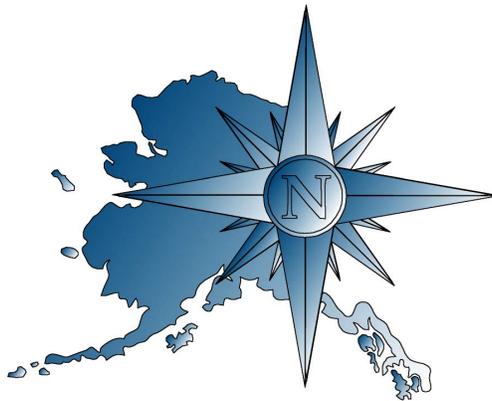


**CULTURAL RESOURCES SURVEY OF PROPOSED MINING
DEVELOPMENT ACTIVITIES IN THE ROCK CREEK AREA,
NOME, ALASKA**

**Northern Land Use
Research, Inc.**



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January 2004

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January 2004

Confidentiality Notice

The locations of cultural resources given in this report are provided to facilitate environmental and engineering planning efforts only. Under the provisions of the Archaeological Resources Protection Act and the National Historic Preservation Act, site location information is confidential; disclosure of such information is exempt from requests under Federal and State freedom of information laws. This report is not a public document. It is intended for release to the Bristol Environmental & Engineering Services Corporation (BEESC), Alaska Gold Company, the community of Nome, the State Historic Preservation Office (SHPO), Bering Straits Native Corporation (BSNC) and other appropriate permitting agencies only.

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1.0 INTRODUCTION

1.1 Project Background

The Alaska Gold Company and Bristol Environmental & Engineering Services Corporation (BEESC) are planning mineral exploration and mining development of the Rock Creek drainage, approximately 8 miles north of the city of Nome, Alaska (Figure 1). As part of these activities, a cultural resource survey was required under Section 106 of the National Historic Preservation Act for the Area of Potential Effect (APE; Figures 2-4). Northern Land Use Research, Inc. (NLUR) was contracted by BEESC to perform an Evaluation Phase archaeological reconnaissance of the proposed areas of exploration and development in the Rock Creek area (Alaska Office of History and Archaeology 2000). Decisions concerning the specific locations of several direct impacts to the landscape within the project area were not finalized at the time of the survey. For this reason, the entire project area is defined as the APE. Within the APE, five direct impact areas were identified at the time of the survey: “Tailings Pond,” “Final Pit,” “Plant Site,” “Diversion Ditch,” and “Waste Rock” (Figure 2). The total survey area consisted of the entire APE, which is roughly 976 acres.

Between October 9th-12th, 2003, NLUR archaeologists Joshua Reuther, Carol Gelvin-Reymiller, and Leonard Hanson traveled to Nome and conducted the survey. This report provides the project setting, cultural chronology and history of the Nome and Northwestern Alaska region, and previous archaeological investigations near the project area. The results of the survey and subsurface testing are described, and recommendations are made concerning the proposed exploratory mining and development activities.

1.1 Project Setting

The Rock Creek drainage is situated in the foothills of the Kigluaik Mountains, approximately 8 miles north of the mouth of the Snake River at the Norton Sound and the townsite of Nome (Figure 1). The headwaters of the creek are located at approximately 750 feet above sea level (FASL) on the southwestern face of Mount Brynteson, and drains it into the Snake River approximately 2.5 miles to the west (Figure 3). The city of Nome is located approximately 539 air miles northwest of Anchorage and approximately 102 miles south of the Arctic Circle, along the southern coast of the Seward Peninsula (ADCED 2003). The modern city boundaries encompass approximately 12.5 square miles of land (ADCED 2003).

The climate of the Nome region is maritime during the summer months (early June to mid-November) due to the open water of Norton Sound; however, near the end of November, Norton Sound begins to freeze causing a shift of the region's climate from maritime to continental (National Climate Data Center 2004). Temperatures in the summer average between 44 and 65 degrees, while winter average temperatures range between -3 and 11 degrees (ADCED 2003). The area receives approximately 18 inches of precipitation annually, which includes 56 inches of annual snowfall (ADCED 2003).

Flora present in the uplands at the foothills of the Kigluaik Mountains include lichen, dryas, shrub willow, dwarf birch, cotton grasses, and mosses. Berries, edible greens and roots such as blackberries, salmonberries, low bush cranberries, blueberries, labrador tea, and wild celery are found in marshy areas and on the beaches (Bockstoce 1979).

Terrestrial mammal species available as subsistence resources in the region include ground squirrel, hare, brown bear, musk ox, wolf, moose, reindeer, fox and, in minimal numbers, caribou. Sea mammals present during various periods of the year include ringed harbor and bearded seals, walrus, and grey, beluga and bowhead whales (Bockstoce 1979). Fish resources available include five different species of salmon (chum, pink, king, sockeye, and silver), Pacific herring, Arctic char, grayling, cod, smelt, whitefish, pike and burbot, while, avifauna include ptarmigan, ducks, geese, swan, cranes, sandpiper, gulls, loons, owls, and cormorants (Bockstoce 1979).

2.0 SURVEY METHODS

2.1 Research Design

The objectives of BEESC and the Alaska Gold Company are to satisfy State and Federal statutes and regulations regarding evaluation of cultural resources located within proposed development areas. The specific purpose of this survey is to enable agencies to comply with Section 106 of the National Historic Preservation Act of 1966 (as amended) and implementing regulations in 36 CFR 800. Following literature and files research, NLUR focused on providing appropriate pedestrian survey coverage and subsurface sampling of the survey area. During the 2003 investigation, 100% surface pedestrian survey of the APE was conducted with discretionary subsurface testing in areas of high and moderate potential for the presence of cultural resources (Figures 2 and 3).

2.2 Field Survey Methods

Research methods used prior to the background study included an examination of aerial photographs, maps, and literature review. NLUR's private research library served as the primary source of literature relating to the history and archaeology of the area. The Alaska Heritage Resource Survey (n.d.; AHRS) files, maintained at the Office of History and Archaeology (OHA), were also consulted, as was the National Register of Historic Places. The AHRS files, a formal compilation of recorded archaeological and historic site locations within Alaska, provided information about reported sites within the Rock Creek project area. Prior to the survey, Charlotte McCay, the project manager for BEESC, provided maps, derived from the U.S. Geological Survey (USGS), showing the project boundaries and areas of direct impacts and aerials photos of the Rock and Glacier Creek drainages (Figure 2). Survey stakes marked some areas of direct impact ("Tailings Pond," "Plant Site," and "Waste Rock") in the field (Figures 2 and 5).

As part of the survey and site discovery procedures, the NLUR archaeologists employed both pedestrian survey and subsurface testing. Before the field effort, the total acreage of the APE (976 acres) was believed to be too large to cover in the time allotted to complete the survey (Figures 2 and 3). A research design/survey plan was employed, based on a stratified sampling survey strategy used successfully in other mining related projects (e.g. Dixon et al. 1993). The pre-field work consisted of designating areas within the APE as having high or low potential for the occurrence of prehistoric or historic cultural resources. Designations of localities as having a high or low potential for site occurrence was based on geomorphological characteristics and distance to water, such as terraces over looking a creek (Figures 5 and 7; see Dixon et al. 1993; Mason et al. 1994; Higgs et al. 1999). A 100% pedestrian survey of high potential areas was to be completed, in addition to discretionary subsurface testing within these areas to identify potentially buried materials. Low potential areas were to be pedestrian surveyed as time allowed (Figure 5). Initially, approximately 600 acres of the total acreage were deemed as needing to be surveyed in the time allotted. However, due to the ease in mobility across the terrain and excellent visibility, 100% coverage of the APE by pedestrian survey was achieved (Figures 2 and 3).

Pedestrian survey consisted of the archaeologists walking parallel transects approximately 15 meters (m) apart (or less) to provide sufficient inspection of the ground surface. Subsurface testing strategies were implemented on a discretionary basis and consisted of trowel and entrenching tool tests. Standard archaeological field methods such as photo and locational documentation were utilized. Field numbers (RC-03-) were

assigned to each cultural resource. Coordinates for survey reference points, subsurface test units and locations of cultural resources (Table 1) were recorded with a Garmin E-Trex Vista™ hand-held GPS unit¹. When a cultural resource was located during the survey, sufficient data was gathered so that an evaluation of National Register eligibility using criteria for significance as outlined under 36 CFR 60 and 36 CFR 800 could be made. This procedure involved mapping with tape and compass, intensive visual inspection of the ground surface, enumerating, photographing and describing artifact and archaeological features, conducting discretionary 50 cm² tests by trowel, and backfilling the same after excavation. The cultural resources found during the survey are described in Section 4.0, Survey Results and the appendices.

3.0 CULTURAL HISTORY

3.1 Cultural Chronology of the Southern Seward Peninsula

Several traditions that represent past cultures, or stages in past cultural history, have been established based on archaeological remains on the southern Seward Peninsula (Harritt 1994). Three sites in particular, Iyatayet, Nukleet and Cape Nome, include several cultural components which represent and defined these traditions. Iyatayet and Nukleet were excavated during the late 1940s and early 1950s by J. Louis Giddings, who also surveyed the coast of Norton Bay from Cape Moses to Elim in search of other sites (Giddings 1964). John Bockstoce (1979) excavated at Cape Nome from 1969 to 1976. Below is a brief review of the cultural chronology of the Norton Sound region, using information derived mainly from these two sites².

