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Date: 5/24/2005 12:35:18 PM
Subject: Emery IBC Cultural record search

Attached is the Class I Cultural Resource report for the IBC 1st North IBC area.

Please note that the Project Area as outlined on Figure 1 is larger that the actual IBC proposed permit boundary. Montgomery Archeological Consultants prepared the map based on Quarter/Quarter section descriptions. The actual Boundary submitted in the Amendment falls within the Project Area Boundary. Subsequently, site 42Em612 does not fall within the proposed IBC boundary, as can be seen on Plate I-1 (Surface and Coal Ownership).

If the map and report need to be changed to reflect this, please contact me ASAP.

<<05 Consolidation Coal (MOAC 05-177) CLASS I Review for First North IBC Report.pdf>>

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APPENDIX XII-3

CLASS I CULTURAL RESOURCE LITERATURE
REVIEW OF CONSOLIDATION COAL COMPANY'S
FIRST NORTH IBC EMERY MINE PROJECT
EMERY COUNTY, UTAH

APPENDIX XII-3

CLASS I CULTURAL RESOURCE LITERATURE REVIEW OF CONSOLIDATION COAL COMPANY'S FIRST NORTH IBC EMERY MINE PROJECT EMERY COUNTY, UTAH

By:

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Prepared For:

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MOAC Report No. 05-177

May 23, 2005

United States Department of Interior (FLPMA)
Permit No. 05-UT-60122

INTRODUCTION

In May, 2005, a Class 1 cultural resource study was conducted by Montgomery Archaeological Consultants (MOAC) for Consolidation Coal Company's First North IBC mine proposal. The Class I literature review is part of a document addressed to surface effects of underground coal mining activities beneath or adjacent to the Emery Deep Mine property in Emery County, Utah. The study was implemented at the request of Mr. John Gefferth, Environmental Engineer, Consolidation Coal Company. The Class I review is for the proposed project area is 600 acres on privately owned land.

DESCRIPTION OF THE PROJECT AREA

The study area is located approximately 3 miles southeast of the town of Emery in Emery County, Utah. Consolidation Coal Company's First North IBC mine proposal area is located in the following area: NE 1/4, SE 1/4 and SE 1/4, NW 1/4 of Section 22, T 22S, R 6E; W ½, SW 1/4 of Section 23, T 22S, R 6E; and the NE 1/4 of Section 27, T 22S, R 6E (Figure 1).

Environment

The study area lies along the western margin of Castle Valley, in the Wasatch Plateau Basin of the Range-Colorado Plateau Transition (Stokes 1986). Castle Valley is comprised of a series of broad, shallow canyons and flat-topped mesas. Sandstones and shales ranging in age from the Pennsylvanian through the Holocene predominate in this area. The primary formation is the Cretaceous Mancos Shale, which consists of a series of thick shale layers with thinner interbeds of sandstones. Many of the areas of higher relief are capped with Quarternary gravel sediments, while the lower areas such as valley bottoms are filled in with patches of Quaternary and recent alluvium. Situated within the Upper Sonoran lifezone, the primary vegetation communities are Pinyon-Juniper Woodland, Salt Desert Shrub, and Riparian. The elevation averages 6100 feet (1865 meters). The primary water source in the area is Cottonwood Creek which is also the largest stream in the Castle Valley area. In addition, Miller Creek flows just to the east and Christensen lies to the west of the project area.

Cultural Historical Background

Prehistoric occupation of the region spans the last 10,000-12,000 years. Cultural remains representing the Paleoindian, Archaic, Formative, Late Prehistoric and Historic stages have been identified near the study area. The earliest known archaeological remains in central Utah are attributable to the Paleoindian stage, which has been divided into three complexes: the Llano (ca. 11,500-11,000 B.P.), the Folsom (ca. 11,000-10,000 B.P.) and the Plano (ca. 10,500-7500 B.P.). To date, in Emery county, Paleoindian artifacts have been found as surface isolated finds or lithic scatters (Copeland and Fike 1988). Finds of extinct fauna are also reported from the region, the nearest is the Huntington Canyon Mammoth discovered in a reservoir in 1988 (Gillette 1989).

