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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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March 15, 2007

TO: Internal File

THRU: Wayne Western, Team Lead *WFW*

FROM: Jerriann Ernstsens, Ph.D., Environmental Specialist, Biologist

RE: Dugout Canyon 40 Acre Extension, Canyon Fuel Company, LLC, Dugout Canyon Mine, C/007/0039, Task ID #2762 

SUMMARY:

The Division of Oil, Gas and Mining received the Application for the Dugout Canyon 40 Acre Extension. The proposed extension is located in Carbon County, Utah (7.5 Minute USGS Quadrangle map is Mt. Bartles). The proposed extension is located in T13S R13E NW1/4, Section 21 (SLBM). The Bureau of Land Management is the subsurface owner and a private title-holder is the surface owner. The proposed extension would not include any surface disturbance for facilities.

TECHNICAL ANALYSIS:

GENERAL CONTENTS

PERMIT APPLICATION FORMAT AND CONTENTS

Regulatory Reference: 30 CFR 777.11; R645-301-120.

Analysis:

The Application meets the requirements of R645-301-121.100 and R645-301-121.200 for the biology chapter and archeology section because the information is generally current, clear, and concise.

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The MRP includes many different volumes, including Chapter 3 and 4 Volumes and the following “stand-alone” documents (as of September 2005):

- “Dugout Canon Mine – Leach Field Addendum A-1” (LFA, March 2001)
- “Refuse Pile Amendment – Dugout Canyon Mine” (RPA, January 2003)
- “Methane Degasification Amendment” (MDA, 2003/2004).

The “stand-alone” volumes provide exclusive information, supporting documents, and maps for each proposed project. This proposed extension would be incorporated as part of the primary MRP Volumes Chapter 3 and 4 for biology and archaeology, respectively.

Findings:

Information provided in the plan meets the Permit Application Format and Contents in General Contents requirements of the regulations.

REPORTING OF TECHNICAL DATA

Regulatory Reference: 30 CFR 777.13; R645-301-130.

Analysis:

The MRP meets the requirements of R645-301-130 because qualified professionals conducted or directed the surveys and analysis for the supporting biological and archeological resource-related documents.

Findings:

Information provided in the plan meets the Reporting of Technical Data in General Contents requirements of the regulations.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

HISTORIC AND ARCHEOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.12; R645-301-411.

Analysis:

The Application meets the requirements of R645-301-411 pertaining to historic resources. The Application includes cultural inventories previously conducted for other projects, but included the proposed extension area (Senulis 2005 and 2006). The results show that there were no archeological sites observed within the areas surveyed and that were located in the proposed extension area. The entire proposed area is subject to subsidence, although the BLM and Division consider that the impact may be minimal because of the approximate 2,500-3000' of cover.

The Division considers that the proposed Dugout Canyon Extension would have "no adverse *effect*" on cultural resources because there have been no sites observed, there is a low potential of unknown sites that could be observed, the historic peoples did not prefer steep terrain such as the terrain within the proposed extension (Senulis 2004 commenting on an area adjacent to the proposed 40 acres), and there is a low potential for impacts caused by subsidence..

There is proof of "coordination effortsand clearances" from the SHPO for this extension (R645-301-4111.42). The Division submitted, to the SHPO, a finding of "no potential to cause effects" to historic resources within or adjacent to the extension area. The Permittee will submit a copy of the response letter to their Confidential Binder directly in front of the applicable archaeological report upon approval and request of clean copies.

Findings:

Information provided in the plan meets the minimum Environmental -Historic and Archeological Resource Information requirements of the regulations.

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Analysis:

The Application meets the requirements of R645-301-321 because there is adequate discussion of plant communities observed within the extension area.

The extension area would not include any facility or road related surface disturbances, therefore there is no need for a quantitative vegetation survey. Volume Chapter 3 Plate 3.1 illustrates that the community type for the extension area is a sagebrush community. This description on Plate 3.1 is in contrast to the description provided in other portions of the

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Application (Section 322, Senco-Phenix 2006). The Permittee provided a brief clarification of the vegetation communities to include communities other than just sage, and stated the general condition of the extension area as very poor. The area has been 80-100% logged or grazed. The spring area, in the far northwest corner of the 40 acres, is also in very poor condition due to grazing.