Although earlier cultural remains may exist in the area, the earliest identified archaeological tradition on the southern Seward Peninsula coast is termed the Arctic Small Tool tradition (ASTt). This tradition is characterized by an lithic artifact assemblage consisting of microblades, burins, small bifaces, and side blades, and a lack of ground or polished stone tools (Irving 1962, 1964; Anderson 1984). At the Iyatayet site, located on Cape Denbigh, in eastern Norton Sound, ASTt is represented by an assemblage named the Denbigh Flint Complex dating between 3950-2950 BP (before present; Giddings 1951, 1964). No evidence of permanent dwellings was discovered at Iyatayet; however, the presence of firepits and the fact that most artifacts were found directly on a layer of sod led Giddings to conclude that the remains represented a hunting

¹ All coordinates were collected using the Universal Transverse Mercator (UTM) grid with reference to the 1927 North American Datum (NAD 1927).

² Other sites include Gungnuk located north of Cape Darby, and Nukleet near Cape Denbigh.

camp (Giddings 1964: 242). At the “Old Beach site” on Cape Nome, a small “Denbigh-related” lithic assemblage was found on the earliest formed beach ridge (Beach Ridge 1) on the cape, below the floor of a Norton house (Bockstoce 1979).

The archaeologically defined cultures known as Choris, Norton and Ipiutak succeeded Denbigh in the Alaskan arctic. Each of the cultures’ lithic assemblages display similarities to each other; the later cultures are separated and defined primarily based on presence or absence of pottery, differences in the style of pottery and organic artifacts, and inferred subsistence system (Giddings 1957, 1964; Larsen and Rainey 1948). Anderson (1968) expanded Irving’s (1962, 1964) original definition of ASTt to include Choris, Norton, and Ipiutak, which extended the time period for ASTt to c. 900 BP (Gerlach and Hall 1988). Dumond (1982, 1987) ascribes to the original definition of the tradition, separating ASTt from the later archaeological entities, lumping Choris, Norton and Ipiutak under the designation of the “Norton tradition.” Each of these archaeologically defined cultures are summarized below.

At a few sites on the Seward Peninsula, Denbigh was supplanted by the Choris culture at around 3000 BP (Giddings and Anderson 1986; Harritt 1994; for a different interpretation see Mason and Ludwig 1989, 1990). The Choris culture exhibited many similarities to the previous Denbigh culture in terms of manufacture, but is characterized by a lack of Denbigh-specific chipped and ground burins, and flake knives and the presence of pottery, burin spalls from irregular flake cores, chipped adze blades, and several new styles of projectile points (Giddings 1957; Anderson 1984:86). Choris sites also differed from Denbigh in that they showed regional variation with regard to resource procurement. Sites located inland, such as at Onion Portage, contained artifacts specific to caribou hunting and fishing, whereas coastal sites included these tools and also contained artifacts used for sea mammal processing. Overall, the Choris economy appears to be based on caribou, as the majority of faunal remains from all sites are of the genus *Rangifer*. Choris sites on the Seward Peninsula are located at Cape Espenberg and around Teller (Schaaf 1988).

The next archaeological culture or tradition represented in the area is Norton, which dates between 2450-1480 BP. Norton artifacts include undeveloped ground slate, pecked stone vessels, pottery with a fiber temper, and chipped stone tools (Giddings 1964; Dumond 1984: 99). Three types of pottery have been located at Iyatayet, the type-site for Norton: check stamped pottery, linear stamped pottery, and plain pottery. Specific artifacts include end and side blades used as insets, small projectile blades, drills, discoidal scrapers, chipped adz blades, unifacial flake knives, biface knives, ground burins, labrets, net sinkers, and stone and clay lamps used for light and as a heat source (Giddings 1964:

18; Bockstoce 1979: 58). Norton dwellings, or house pits, have also been identified. These houses were rectangular and semi-subterranean, with an interior hearth and short entrance passage. Faunal remains present at Iyatayet include small seal (non-species specific), bearded seal, beluga, walrus and caribou, and bone and antler fish and/or bird spears have also been identified (Dumond 1984: 99). At Cape Nome, Bockstoce (1979) identified two phases of Norton, early and late, at the “Old Beach site.” The early Norton assemblage appears to indicate a heavy reliance on net fishing, hunting caribou and sealing; while the late Norton assemblage indicates a lack of net fishing and possibly increased reliance on caribou hunting and sealing (Bockstoce 1979). A lack of net fishing and an inadequate open water sea mammal hunting may have been factors leading to the disappearance of Norton from the Cape Nome area (Bockstoce 1979).

Ipiutak is an archaeologically-defined culture that existed along the northern coast of the Seward Peninsula from 1500-1200 BP at Cape Espenberg and Deering (Bowers et al. 1999; Giddings and Anderson 1986; Harritt 1994, Larsen 2001). It was first identified at Point Hope on the northwest coast of Alaska by Larsen and Rainey (1948) in the early 1940s, and subsequent Ipiutak sites have been located both in interior northern Alaska, and along the coast from Point Hope to Cape Espenberg. Ipiutak is characterized by elaborate carved burial goods with highly stylized engraving, the use of iron, and the absence of pottery. Typical artifacts include antler arrow and harpoon heads with inset delicate end and side blades, unifacial flake knives, discoidal scrapers, lunate knife bifaces, and ground-stone burin-like tools (Anderson 1984: 88). Although Ipiutak is not considered to have extended into the Golovin/Elim coastal area, preliminary results from an archaeological excavation at Kitchauvik near Golovin indicate that the site dates to the Ipiutak time-period. At least three artifacts from the site are consistent with the Ipiutak style as well (Sweeney 1999).

The trend in an increased reliance on the hunting of marine resources by the inhabitants of Northwest Alaska and the Arctic Coast continued, and is reflected in the name of the most recent archaeological tradition present in the area – the Northern Maritime tradition (Collins 1964). Analysis of detailed excavations at the Cape Krusenstern, Birnirk, the Walakpa and Cape Nome sites indicates that sea mammal hunting from strategic promontories along the coast may have become a preferred subsistence strategy (Bockstoce 1979; Giddings and Anderson 1986; Ford 1959; Stanford 1976). On the southern Seward Peninsula, the Northern Maritime tradition encompasses three archaeological complexes or cultures: Birnirk, Western Thule, and late Prehistoric Eskimo.

Birnirk is found at various sites along the coast between Cape Nome and Point Barrow and dates between 1300-1000 BP (Ford 1959; Gerlach and Mason 1992). Birnirk sites are usually located on headlands and promontories, and are associated with coastal pursuits such as the hunting of seals or walrus (Bockstoce 1979). Birnirk houses excavated at the “Old Beach site” on Cape Nome were square in shape with long entrance tunnels and a central area used for burning seal fat (Bockstoce 1979). Birnirk artifacts include ground slate and chipped stone points and tools, multiple spurred harpoon heads with single barbs and opposing chert side-blade insets, decorated and plain clay lamps and cooking pots, and a particular design style that is found on many ivory objects consisting of single or paired straight lines or paired arcs with ticked lines at right angles (Anderson 1984: 90).

Western Thule dates to between 850-250 BP and includes those people present on the southern coast of the Seward Peninsula at the time of Russian contact (Anderson 1984; Dumond 1984, 1987). Western Thule is found at the Nukleet site at Cape Denbigh, and is characterized by ground slate tools including polished ulu blades, projectile blades, and long barbed slate knives or lance blades, pottery with a heavy gravel temper, and a large number of organic implements such as wooden knife handles, birch bark baskets, grass matting and snowshoes. At Cape Nome, the earliest representation of Western Thule is the Cape Nome phase (Bockstoce 1979). Coastal Western Thule may have developed from Birnirk or other related phases, such as Punuk, that developed a versatile sea mammal hunting strategy (Bockstoce 1979). Western Thule subsistence apparently consisted of land hunting, fishing and seal hunting, with a strong reliance on small seals. Bockstoce (1979) believes that the later phases of Western Thule, or the “post-Birnirk” periods, show increasing specialization to local resources. Western Thule houses were semi-subterranean with sunken entrance tunnels that served to keep cold air out (Bockstoce 1979; Anderson 1984: 91).

3.2 Ethnohistory and Early Exploration in the Bering Sea and Seward Peninsula Region

Historically, the Kauweramiut, Malimiut, and Unalikmiut Eskimo occupied the Bering Sea and Seward Peninsula region (Ray 1984). Inupiaq is the traditional language of the Kauweramiut and Malimiut, while the Unalikmiut spoke a sub-dialect of central Alaskan Yupik (Woodbury 1984). Trade around Northwest Alaska and across Bering Strait was well-established long before explorers entered the area (VanStone 1984:154). The Kauweramiut, Malimiut, and Unalikmiut were said to include groups that specialized in trading (Oswalt 1967:136), and even those that did not specialize certainly participated locally (Oswalt 1967:133). Kotzebue and Shesalik, on the north coast of Kotzebue Sound

and Point Spencer at Port Clarence, were among the regional trade centers, and were visited by natives from all over Northwestern Alaska as well as from Siberia (VanStone 1984: 154; Ray 1984: 286). In 1884, approximately 1400 natives were observed at a trade fair at Kotzebue (Oswalt 1967: 132-3). Trading partners and kinship ties were the only solid extra-community ties, and when members of different groups met under any other circumstances, the encounter was often hostile (Oswalt 1967: 175).

The traditional settlement and subsistence pattern for most Eskimo groups can be described as a Central Based Wandering system (after Beardsley, in Oswalt 1967: 88). Resources in the Bering Strait region are relatively abundant but they are not uniform (Burch 1984: 306). For the most part, winter was spent in the village and summers spent moving between camps in pursuit of seasonal resources (Oswalt 1967: 86). Of course there was variability in the details of the pattern, both between and within groups and from year to year. There were summer villages where rich and stable resources were located, and some families might visit the same set of seasonal camps year after year while others followed a different pattern each year. Certain families or family members such as the very old and very young, might remain in the village year round (Oswalt 1967: 86).

