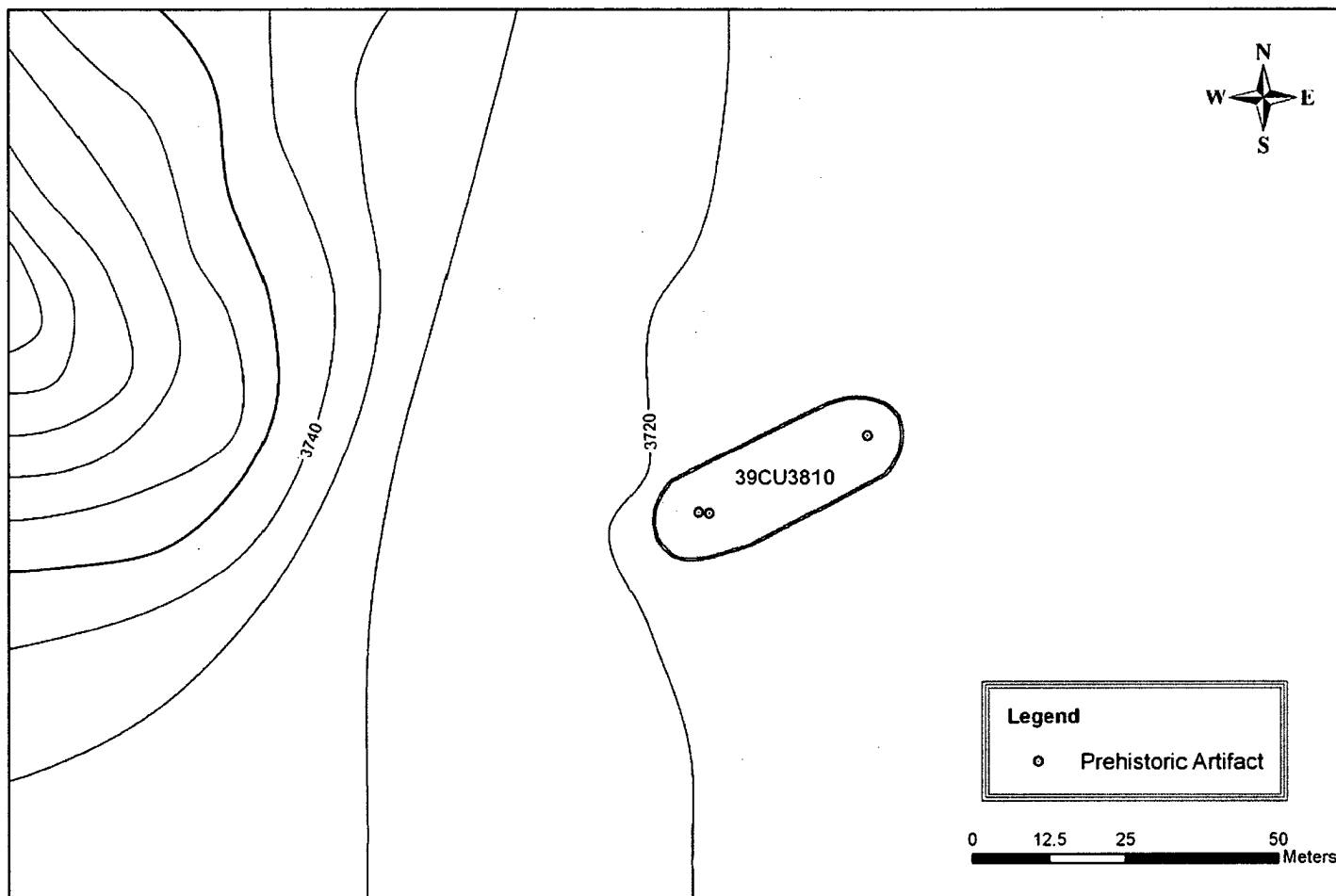


Figure 3. Plan map of site 39CU3810.



### **Artifact and Feature Inventory**

Artifacts observed on the site surface are listed in Table 12. No features were observed on site 39CU3810.

Table 12. Artifacts Observed at Site 39CU3810.

Count	Artifact Type	Material	Colors	Comments
1	Primary flake	Chert	Purple	
2	Tertiary flake	Chalcedony	Gray, gray and purple	
1	Tertiary flake	Battle Mountain quartzite	Purple	

### **Interpretation and Recommendations**

Site 39CU3810 represents a very sparse lithic scatter. The site exhibits severe erosion. No features or diagnostic/datable materials were observed.

The NRHP eligibility status of site 39CU3810 is considered under Criterion D of the NRHP (NPS 1991:37). The site has not produced diagnostic/datable materials and, therefore, cannot be evaluated in a specific historic context. The integrity of the site has been severely compromised by erosion. The deflated nature of the landform on which the site is located and the displacement and redeposition of the eroded soil indicate an extremely low potential for intact, subsurface cultural deposits or features. 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 39CU3810 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 39CU3811**

**Site Type:** Artifact Scatter  
**Cultural Affiliation:** Native American  
**Site Area:** .03 ha  
**Landscape Position:** Hill slope  
**Elevation (m):** 1133

**Field Number:** 27-5  
**Site Condition:** Disturbed  
**Subsurface Testing:** No  
**Map Reference:** A3  
**NRHP Recommendation:** Not eligible

### **Site Description**

Site 39CU3811 consists of a very sparse artifact scatter (Figures 4 and 5). The site is situated at the base of a hill on the east slope. The site surface is a gravel exposure with very little intact soil. The site area measures approximately 28 m N-S x 15 E-W. An unnamed, intermittent stream runs approximately 213 m southwest of the site area. Vegetation in the site area consists of mixed grass and prickly pear. Ground surface visibility in the site area averages 60 percent.



Figure 4. Overview of site 39CU3811, facing northwest.