Findings:

Information provided in the plan meets the Environmental - Vegetation Resource Information requirements of the regulations.

FISH AND WILDLIFE RESOURCE INFORMATION_[Sheila Mo3]

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Analysis:

GENERAL WILDLIFE

The Application meets the requirements of R645-301-322 because the Application or MRP includes adequate or applicable narrative, supporting documentation, or maps on wildlife within or adjacent to the extension area.

The Permittee and BLM project that there would be minimal subsidence impacts to the surface. The agencies base their projection on the geology of the area and depth of the proposed mining.

Ungulates

DWR has designated the extension area as elk high value yearlong and deer critical summer range.

Raptors

The Permittee supports that the extension includes steeply sloped cliffs (refer to Volume Chap 3 Plates 3.2 and 6.1). This type of cliff habitat is considered critical raptor habitat that may be more susceptible to subsidence impacts than to more elastic geology that experiences a general ground-lowering effect.

The Permittee supports (meeting 2/1/07) that these cliff areas could be designated as habitat for raptors. The raptor survey reports for 2004, 2005, and 2006, however, showed that

there were no golden eagle nests within Section 21. Furthermore, that the closest nests included a red tail nest (#1454) and two raven nests (#424 and 1455), none of which were within the proposed extension area.

There are Douglas fir, mixed conifer or aspen communities at higher elevations that DWR considers as goshawks and northern saw whet owl habitat within or adjacent to the extension area.

Bats

The Division considers that the cliff habitat in the extension area may provide roosting/nesting habitat for bats and other cliff dwellers. The Application does not include additional information on bats.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL/PLANT SPECIES

The Application meets the requirements of R645-301-322 because the Application or MRP provides applicable and adequate discussion, supporting documentation, and maps on threatened, endangered, and sensitive (TES) species that could occur within or adjacent to the extension area.

The Carbon County TES list includes Graham Beardtongue, Uinta Basin hookless cactus, bonytail chub, Colorado pikeminnow, humpback chub, razorback sucker, Mexican spotted owl (MSO), black-footed ferret, bald eagle, and western yellow-billed cuckoo (candidate).

All supporting surveys (MRP) on TES plant and animal species show that there were no observations of threatened or endangered species in the areas surveyed.

DWR and Dr. Patrick Collins (Mt. Nebo Scientific) support that it is unlikely that there are animal or plant TE species within the extension area that could be impacted by this action. Dr. Collins projects that the USFS sensitive plant species – canyon sweet vetch may occur within the extension area. The Division considers that subsidence would not likely impact this species' population or habitat because of the type of subsidence (general ground-lowering; meeting 2/1/07) that may occur in their specific habitat type.

Findings:

Information provided in the plan meets the Environmental - Fish and Wildlife Resource Information requirements of the regulations.

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LAND-USE RESOURCE INFORMATION_[Sheila Mo4]

Regulatory Reference: 30 CFR 783.22; R645-301-411.

Analysis:

The Application meets the R645-301-411.100 requirements of the regulations because the Application or MRP narrative describes the land uses and capability of the land and maps (Plate 4-1) illustrate the land uses. Plate 4-1 illustrates that the extension area includes the Pace Canyon and Cow Canyon grazing allotments and that there is a jeep trail near the ridge of the plateau that transects the northeast corner of the proposed 40 acres.

Findings:

Information provided in the plan meets the minimum Environmental - Land-Use Resource Information requirements of the regulations.

MAPS, PLANS, AND CROSS SECTIONS OF RESOURCE INFORMATION

_[Sheila Mo5]

Regulatory Reference: 30 CFR 783.24, 783.25; R645-301-323, -301-411, -301-521, -301-622, -301-722, -301-731.

Analysis:

Archeological Site Maps _[Sheila Mo6]

The Application meets the requirements of R645-301-411.141 because there are archeological maps showing known resource locations within the proposed area.