Both permanent houses and seasonal camps were located with regard to availability of subsistence resources, fresh water, boat access and wood sources. The houses or tents would normally be oriented to landform, wind, light, and water (Oswalt 1967: 86). The exception to this was the community/men's house or qargi which was generally centrally located, and on high ground if possible (Oswalt 1967: 87). Permanent winter houses were generally dug about 6 feet into the ground with walls and roof of wood, a long entrance tunnel, and a oogruk gut skylight. A small central fireplace and low sleeping platforms were in the main room and the kitchen was usually separate (Burch 1998: 300 and 1984: 306). In addition to the central hearth, heat and light were also provided by pottery lamps (Burch 1984: 308).

Captain James Cook was the first explorer to penetrate as far north as Kotzebue Sound on his voyage in 1778 (Grauman 1977: 8). Kotzebue Sound was discovered and explored in 1816 by Otto Von Kotzebue, while he was looking for the Northwest Passage on behalf of the Russian-American Company (VanStone 1984: 152). Kotzebue traded with the native people he encountered, and observed that they already had attained some western trade goods and were very savvy regarding trading practices. In 1820, Shishmarev and Visiliev each manned a Russian-American Company ship in the sound, and met American trader Pigot in the region as well (Grauman 1977: 14). In 1825, the British

Captain Beechey came to Kotzebue Sound in an attempt to meet the first Franklin Expedition as it came across the Arctic coast (Grauman 1977: 16).

The Russian American Company sent a ship annually from St. Michael to Kotzebue Sound starting in 1833 (Ray 1984: 299). By the mid-1800s, Euroamerican presence in Northwestern Alaska was annual, but sustained contact did not begin until the turn of the century. As a result, major impacts to the native culture of Northwest Alaska were felt later than they were in southwestern or Southeast Alaska where permanent settlements and trading posts were established much earlier. As William Fitzhugh points out in his introduction to Nelson's classic ethnography (Nelson 1983: 23), the "trading posts" of the Bering Strait area were ships that went to the people in their traditional locations. Settlement and subsistence patterns, although certainly affected, were not interrupted by the need to transport skins and other items to an arbitrary place built by Europeans.

The first whaler to venture through the Bering Strait was the *Superior* out of Sag Harbor, New York in 1848, and whalers from the already established North Pacific fishery soon followed (Grauman 1977: 49). In 1850 as many as 299 ships may have been whaling in the Arctic Ocean (Williss 1986: 39). Port Clarence, Kotzebue Sound, and Point Hope were favored points to stop to meet with outfitting ships and to carry on the trade that became a back-up to the harvest of whales (Grauman 1977: 59, 66; Ray 1975: 199; VanStone 1984: 155). Between 1849 and the mid-1850s, several British ships wintered in Kotzebue Sound (1849) or Port Clarence while searching for survivors from the second Franklin expedition. Members of these crews conducted the first exploration of the interior of the Seward Peninsula by white men (Grauman 1977: 23-26).

In the mid-1860s, Western Union Telegraph Company sent work parties to Alaska to build a telegraph line linking the U.S. and Siberia (Cole 1984: 12). One party of 41 men was stationed at Port Clarence with instructions to construct a line across the Seward Peninsula. They suffered through the winter of 1866-67, managed to build 23 miles of line, and were picked up in July of 1867 after the trans-Atlantic cable had successfully been laid (Cole 1984: 13). The leader of this group, Daniel B. Libby, had noticed signs of gold in some of the interior creeks on the Seward Peninsula, and when the Klondike Rush began in 1897, he returned to western Alaska to re-locate those finds (Cole 1984: 14).

In 1867, the United States purchased Alaska from Russia. The first U.S. government presence in Northwest Alaska was a trip through the Bering Strait by the Revenue Marine ship *Wayanda* in 1868 and by the *Reliance* in 1870 (Grauman 1977: 32). It was not until 1880, however, that annual patrols of the revenue service were instigated to control trade in guns and liquor, conduct census and scientific studies, and provide aid and rescue

service (Grauman 1977: 32). Among those frequently rescued were the crews of whaling ships who got caught in the ice through bad luck or trying to dodge the encroaching winter ice for too long (Grauman 1977:57). Steam whaling ships were introduced in 1879 that were configured so that trade became an even larger factor in the economic success of a whaling voyage (Grauman 1977: 58).

The U.S. government sponsored the next major change affecting Northwest Alaska and its native population, partly in response to the success of the commercial whalers. Observing the large numbers of whales and walrus harvested by the commercial ships, and somewhat misinterpreting the effect this was having on the native population, Dr. Sheldon Jackson spearheaded a campaign in 1890 to provide domestic reindeer as a replacement (Grauman 1997: 68; Simon 1998). Jackson was the Agent for Education in Alaska and also a Presbyterian missionary, with the result that the reindeer herds were almost all associated with missions and mission schools. The influence of the missions, hospitals, and schools often associated with reindeer herds impacted seasonal mobility, as well as language, society, and culture (Grauman 1977: 78; Simon 1998; Williss 1986: 113). It is likely that interior populations moved to the coast to be closer to the missions, biasing the interior population numbers recorded by turn of the century accounts (VanStone 1984: 153). Northwest Alaskans have come to value education in particular, and a high percentage of students finish high school and continue on to higher education (VanStone 1984: 158).

The influence of reindeer herding on the economy and culture were just beginning to be felt when another event occurred, guaranteeing that Euroamerican presence in Alaska was a permanent fact. This event was the Klondike Gold Rush of 1897. Prospecting had been going on in various places around the Seward Peninsula prior to 1897, based out of centers such as the trading post at Golovin Bay and the reindeer stations (Cole 1984: 14, 19). Before the Klondike rush, prospectors were few and far between, but after 1897 interest picked up considerably. The lure of the rich Klondike diggings brought thousands of men north to search in unexplored areas and rush from one rumored strike to another. In April 1898 the first real strike on the Seward Peninsula occurred on Melsing and Ophir Creeks, and the town of Council City was founded (Cole 1984: 19). Over the next 30 years, the mining district around Council City would produce an estimated \$12 million worth of gold (Cole 1984: 19). However, as Cole (1984: 19) notes, “the Council City strike was the prelude to a far richer discovery made about 80 miles to the west six months later near Cape Nome.”

3.3 History of the Nome Region

In early September 1898, Jafet Lindeberg, Eric Lindblom, and John Brynteson, later known as the “three Lucky Swedes,” discovered gold in several tributaries of the Snake River, west of Cape Nome (only Lindeberg was not a naturalized U.S. Citizen; he was Norwegian; Cole 1984: 20-22). Among the creeks that the three prospectors staked were Glacier Creek, Rock Creek, and the richest of them all, Anvil Creek (Collier et al. 1908; Cole 1984: 23). Word quickly spread, and Nome (originally called Anvil City) was born. Jealousy of the luck of the three quite inexperienced “Swedes” caused a rash of claim jumping and eventually required the intervention of the U.S. Army (Cole 1984: 27).

Before the Lindeberg, Lindblom and Brynteson discovery, the area surrounding the Snake River was primarily occupied seasonally during the subsistence rounds of local Natives, while larger semi-permanent villages were located to the east near Cape Nome (Schrader and Brooks, 1900; Bockstoe 1979). By June 1899, A. H. Brooks (1953: 377) estimated the population of Nome to be 400 individuals, and by fall of the same year, the population had increased to 3000. The subsequent discovery of easily obtainable gold in the beach sands in 1899 established Nome as one of the largest and most corrupt towns of the Alaska Gold Rush (Grauman 1977: 97-99). The lure of the gold also caused whalers to desert their ships in search of imagined easy wealth (Ray 1975: 245; VanStone 1984: 156). The easy pickings along the beach were largely exhausted by 1900, but the creeks continued to produce. Anvil, Glacier, and Dexter Creeks proved to be the richest in the Nome District, with the district gold fields estimated at producing \$136 million (Cole 1984).

In order to mine the placer gold deposits on the creeks, a great deal of water was needed, and ditches were constructed to provide it. Ditches had been built by Californian miners as well, and standard references on ditch construction were available by 1900 (Bowie 1900; Williams and Reuther 2003). In 1901 construction began on the 54-mile “Miocene Ditch” in Nome (Biggar 1963: 22). The Miocene Ditch was the largest and most complex of the Nome district Ditches and included sections blasted through rock, sections crossing permafrost or ground ice, inverted siphons, and a tunnel (Purinton 1905: 124-6). Purinton (1905: 104-110) summarizes all the “water conduits” (ditches and flumes) built in Alaska as of 1905. He tabulates 157.8 miles of ditches, 59.5 miles of which were in the Nome district.

Dredges were introduced in Nome as early as 1905, and by 1917 more than 20 dredges were built (Harlan 1931, in Boswell 1979: 8). Between 1903 and 1934, forty dredging projects were undertaken in the Nome district, but by 1934 only 5 remained (Herbert

1934: 38, 42). Most of these early ventures were unsuccessful, but valuable lessons were learned which were applied by Hammon Consolidated Gold Fields when they began construction of their electric dredges in 1922 (Harlan 1931, in Boswell 1979: 8). Cold water thawing, developed and patented by John Miles in 1920, and over 100 miles of ditches were already in use in the Nome Mining District by 1931 (Harlan 1931, in Boswell 1979: 8).

