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**CLASS III CULTURAL RESOURCE INVENTORY OF
TWO PARCELS IN THE VICINITY OF RUBY BASIN
ASSOCIATED WITH THE GOLDEN REWARD
MINING COMPANY LP EXPLORATORY DRILLING,
LAWRENCE COUNTY, SOUTH DAKOTA**

Prepared for

**Golden Reward Mining Company LP
Lead, South Dakota**

By

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MAI Project 11397**

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ABSTRACT

This report presents the results of an intensive Class III cultural resource inventory of two parcels of land totalling approximately 981.69 acres for Golden Reward Mining Company LP, of Lead, South Dakota. This land is associated with Golden Reward Mining Company's proposed exploratory drilling locations located on privately owned land. A systematic survey of the proposed exploratory drilling areas resulted in the location of four historic sites, three isolated artifacts recorded as sites, and numerous trenches and prospect pits of unknown age. The sites and mining features are recommended as ineligible for inclusion on the National Register of Historic Places. One previously recorded site (Site 39LA2000), the historical grade of the Chicago, Burlington and Quincy Railroad was relocated. This site was previously evaluated as eligible for inclusion on the National Register of Historic Places. There is no new information which would change this initial evaluation. The use of the railroad grade as access will have no effect on the site. Cultural resource clearance is recommended for the project.

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1.0 INTRODUCTION

This report presents the goals, methods, and results of an intensive Class III cultural resource inventory conducted by TRC Mariah Associates Inc. (TRC Mariah) for Golden Reward Mining Company LP (Golden Reward). Golden Reward requested the investigations in conjunction with its environmental clearance efforts in advance of proposed exploratory drilling activities. The cultural resource inventory entailed the systematic examination of two parcels located in the vicinity of Ruby Basin. The total inventoried area encompassed approximately 981.69 acres.

Craig Smith served as principal investigator for the project. Fieldwork was conducted by William Harding (crew chief), Don Badon, Katherine Brinson, and Jeffrey Johnston from July 1 to July 7, 1995. All field notes, maps, photographs, and other data pertaining to the project are on file at TRC Mariah's Laramie, Wyoming, office under Project 11397. No artifacts were collected during the inventory.

1.1 PROJECT LOCATION

The project is located in northern Lawrence County, South Dakota, approximately 2.0 mi (3.2 km) southwest of Lead (Figure 1.1). The area is included on the Lead, South Dakota, 1961 (Photorevised 1971) U.S. Geological Survey (USGS) 7.5' Series topographic map (Figure 1.2). Two parcels (Parcels A and B) were inventoried. The parcels occur on private land controlled by Golden Reward. Legal locations for both parcels are summarized in Table 1.1.

1.1.1 Parcel A

Parcel A is a large, irregularly shaped parcel adjacent to Highway Alt. 14/85. It is located on steep slopes in the southern portion of the parcel and becomes relatively more level

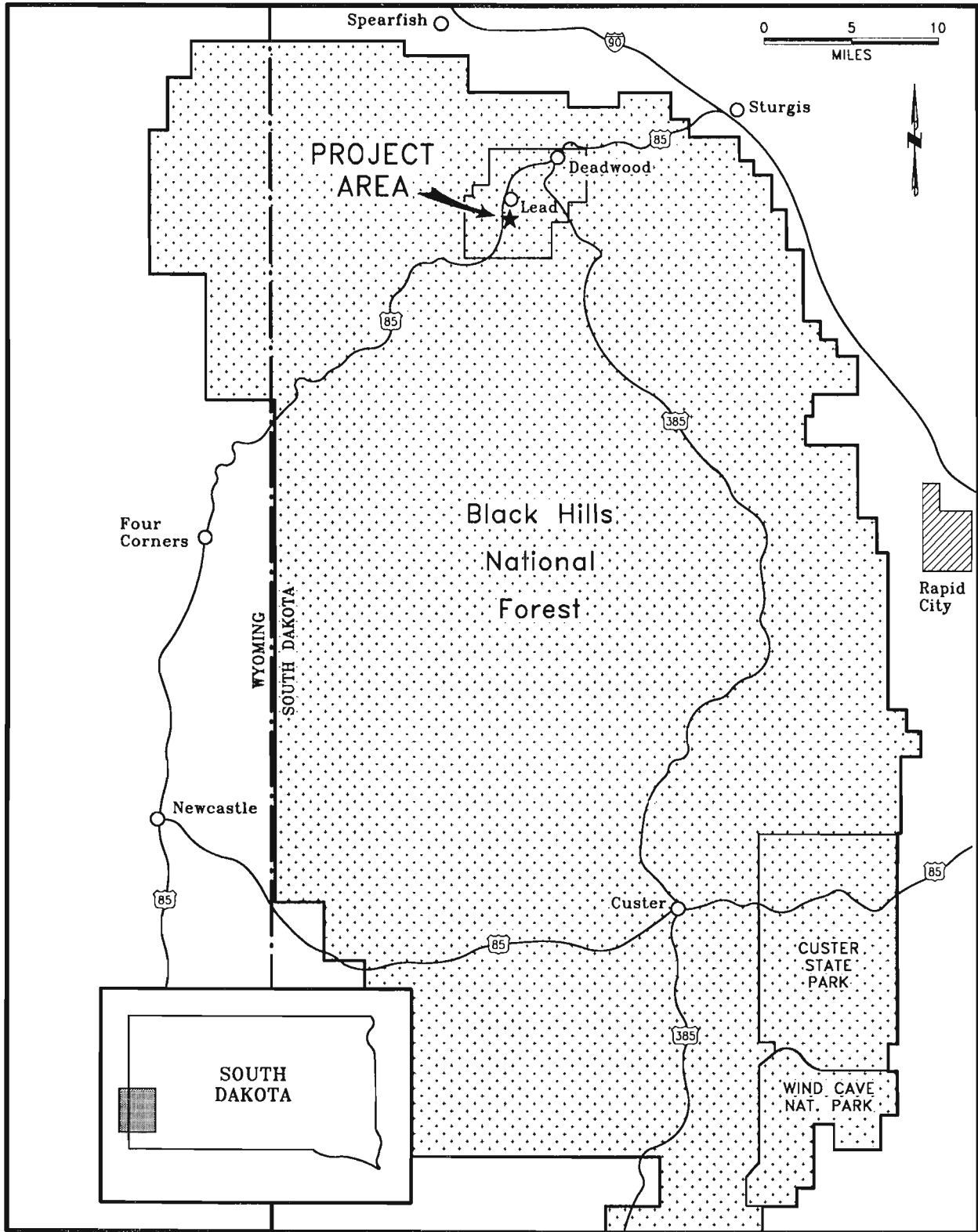


Figure 1.1 Regional Vicinity Map, Showing Location of Golden Reward's 1995 Cultural Resource Inventory Project.

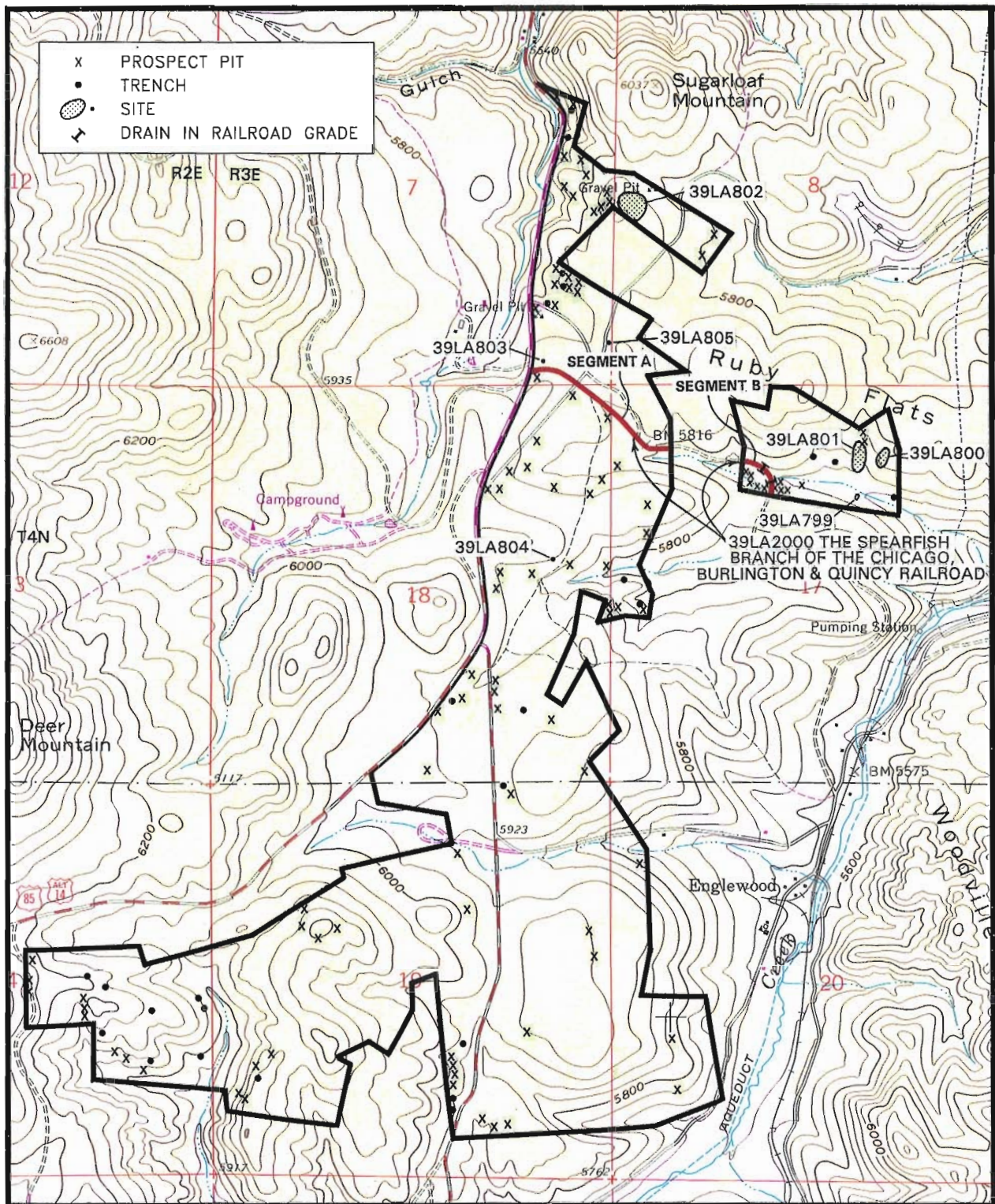


Figure 1.2 Topographic Map Depicting Location of Inventoried Area and Cultural Resources. Taken from the Lead, South Dakota, 1961 (Photorevised 1971) USGS 7.5' Series Quadrangle (1:24,000 Scale).