The Archaic stage (7800-500 B.P.) represented an adaptation to essential modern environments. Subsistence practices were increasingly intensive; large herd animals were less intensively exploited, and there was a greater emphasis upon smaller, more dispersed fauna and upon plant resources. Milling stones increased in frequency, and projectile points became smaller and more variable. Common projectile point forms include corner- and side-notched varieties and certain styles of stemmed point that probably tipped lances or darts (Holmer). Archaic components are fairly common in the region.

Sometime following 500-200 B.C., a Formative stage lifeway emerged on the northern Colorado Plateau. The Formative stage is characterized by reliance upon corn and squash, increasing sedentism, and in its later period, substantial habitation structures, pottery, and bow-and-arrow weapon technology. The study area is within the cultural area of the San Rafael Fremont, as defined by Marwitt (1970). This variant is characterized by circular, stone-lined or earthen pit dwellings, and clay-rimmed, flagstone paved firepits. One of the highest San Rafael Fremont site densities is in Castle Valley, especially along Ferron Creek and Muddy Creek tributaries (Black and Metcalf 1986). Sites in the area are characterized as isolated hamlets or single dwelling units, usually found on small ridges overlooking perennial water sources and arable land.

Following the Fremont abandonment of the area, a largely nomadic hunting and gathering lifeway resumed. This occupation is attributed to the Numic-speaking peoples, a diverse group that was present throughout much of Utah upon the arrival of Europeans in the 18th century. Historic records indicate that the Ute were the primary occupants of eastern Utah and western Colorado since the late eighteenth century. The archaeological evidence of the Numic-speaking peoples consists primarily of lithic scatters, low density ceramic scatters, and the occasional wickiup. Most of the artifact scatters are in open settings, although a small number are in rockshelters. Diagnostic artifacts include Desert Side-notched, tri-notched, and Cottonwood Triangular projectile points, a fairly crude micaceous tempered pottery and distinctive rock art (Jennings 1978).

The first settlers to homestead the study area arrived on Cottonwood Creek in 1877 who brought in sheep and cattle from the Sanpete area (Emery County Historical Society 1981:80). Most notable was Orange Seely, who in 1875 moved 1,500 head of sheep and 1,400 head of cattle through Upper Joe's Valley and down Cottonwood Creek (Geary 1996:51). Based upon Seely's reconnaissance of the area, Mormon Church leader Brigham Young called for permanent settlement of the area in 1877. Settlers such as the Curtises, Jensens and Millers began establishing homesteads along Cottonwood Creek engaged in herding sheep and cattle, and trapping (Ibid 66). In 1880 the Utah Territory Legislature created Emery County with Castle Dale designated as the county seat (Emery County Historical Society 1981:29). In a pattern typical of Castle Valley communities, most families in Castle Dale established homes in town after they had proved up on their homesteads (Geary 1996:95). By the census of 1895, Emery County boasted 4,390 residents, 533 of whom lived in Castle Dale, and 672 of whom were listed as residents of Orangeville (Emery County Historical Society 1981).

CLASS I METHODOLOGY

A record search for previous projects and cultural resources was conducted by Keith R. Montgomery (Principal Investigator) at the BLM Price Field Office on May 19, 2005. In order to provide an adequate review of the study area the entire Sections 22, 23 and 27 in Township 22 South, Range 6 East were researched for previous cultural resource projects and results. Record searches conducted by MOAC involved plotting project areas and sites onto 7.5 minute USGS maps. Lastly, topographic maps were generated in ArcView showing the project area with previous cultural resource inventories and site locations (Figure 1). The existing data review was performed on approximately 1920 acres, most of which is private land.