Though Rock Creek and Glacier Creek were among the initial discoveries of gold in the Nome region, information on the history of mining in the vicinity of the two creeks is minimal. The location of the initial claims on the two creeks by Lindeberg, Lindblom, or Brynteson is not known at this time. In 1899, Prospector D. C. Witherspoon was noted as laying claim to areas around Rock and Glacier Creeks (Schrader and Brooks 1900: Map 2; Orth 1967). Subsequent re-mining especially by dredges has almost certainly removed any remains of these early claims.

3.4 Previous Cultural Resource Research in the Rock Creek Vicinity

Two known cultural resources are located within or adjacent to the project area (Figure 3). Site NOM-096 is the Hot Air Mining Ditch located on the western flank of Mount Brynteson, between 400 and 450 FASL. NOM-096 extends from Blatchford Creek to approximately 0.5 miles north of the confluence of Snow Gulch and Glacier Creek (AHRS n.d.; Figure 2). Site NOM-097 is the Price and Tremper Ditch located on the southeastern flank of Mount Brynteson, between approximately 150 and 300 FASL. The AHRS database notes that NOM-097 extends from near Abbe Gulch south to Glacier Creek (AHRS n.d.; Figure 2). However, USGS quad map Nome C-1 shows the NOM-097 extending from Erickson Gulch southwest to Glacier Creek (Figure 2). The AHRS numbers for these two sites were assigned based on a historic map of the ditches around Nome River (Ashford 1904). Figure 1 shows a map made by the Lowmen Commerical Company of Nome, Alaska, possibly around the 1930s, which indicates the locations of the Hot Air Mining Company (NOM-096) and Price and Tremper (NOM-097) ditches (Howard Smith, personal communication, 2004). In 1992, archaeologist Howard Smith conducted a Class III inventory of cultural resources located on BLM-managed lands affected by proposed mineral exploration activity (1992a). Smith inventoried a section of the Hot Air Mining ditch (NOM-096) and located a 30 to 40 foot section within the lands affected by development activities; however, the characteristics of the ditches and any associated features have not been previously described.

No other previous cultural resource surveys have been conducted in the immediate vicinity of Rock Creek. In 1991 and 1992, Smith conducted a Class III inventory of

historic properties potentially effected by proposed mineral exploration (Smith 1992b. 1993). The lands inventoried and affected by the proposed actions are located on the western side of the Snake River valley, opposite the Rock Creek area. Several historic properties were inventoried and among those were the Golden Ditch (NOM-095) and Rodine Adit (NOM-096). In 1997, Smith (1997) conducted historic research on six water control structures (Miocene, Seward, Champion, Pioneer, and Highland ditches and Wild Goose Pipeline) associated with early mining activities along the Nome River in order to evaluate their eligibility to the NRHP. In addition, the Highland Ditch and Wild Goose Pipeline and their associated features were field inventoried (Smith 1997).

4.0 SURVEY RESULTS

NLUR archaeologists Joshua Reuther, Carol Gelvin-Reymiller, and Leonard Hanson arrived in Nome on the 8th of October, 2003. On the morning of October 9th, the archaeologists met with Alaska Gold Company employees Mitch Erickson and Nickolai Borisenko to discuss project details. Borisenko escorted the archaeologists to Rock Creek and described the boundaries and type of development proposed for the project area. A survey of the entire project area was conducted between October 9th and 12th.

The entire APE consists of approximately 976 acres surrounding the Rock Creek drainage and western flank of Mount Brynteson above Glacier Creek (Figures 2 and 3). Soil development within the project area is minimal and sediment depth typically less than 40 centimeters (cm) below surface level (BSL). The majority of regolith located within the APE is composed of a white quartzite and/or mica-schistic material (Collier et al. 1908).

Twenty test excavations were dug along a terrace located on the northwest side of Rock Creek (Figures 3 and 6). The terrace edge is approximately 10 m east of and approximately 15 m above the creek. Vegetation along the terrace consists of lichen, scrub brush, and cotton grass, and displays little soil development beneath the root mat. The sediment profile along the terrace can be generally characterized as: 0-5 cm root mat, 5-10 cm brown sandy loam, and 10-40 cm of sandy silt mixed with pebble to cobble sized regolithic materials. The depth of the tests ranged between 20 to 40 cm BSL and a historic artifact was observed in one (Test #5; RC-03-03) out of the 20 test units. USGS Nome (C-1) quad map indicates that dredging activities occurred within the area of the terrace along Rock Creek. Some dredge disturbance was noted in the field, however, the area tested does not display large scale disturbance that would indicate dredging on that particular section of the terrace (Figures 3 and 4).

Segments of two ditches (NOM-96 and NOM-097) used as water control structures to feed mining operations are located within or slightly beyond the boundaries of the APE (Figure 3). These segments were entirely pedestrian surveyed to record any water control features, such as pipes or gates, associated with the ditches and to assess their structural integrity. Several other features such as prospect pits and cabins were located within the APE (Figure 3). Descriptions of cultural resources observed during the survey are provided below. Locational coordinates on cultural resources are provided in Table 1 (for coordinate recording methods refer to Section 2.2 Field Survey Methods).

4.1 Cultural Resources Observed During Survey

A total of 13 cultural resources were identified in the field. Each resource is listed in Table 1 and described within this section.

Table 1. Summary and location of cultural resources observed during the survey.

AHRS Number	Field Number	ZONE	EASTING	NORTHING
N/A	RC-03-01	3	479567	7166012
NOM-127	RC-03-02	3	480397	7165792
N/A	RC-03-03	3	479243	7164378
NOM-128	RC-03-04	3	480730	7163860
NOM-129	RC-03-05	3	480867	7164362
NOM-130	RC-03-06	3	480234	7163769
N/A	RC-03-07	3	480425	7163780
NOM-131	RC-03-08	3	480501	7163851
NOM-132	RC-03-09	3	479271	7164564
NOM-133	RC-03-10	3	479804	7166054
NOM-134	RC-03-11	3	480490	7163889
NOM-135	RC-03-12	3	480357	7163850
NOM-136	RC-03-13	3	480279	7163816

RC-03-01

RC-03-01 is an isolated find of chicken wire attached to remains of a wooden crate (Figure 3). RC-03-01 is located on the western flank of Mount Brynteson approximately 2100 ft (640 m) northwest of Rock Creek. The chicken wire and wooden crate is located in a grassy low lying water saturated area approximately 3050 ft (930 m) east of Snake River Road. This feature is an isolated find and its age could not be determined. No association could be made between RC-03-01 and any other cultural resources within the

area. As such, RC-03-01 appears to be a non-significant cultural resource and does not fulfill the eligibility requirements for nomination to the NRHP under 36 CFR 60.

NOM-127 (RC-03-02)

NOM-127 is a collapsed wooden structure located on the western flank of Mount Brynteson along the southeastern bank of Rock Creek (Figures 3 and 7-10). The site is situated on a remnant portion of a bench of the southeastern bank of Rock Creek, approximately 1.25 miles (2000 m) northeast of Snake River Road. The structure's location is likely represented on the 1950 [Revised 1970] USGS Nome C-1 quadrangle map (NE1/4 of the SW1/4 of the SE1/4 of Section 14, T10S R34W). The area surrounding NOM-127 has been heavily disturbed by past mining and mineral exploration activities evident on the southern half of the site (Figure 9). The site is overgrown by grasses, sedges, mosses, lichen and willow bushes.

Dimensional lumber is scattered throughout the site (Figures 7 and 8). A rectangular depression in the center of the site area appears to be the remains of a house floor (Figure 12). Two pieces of lumber are oriented in a vertical position and are presumably the remains of the eastern wall. A circular depression is located approximately 5 ft (1.5 m) to the west of the house floor and contains two empty cans of "Blazo" and several pieces of dimensional lumber. Building materials for the structure included various sizes of dimensional lumber, 1.5 to 3-inch long wire nails, and tin corrugated metal roofing. Artifacts scattered about the site include: metal piping materials, a wooden sled, a galvanized wash tub, a wooden ladder, a buck saw, and a wooden saw horse. A 12 by 10-foot area approximately 9 ft (2.5 m) to the SE of the house floor contained several kitchen utensils such as a wooden scrub brush, a skillet, bread and dish pans, a tea kettle, and various metal cans that once contained food goods.

A trash dump is located approximately 20 ft (6 m) southeast of the house floor (Figures 10 and 13). Artifacts in the area of the trash dump include: a cast iron stove, metal piping material, a rubber boot, and various remains of glass bottles and metal cans. Identifiable metal cans include several condensed milk cans that display matchstick filler bases and three pure virgin olive oil (1/8 gallon) cans that were produced in San Francisco, CA. Identifiable glass bottle remains include a Owens-Illinois Glass Company (post-1940s Duraglas script) medicine jar and a Hazel-Atlas Glass Company (1920-1964) bottle base (Toulouse 1971).

NOM-127 appears to have been occupied possibly as early as the 1920s and as late as the early 1960s based on dateable glass remains observed in the trash pit area. The wooden

structure has lost its structural integrity and appears to have collapsed and then disturbed by past mining and mineral exploration activities. The site can not be tied an event or person that is significant to the mining history of the Nome region. The site does not meet the eligibility requirements for nomination to the NRHP under 36 CFR 60.