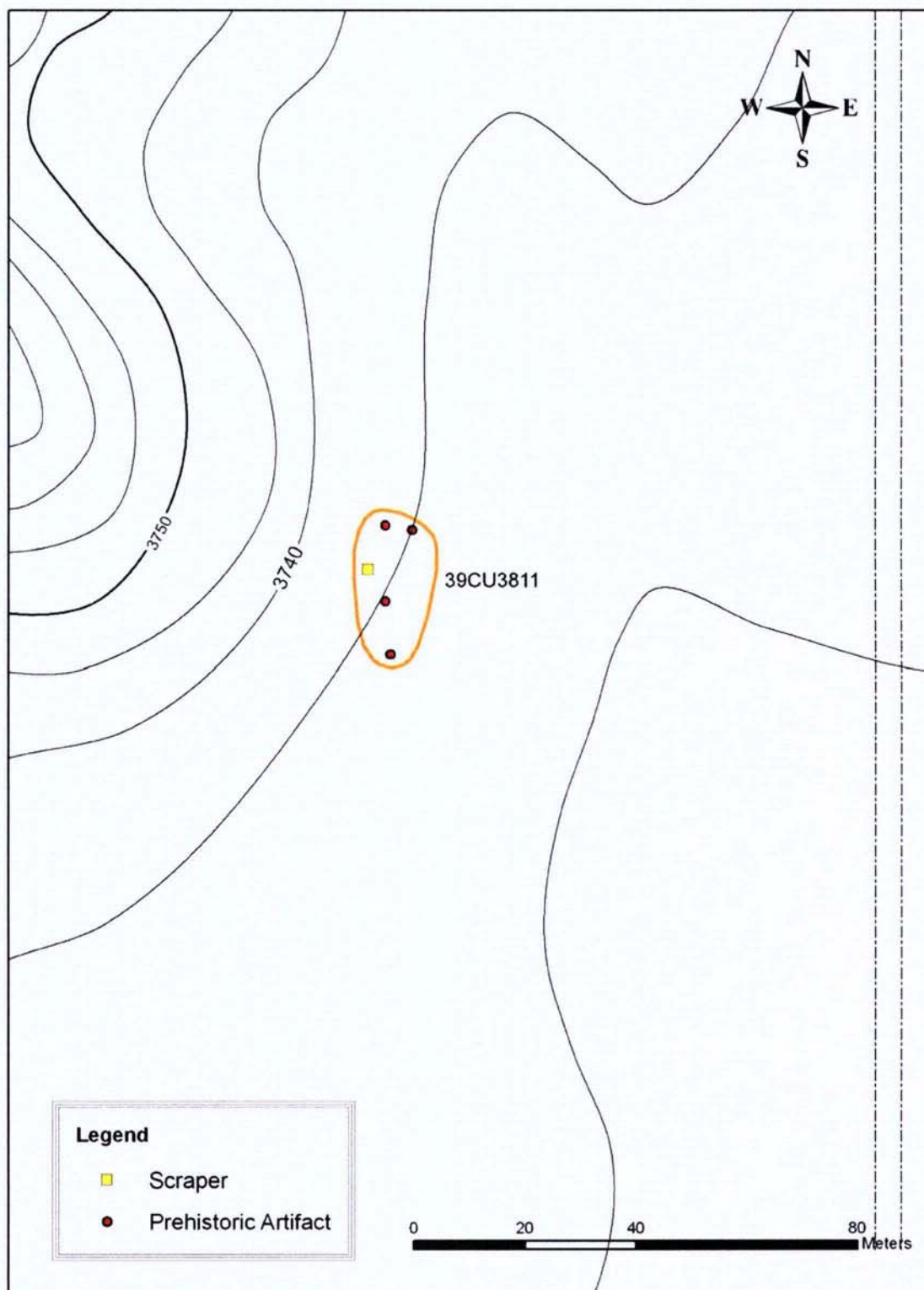


Figure 5. Plan map of site 39CU3811.

### Artifact and Feature Inventory

The observed artifacts are located on a gravel exposure and are listed in Table 13. No features were observed on site 39CU3811.

Table 13. Artifacts Observed at Site 39CU3811.

Count	Artifact Type	Material	Colors	Comments
1	Primary flake	Chert	Purple	
1	Secondary flake	Chert	Purple	
1	Secondary flake	Chalcedony	Light gray	
1	Tested pebble	Chalcedony	Purple and light gray	
1	Scraper	Quartzite	Red	

### Interpretation and Recommendations

Site 39CU3811 represents a sparse lithic scatter. The site exhibits severe erosion. The site surface is eroded to gravel with very little intact soil. No features or diagnostic/datable materials were observed.

The NRHP eligibility status of site 39CU3811 is considered under Criterion D of the NRHP (NPS 1991:37). The site has produced no diagnostic/datable materials and, therefore, cannot be evaluated in a specific historic context. The integrity of the site has been severely compromised by erosion. There is extremely low potential for intact, subsurface cultural deposits or features. 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 39CU3811 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 39CU3812**

**Site Type:** Artifact scatter, cairn  
**Cultural Affiliation:** Native American  
**Site Area:** .69  
**Landscape Position:** Hill slope  
**Elevation (m):** 1136

**Field Number:** 27-6, 27-8  
**Site Condition:** Disturbed  
**Subsurface Testing:** No  
**Map Reference:** A3  
**NRHP Recommendation:** Not eligible

### **Site Description**

Site 39CU3812 consists of a sparse artifact scatter and a cairn (Figures 6 and 7). The site is situated on a steep slope on the south side of a hill above a wide, east-west trending intermittent drainage. The site boundary extends to the north edge of the drainage. The site area is also bisected by a moderately deep erosional cut. The site surface is eroded to gravel and shale exposures. The site area measures approximately 189 m N-S x 66 m E-W. Vegetation in the site area consists of mixed grass, prickly pear, and sage. Ground surface visibility averages 60 percent.



