

June 9, 2004

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TO: Internal File

THRU: Peter H. Hess, Environmental Scientist III/Engineering, Team Lead *PHH Ryan*

FROM: Jerriann Ernstsens, Ph.D., Environmental Scientist/Biology *Je*

RE: Coal Exploration for Seam Thickness and Quality, Canyon Fuel Company, LLC.,  
Dugout Mine, C/007/039, Task #1916

**SUMMARY:**

The Division received the Notice of Intention that addresses the minor coal exploration drilling of three holes on February 9, 2004. The TA for the first review went out deficient. This memo covers the second review of the biology and archeology sections of the Notice received April 2004.

The Permittee originally planned to rotary spot and wireline core-drill DUGO104 in 2004, and DUGO105 and DUGO205 in 2005. The current Notice no longer mentions the 2005 drilling project for DUGO105 and DUGO205 drill holes. The Permittee plans to drill the previously scheduled DUGO104 and a newly planned hole DUGO204 in 2004.

**EXPLORATION TECHNICAL ANALYSIS:****COMPLIANCE DUTIES**

Regulatory Reference: 30 CFR 772.13; R645-202.

**OPERATIONAL STANDARDS**

Regulatory Reference: 30 CFR 772.13; R645-202-100.

**EXPLORATION TECHNICAL MEMO**

**Analysis:**

The Permittee originally planned to rotary spot and wireline core-drill DUGO104 in 2004, and DUGO105 and DUGO205 in 2005. The current Notice no longer mentions the 2005 drilling project for DUGO105 and DUGO205 drill holes.

The current plan is to rotary spot and wireline core-drill two holes during the second week of June 2004:

DUGO104	T13S R13E Sec. 20 (Western edge of the SDCT)	0.25-acre disturbance, mostly on existing access road
DUGO204	T13S R13E Sec. 19 (Eastern edge of the current permit boundary)	0.25-acre disturbance, mostly on existing access road

The operator will reach the two drill hole sites from existing unimproved roads. Access road to DUGO104 is 1,400 x 14 feet to the drilling pad. The drill pads for DUGO104 and DUGO204 are on wide areas of existing roads. The Permittee plans to improve the roads leading to these sites by grading or applying gravel if necessary.

The "water locations" (point of water diversions for drilling) for both drill sites are at the diversion locations. These diversions are from northern tributaries of the Pace Creek. The Permittee provides an Application for Temporary Change of Water that is active from August 1, 2003 through August 6, 2004. This permit authorizes the diversion of 2.5-acre feet of water for drilling and dust control.

The dimensions of the disturbances are 100' x 100'.

**Cultural**

Appendix B (Confidential Files) contains information from the most recent overview and cultural resource survey.

- John A. Senulis, Senco Phenix May 24, 2004 An Intensive Cultural Resource Survey and Inventory of the 2004 Dugout Canyon Mine Exploration Drill Holes and Access Roads.
  - o Permit number: U04SC440p
  - o Location: USGS Quads - Pine Canyon (T12S R12E) and Mount Bartles (T12S R13E)
  - o Methods:
    - Class III field survey for DUGO104 (400 x 400' area) and access road along with 30' right of way.
    - File search for DUGO204 (as well as DUGO304 and G-6 [degas borehole]). No field survey because they are within previous cultural resource survey areas.

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- o Findings:
  - Field survey: No cultural sites within the DUGO104 drill site and access road.
  - File search:
    - 1980, AERC: 42CB292
    - 2001, Senco-Phenix
      - 42CB292:
        - Snow mine.
        - Near border of SITLA permit boundary.
        - No longer recommended as eligible.
        - Site destroyed over time.
      - 42CB1595:
        - Cabin.
        - Near border of SITLA permit boundary.
        - Not recommended as eligible.
      - 42CB1596:
        - Corral and Aspen art site.
        - Not within SITLA permit boundary.
        - Not recommended as eligible.
    - 2003a, Senco-Phenix
      - 42CB1906:
        - Sawmill.
        - Not within SITLA permit boundary.
        - Not recommended as eligible.
      - 2003b, Senco-Phenix
        - 42CB1998:
          - Sawmill.
          - Near border of SITLA permit boundary.
          - Not recommended as eligible
  - o Recommendation:
    - Potential for undetected remains is remote because site is very steep.
    - No effect is appropriate and archeological clearance without stipulations is recommended.
  - o SHPO communications: Contractor provides UTAH SHPO cover sheet and sent information to SHPO.
  - o DOGM: The Division will consult with SHPO prior to approval of the SITLA mine plan. Regulations do not require communications with SHPO for exploration projects.

Sites DUGO304 and G-6 were not mentioned in the narrative of the application, but DUGO304 was marked on Map 2 of the electronic version of the April 29, 2004 submittal and both sites were mentioned in a letter to Mr. Thayn (landowner) on March 10, 2004.

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- John A. Senulis, Senco Phenix April 20, 2004 Letter to Mr. Kenny Wintch SITLA Archeologist. This letter provides the results from the file search summarized above. Mr. Senulis provides the same recommendation as the May 2004 submittal.