RC-03-03

A 12-gauge Remington shotgun shell base was found at approximately 30 cm BSL in Test #5 along the terrace above Rock Creek (Figure 3). “Remington UMC CLUB No. 12” is embossed on the head and the hull of the shell is paper. Cook (1989: Table 2) notes a date range for the manufacture of these cartridges as 1912 to 1930. An evaporated milk can that displays a match-stick filler base was found lying on the surface approximately 3 meters to the east of Test #5. A second test unit (Test #6) was placed approximately 50 cm to the east of the metal can to determine site extent. No other cultural resources were observed. The shotgun shell and can appear to be isolated finds and, as such, non-significant cultural resources. RC-03-03 does not fulfill the eligibility requirements for nomination to the NRHP under 36 CFR 60.

NOM-128 (RC-03-04)

NOM-128 is an area of scattered piping material located on the southern flank of Mount Brynteson approximately 950 ft (290 m) northeast of the confluence of Glacier Creek and Snow Gulch, near NOM-129 and NOM-097. NOM-128 appears to be located approximately 350 ft (106 m) southeast of the southwestern APE boundary line (Figure 3). The pipes are approximately 8 inches in diameter with 1/8 inch thick walls and are riveted (Figure 12). The age of the piping material is not known, and no association could be made between NOM-128 and NOM-097 or NOM-129. If the materials were segments of a mining water supply line, they contain no other information than their location that can contribute further information to that history. NOM-128 appears to be a non-significant cultural resource and does not fulfill the eligibility requirements for nomination to the NRHP under 36 CFR 60.

NOM-129 (RC-03-05)

NOM-129 is located on the southern flank of Mount Brynteson at the southeastern most area of the APE, approximately 2950 ft (900 m) northeast of the confluence of Glacier Creek and Snow Gulch (Figure 3). This structure’s location is likely represented on the 1950 [Revised 1970] USGS Nome C-1 quadrangle map (SE1/4 of the NE1/4 of the SE1/4 of Section 23, T10S R34W). NOM-129 is located approximately 450 ft (137 m) southeast

of the southwestern APE boundary line (Figure 3). A large wooden cabin (~14 x 18 ft) with an arctic entry (~6 x 9 ft) attached to its north side is still standing and several cans, bottles and pieces of furniture remain in the interior of the structure (Figures 13-15). A collapsed smaller wooden structure (~12 x 21 ft) that contains a bunk bed frame is located approximately 20 ft (6 m) northwest of the larger wooden cabin and was presumably used as a bunkhouse (Figure 16). A large wooden sledge (~13 x 6 ft) is located next to the southern wall of the bunkhouse (Figure 17). Another collapsed wooden structure located approximately 30 ft (9 m) to the north of the intact cabin, which contained machinery parts, presumably served as a machine shop. A can dump (~12 x 22 ft) is located approximately 10 ft (3 m) southwest of the intact cabin (Figure 18). Other debris or cultural remains scattered throughout area of NOM-129 include fuel barrels, large metal pipes, four rectangular metal boxes, and a small pit (4 ft square) possibly used as an outhouse hole (Figure 14). Tailing piles were found to the east and southeast of the large cabin. Several pipes were also observed amongst the tailing piles.

Artifacts found at NOM-129 that could provide a date range for cabin construction or use are: (1) a red Velvet metal tobacco can with a pipe and cigar motif that was made before 1926 (Rock 1981: 29); (2) a Schlitz beer “tab-top” aluminum can that was manufactured between 1963 and the early 1980s (Maxwell 1993: 105); and (3) a clipping from the Anchorage Daily News Miner that dates to December 7, 1979. An Allis-Chalmers crawler series tractor engine was found 50 ft (15 m) northwest of the large cabin and was rigged for use as a water pump (Figure 14). The crawler series Allis-Chalmers tractors were made as early as 1933 (Antique Tractor Shed 2004). It appears that NOM-129 could have been inhabited as early as 1926 and was last used as late as the early 1980s.

The large cabin has retained its structural integrity, while the two smaller structures are collapsed. The earliest date attributed to the cabin is 1926; therefore it is older than fifty years old and meets the age requirements for eligibility to NRHP. The cabin has not been associated to a significant event or person in local mining history. Under criterion (d) of 36 CFR 60, the cabin and associated artifacts have the potential to yield valuable information about mining activities during the mid-20th century in the Nome district.

NOM-130 (RC-03-06)

NOM-130 is a liner depression located on the southern flank of Mount Brynteson, approximately 1500 ft (457 m) northwest of the confluence of Glacier Creek and Snow Gulch (Figures 3 and 19). The feature is oriented down slope, north to south, and no association could be made between NOM-130 and any other features. NOM-130 is wider, shallower, and shorter than the Hot Air Mining Company (NOM-096) and Price and

Tremper (NOM-097) ditches, measuring approximately 9 feet wide, 1 foot deep and 40 feet in length. Lichen, mosses, and grasses cover approximately 70% of NOM-130, while NOM-096 and NOM-097 are primarily overgrown by 5 to 6 feet tall willows. NOM-130 is likely a more recent feature than NOM-096 and NOM-097 based on the type and amount overgrowth within the ditches and its function could not be determined. NOM-130 appears to be non-significant cultural resource and does not meet the eligibility requirements for nomination to the NRHP under 36 CFR 60.

RC-03-07

RC-03-07 is a white Chevy Step Van 30 situated on the southwestern flank of Mount Bryteson, approximately 1050 ft (320 m) northwest of the confluence of Glacier Creek and Snow Gulch (Figures 3). RC-03-07 is located approximately 350 ft (107 m) southwest of NOM-131 and appears to be slightly outside the southwestern APE boundary line (Figure 3). The van is located on a fairly recent road cut and has an Alaska state license plate (License No. 5072BJ) with tags that date to 1984. A large generator is located in the rear of the van. The van is less than 50 years older and does not meet the eligibility requirements for nomination to the NRHP under 36 CFR 60.

NOM-131 (RC-03-08)

NOM-131 is the remains of a collapsed wooden structure and an associated debris pile (Figures 20 and 21). The collapsed structure is located among thick willow bushes on the southern flank of Mount Bryteson and approximately 1175 ft (358 m) northwest of the confluence of Glacier Creek and Snow Gulch (Figure 3). It is located approximately 350 ft (107 m) northeast of RC-03-07, and appears to be on or slightly outside of the southwestern APE boundary line (Figure 3). The structure's location is likely represented on the 1950 [Revised 1970] USGS Nome C-1 quadrangle map (SE1/4 of the SW1/4 of the SE1/4 of Section 23, T10S R34W). In addition, the structure is located near the western end of the Price and Tremper ditch (NOM-097); however association of the structure with the ditch remains unclear (Figure 3).

The structure collapsed outward with the interior of the walls exposed (Figure 20). The western side wall of the cabin is approximately 24 ft in length, while the southern wall measures approximately 13 ft long and 13.5 ft tall. One large 3 x 5-foot window is located in the western and southern walls, while 2 x 2-foot windows are located in the gables of the northern and southern walls. The structure is composed of various sizes of dimensional lumber, while shiplap lumber was used on part of the exterior of the western wall. Several cast iron stove parts were observed within the interior of the collapsed

cabin, as well as a possible rocker box. A semi-circular debris pile was located approximately 12 ft (4 m) south of the cabin and is approximately 12 x 14-foot in extent (Figure 21). The debris pile includes glass bottle shards of various shapes and colors, galvanized cans and a few miscellaneous cast iron stove parts. A time frame for when the structure was built, abandoned, or collapsed could not be determined. The cabin could not be associated with a significant event or person in the mining history of the Nome Region and does not have structural integrity. Therefore, NOM-131 appears to be a non-significant cultural resource in the Nome region and does not fulfill the eligibility requirements for nomination to the NRHP under 36 CFR 60.

NOM-132 through NOM-136 (RC-03-09 through RC-03-13)

Six possible prospect pits or depressions likely relating to mining activities were recorded. Two pits or depressions (NOM-132 and NOM-133) were observed on the western flank of Mount Brynteson between Rock Creek and Lindblom Creek (Figure 3). NOM-132 is an approximately 4-foot deep depression filled with cobble to boulder sized quartzite (Figure 22). The depression is overgrown with shrub willow, mosses, lichen, and grasses. The dimensions of the depression are approximately 20 x 35-feet. NOM-133 is an approximately 3-foot deep depression overgrown by willows, grasses and mosses. The dimensions of the depression are approximately 16 x 16-feet.

Three possible prospect pits (NOM-134 through NOM-136) were observed on the southern flank of Mount Brynteson near NOM-097 (Figures 3). The three pits are extremely uniform in shape (circular) and diameter (~10 ft). Mosses and grasses have revegetated the pits. NOM-134, NOM-135 and NOM-136 are located within 750 ft (228 m) of each other.

While vegetation regrowth suggests that the pits date to the early part of the 20th century, there are no other structures associated with them. Prospect pits are generally not considered significant features as they can tell us little beyond the location of the mining activity. NOM-132, NOM-133, NOM-134, NOM-135 and NOM-136 do not fulfill the eligibility requirements for nomination to the NRHP under 36 CFR 60.