Figure 6. Overview of site 39CU3812, facing north-northeast.

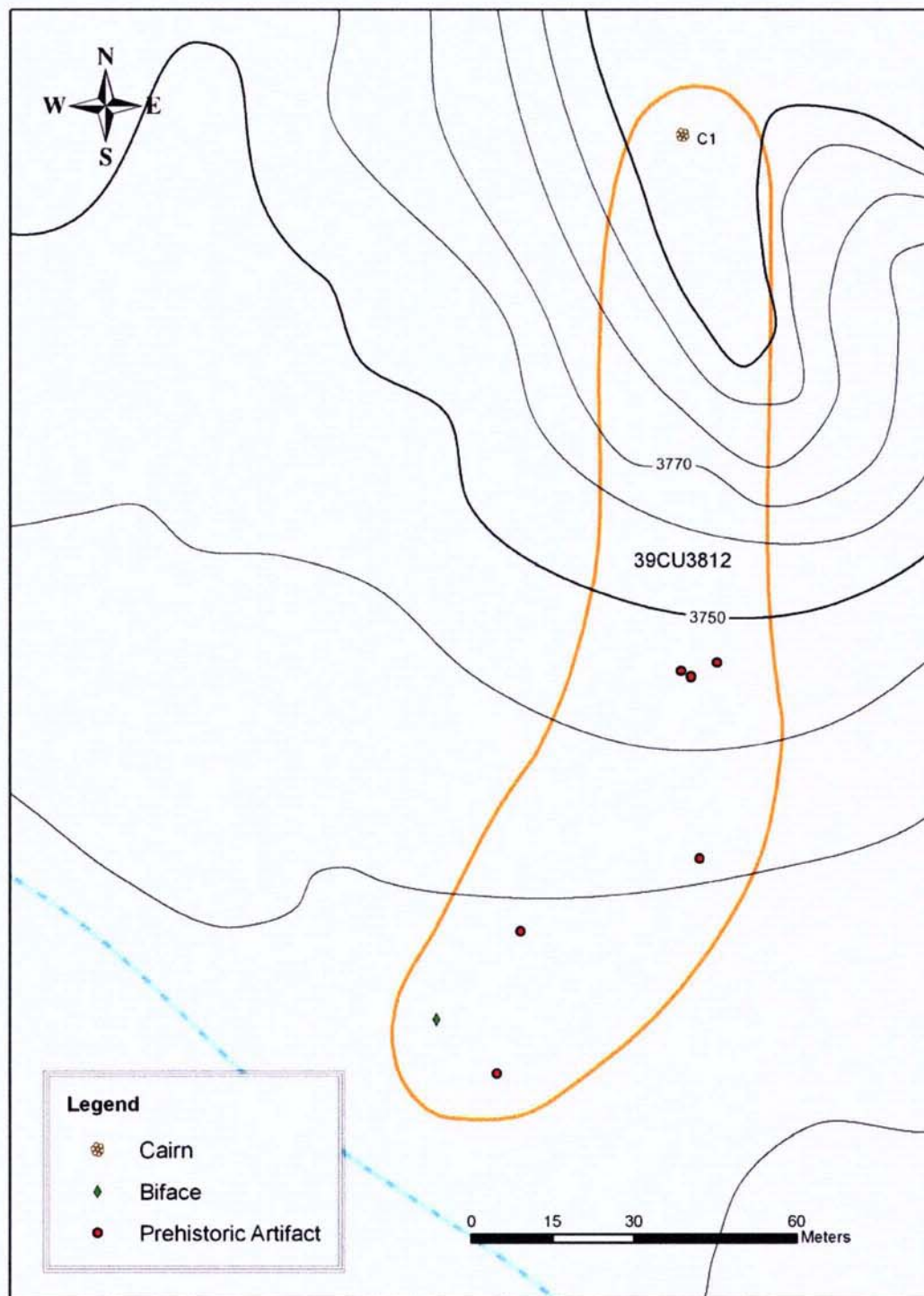


Figure 7. Plan map of site 39CU3812.

### Artifact and Feature Inventory

Artifacts observed on the site surface are listed in Table 14. One cairn was observed on site 39CU3812. The cairn consists of eight stones (Figures 8 and 9). The diameter of the cairn is 97 cm N-S x 65 cm E-W.

Table 14. Artifacts Observed at Site 39CU3812.

Count	Artifact Type	Material	Colors	Comments
5	Tertiary flake	Chert	Purple, pink/gray	One utilized
1	Tertiary flake	Hartville chert	Gray	
1	Tertiary flake	Chalcedony	Light gray	
1	Biface	Chert	Purple	Crude



Figure 8. View of cairn on site 39CU3812, facing east.

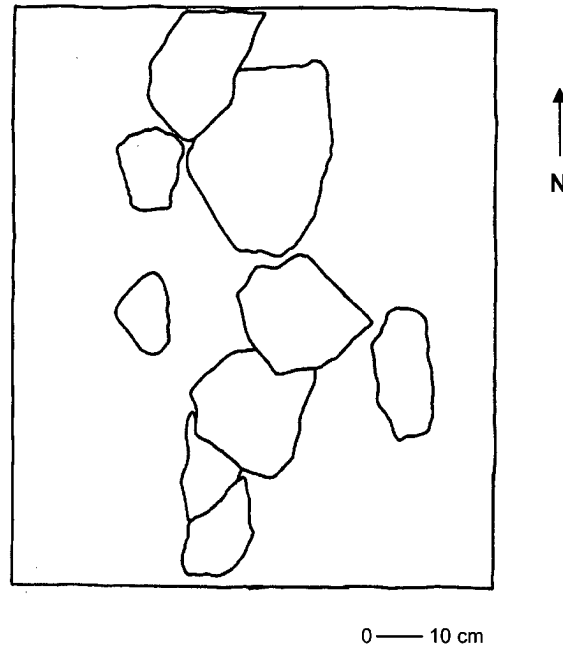


Figure 9. Scaled plan of cairn, site 39CU3812.