Table 1.1 Summary of Legal Locations of Inventoried Areas.

Township and Range	Section	Location
Parcel A		
T4N, R3E	7	WNESENE, WNWSENE, SESENE, ESWSENE, NENESE, ENWNESE, ESWNESE, NWSENESE, SWSENESE, SESE
	8	SWSWSWNW, NWNWSW, NENWSW, NESWNWSW, SENWSW, SWNWNESW, NWSWNESW, SWSWSW, NWSWSW, SESWSW
	17	WWNW, NWNWSW
	18	NENE, ESEWNNE, ESWNE, SENE, WNESE, WNESESE, NNENESE, NWSENESE, SSESESE, SESE, ESWSE, SSWSE, ENWSWSE, SNWSWSE, ESESESW, SSESESW
	19	SNE, ENE, ENWNE, NNWNE, SSWNWNE, NESE, NSESE, NESWSE, ENWSWSE, ENWSE, EWNWSE, NNENENW, SSENENW, SESWNENW, SENW, SSWNW, SESWNW, SENESWNW, NNSW, NWSW, WSWNESW, NSWNESW, NWSENESW, WNWSSEW, NNSWSW
	20	WWNW, WNWSW, SNWSW, SNENWSW, WSWNESW, NWSWSW, NNESWSW, WNESWSW, NWNWSESW
T4N, R2E	24	SSNE, NNSE, NESE, ESEWNSE, NNSESE
Parcel B		
T4N, R3E	17	ENENW, SENWNENW, ESWNENW, NENWSENW, NNESENW, SWNWNE, SNWNWNE, WNWNWNE, SWNENWNE, WSEWNNE, NNWSWNE, NWNESWNE

toward the northern portion of the parcel. The parcel consists of 923.91 acres. The elevation for the parcel ranges from 5,680 ft (1,732 m) in the southeast portion of the parcel to 6,200 ft (1,890 m) in the southwestern portion of the parcel. Vegetation was dense throughout the parcel, containing an abundance of ponderosa pine and aspens with sporadic spruce in the overstory. Surface visibility was 5% or less.

1.1.2 Parcel B

Parcel B is an roughly rectangular area near Ruby Flats. The parcel consists of 57.78 acres. The elevation for the parcel ranges from approximately 5,680 ft (1,732 m) in the southeastern portion of the parcel to 5,920 ft (1,805 m) in the northwestern portion of the parcel. Vegetation was dense throughout the parcel, containing an abundance of ponderosa pine and aspens with dense grasses on the slopes and dense grasses and sedges along the unnamed intermittent drainage. Surface visibility was 5% or less.

1.2 PROJECT DESCRIPTION

Golden Reward is currently planning to conduct exploratory drilling operations within the project area. This will entail the construction of roads leading to drill pads, the clearing and preparing of 60 x 20 ft (18 x 6 m) reverse circulation pads, 40 x 40 ft (12 x 12 m) core pads, and the drilling of holes to obtain a sample of the bedrock to assay for mineral content. Land disturbance activities which may impact cultural resources will comprise primarily clearing and grubbing of the understory and overstory, tracked vehicle traffic, and drilling.

2.0 ENVIRONMENTAL SETTING

The project area is located in the northern Black Hills of South Dakota, an isolated uplift which extends for approximately 125 mi (200 km) in a northwest/southwest axis in western South Dakota and eastern Wyoming. The Black Hills rise several thousand feet above the surrounding high plains.

A concentric pattern of four major physiographic features composes the Black Hills: the central area, the Limestone Plateau, the Red Valley, and the Hogback Ridge. The Hogback Ridge forms the outer rim of the Black Hills and is composed of a single hard stone ridge. Located immediately within the Hogback Ridge and encircling the Black Hills is an arid, virtually treeless valley called the Red Valley. The Limestone Plateau is the next area within the circle and is a high, relatively flat, sedimentary escarpment. The central area is the main portion of the Black Hills. The surface geology of this feature is mainly composed of exposed granites and schists, which are rich in minerals. This feature encompasses highly dissected ridges and mountains and contains large valleys and narrow canyons (Froiland 1978:12-17).

The climate of the Black Hills can be classified as a semiarid continental type modified by a mountain type due to its elevation above the surrounding plains. The climate is characterized by cold winters, warm summers, moderate precipitation, low humidity, and abundant sunshine. The climate in the northern portion of the Black Hills is slightly different than that in the southern portion of the region. In the northern Black Hills, the climate is cooler, and there are heavier snowfalls, more frequent thunderstorms, and more cloud cover. Spuhler et al. (1971) provide a more comprehensive treatment of the region's climate.

Vegetation in the project area is characterized by coniferous forest and is dominated primarily by ponderosa pine (*Pinus ponderosa*), Engelmann spruce (*Picea engelmannii*), aspen

(*Populus tremuloides*), and birch (*Betula* spp.). The typical understory consists of mixed grasses, shrubs, and trees, namely bur oak (*Quercus macrocarpa*), western thimbleberry (*Rubus parviflorus*), wild sarsaparilla (*Aralia nudicaulis*), and bracken fern (*Pteridium aquilinum*). Meadow openings occur in most larger drainages, with the vegetation consisting of scattered pines and an understory of grasses. Ground disturbance was minimal throughout the project area. However, a large number of cut trees and natural tree fall was encountered within the parcels. Dorn and Dorn (1977) provide a detailed guide to the region's flora.

The project area is situated in generally steep, mountainous terrain ranging from 5,920 ft (1,805 m) to 6,200 ft (1,890 m). The area generally occupies the area south of Ruby Flats, east of Deer Mountain, and west of Whitewood Creek, which is characterized by relatively gentle to steep slopes. The slope generally trends east within the project areas. The project area occurs predominantly on secondary ridges and draws which are dissected by many ravines and intermittent streams. The soils in the project area can be characterized as entisols. Specifically, the soils fall within the suborder orthents and exhibit a well-developed humic horizon (Birkeland 1984:55-56).

3.0 RECORDS SEARCH/LITERATURE REVIEW

A Class I file search was initiated at the State Archaeological Research Center (SARC) in Rapid City, South Dakota, on July 5, 1995. Patrica L. Hofer of SARC provided a portion of the information and compiled the file search. The record search was compiled for Sections 7, 8, 17, 18, 19, and 20, T4N, R3E and Section 24, T4N, R2E, of the Black Hills meridian.

Most of the surrounding area had already been surveyed at a Class III level for various mining operations and for the Black Hills National Forest. Major cultural resource inventories include several by Dakota Research Services (Buechler 1985, 1987a, 1987b, 1987c, 1987d, 1988a, 1991), several by TRC Mariah (Scott and Smith 1990a, 1990b, 1990c; Marmor 1993; Martin 1994a, 1994b, 1994c; Martin and Harding 1994; Schneider 1994) and one by Noisat (1992). Minor surveys include Austin (1984), Buechler (1988b, 1989), Church (1987a, 1987b), and Haug (1984).

The file search demonstrated the need for an intensive survey of the project area. No previous surveys had been conducted in the current project area.

The major block surveys conducted in the areas north and west of the current project area resulted in the recording of numerous sites and features related to the gold mining industry and associated with the historic Bald Mountain Mining District. Sites recorded as a result of these surveys include major sites such as the Two Johns, Decorah, Clinton, Portland, and Astoria Mines; the Bald Mountain Mill Complex; railroad grades; tramways; portions of the historic mining community of Trojan; the Terry Townsite; numerous foundations; powder magazines; and historic artifact scatters and dumps. Additionally, thousands of mining prospect pits and trenches have been noted across the landscape. Prehistoric sites and isolated finds have been recorded in the area, although only rarely.

A review of the pertinent literature indicated that intensive mining activities have occurred in the Bald Mountain District, situated west of the current project area, beginning in the 1870s and continuing to the present. The survey parcel was not expected to have a high potential to contain cultural resources related to the Ruby Basin Mining District. Sources consulted for information on local mining history include Allsman (1940), Irving (1904), Klock (1975), Lincoln et al. (1937), Miller (1990), and Waterland (1988).

4.0 RESEARCH ORIENTATION AND SURVEY METHODS

The following section of the report provides a brief overview of the goals and methods of the Class III cultural resource inventory.

4.1 RESEARCH ORIENTATION

The goals of the Class III cultural resource inventory of the proposed undertaking were to: 1) identify and document any cultural property within, or adjacent to, the parcel; 2) assess the kinds and amounts of impacts the proposed undertaking will have on identified properties; 3) provide a recommended evaluation of the property as it pertains to potential listing on the National Register of Historic Places (NRHP); and 4) provide an initial management recommendation for possible mitigative measure(s) which may be taken to avoid any adverse impacts to the property, in compliance with Section 106 of the *National Historic Preservation Act* (as amended) and 36 CFR Part 800 of the Advisory Council on Historic Preservation's regulation *Treatment of Historic Properties*, which implements Section 106. The cultural resources documented as a result of the survey were evaluated utilizing the NRHP criteria. The NRHP criteria are defined in Appendix A.