NOM-096 (Hot Air Mining Company ditch)

NOM-096 is the Hot Air Mining Company ditch located along the southern and western flanks of Mount Brynteson (Figures 3 and 23). The western end of the ditch is located near the head of Blatchford Creek extending southeastward crossing Rock Creek and finally terminating approximately 2600 ft (792 m) north of the confluence of Glacier

Creek and Snow Gulch (AHRS, n.d.). The entire length of the ditch based on USGS quad map NOME C-1 is approximately 6.5 miles (10,400 m) and approximately 2.3 miles (3650 m) were covered during the survey. The construction style of NOM-096 is rather simple when compared to other ditches with the Nome region, such as the Miocene ditch (Figure 24). Water supply pipes are simply inset into the berm without gates or penstocks. Within the APE, three mining water supply pipes were observed along NOM-096 and are oriented perpendicular to and down slope of the ditch (Figure 25). No other features such as siphons were observed within the APE. NOM-096 is approximately 3 ft wide and 3 ft deep and is primarily overgrown by 5 to 6 foot tall willows, mosses and grasses. Within the APE, part of the ditch has lost its structural integrity likely due to mining and mineral exploration activities. At several points along the ditch on the western flank of Mount Brynteson, vehicle tracks were observed within the ditch. Near its crossing of Rock Creek, the ditch's structural integrity is entirely gone. NOM-096 does appear to retain its original structure along the portion closer to Glacier Creek and along the southern flank of Mount Brynteson.

A second ditch parallels NOM-096 along the western flank of Mount Brynteson, approximately 25 ft (8 m) down slope (Figure 26). This ditch displays a similar construction style and dimensions to that of NOM-096, and is over grown with 5 to 6 foot tall willow bushes, mosses and grasses. It appears to have been constructed around the same era based on the amount and type of overgrowth as NOM-096.

The Hot Air Company ditch (NOM-096) is shown and labeled on a 1904 map (Ashford 1904; AHRS, n.d.). The ditch relates to some of the earliest mining activities in the area of Glacier and Rock Creeks, being constructed by 1904. No other archival information on the ditch or the Hot Air Company is currently unavailable. Within the APE, portions of the ditch have lost their structural integrity. Although the Hot Air Mining Company ditch (NOM-096) is associated to the early mining history of the Glacier and Rock Creek area, it can not be tied to a specific event or person that is important to that history within the wider Nome region. Several ditches, such as the Miocene, Seward, and Campion ditches, have been determined eligible to the NHRP based on the retention of their complexity, structural integrity, and association with important events or people in local mining history (Smith 1997). The segment of the NOM-096 ditch within the project APE does not contribute further information to that history other than its location. NOM-096 appears to be a non-significant cultural resource in the Nome region and does not fulfill the eligibility requirements for nomination to the NRHP under 36 CFR 60.

NOM-097 (Price and Tremper ditch)

NOM-097 is the Price and Tremper ditch located along the southern flank of Mount Brynteson (Figures 3 and 27). The ditch heads in the vicinity of Abbe Gulch extending southward and terminating approximately 950 ft (330 m) north of the confluence of Glacier Creek and Snow Gulch (AHRs, n.d.). The entire length of the ditch based on USGS quad map NOME C-1 is approximately 2.25 miles (2600 m) and approximately 0.3 miles (500 m) was covered during the survey. The western end of the ditch is located approximately 375 ft (114m) southeast of the southwestern APE boundary line (Figure 3). No features such as mining water supply pipes or waste gates were observed along the segment of the ditch surveyed. Along the section surveyed, NOM-097 appears to have retained most of its structural integrity, having a similar construction style and dimensions to NOM-096, approximately 3 ft wide and 3 ft deep (Figure 27). NOM-097, like NOM-096, is overgrown by 5 to 6 foot tall willow bushes, mosses and grasses.

The Price and Tremper ditch (NOM-097) is labeled and shown on a 1904 map (Ashford 1904; AHRs, n.d.). The ditch relates to some of the earliest mining activities on Glacier Creek and the vicinity of Rock Creek, being constructed by 1904. Additional information on Price and Tremper could not be attained during this project. Along the segment surveyed, the structural integrity of the ditch remains intact. Although the Price and Tremper ditch (NOM-097) is associated to the early mining activities in the Glacier and Rock Creek area, it could not be tied to a specific event or person that is highly important in local history of the region. It is also of very simple construction and without any associated water control structures (Figure 27). The segment of the NOM-097 ditch located near the APE appears to be a non-significant cultural resource in the Nome region and does not fulfill the eligibility requirements for nomination to the NRHP under 36 CFR 60.

4.2 Discussion

A 100% pedestrian survey was completed for the entire APE (Figures 2 and 3). Much of the APE was located within low lying or steep sloping terrain that is of low potential for the occurrence of cultural resources. Portions of the APE have been disturbed in the past by mining activities, such as dredging and exploratory drilling. Subsurface testing was conducted along a flat terrace edge that over looks Rock Creek, which was the only area deemed to have reasonable prehistoric site potential within the APE. Several cultural resources were observed within and slightly beyond the APE boundaries. Most of the cultural resources observed within this survey do not fulfill the eligibility requirements to the NRHP and 36 CFR 60 (see section 4.1 Cultural Resources Observed within the APE).

However, one cultural resource, NOM-129, located slightly outside of the APE does fulfill the requirements for eligibility to the NRHP under criterion (d) of 36 CFR 60 and should be avoided during mining development activities. NOM-129 is located approximately 450 ft (137 m) southeast of the southwestern APE boundary line (Figure 3).

5.0 SUMMARY AND RECOMMENDATIONS

Based on the results of our field observations and literature review, there is no reason to believe that the undertaking involving mining development activities within the project area (APE) warrants additional filed surveys under Section 106 of the National Historic Preservation Act (16 USC § 470), as amended (1992), and implementing regulations in 36 CFR 800 (revised December 2000). In addition, no indications of burials or other human remains were observed within the surveyed area; therefore, barring an unforeseen discovery during the undertaking, there are no further considerations expected under the Native American Graves Protection and Repatriation Act (25 U.S.C. § 3001 *et seq.*).

Based on the information available at this time, no foreseeable impact to significant cultural resources is anticipated by the proposed undertaking of the mining development activities in the Rock Creek project area. To complete the Section 106 process, the results of NLUR's findings should be forwarded by the appropriate Federal agency to the Alaska State Historic Preservation Officer (SHPO), with a request for concurrence of "no historic properties affected," once mine permitting begins.

Because archaeological materials, features, and other potentially significant cultural remains are commonly buried, they may not be identifiable from the surface or revealed in limited subsurface sampling. Should indications of potentially significant cultural resources be encountered during ground-disturbing activities, all work in that area should cease until the discovery can be fully evaluated by a qualified archaeologist, and the Alaska SHPO notified. In the event that human remains or other indications of burials are found on federal or tribal lands during ground-disturbing activities, the protocol established under the Native American Graves Protection and Repatriation Act (NAGPRA) must be followed. Immediate steps should be taken to secure and protect the human remains and cultural items, including stabilization or covering, as appropriate. The Project Manager should immediately notify both the SHPO and the local Native American organizations likely to be culturally affiliated with the discovered remains.

The name and address of the SHPO is:

Judith Bittner
State Historic Preservation Officer
Alaska Department of Natural Resources
Office of History and Archaeology
550 West 7th Ave., Suite 1310
Anchorage, Alaska 99501-3565
Ph: (907) 269-8715 or 269-8720

The names and addresses of the appropriate Native organizations are:

Bering Straits Native Corporation
PO Box 1008
Nome, Alaska 99762
Ph: (907) 443-5252

Sitnasuak Native Corporation
PO Box 905
Nome, Alaska 99762
Ph: (907) 443-2632

5.1 Limitations

This project was carried out, and this report prepared, in accordance with generally accepted professional practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. It is intended for the exclusive use by BEESC and the Alaska Gold Company for specific application to the referenced project. This report is not meant to represent a legal opinion.

We do not warrant that we have identified all potentially significant cultural resources present at the referenced properties, as these may be hidden in such a way that only extensive excavations, use of remote sensing equipment (e.g., ground penetrating radar, magnetometer), or other technologies/methods not included in our scope of work will reveal them. No other warranty, express or implied, is made. Any questions regarding our work and this report, the presentation of the information, and the interpretation of the data should be referred to NLUR Principal Archaeologist Peter Bowers.