### **Interpretation and Recommendations**

Site 39CU3812 represents a sparse lithic scatter and a cairn. The site exhibits severe wind and water erosion. No diagnostic/datable materials were observed. The cairn is of indeterminate age and rests on the surface of a gravel exposure.

The NRHP eligibility status of site 39CU3812 is considered under Criterion D of the NRHP (NPS 1991:37). The site has produced no diagnostic/datable artifacts and, therefore, cannot be evaluated in a specific historic context. The integrity of the site has been severely compromised by wind and sheet wash erosion. There is an extremely low potential for intact, subsurface cultural deposits or features. 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 39CU3812 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 39CU3813**

**Site Type:** Hearth, artifact scatter  
**Cultural Affiliation:** Native American  
**Site Area:** .41 ha  
**Landscape Position:** Ridge saddle  
**Elevation (m):** 1149

**Field Number:** 27-7  
**Site Condition:** Disturbed  
**Subsurface Testing:** No  
**Map Reference:** A3  
**NRHP Recommendation:** Unevaluated

### **Site Description**

Site 39CU3813 consists of a very sparse artifact scatter and one hearth (Figures 10 and 11). The site is situated on the slopes of a forested ridge saddle. The majority of the site surface has eroded to shale exposures. The site area measures approximately 103 N-S x 78 m E-W. An unnamed, intermittent stream runs approximately 174 m southwest of the site area. Vegetation in the site area consists of pine with undergrowth of mixed grass, prickly pear, and sage. Ground surface visibility in the site area averages 60 percent.



Figure 10. Overview of site 39CU3813, facing west-northwest.

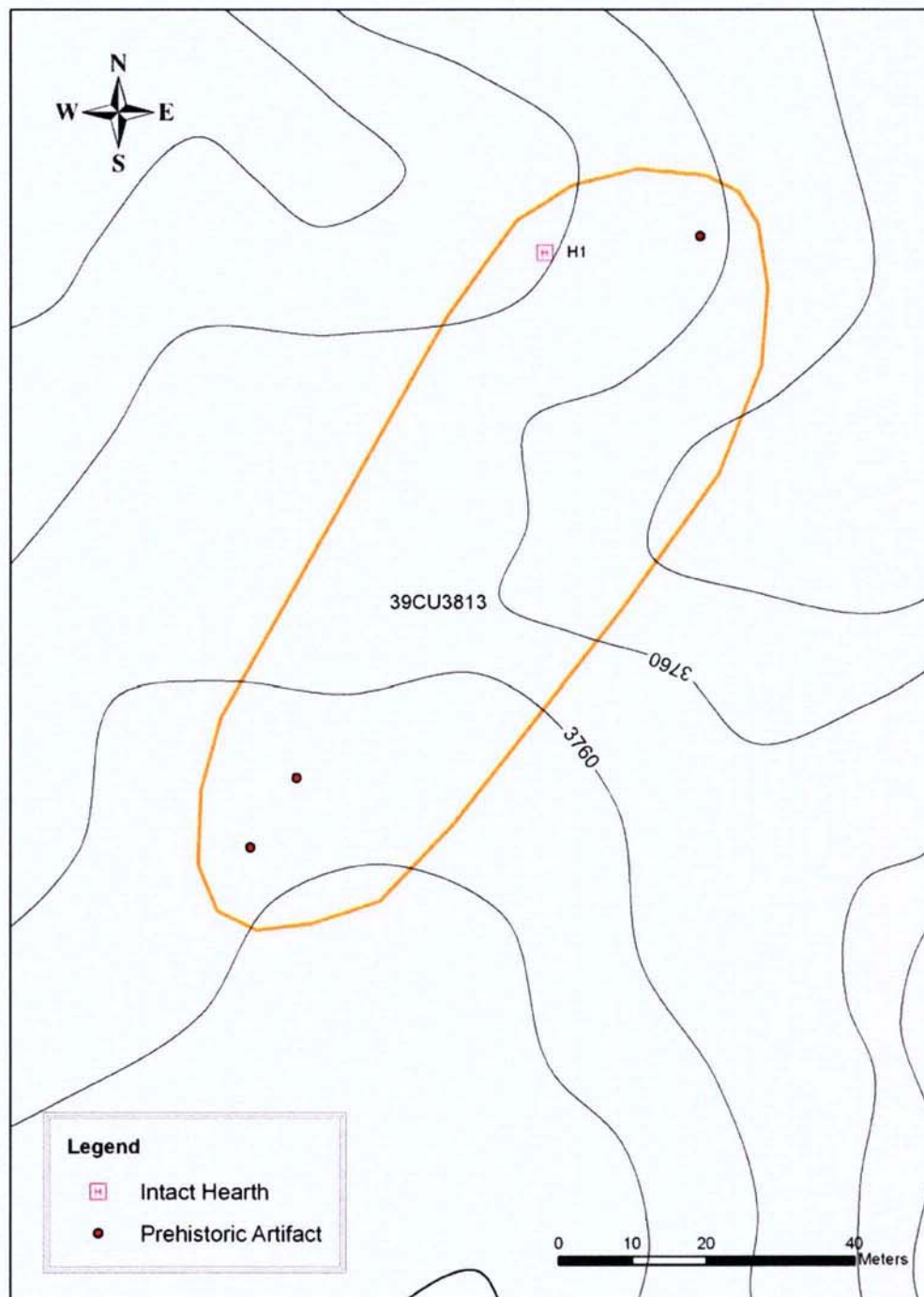


Figure 11. Plan map of site 39CU3813.

## Artifact and Feature Inventory

Artifacts observed on the site surface are listed in Table 15. One intact hearth feature (H1) was observed on site 39CU3813 (Figures 11 and 12). The hearth is described in Table 16.