The general research orientation for this project was formulated in consultation with the *South Dakota State Plan for Archaeological Resources* (Winham and Hannis 1990, 1991). This document, as well as the file search and literature review, provided information regarding the potential for the occurrence of cultural resources within the inventoried area, including the expected types, distribution, and frequency of such resources. All of these sources indicated a relatively high potential for the occurrence of historic gold mining sites in the general vicinity.

In addition to providing Golden Reward with information necessary for project planning and Section 106 compliance, information gathered during the survey will add to the growing

database for the Black Hill Archaeological Region and may be used in addressing more substantive research-oriented questions. Although these questions have not yet been formulated, they may include research domains relating to the technological, economic, architectural, ethnic, and sociological aspects of precious mineral mining in the Black Hills. It is beyond the scope and intent of the project to formulate specific research questions. Rather, this project is best considered a compliance-related study. Hopefully, the information generated during this project can be utilized for more comprehensive analytical studies.

The file search revealed that prehistoric cultural resources are only rarely recorded in the project study area. The region is known to have been occupied as early as the Middle Archaic period, and as late as the historic period (Winham and Hannus 1990:30-4 - 30-7). The paucity of prehistoric cultural remains in the area may be attributed to several factors, including dense vegetative cover which offers little or no surface visibility, ground disturbances associated with the gold mining industry, and the ruggedness of the topography.

4.2 SURVEY METHODS

The goals of the survey were accomplished using standard archaeological pedestrian survey techniques. The field crew inventoried each parcel in a zigzag fashion along parallel transects spaced no more than 100 ft (30 m) apart. Because of the dense vegetative cover and the inability to see general landforms, constant Brunton compass bearings were used to maintain correctly aligned transects. The ground surface was examined for evidence of artifacts and/or features. Once an artifact or feature was observed, the area surrounding the find was intensively examined for additional artifacts or features. If a group of artifacts and/or features were found in proximity to one another (82 ft [25 m]), this was defined as a site. The site was mapped using a Brunton compass and a measuring tape, and features were photographed. Ubiquitous, undatable isolated prospect pits and trenches were not recorded as sites. Their locations, however, were marked on a project plan sheet (either

1:6,000 inch or 1:1,200 inch scale), and later transferred to the appropriate USGS topographic map.

5.0 SURVEY RESULTS

Four historic sites, three isolated artifacts recorded as sites, and 20 trenches and 89 prospect pits were documented as a result of this inventory. The locations of the sites, trenches and pits are presented in Figure 1.2.

For the purposes of this project, pits are defined as roughly circular in nature, while trenches are more linear. However, their function is identical. The pit and trenches were excavated to varying depths in an attempt to either find ore-bearing rock or to "prove up" a mining claim. The pit and trenches have been partially filled by erosion and slopewash, and characteristic arcs of spoil dirt occur on the rims--usually downslope--of the prospect pits. No temporally diagnostic artifacts were found in association with the prospect pits or trenches, thereby rendering them impossible to date. It should be noted that virtually every previous cultural resource survey conducted in this general area located numerous similar examples of exploratory prospect pits and trenches, and they have been described as a ubiquitous phenomena (e.g., Buechler 1988a:5, 1989:9). None of these isolated features are recommended as being eligible, either singularly or as a complex, for listing on the NRHP. The newly-recorded site in Parcel A is presented in Section 5.1; the newly recorded sites in Parcel B are presented in Section 5.2; the previously recorded site, which occurs both in Parcel A and Parcel B, is presented in Section 5.3; and the three isolated artifacts recorded as sites, which occur in Parcel A, are presented in Section 5.4.

5.1 NEWLY RECORDED SITES - PARCEL A

Parcel A contained one previously unrecorded mine site in the northern portion (discussed below), 18 trenches, and 80 prospect pits. The 18 trenches ranged in size from 8 x 3 x 2 ft to 20 x 14 x 8 ft and averaged 12 x 5.5 x 4.5 ft. The 80 prospect pits averaged 6.5 x 5.5 x 2.6 ft. The trenches and prospect pits are generally located on relatively steep, east- and north-facing secondary ridge slopes.

Site 39LA802 Emmett Mine National Shaft

Map Reference: Lead, South Dakota, 7.5' USGS Quadrangle

Legal Location: NWNWNWSW, WNENWNWSW, NSWNWNWSW of Section 8, T4N, R3E

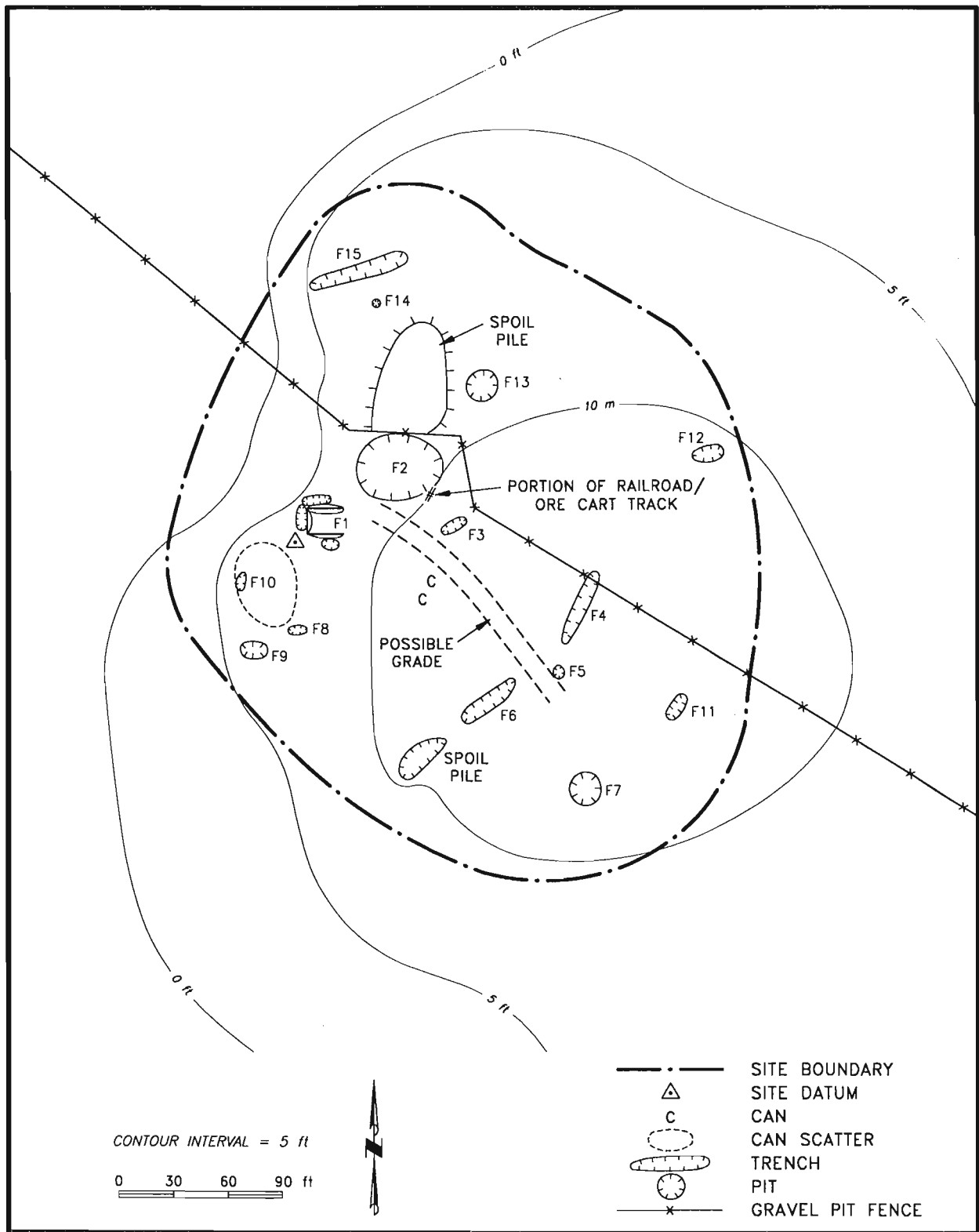
Maximum Size: 440 ft north/south x 330 ft east/west