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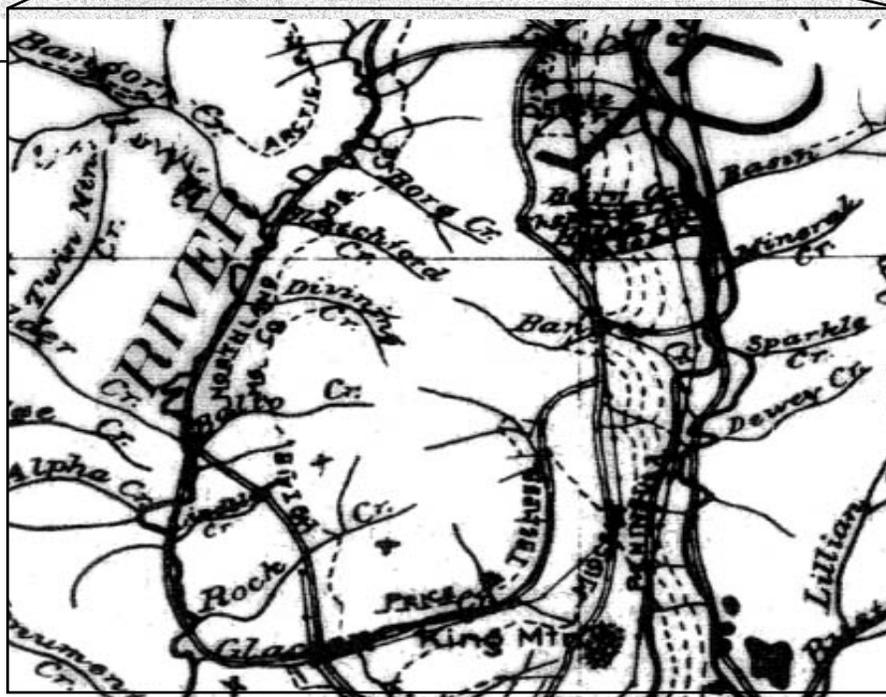
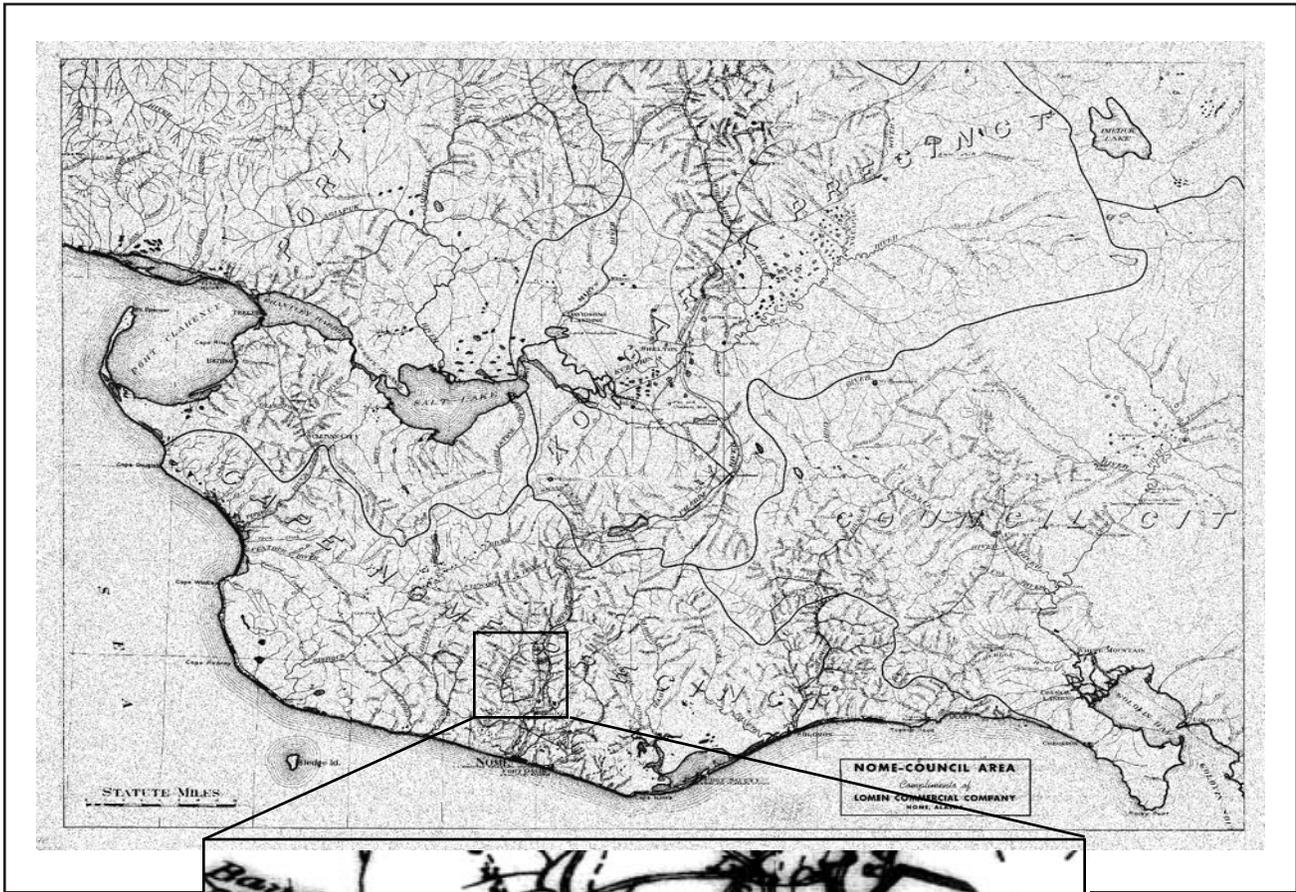


Figure 1. Overview of the Nome-Council area and the locations of Rock and Glacier Creeks, Seward Peninsula, Alaska (Lowmen Commercial Company, Nome, Alaska courtesy of Howard Smith of the Northern Field Office, Bureau of Land Management, Fairbanks). Note: The inset indicates the locations of the Hot Air Mining Company (NOM-096) and Price and Tremper (NOM-097) ditches.

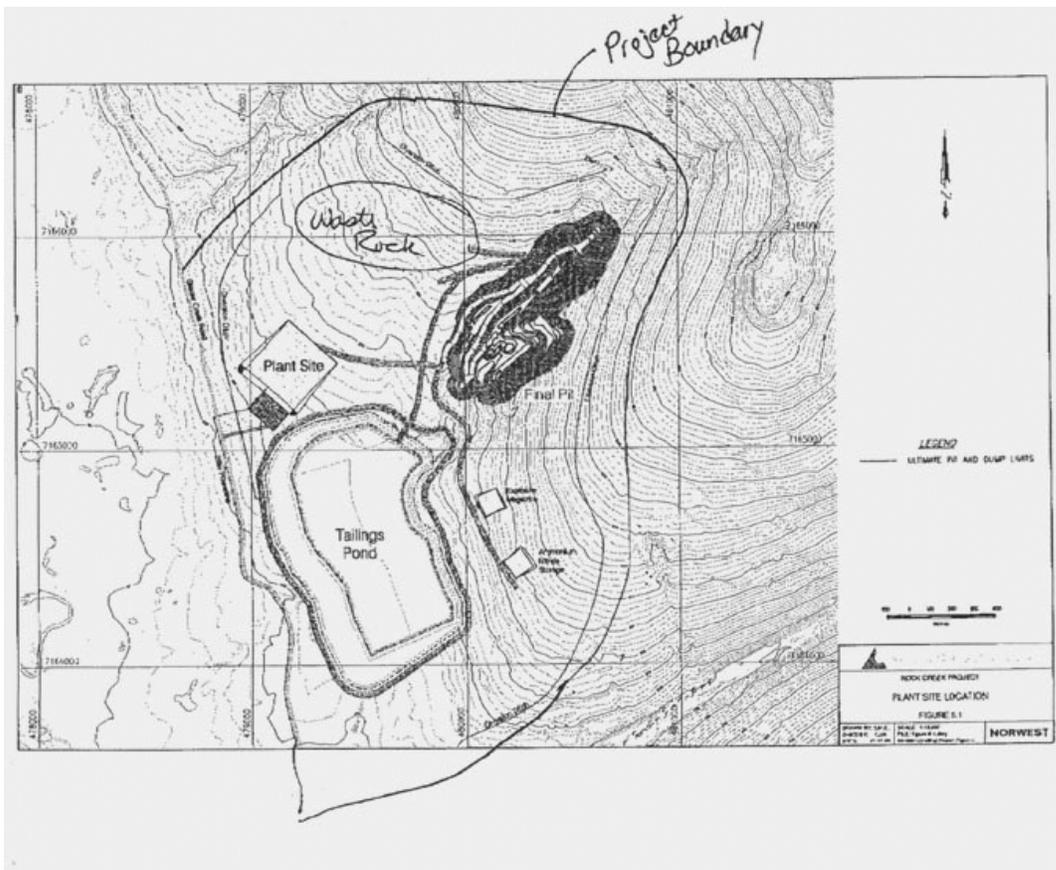


Figure 2. Project map indicating APE and proposed direct impact areas (provided by BEESC).

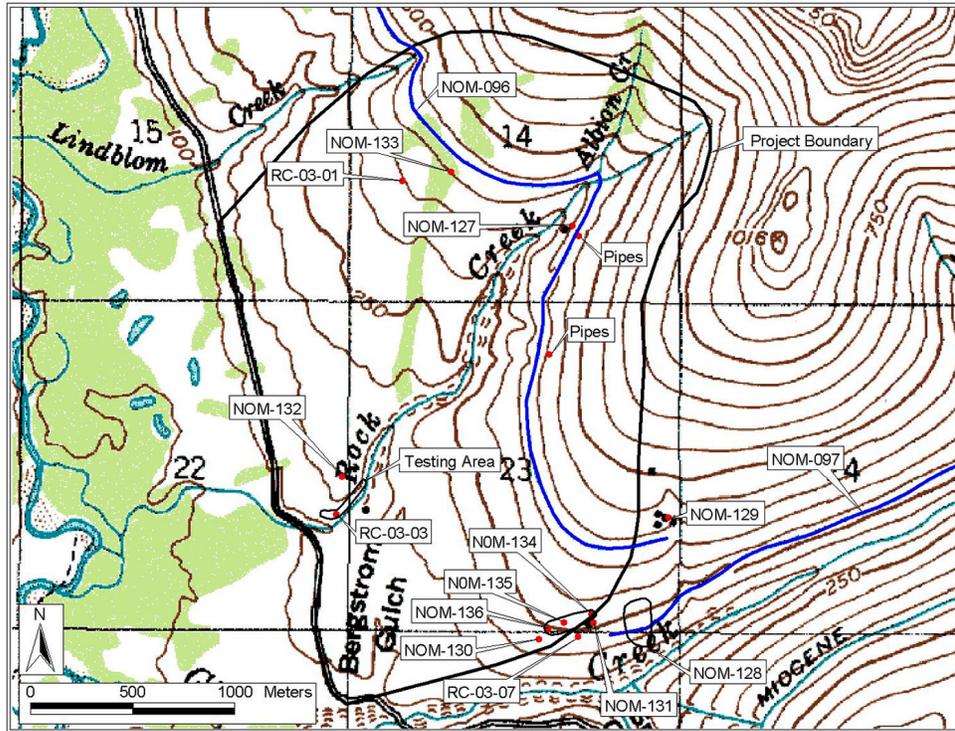


Figure 3. Map of the APE and cultural resources observed during the survey (USGS map Nome C-1).