Table 15. Artifacts Observed at Site 39CU3813.

Count	Artifact Type	Material	Colors	Comments
2	Primary flake	Chalcedony	Purple	
1	Tertiary flake	Chalcedony	Light gray	
1	Tertiary flake	Battle Mountain quartzite	Purple	



Figure 12. Close-up view of hearth H1, site 39CU3813.

Table 16. Description of Hearth on Site 39CU3813.

Hearth	Diameter (cm)	# FCR Exposed	Type FCR	Condition	Figure #
H1	48 cm E-W x 32 cm N-S	16	Granite, chert, sandstone	Partially intact	12

## **Interpretation and Recommendations**

Site 39CU3813 represents a sparse lithic scatter and one hearth feature. The majority of the site exhibits severe erosion. No diagnostic/datable materials were observed. The hearth is intact and likely contains datable materials.

The NRHP eligibility status of site 39CU3813 is considered under Criterion D of the NRHP (NPS 1991:37). The integrity of the site has been comprised by erosion; however, there is potential for producing datable materials in the hearth fill.

Site 39CU3813 requires additional evaluation to assess NRHP eligibility status. ALAC recommends that this site be considered unevaluated for listing on the NRHP. Additional archeological work consisting of limited subsurface testing and cross-sectioning of the hearth feature is recommended.

### **SITE 39CU3814**

**Site Type:** Artifact scatter  
**Cultural Affiliation:** Native American  
**Site Area:** .54 ha  
**Landscape Position:** Hill slope  
**Elevation (m):** 1124

**Field Number:** 34-1  
**Site Condition:** Disturbed  
**Subsurface Testing:** No  
**Map Reference:** A3  
**NRHP Recommendation:** Not eligible

### **Site Description**

Site 39CU3814 consists of a sparse artifact scatter (Figures 13 and 14). The site is situated on a severely eroded, east-facing, gentle hill slope. The site surface has eroded to gravel and shale exposures and has very little to no developed soil. The site is transected by two intermittent drainages and lies directly west of an older, north-south trending drainage. The site area measures approximately 88 m N-S x 108 m E-W. Vegetation in the site area consists of short grass and sage. Ground surface visibility in the site area averages 70 percent.

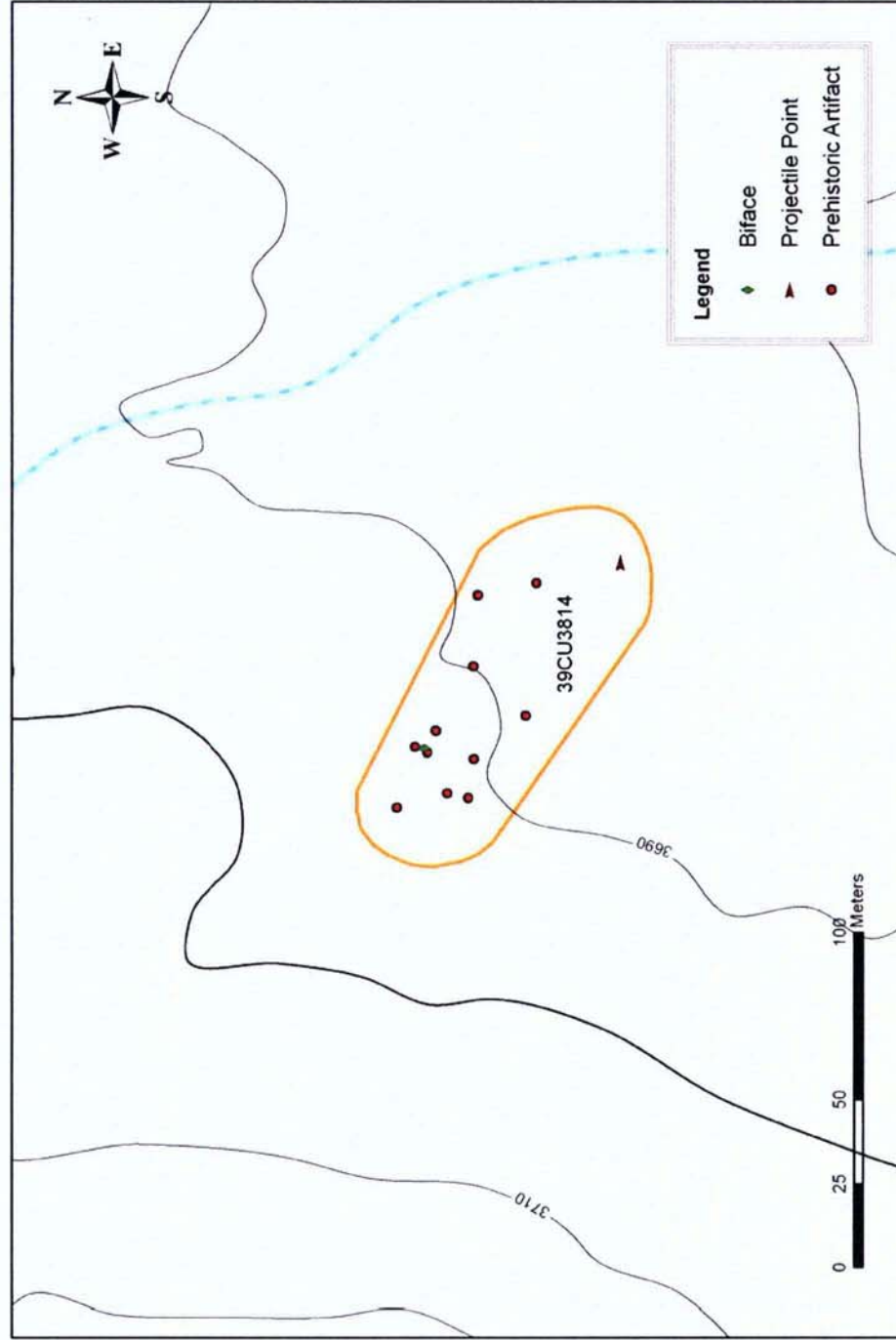


Figure 13. Plan map of site 39CU3814.