Elevation: 5,840 ft

Landform: Secondary ridge top and slope

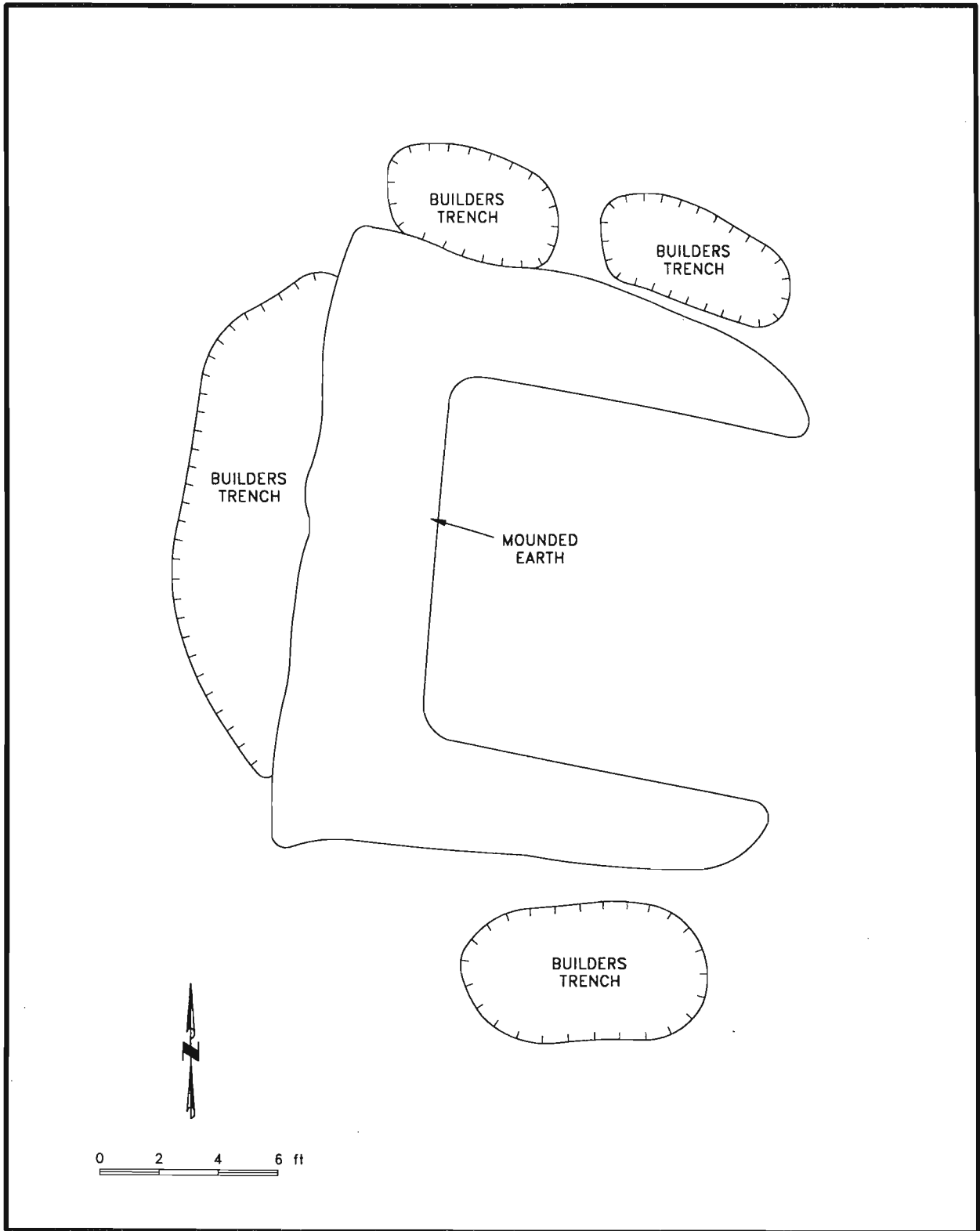
Vegetation: Overstory of ponderosa pine, aspen, white spruce, and birch with an understory of shrubs, grasses, and forbs.

Site Description: Site 39LA802 consists of possible structural remains, a large shaft opening, five trenches of varying sizes, five prospector's pits, and three possible privy sites (Figure 5.1). Several hole-in-cap cans, hole-and-cap cans, lapped and soldered key-wind meat cans, and other cans are also apparent. Other artifacts included a portion of an ore-cart track leading into the shaft consisting solely of ties and spikes, a 1 gallon coffee pot, barrel hoops, and leather fragments. The possible structural remains (Feature 1) consists of three mounded earthen walls enclosing a fairly level area (Figure 5.2). The walls range from 16 to 20 inches high and are 4 ft thick at their base. The structure is square and three-sided with the open end facing east. The north and south walls and the west wall each measure 12 ft to the inside corners. A builder's trench is evident outside of the three walls. Several hole-in-cap cans, a metal pot, and a barrel rim are scattered across the floor. Aside from the mounded earth, no other formal structure is evident. Feature 2 consists of the large shaft. It measures 30 x 30 x 30 ft, with a 20 inch wide railroad grade leading into it. The shaft has partially collapsed, with a portion of the ore-cart track fallen into it. Features 3, 4, 6, 11, and 15 consist of trenches ranging in size from 40 x 8 x 4 ft to 12 x 4 x 2 ft. Features 5, 7, 12, 13, and 14 are prospector's pits ranging in size from 15 x 15 x 8 ft to 5 x 4 x 2 ft. Features 8, 9, and 10 are possible privy sites consisting of rectangular depressions measuring 6 x 3 ft, 6 x 2 ft, and 5 x 3 ft.



11397, SITE, 39LA802

Figure 5.1 Plan Map of Site 39LA802.



11397\FEA1\802-F1

Figure 5.2 Plan Map of Feature 1, Site 39LA802.

The Andes and Golden Eagle claims, upon which the site is located, are related to the gold mining activities which developed in the vicinity of Lead, South Dakota, following the initial discovery of gold at the head of Gold Run Gulch in 1876 (Figure 5.3). The following year, the first claims were filed in what became the Bald Mountain Mining District (Miller 1990:23). The two claims are long, narrow plats situated in a linear arrangement with several other claims that trend from northwest to southeast. The size and shape of the claims correspond to the regulations promulgated in the U.S. Mining Act of 1872, which stipulated that "Individual claims could be no larger than 1600 feet in length and 300 feet either side of the vein, or point at which the valuable mineral was located, making the greatest possible width of a mining claim 600 feet" (Miller 1990:26).

Centrally located in the eastern half of Section 7, T4N, R3E, the Andes and Golden Eagle claims are situated within the Ruby Basin Mining District, immediately to the south of, and adjacent to, the Bald Mountain District. The Andes and Golden Eagle claims appear to have been a component of the larger Emmett Mine operation. The Emmett Mine was part of the Emmett Silver Mining Company, founded in 1886 with Frank Abt as its first president. The company possessed capital stock valued at \$250,000, which it sold for 5 cents a share. The sale of stock financed the construction of the first mine shaft. The initial National Shaft was 40 ft in length and produced 180 ounces of silver. Two tunnels were completed by 1891, one was 150 ft in length, the other was 165 ft (Waterland 1988:45-46). A map provided in Waterland (1988:26) shows the National Shaft straddling the claim boundary between the Andes and Golden Eagle claims; it heads in a northwesterly direction from the portal/adit, which is located in the same vicinity as the current site.

The July 4, 1886, completion of the Fremont, Elkhorn, and Missouri Valley Railroad into Rapid City, South Dakota, facilitated an influx of capital investment into the region during the late 1880s; development of the Ruby Basin District was a direct result. During the early 1880s, the cost of smelting ore was prohibitive due to the lack of transportation facilities. Freight wagons or "Bull Trains" normally returning empty from the Black Hills could

transport the ore from the mines to railheads at Cheyenne, Wyoming, or Sydney, Nebraska, where the ore could then be shipped to distant refining centers in Denver, Omaha, or Chicago. By the mid-1890s, however, the combination of local smelting operations in the Deadwood area and rail transportation significantly reduced the cost of refining ore (Miller 1990:33, 36, 41-43; Waterland 1988:26, 45).

A cursory examination of the *Economic Resources of the Northern Black Hills* revealed little information on the Ruby Basin Mining District, and none concerning the Emmett Mine or the associated claims mentioned above (Irving 1904). It appears that by the early 1900s, the mine had either closed or production levels were too meager to warrant a discussion in the report. In addition, the Emmett Mine does not appear on a map provided in Waterland (1988:43) that depicts the primary mines in operation during the peak production period of 1904.

Management Recommendations: Site 39LA802 is recommended as ineligible for inclusion on the NRHP. The site is not associated with any person(s) or event(s) significant in the development of the mining industry in the northern Black Hills. Numerous sites of this type have been recorded in the region. The site is not unique, and recordation of it exhausts its research potential. Cultural resource clearance with no further work is recommended for the site. The proposed undertaking should be allowed to proceed as planned in the site area.

5.2 NEWLY RECORDED SITES - PARCEL B

Parcel B contained three historic sites, discussed below, in its eastern portion, as well as nine prospect pits and two trenches. The prospect pits averaged 10 x 9 x 3 ft. The two trenches measured 12 x 6 x 3 ft and 12 x 3 x 1 ft. The prospect pits and trenches are located on the north- and south-facing slopes overlooking the intermittent drainage.

5.2.1 Site 39LA799

Map Reference: Lead, South Dakota, 7.5' USGS Quadrangle

Legal Location: NENENWSWNE of Section 17, T4N, R3E

Maximum Size: 62 ft north/south x 42 ft east/west

Elevation: 5,640 ft

Landform: Base of ridge slope

Vegetation: Overstory of ponderosa pine, aspen, white spruce, and birch with an understory of shrubs, grasses and forbs opening to a wet meadow toward the north.

Site Description: Site 39LA799 consists of a depression which may represent a possible dugout, a well, a fragment of a condiment bottle, several sheets of corrugated tin roofing, 50 ft of 32-strand steel cable, and barbed wire attached to trees around the dugout (Figure 5.4). The dugout exhibits an "L" shaped unmortared, unfaced stone wall on the west side near its entrance. The wall is approximately 4 ft high by 3 ft long. Additionally, it extends for 5 ft along the west wall of the dugout. The dimensions of the dugout are 30 x 15 ft, and it has been excavated into the slope approximately 8 ft. The well is northeast of the entrance to the dugout and measures approximately 5 x 5 ft. The well appears to have been recently maintained. The interior of the dugout contains a broken fragment of a condiment--possibly ketchup--bottle. It was manufactured by the semiautomatic bottling machine process and exhibits slight purple-discoloring (solarizing). Steel cable is coiled east of the dugout. The interior of the dugout also contained several sheets of corrugated tin roofing. A strand of barbed wire was attached to trees at the southeast corner of the dugout.