Cultural Resource Maps

The Application meets the requirements of R645-301-411.141 because there are cultural maps showing known resource locations within the proposed area.

Findings:

Information provided in the plan meets the minimum Environmental - Maps, Plans, and Cross Section Resource Information requirements of the regulations.

OPERATION PLAN

PROTECTION OF PUBLIC PARKS AND HISTORIC PLACES [Sheila Mo8]

Regulatory Reference: 30 CFR784.17; R645-301-411.

Analysis:

There are no known public parks or historic places within the proposed area.

Findings:

Information provided in the plan meets the minimum Operations - Protection of Public Parks and Historic Places requirements of the regulations.

FISH AND WILDLIFE INFORMATION

Regulatory Reference: 30 CFR Sec. 784.21, 817.97; R645-301-322, -301-333, -301-342, -301-358.

Analysis:

The Application meets the requirements of R645-301-333, R645-301-342, or R645-301-358 because it provides information on TES or discussion concerning protection and enhancement plans.

Ungulates

The Division considers that because there would be a low probability of significant subsidence-related impacts at the surface (i.e., ungulate-type habitat), there is little likelihood this action would impact elk or deer populations in the area or their habitat (elk high value yearlong and deer critical summer range).

Raptors

The raptor survey reports for 2004, 2005, and 2006 showed that there were no raptor nests within Section 21. The Division considers that because there are no cliffs currently supporting raptor nest within the extension area, there is little need for a specific protection or mitigation plan for this Application at this time.

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There is notable habitat for goshawks and northern saw whet owl within or adjacent to the extension area. The Division considers that because there would be a low probability of significant subsidence-related impacts on their types of habitat, there is little likelihood this action would impact these two raptor species.

Bats

The Division considers that the cliff habitat may also provide roosting/nesting habitat for bats and other cliff dwellers. The Permittee commits to conducting bat surveys along with raptor surveys in cliff habitat before subsidence (Volume Chap 3 pg 3-21). For this 40 acre extension, the Permittee addressed this commitment and analyzed the need for a survey based on possible subsidence as well as bat occurrence, available water resources and other foraging requirements for bats.

The Division, in consultation with DWR, considers that there is a very low potential that bats or their habitat would be impacted by this action. The cliff habitat in the area is not significant (Vicky Miller personal contact 2/20/07) and subsidence would not be significant enough to impact the bat population in the area (DWR personal contact 3/6/07). Subsidence would not impact water resources that could be considered as bat habitat.

Endangered and Threatened Species[Sheila Mo10]

The Division will not Consult with USFWS for this 40 acre extension because there is no supporting data to suggest the presence of TE or their appropriate habitat, and because there is no surface disturbance for facilities. Furthermore, there are no significant changes in operations that could change the current water consumption calculations. The Division, however, will be issuing a new set of guidelines that the Permittee must address for the pending 600 acres.

Findings:

Information provided in the plan meets the minimum Operations - Fish and Wildlife Information requirements of the regulations.

VEGETATION[Sheila Mo11]

Regulatory Reference: R645-301-330, -301-331, -301-332.

Analysis:

The Application meets the requirements of R645-301-330, R645-301-331, and R645-301-332 because the Permittee will disturb the smallest area as possible for facilities, apply interim or contemporaneous reclamation when applicable, and mitigate for subsidence-related impacts.

The MRP states in Sections 322.200 (Volume Chapter 3 p. 3-22) and 525 that the Permittee will ground-survey certain areas of the permit area for subsidence and will repair any damage. If there were any impacts observed from coal mining operations such as subsidence that warrants revegetating, Plate 3.1 (Volume Chapter 3), a general description of vegetation communities and condition of the extension area, as well as, the NRCS soil data would provide adequate information to design a mitigation plan.

Findings:

Information provided in the plan meets the minimum Operations - Vegetation requirements of the regulations.

RECOMMENDATIONS:

Approve the amendment. The Permittee will submit a copy of the SHPO response letter to their Confidential Binder directly in front of the applicable archaeological report upon approval and request of clean copies.