Figure 4. Overview of APE, view N. Note: Tailing piles and disturbance of area around Rock Creek (NLUR Photo).



Figure 5. Low lying terrain along the western half of the APE. Note: Survey stake marking proposed tailings pond (NLUR Photo).



Figure 6. Terrace located on the northwest side of Rock Creek where test units were dug, view S (NLUR Photo).



Figure 7. Scattered remains of structure at NOM-127, view S (NLUR Photo). Note: Gravel berm in the left corner of picture indicating disturbance of remains by vehicles and blading of surface by heavy equipment.

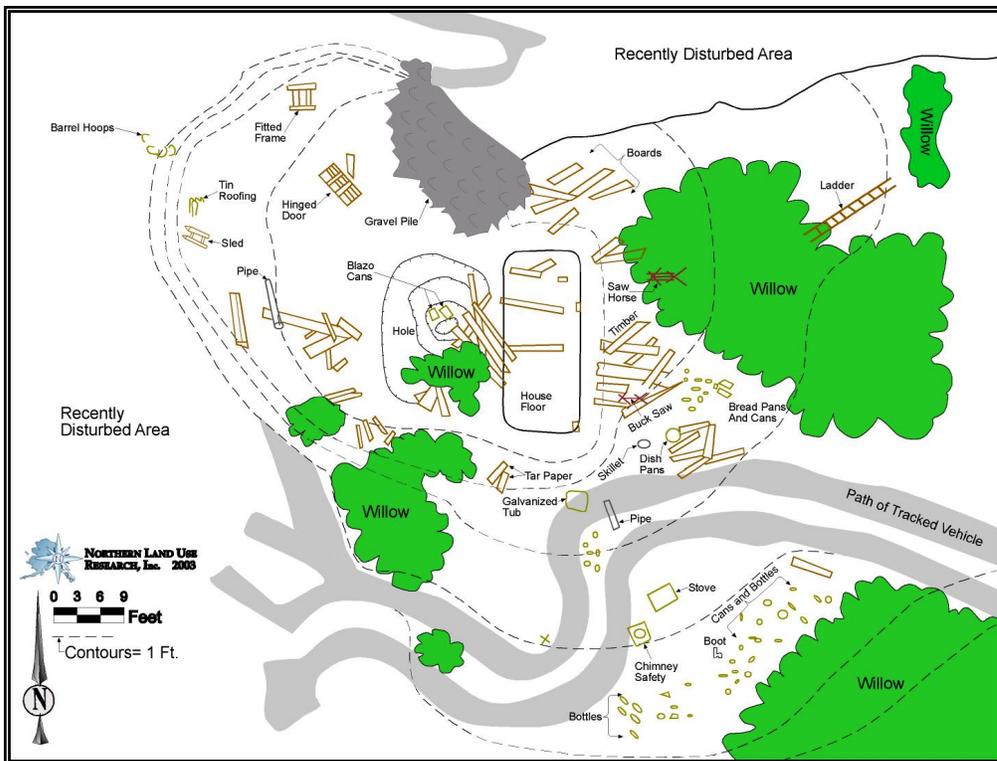


Figure 8. Sketch map of NOM-127.



Figure 9. Area surrounding NOM-127, view SW (NLUR Photo).



Figure 10. House floor at NOM-127, view S (NLUR Photo).



Figure 11. Trash pit at NOM-127, view NE (NLUR Photo).



Figure 12. Pipe (NOM-128) located above Glacier Creek, view S (NLUR Photo).



Figure 13. Larger wooden cabin at NOM-129, view SE (NLUR Photo).

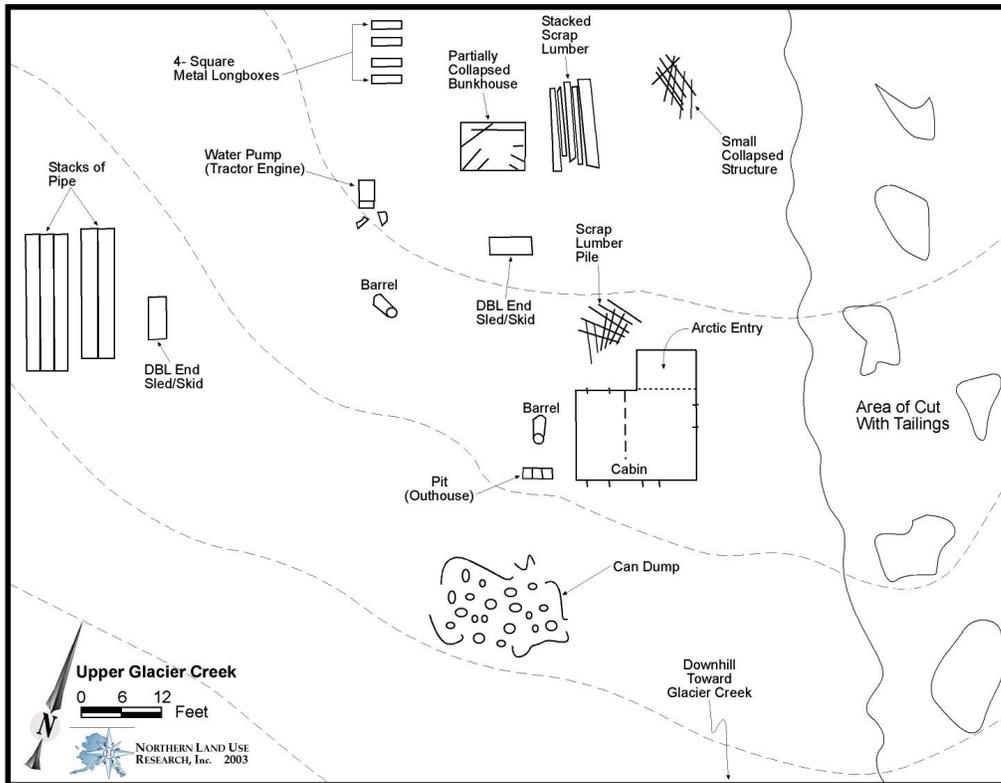


Figure 14. Sketch map of NOM-129.



Figure 15. Interior of E/W room in large wooden cabin at NOM-129, view W (NLUR Photo).



Figure 16. Bunkhouse at NOM-129, view SE (NLUR Photo).



Figure 17. Wooden sled at NOM-129, view N (NLUR Photo).



Figure 18. Can dump at NOM-129, view S (NLUR Photo).



Figure 19. Recent linear depression (NOM-130) located above Glacier Creek, view SE (NLUR Photo).



Figure 20. Collapsed wooden structure (NOM-131) located above the confluence of Glacier Creek and Snow Gulch, view SSE (NLUR Photo).



Figure 21. Debris pile located near NOM-131, view NW (NLUR Photo).



Figure 22. Possible prospect pit or depression (NOM-132) filled in with quartzite material (NLUR Photo).



Figure 23. Overview of the southern end of the Hot Air Mining Company ditch (NOM-096) above Glacier Creek, view NE (NLUR Photo).

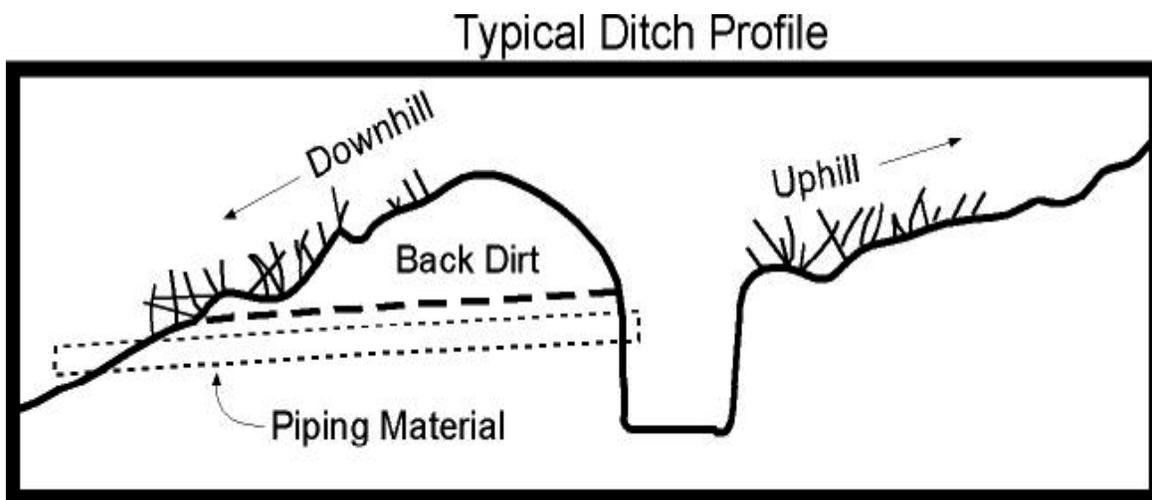


Figure 24. Generalized profile of the Hot Air Mining Company (NOM-096) and Price and Tremper (NOM-097) ditches.



Figure 25. Pipe used to supply water from ditch to mining area along NOM-096, view N (NLUR Photo).



Figure 26. Hot Air Mining Company ditch (NOM-096) in foreground and second ditch that parallels NOM-096 in background, view W (NLUR Photo). Note: Shallow ditch oriented down slope that connects to the second ditch, below NOM-096.



Figure 27. Price and Tremper ditch (NOM-097), view W (NLUR Photo).