Figure 14. Overview of site 39CU3814, facing northwest.

### Artifact and Feature Inventory

Artifacts observed on the site surface are listed in Table 17. No features were observed on site 39CU3814.

Table 17. Artifacts Observed at Site 39CU3814.

Count	Artifact Type	Material	Colors	Comments
1	Primary flake	Chalcedony	Light brownish gray	Unifacially worked blade
3	Tertiary flake	Chert	Red, pink	
3	Tertiary flake	Chalcedony	Gray, white, pale red and gray, pink	
2	Tertiary flake	Fall River quartzite	Light gray	
1	Core	Chalcedony	Gray	
1	Spokeshave	Chert	Purple	
1	Projectile point	Chalcedony	Gray	Tip only

## **Interpretation and Recommendations**

Site 39CU3814 represents a sparse lithic scatter. The site exhibits erosion. No features or diagnostic/datable materials were observed.

The NRHP eligibility status of site 39CU3814 is considered under Criterion D of the NRHP (NPS 1991:37). The site has produced no diagnostic/datable materials on a severely eroded surface and cannot be definitely evaluated in a specific historic context. The integrity of the site has been severely compromised by wind and sheet wash erosion. There is an extremely low potential for intact, subsurface cultural deposits or features. 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 39CU3814 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 39CU3815**

**Site Type:** Artifact scatter  
**Cultural Affiliation:** Native American  
**Site Area:** .07 ha  
**Landscape Position:** Rolling plain  
**Elevation (m):** 1124

**Field Number:** 34-2  
**Site Condition:** Disturbed  
**Subsurface Testing:** No  
**Map Reference:** A3  
**NRHP Recommendation:** Not eligible

### **Site Description**

Site 39CU3815 consists of a sparse artifact scatter (Figures 15 and 16). The site is situated on a severely eroded, nearly flat plain. The site surface has eroded to gravel and shale exposures with very little to no intact soil. The site area measures approximately 34 m N-S x 28 m E-W. An unnamed, intermittent stream runs approximately 107 m east of the site. Vegetation in the site area consists of short grass and scrub. Ground surface visibility in the site area averages 60 percent.

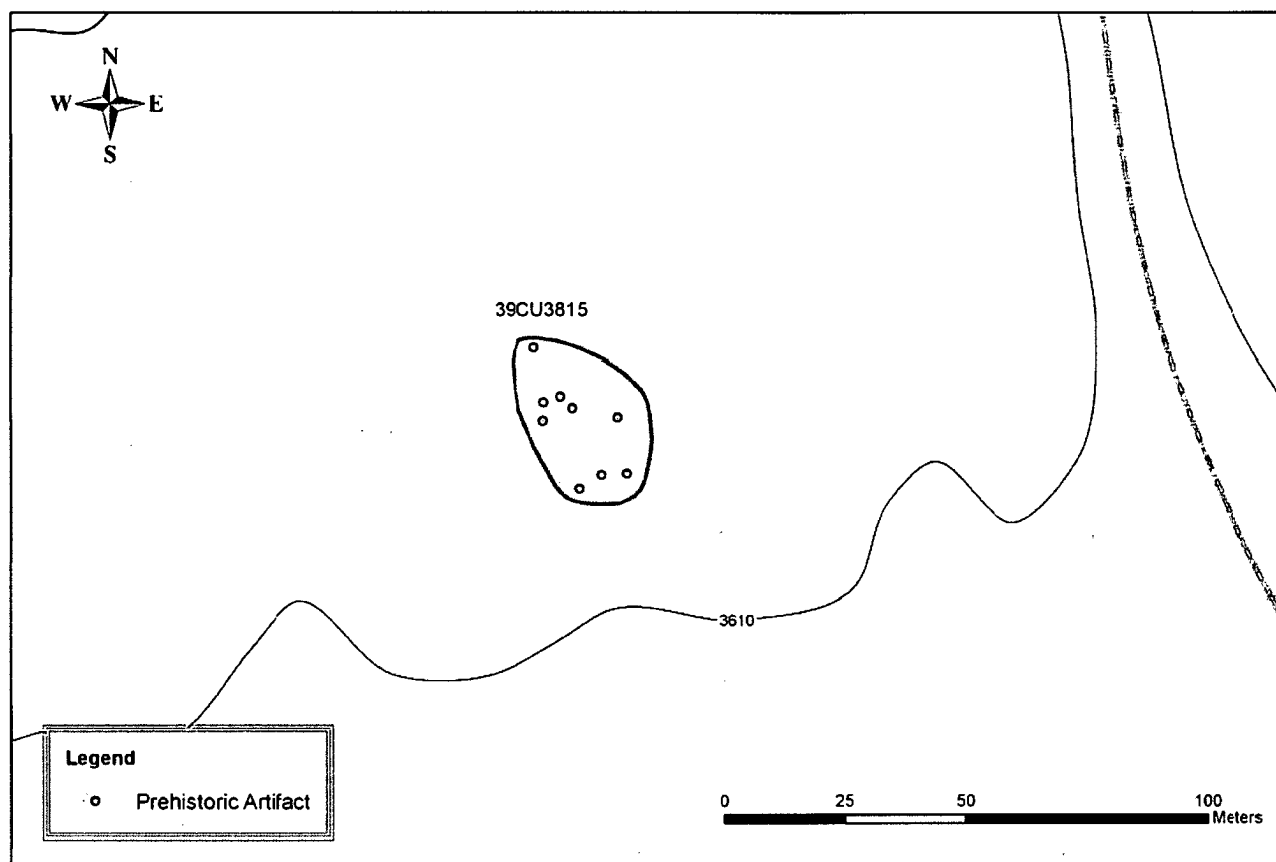


Figure 15. Plan map of site 39CU3815.