Management Recommendations: Site 39LA799 is recommended as ineligible for inclusion on the NRHP. The site is not associated with any person(s) or event(s) significant in the development of the mining industry in the northern Black Hills. Numerous sites of this type have been recorded in the region. The site is not unique, and recordation of it exhausts it

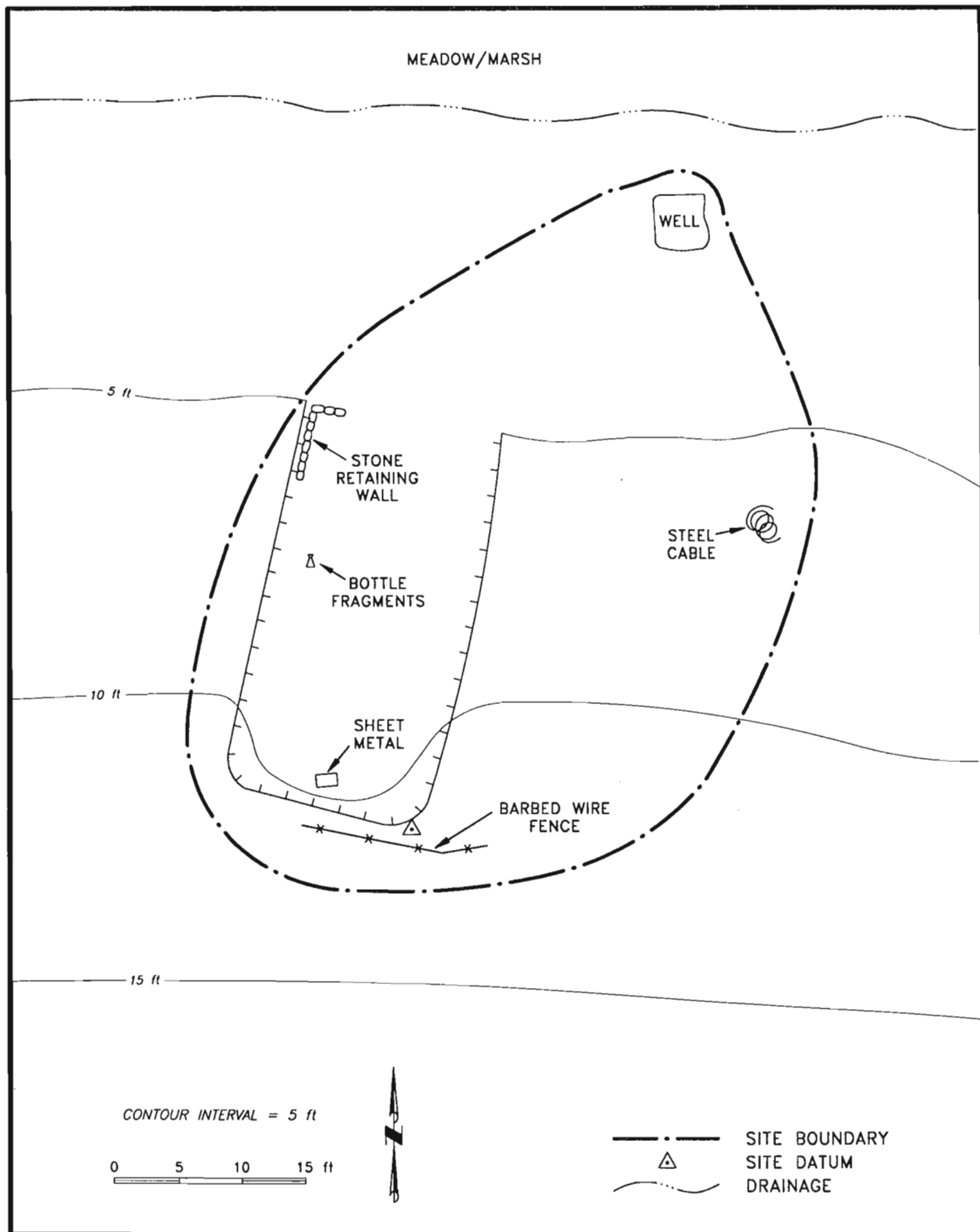


Figure 5.4 Plan Map of Site 39LA799.

research potential. Cultural resource clearance with no further work is recommended for the site. The proposed undertaking should be allowed to proceed as planned in the site area.

5.2.2 Site 39LA800

Map Reference: Lead, South Dakota, 7.5' USGS Quadrangle

Legal Location: NWSENWNE, SWSENWNE of Section 17, T4N, R3E

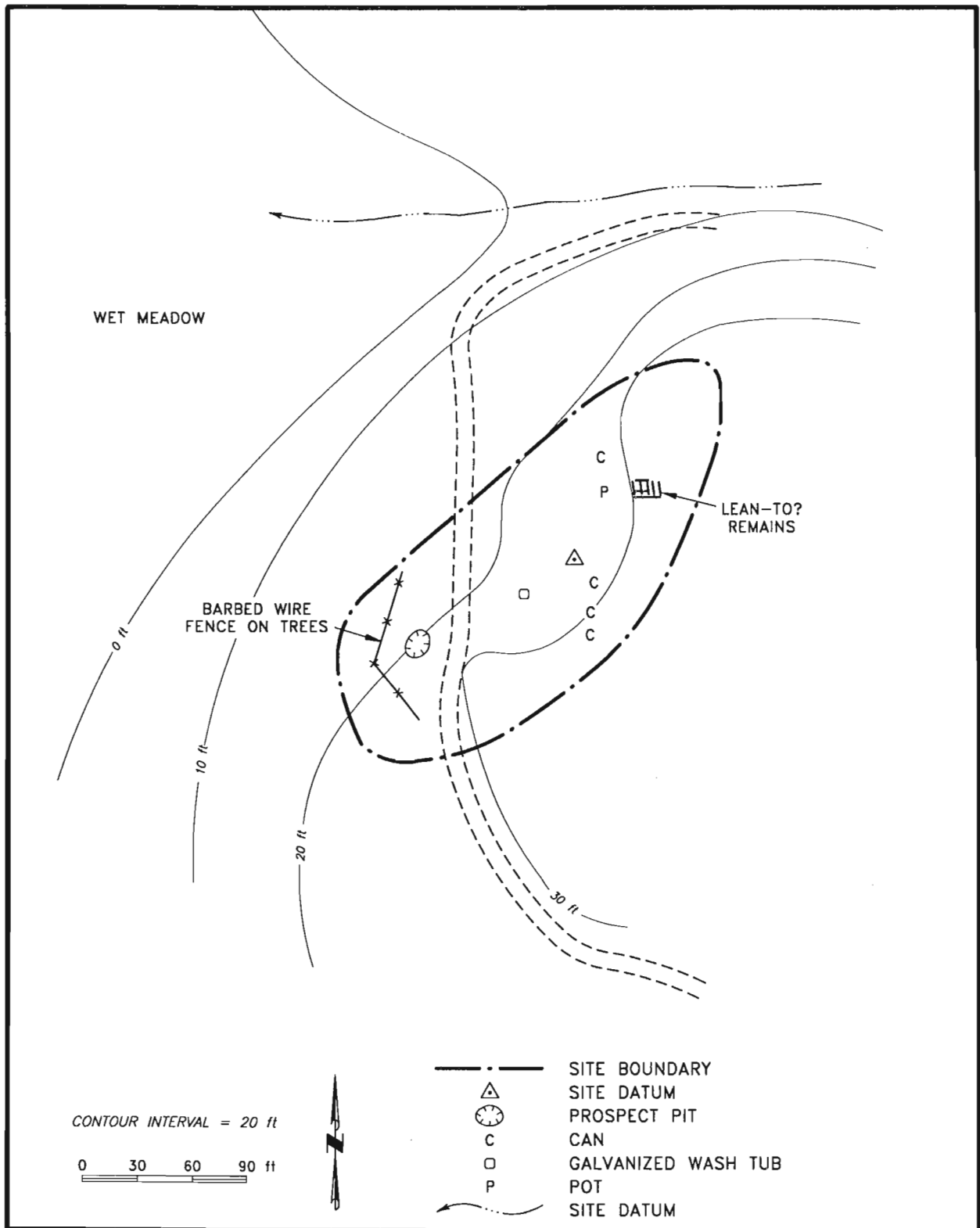
Maximum Size: 200 ft north/south x 115 ft east/west

Elevation: 5,760 ft

Landform: Ridge slope

Vegetation: Overstory of ponderosa pine, aspen, white spruce, and birch with an understory of shrubs, grasses and forbs opening to a wet meadow toward the north.

Site Description: Site 39LA800 consists of a saw-cut lean-to or tent flat and 200+ tin cans, ceramics, glass, and other artifacts located on a small projecting bench on an east/west-trending secondary ridge system (Figure 5.5). The possible lean-to consists of eight saw-cut young ponderosa pine logs in an approximately 8 x 12 ft area. Additionally, 200+ mostly corroded hole-in-top, hole-in-cap, and early sanitary cans with soldered side seams were also observed. Other artifacts included ironstone hotel china comprising two cups, a plate, and a platter. No maker's mark was present, and the china was all semivitrified whiteware. Glassware observed on the site includes a purple-discolored water/beer glass with parallel ribbed sides, two clear water glasses, window glass, a light green glass fragment, and an olive green glass fragment possibly from a champagne bottle. Other artifacts include approximately five barrel hoops, two large metal water cans, a leather boot with a hob-nailed sole, a galvanized 10 gallon wash tub with handles, a metal milk jug which appears to be a necked creamery jug with the neck missing, and galvanized sheet metal. Hole-in-top cans include sizes #10, #2 1/2, #2, and #1 1/2.



11397 SITE 39LA800

Figure 5.5 Plan Map of Site 39LA800.

Management Recommendations: Site 39LA800 is recommended as ineligible for inclusion on the NRHP. The site is not associated with any person(s) or event(s) significant in the development of the mining industry in the northern Black Hills. Numerous sites of this type have been recorded in the region. The site is not unique and recordation of it exhausts its research potential. Cultural resource clearance with no further work is recommended for the site. The proposed undertaking should be allowed to proceed as planned in the site area.

5.2.3 Site 39LA801

Map Reference: Lead, South Dakota, 7.5' USGS Quadrangle

Legal Location: NESWNWNE, SESENWNWNE of Section 17, T4N, R3E

Maximum Size: 330 ft north/south x 180 ft east/west

Elevation: 5,720 ft

Landform: Ridge slope

Vegetation: Overstory of ponderosa pine, aspen, white spruce, and birch with an understory of shrubs, grasses and forbs opening to a wet meadow toward the north.