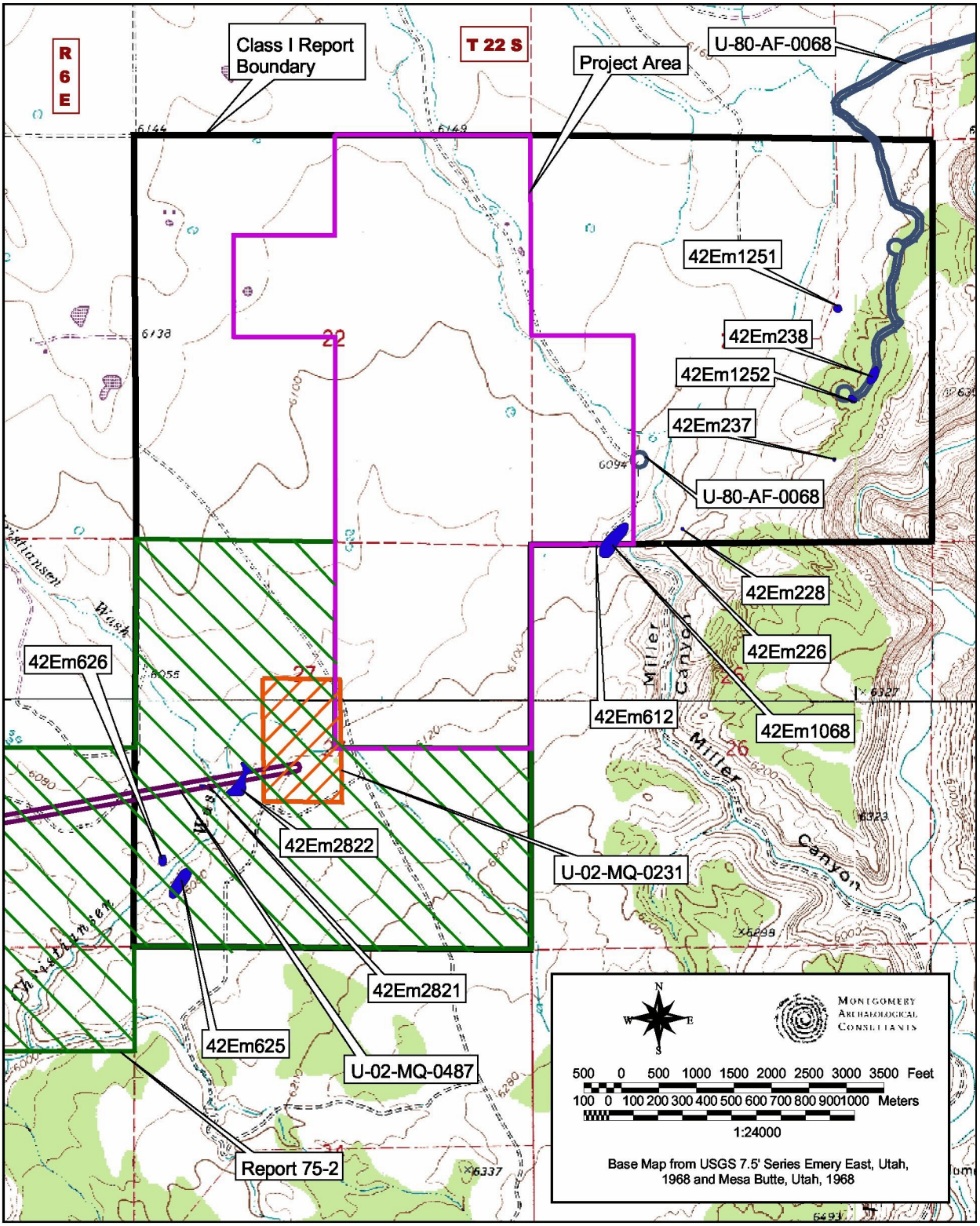

Figure 1. Class I Study Area (Green Border) and Consolidated Coal Company's Emery Mine Expansion Area (Pink Border) showing Previous Inventory Projects and Archaeological Sites.