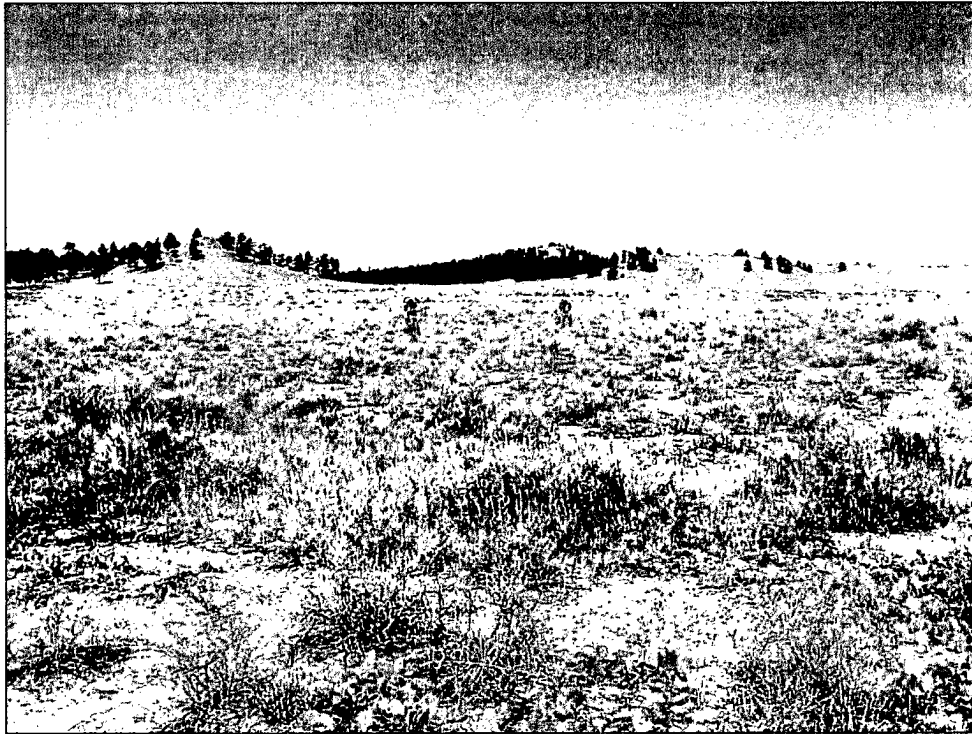


Figure 16. Overview of site 39CU3815, facing northwest.

### Artifact and Feature Inventory

Artifacts observed on the site surface are listed in Table 18. No features were observed on site 39CU3815.

Table 18. Artifacts Observed at Site 39CU3815.

Count	Artifact Type	Material	Colors	Comments
1	Primary flake	Chalcedony	Gray	
1	Secondary flake	Chert	Purple	
3	Tertiary flake	Chert	Purple, white	
1	Tertiary flake	Quartzite	Light purple	
1	Tertiary flake	Chalcedony	Gray	
1	Tertiary flake	Silicified sediment	Gray	
1	Shatter	Chert	Purple	
1	Shatter	Chalcedony	Gray	
1	Core	Chalcedony	Light gray/orange	

## **Interpretation and Recommendations**

Site 39CU3815 represents a sparse lithic scatter. The site exhibits severe erosion. The site surface is eroded to gravel and shale exposures and has very little intact soil. No features or diagnostic/datable materials were observed.

The NRHP eligibility status of site 39CU3815 is considered under Criterion D of the NRHP (NPS 1991:37). The site has produced no diagnostic/datable materials and cannot be evaluated in a specific historic context. The integrity of the site has been severely compromised by erosion. There is an extremely low potential for intact subsurface cultural deposits or additional features. 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 39CU3815 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 39CU3816**

**Site Type:** Artifact Scatter  
**Cultural Affiliation:** Native American  
**Site Area:** 1.38 ha  
**Landscape Position:** Hill slope  
**Elevation (m):** 1127

**Field Number:** 34-3  
**Site Condition:** Disturbed  
**Subsurface Testing:** No  
**Map reference:** A3  
**NRHP Recommendation:** Not eligible

## **Site Description**

Site 39CU3816 consists of an artifact scatter (Figures 17 and 18). The site is situated on a severely eroded, gentle, east-facing hill slope. The site area measures approximately 114 m N-S x 145 m E-W. An unnamed, intermittent stream runs approximately 5 m east of the site. Vegetation in the site area consists of short grass and scrub. Ground surface visibility in the site area averages 60 percent.