Site Description: Site 39LA801 consists of two depressions which may represent dugouts, a depression which may represent a privy, two prospector's pits, three can scatters, and barbed wire attached to trees (Figure 5.6). Features 1 and 3 consist of the possible dugouts. Feature 1 measures 15 x 12 ft and is 3 ft deep. It consists of a partial rectangular area excavated into the southeast-facing slope of the ridge. The backdirt is piled upslope around the excavation. Feature 3 is an "L" shaped excavation at the southeast toe of the slope. The northeast/southwest-trending wall measures 30 ft, and the northwest/southeast-trending wall measures 23 ft. It is 3.5 ft deep. The backdirt is piled upslope from the walls. The floors of both dugouts are relatively level. The possible privy measures 3 x 3 ft and consists of a sunken square of soil. Features 3 and 4 consist of prospect pits. Feature 3 measures 10 x 6 ft and is 3 ft deep. Feature 4 measures 15 x 15 ft and is approximately 3.5 ft deep.

Artifacts consist of hole-and-cap and early sanitary cans, ceramics, glass, wire links, stove pipe sections, galvanized metal, and numerous assorted types of buckets.

Concentration 1 consists of a fragment of a salt-glazed earthenware crock with a white slip and yellow paste; a pint-sized fragment of a jar which was made by the semiautomatic process and is purple-discolored (solarized); a stove pipe length; approximately 10 barrel hoops from 30- and 5-gallon size barrels; three cast iron, oval, wash tub-type metal containers; and six round, cast iron, handled metal containers. Cans in this concentration include hole-in-cap, sanitary cans, hole-in-top cans, lard cans with crimped seams and an external friction opening, and rectangular lapped and soldered seam cans.

Concentration 2 consists of hole-and-cap, hole-in-cap, and early sanitary cans; barrel hoops; three oval wash tubs; two square, 5 gallon, kerosene cans; a shallow 5 gallon wash basin of enamelware; five large, 5 gallon, cast iron water containers; four galvanized 2 gallon buckets; a galvanized 5 gallon container with a round bottom and handled and corrugated sides; and two 2 gallon brown ceramic crockery fragments. Glass includes a purple discolored (solarized) water glass with the symbol for the Greek letter "omega" embossed on the base, a purple-discolored ribbed water glass, an aqua bottle base fragment embossed "A.B. Co-J2" on base, and a purple-discolored bottle made by the automatic bottle machine with the Illinois Bottling Company's mark--and "I" within a diamond embossed on the base. Other artifacts include a steel skillet with no handle; a galvanized 5 gallon wash tub; a white slipped, white paste, semivitreous cup fragment; and a crushed and disintegrated 1 gallon coal oil container with lugs.

Concentration 3 consists of a 1/2 gallon coffee pot with a spout and copper bottom; a cast iron strap with a cast iron handle which may be a part from a wagon; seven barrel hoops; and a cut off portion of a 5 gallon, handled, metal milk jug. Cans included a hole-in-cap can, a crimped-and-rolled seam powder can, a lapped-and-soldered water can, and a lard pail.

Management Recommendations: Site 39LA801 is recommended as ineligible for inclusion on the NRHP. The site is not associated with any person(s) or event(s) significant in the development of the mining industry in the northern Black Hills. Numerous sites of this type have been recorded in the region. The site is not unique, and recordation of it exhausts its research potential. Cultural resource clearance with no further work is recommended for the site. The proposed undertaking should be allowed to proceed as planned in the site area.

5.3 PREVIOUSLY RECORDED SITES - PARCELS A AND B

One previously recorded site, the Spearfish Branch of the Chicago, Burlington and Quincy Railroad (Site 39LA2000) was documented in Parcels A and B.

Site 39LA2000

Site 39LA2000 is the abandoned grade of the Spearfish Branch of the Chicago, Burlington & Quincy Railroad. Buechler (1991) first recorded the site in the NE of Section 2, T4N, R2E. Noisat (1992) recorded a section of the railroad in Sections 4 and 5, T5N, R2E. The line began as the Grand Island and Wyoming Central Railroad, which was a standard gauge line that provided access between the Black Hills and the surrounding regions (Noisat 1992). The line reached Edgemont in 1889 and Deadwood in 1891. Construction of the Spearfish Branch began in 1892 and was completed in 1893. The branch connected Englewood to Spearfish through Trojan, Annie Creek, and Spearfish Canyon. Additional branches to the line were built to move freight and raw materials (such as ore, timber, etc.) between major commercial centers and outlying mining communities. The line was abandoned in the mid-1930s to early 1940s. As with the majority of railroads in the area, the tracks, switches, spikes, ties, etc., were salvaged.

As a result of the current Class III cultural resources inventory in the Ruby Basin area, two segments of the main Spearfish Branch (Segments A and B) occur within the current project area. Segment A occurs within Parcel A, and Segment B occurs within Parcel B.

Segment A appears to be a 2,100 ft long segment of the main line of the Spearfish Branch. The segment consists of a 12 ft bed trending northwest/southeast. The segment extends from Highway Alt. 14/85 as a currently utilized two-track road (Figure 5.7). This segment extends through a cut just east of the highway and passes under a bridge of an improved, crowned-and-ditched road. The site is located in heavy woods with a dense understory of small trees, forbs, and grasses. The segment is located in the NSENWNW, NESWNWNW, SWNWNWNW of Section 17, T4N, R3E and in the NENENENE of Section 18, T4N, R3E. No spikes, rails, switches ties, or other railroad paraphernalia were noted.



Figure 5.7 View of Railroad Cut, Site 39LA2000, Looking East.

Segment B appears to be a 600 ft long segment of the main line of the Spearfish Branch. The segment consists predominantly of a high grade over an unnamed intermittent drainage. Two drains through the grade exhibit rock-work enclosing a cast-iron pipe (Figure 5.8). The grade is approximately 12 ft wide and up to approximately 20 ft high. No rails, ballast, spikes, ties, etc. were noted on or around the segment. Because the grade is currently used as a two-track road, no trees or shrubs are apparent on top of the grade, although dense woods with an understory of grasses and forbs occur surrounding it. This segment is located in the ESWNENW, SWSENEW of Section 17, T4N, R3E. No spikes, rails, switches ties, or other railroad paraphernalia were noted.

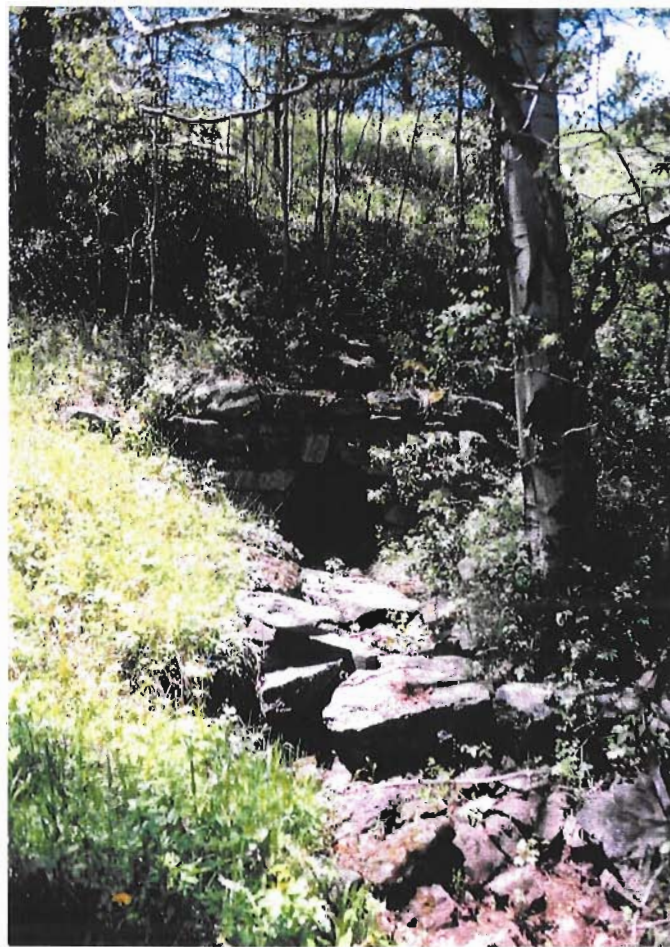


Figure 5.8 View of Drain Through Railroad Grade, Site 39LA2000, Looking West.

Management Recommendations: Buechler (1991), Marmor (1993), Martin (1994), and Noisat (1992) assessed the Spearfish Branch of the Chicago, Burlington & Quincy Railroad (Site 39LA2000) as eligible for inclusion on the NRHP under Criterion A. There is no new information about the site that would change the initial evaluations. The site should be considered significant and eligible for listing on the NRHP under Criterion A. The site is associated with the development of the gold mining industry in the Bald Mountain and Ruby Basin Mining Districts. The railroad provided supplies and access to mining areas away from the main commercial centers and allowed transport of raw materials (ore and timber) from these areas into the main commercial centers. The site is currently utilized as a two-track road. There are no extant structural or engineering details associated with either Segment A or Segment B. Golden Reward plans to use the grade as part of their primary access and will build trails from it in several areas. Because this use does not deviate from the current, established, use of the site, there will be no effect (Appendix C). Cultural resource clearance with no effect is recommended.

5.4 ISOLATED ARTIFACTS

Three isolated artifacts consisting of two car bodies and an early sanitary can were encountered in Parcel A and are described below.

5.4.1 Site 39LA803

Map Reference: Lead, South Dakota, 7.5' USGS Quadrangle

Legal Location: NWSESWSESE of Section 7, T4N, R3E

Maximum Size: 10 ft north/south x 10 ft east/west

Elevation: 5,840 ft

Landform: Ridge slope

Vegetation: Overstory of ponderosa pine, aspen, white spruce, and birch with an understory of shrubs, grasses, and forbs opening to a wet meadow toward the north.