DATA REVIEW RESULTS

The Class 1 data review of Consolidation Coal Company's First North IBC Emery Mine expansion project resulted in identification of four cultural resource inventories and 11 previously documented sites. All except one site, 42Em612/1068, occurs outside of the Emery Deep Mine property. Identified cultural resource inventories and archaeological sites are described in the following text and Table 1.

Cultural Resource Inventories and Archaeological Sites

In 1975, the Division of State History, Antiquities Section performed a cultural and paleontological inventory which included Section 27, T 22S, R 6E (Berry 1975; Project No. 75-2). Two prehistoric sites (42Em625 and 42Em626) were documented adjacent to Christensen Wash.

In 1980, Archeological-Environmental Research Corp. inventoried numerous drill locations and access routes for Consolidation Coal Company which included Section 23, T 22S, R 6E (Hauck 1980; Project No. U-80-AF-0068). Sites located in the current study area include 42Em1251 and 42Em1252.

In 2002, Montgomery Archaeological Consultants completed a survey for Consolidation Coal Company's Mine Portal Area in T 22S, R 6E, S. 27 which resulted in the documentation of four prehistoric isolated finds (Elkins and Montgomery 2002; Project No. U-02-MQ-0231).

In 2002, Montgomery Archaeological Consultants inventoried a power line for th Emery Mine for Consolidation Coal Company (Raney and Montgomery 2002; U-02-MQ-0487). Several sites (42Em2821 and 42Em2822) were documented in Section 27, T 22S, R 6E.

Table 1. Summary of Archaeological Sites in Study Area

Smithsonian Site Number	Project No.	Site Type	NRHP Eligibility	Legal Description
42Em226	NA	Lithic Scatter	Unevaluated	T22S R6E S. 23
42Em228	NA	Lithic Scatter	Unevaluated	T22S R6E S. 23
42Em237	NA	Lithic Scatter	Unevaluated	T22S R6E S. 23
42Em238	NA	Lithic Scatter	Unevaluated	T22S R6E S. 23
42Em612/ 42Em1068	U-80-AF-0068	Lithic Scatter	Not Eligible	T22S R6E S. 23 & 26
42Em625	75-2	Lithic Scatter	Unevaluated	T22S R6E S. 27
42Em626	75-2	Lithic Scatter	Unevaluated	T22S R6E S. 27
42Em1251	U-80-AF-0068	Lithic Scatter	Unevaluated	T22S R6E S. 23
42Em1252	U-80-AF-0068	Lithic Scatter	Eligible	T22S R6E S. 23
42Em2821	U-02-MQ-0487	Trash Scatter	Not Eligible	T22S R6E S. 27
42Em2822	U-02-MQ-0487	Lithic Scatter Historic Trash Scatter	Eligible	T22S R6E S. 27

CONCLUSION

This Class 1 literature review revealed that four cultural resource inventories for Consolidation Coal Company has been completed in the area resulting in the documentation of 11 documented archaeological sites. Only one of the sites, 42Em612/42Em1068, extends into the First North IBC Emery Mine expansion project area. The majority of the cultural resources in the general study area are prehistoric lithic scatters some of which exhibit temporal indicators (PaleoIndian, Fremont, and Numic). Sites documented in the 1970s and 1980s are unevaluated to the National Register of Historic Places (NRHP). Based on current NRHP assessments, most of these sites would be considered eligible to the NRHP under Criterion D because of their importance to the prehistoric research topics of the Northern Colorado Plateau. Prehistoric sites tend to cluster along the drainages in the area (Christensen Wash and Miller Canyon). In conclusion, it is predicted that similar site densities and site types would be found in the proposed First North IBC Emery Mine expansion area if cultural resource inventories were performed.

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