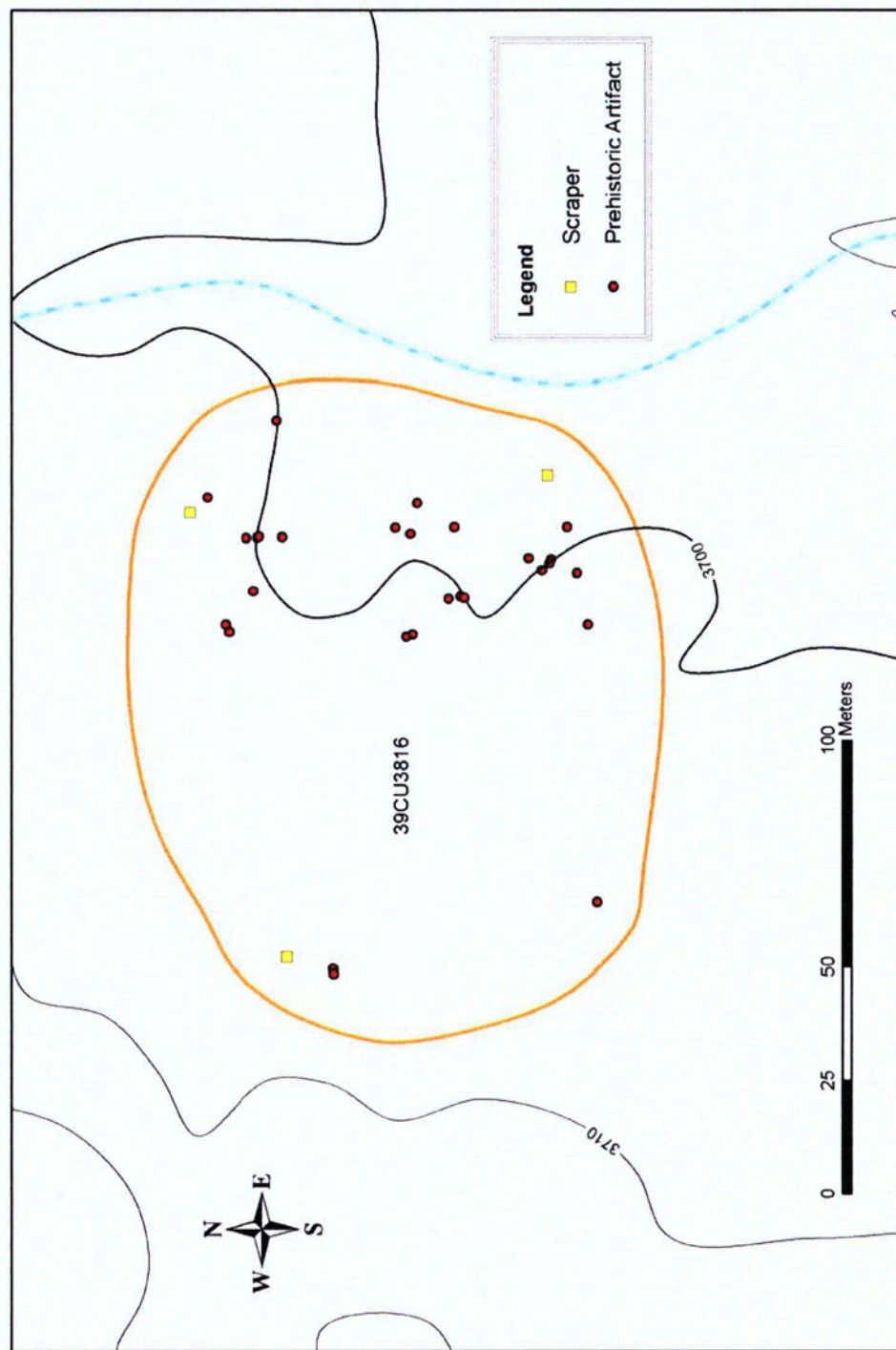


Figure 17. Plan map of site 39CU3816.

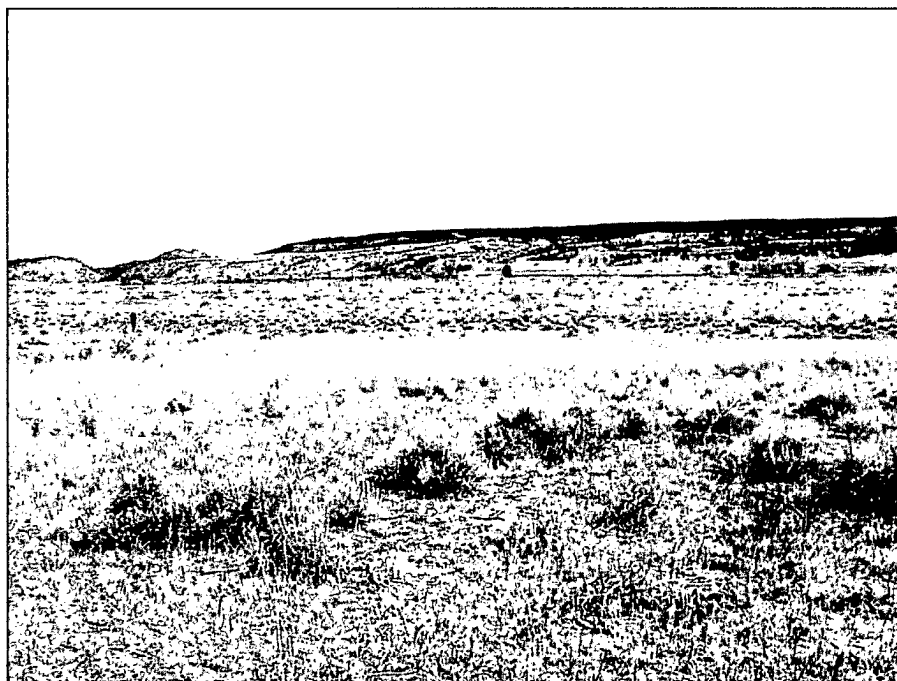


Figure 18. Overview of site 39CU3816, facing north-northeast.

### Artifact and Feature Inventory

Artifacts observed on the site surface are listed in Table 19. No features were observed on site 39CU3816.

Table 19. Artifacts Observed at Site 39CU3816.

Count	Artifact Type	Material	Colors	Comments
1	Primary flake	Quartzite	Gray	
1	Primary flake	Chert	Brownish gray	
4	Secondary flake	Chert	Purple	
5	Tertiary flake	Chalcedony	Gray, light gray, light purple	
4	Tertiary flake	Chert	Light brown, purple	
1	Tertiary flake	Battle Mountain quartzite	Yellowish brown	
1	Shatter	Chalcedony	Grayish brown	
2	Shatter	Chert	Purple	
1	Uniface	Chert	Purple	
3	Core	Chalcedony	Brown and gray, gray	One spent
2	Core	Chert	Purple, light gray/purple	
1	Core	Quartz	Clear	
1	Core	Battle Mountain quartzite	Brown	
2	Scraper	Chert	Purple	
1	Tested pebble	Chert	Dark red	