Site Description: Site 39LA803 consists of an isolated late 1920s to early 1940s car body (Figures 5.9 and 5.10). Only the frame and a portion of the chassis is apparent. The vehicle is black and exhibits a rumble-seat type rear opening. No other parts of the vehicle or other artifacts were apparent.

Management Recommendation: Site 39LA803 is recommended as ineligible for inclusion on the NRHP. The site is not associated with any person(s) or event(s) significant in the to the Black Hills. Numerous sites of this type undoubtedly occur in the region. The site is not unique, and recordation of it exhausts its research potential. Cultural resource clearance with no further work is recommended for the site. The proposed undertaking should be allowed to proceed as planned in the site area.

5.4.2 Site 39LA804

Map Reference: Lead, South Dakota, 7.5' USGS Quadrangle

Legal Location: NESESWSENE of Section 18, T4N, R3E



Figure 5.9 View of Isolated Car Body, Site 39LA803, Looking West.

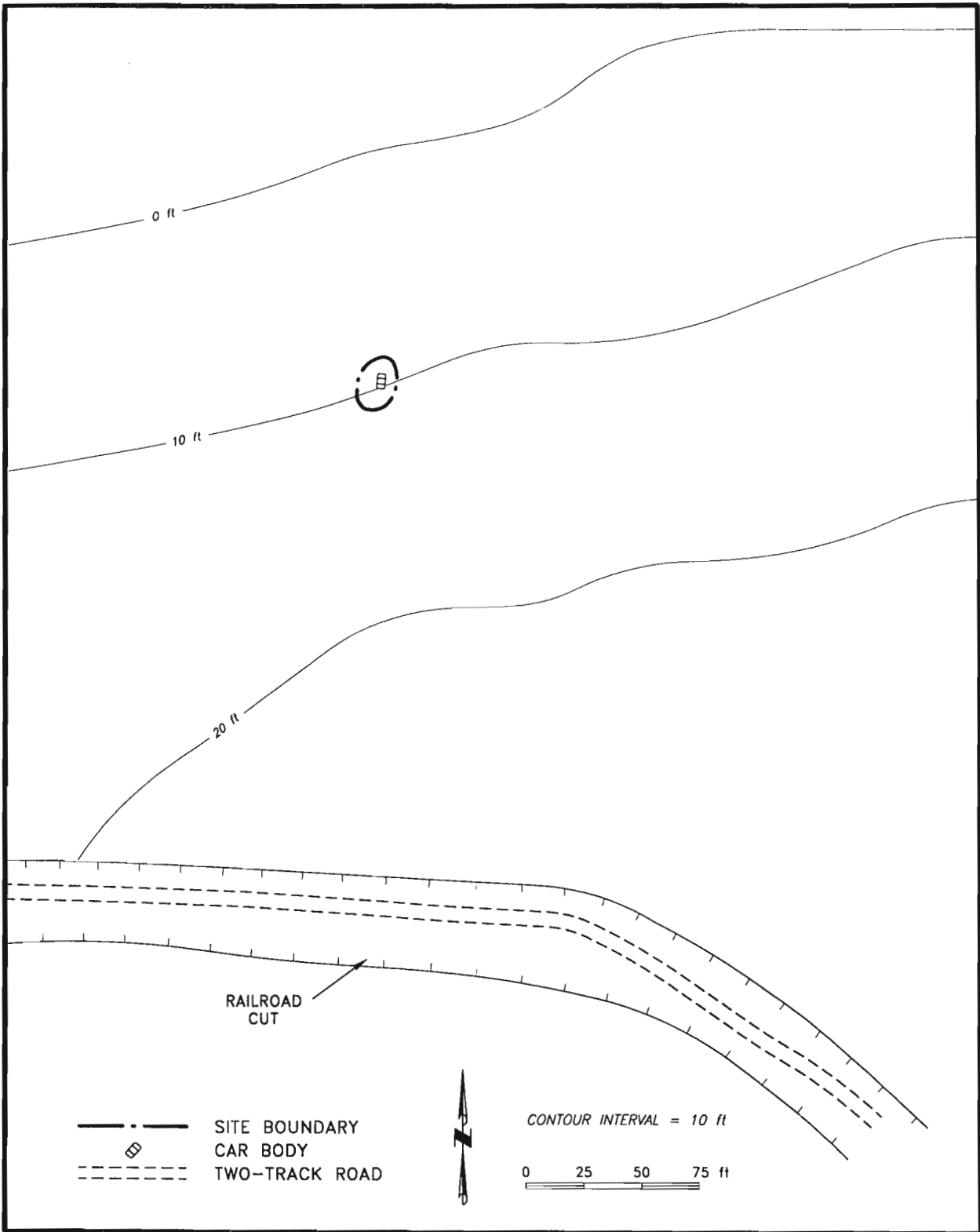


Figure 5.10 Plan Map of Site 39LA803.

Maximum Size: 10 ft north/south x 10 ft east/west

Elevation: 5,840 ft

Landform: Ridge slope

Vegetation: Overstory of ponderosa pine, aspen, white spruce, and birch with an understory of shrubs, grasses, and forbs opening to a wet meadow toward the north.

Site Description: Site 39LA804 consists of a late 1930s to early 1940s car body (Figures 5.11 and 5.12). The frame and a portion of the chassis is apparent, and the seats are within the vehicle. The vehicle is rusty, and no trace of its original color is apparent. No other parts of the vehicle or other artifacts were apparent.

Management Recommendation: Site 39LA804 is recommended as ineligible for inclusion on the NRHP. The site is not associated with any person(s) or event(s) significant in the



Figure 5.11 View of Isolated Car Body, Site 39LA804, Looking West.

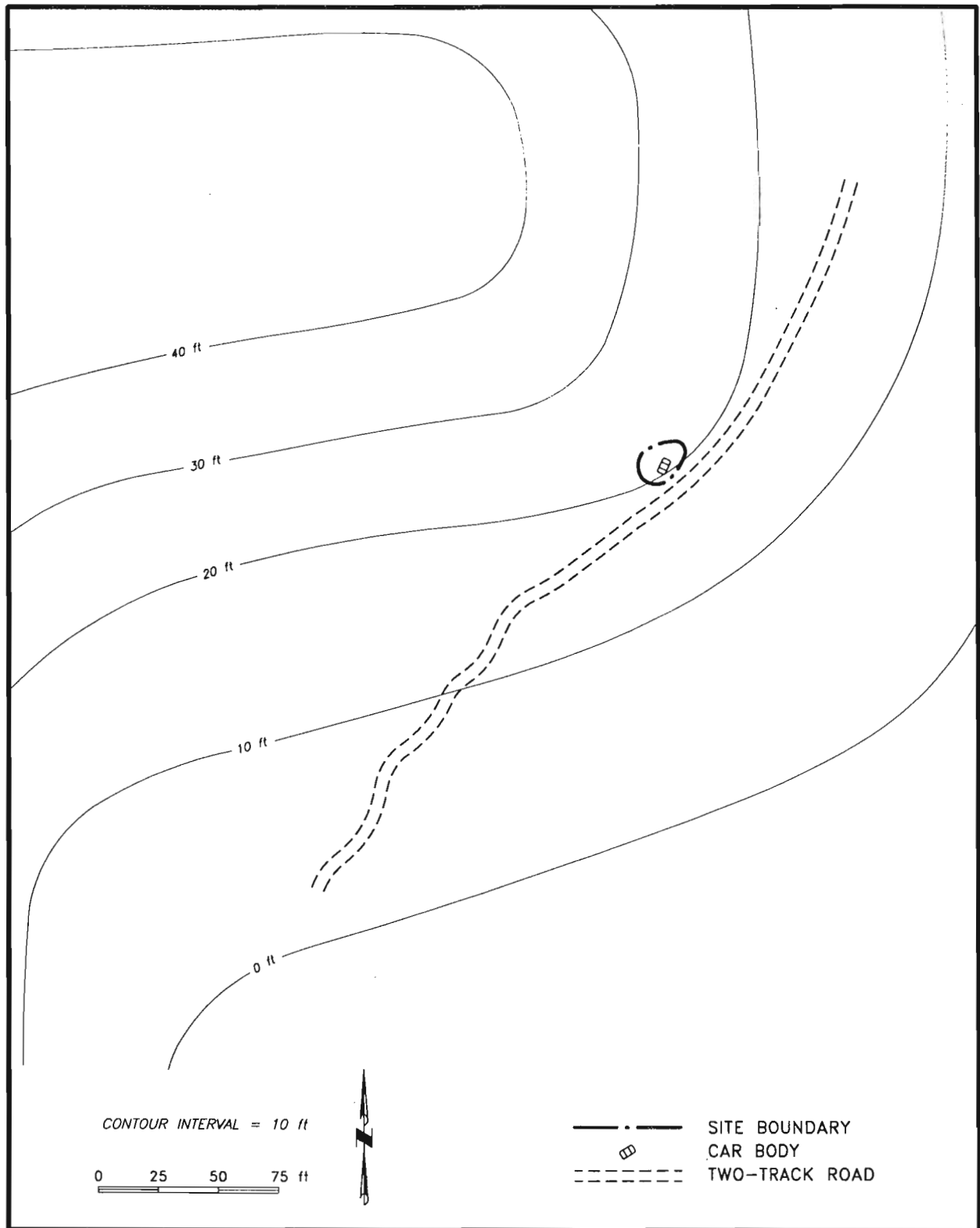


Figure 5.12 Plan Map of Site 39LA804.

to the Black Hills. Numerous sites of this type undoubtedly occur in the region. The site is not unique, and recordation of it exhausts its research potential. Cultural resource clearance with no further work is recommended for the site. The proposed undertaking should be allowed to proceed as planned in the site area.

5.4.3 Site 39LA805

Map Reference: Lead, South Dakota, 7.5' USGS Quadrangle

Legal Location: NENESESESE of Section 7, T4N, R3E

Maximum Size: 1 ft north/south x 1 ft east/west

Elevation: 5,840 ft

Landform: Ridge slope

Vegetation: Overstory of ponderosa pine, aspen, white spruce, and birch with an understory of shrubs, grasses, and forbs opening to a wet meadow toward the north.

Site Description: Site 39LA805 consists of an early sanitary can (Figure 5.13). It measures 3 4/16 inches high by 2 11/16 inches in diameter and is an 8 oz regular fruit can. The word "SANITARY" is stamped on its lid, which is only partially removed. No other artifacts were apparent.

Management Recommendation: Site 39LA805 is recommended as ineligible for inclusion on the NRHP. The site is not associated with any person(s) or event(s) significant in the to the Black Hills. Numerous sites of this type undoubtedly occur in the region. The site is not unique, and recordation of it exhausts its research potential. Cultural resource clearance with no further work is recommended for the site. The proposed undertaking should be allowed to proceed as planned in the site area.

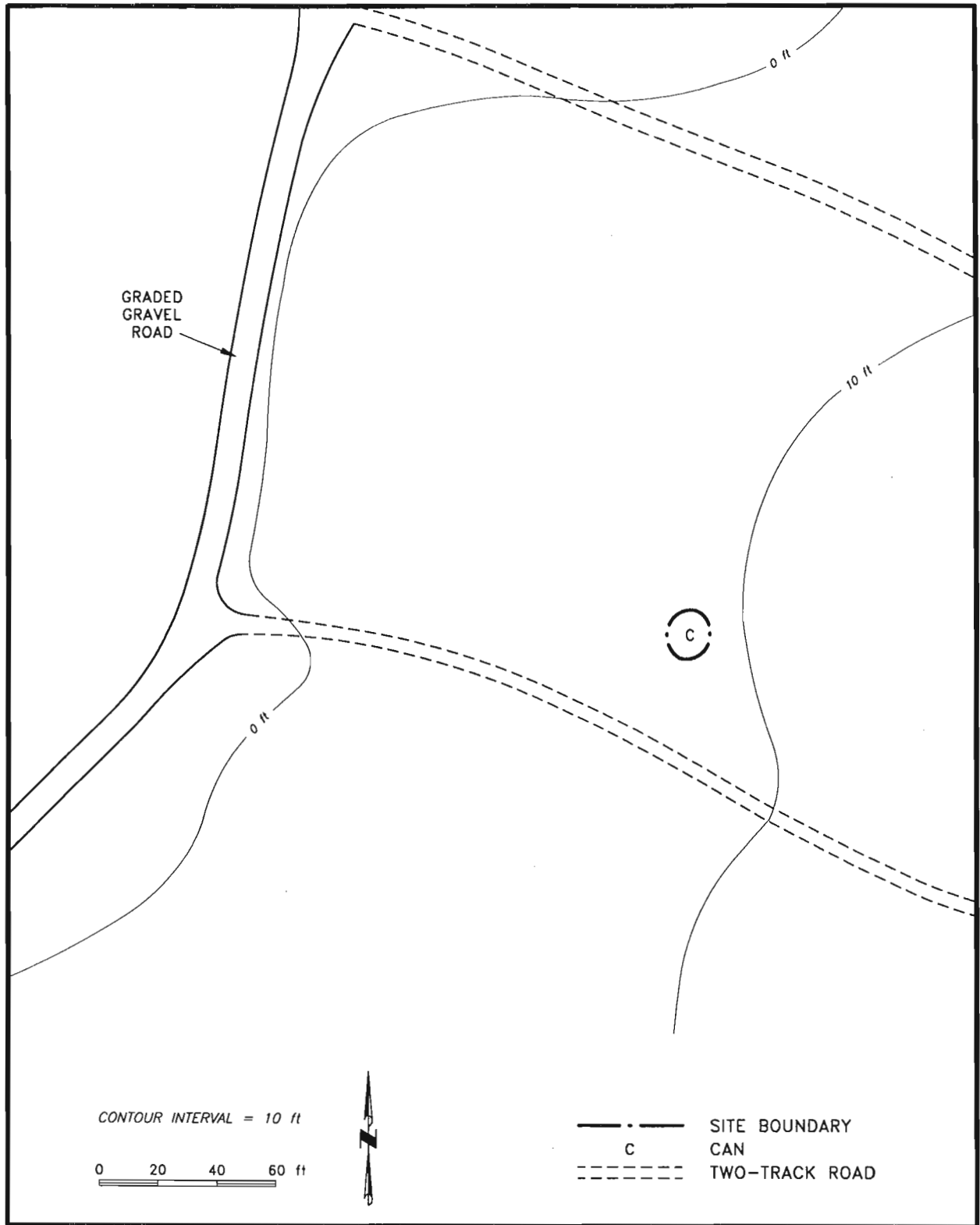


Figure 5.13 Plan Map of Site 39LA805.

6.0 EVALUATION AND RECOMMENDATIONS

6.1 EVALUATIONS

The prospect pit and trenches, either singularly or as a complex, observed in the project are recommended as not eligible for inclusion on the NRHP because they fail to meet the necessary criteria. Specifically, they are not associated with any person(s) or event(s) significant in the history of the mining industry, generally, or the development of the gold mining industry in the northern Black Hills, specifically. Additionally, they are not unique in design or construction, and they are not significantly representative of mining facilities or engineering sites. They do show, however, that an area was explored for minerals. As such, their recordation exhausts their research potential.

Site 39LA802 consists of the Emmett Mine National Shaft. It is an exploratory and extraction mining site associated with the Ruby Basin Mining District (Irving 1904; Waterland 1988). The site is not associated with any person(s) or event(s) in the history of gold mining in the Black Hills or the development of mining technology; it does not exhibit unique qualities as mines; and it does not represent an outstanding example of mining technology. For these reasons, it is recommended that the site be considered ineligible for inclusion on the NRHP and that the proposed undertaking be allowed to proceed as planned through this area. Cultural resource clearance with no further work is recommended at Site 39LA802.

Site 39LA799 is a possible dugout which may be associated with prospecting in the Ruby Basin Mining District. The site is not associated with any person(s) or event(s) in the history of gold mining in the Black Hills or the development of mining technology; it does not exhibit unique qualities as mines; and it does not represent an outstanding example of mining technology. For these reasons, it is recommended that the site be considered ineligible for inclusion on the NRHP and that the proposed undertaking be allowed to

proceed as planned through this area. Cultural resource clearance with no further work is recommended at Site 39LA799.

Site 39LA800 is a possible prospect camp associated with the Ruby Basin Mining District. The site is not associated with any person(s) or event(s) in the history of gold mining in the Black Hills or the development of mining technology; it does not exhibit unique qualities as mines; and it does not represent an outstanding example of mining technology. For these reasons, it is recommended that the site be considered ineligible for inclusion on the NRHP and that the proposed undertaking be allowed to proceed as planned through this area. Cultural resource clearance with no further work is recommended at Site 39LA800.

Site 39LA801 is also a possible prospect camp associated with the Ruby Basin Mining District. The site is not associated with any person(s) or event(s) in the history of gold mining in the Black Hills or the development of mining technology; it does not exhibit unique qualities as mines; and it does not represent an outstanding example of mining technology. For these reasons, it is recommended that the site be considered ineligible for inclusion on the NRHP and that the proposed undertaking be allowed to proceed as planned through this area. Cultural resource clearance with no further work is recommended at Site 39LA801.

Site 39LA2000 is the historical grade of the Spearfish Branch of the Chicago, Burlington & Quincy Railroad. It has been previously evaluated as eligible for inclusion on the NRHP under Criterion A. The site is associated with the development of the Bald Mountain Mining and Ruby Basin Districts and the gold industry in the Black Hills. There is no new information that would change this evaluation. The site has been recorded, photographed, and mapped, which is considered all that is required for this cultural resource (personal communication, Michael Fosha, State Archaeological Research Center, August 29, 1995).

Sites 39LA803, 39LA804, and 39LA805 consist of two isolated car bodies and an isolated early sanitary can. None of these sites, either singularly or as a complex, is recommended as eligible for inclusion on the NRHP. The sites are not associated with any person(s) or event(s) significant in the Black Hills. Numerous sites of this type undoubtedly occur in the region. The sites are not unique and recordation of them exhausts their research potential. Cultural resource clearance with no further work is recommended for the site. The proposed undertaking should be allowed to proceed as planned in the site area. Cultural resource clearance with no further work is recommended at Sites 39LA803, 39LA804, and 39LA805.

6.2 RECOMMENDATIONS

Site 39LA2000 is assessed as being eligible for listing on the NRHP under Criterion A. Two segments of the site were documented and evaluated as a result of this survey. The site is currently utilized as a two-track road. There are no extant structural or engineering details associated with either Segment A or Segment B. Golden Reward plans to use the grade as part of their primary access and will build trails from it in several areas. As this use does not deviate from the current, established, use of the site, there will be no effect. Cultural resource clearance with no effect is recommended.

Since none of the trenches, the prospect pits (either singularly or as a complex), or Sites 39LA802, 39LA799, 39LA800, 39LA801, 39LA803, 39LA804, and 39LA805 are recommended as eligible for inclusion on the NRHP, it is recommended that the project be allowed to proceed as planned in these locations.

Based on the 1995 TRC Mariah inventory of these parcels, no significant prehistoric or historic archaeological sites were documented within the current project area except for Site 39LA2000, which has previously been recorded, photographed, and mapped. Cultural

resource clearance is recommended for the project area, with the following stipulations designed to eliminate direct impacts to significant cultural resources:

- 1) All disturbances should be restricted to within the inventoried area.

- 2) If evidence of any significant prehistoric or historic sites is discovered during ground-disturbing activities, all activities within a 100 ft (30 m) radius of the site should cease immediately, and appropriate Golden Reward personnel should be notified of the situation to ensure that a qualified archaeologist handles the discovered site in an appropriate manner.

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