The Permittee agrees to notify the Division if cultural or historic sites are discovered during operations or reclamation.

### **Biology**

The Division has concerns for elk and deer populations, as well as, streambank habitat. The wildlife map (Plate 3-2, 2004) shows the drill hole sites are within elk high-value yearlong and deer critical summer ranges. DWR is primarily concerned with the deer critical summer range. The Permittee originally planned to drill in the third week of July 2004/2005, which follows the calving exclusionary period (May 15 through July 5). The Division believed that the exploration project as originally proposed would not impact these ungulate populations because of the project time schedule.

The current submittal changed the drill hole pattern as well as the project time schedule. The current schedule is to drill the second week of June in 2004. This time schedule is within the exclusionary period for calving. The Division contacted DWR (personal communications; June 8, 2004) to discuss the timing change for the drilling project.

Tony Wright (DWR; June 8, 2004) stated that the exclusionary period was contested by the Permittee. DWR reevaluated the site and determined that the area around the drill hole sites had been heavily logged since DWR had mapped the wildlife habitat for that area. DWR decided to waive the exclusionary period for the mule deer calving for the drill hole project (DUGO104 and DUGO204) for this year.

The drill hole sites DUGO104 and DUGO204 are approximately 1500' and 2000' from Pace Creek, respectively (Plate 7-1 in MRP). DUGO104 and DUGO204 are in unnamed drainages approximately 1000-3000' and 250-1500' below spring clusters near monitoring stations SC-116 and SC-259. The dimensions of the disturbances are 100' x 100' and are basically centered on the existing access roads. The Division believes that the exploration project will not impact the habitats of the springs or drainages.

The Division was concerned about raptor exclusionary periods and survey coverage of the area during the previous review for this project. Tony Wright (DWR, personal communications on June 8, 2004) stated that DWR flew over the SITLA lease area in 2004 and thought they flew over sections 17 and 20 as requested by the Division. Mr. Wright also stated that Chris Colt (DWR, participant on the Dugout flyover) had not observed nesting raptors near the exploration sites. DWR waived the raptor exclusionary period (approximately January 1 through August 31) at this time. Statements of coverage and nesting were both made without

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completion of data analysis for the 2004 flyover. DWR, however, does not expect deviations from these answers once they complete data analysis.

Tony Wright evaluated the site for potential Goshawk habitat (personal communications June 8, 2004). Logging has compromised dense canopy habitat, which is required by Goshawks. If the area were suitable, then a ground survey would have been required.

There is no survey for threatened, endangered, or sensitive (TES) species for the drill sites or SITLA lease area. The Notice mentions that the bald eagle is the only TES species likely to exist within the exploration area. The eagles may use the area, but normally during winter months and not during this scheduled project. The Permittee does not include the MSO as one of the TES species likely to occur in the area. The MSO models, however, show that the SITLA lease area is potential MSO habitat. The table on page 6 references a MSO survey conducted for the Methane Degassification Amendment (August 2003; Appendix 3-2). The Permittee should realize that this survey did not include the drill hole sites planned for this project.

The Permittee plans to conduct a calling survey in 2004 and 2005. The Division does not require this survey for the proposed drilling project because the drill pads are basically located on existing roads. The Division advises, for the SITLA permitting process, the Permittee to conduct a site-specific analysis using the 1997 and 2000 models and, depending on the results, ground-truth for habitat in areas of surface disturbance and potential subsidence and subsidence-related impacts.

The Division does not expect this drill project to impact TES species because disturbance is on existing access roads. The Permittee is not required to include a description of the measures that will protect TES species and their habitats for this proposed project.

The Division requested the Permittee to address possible adverse impacts to the four Colorado River endangered fish species: the Colorado pikeminnow, the humpback chub, the bonytail chub, and the razorback sucker. The Permittee estimated water consumption, using the Windy Gap Process as a model, for the drilling project as zero. The Application for Temporary Change of Water, however, authorizes the diversion of 2.5-acre feet of water for drilling and dust control. Furthermore, the application states that the drilling process will use 500,000 gallons of water. The Permittee should recognize that zero is not an accurate estimate of water consumption for this project. The volume of water diverted from the area is minimal, however, and the Division does not foresee impact to the endangered fish and does not recommend mitigation at this time.

**Findings:**

The Division considers the information adequate to meet the minimum requirements of the Biology section of the Operational Standards regulations. The Division reminds the

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Permittee to address TES evaluations (including MSO), water consumption *calculations (must include all Dugout operations)*, and subsidence impacts to wildlife and habitat for the SILTA lease proposal.

**RECLAMATION STANDARDS**

Regulatory Reference: 30 CFR 772.13; R645-202-200.

**Analysis:**

**Revegetation**

The Permittee plans to immediately seed the outside slopes of road berms adjacent to each of the drill sites. Reclamation will begin approximately eight weeks following the start of the drilling projects. The August seeding schedule will occur in late summer, which may decrease the potential of success. The goal of seeding the berms is to stabilize the sites by seeding with a diverse species mix that has a similar seasonal variety as the neighboring environment. It appears that the fill slope area near the stream at DUGO104 would also benefit from seeding. The amount of seed needed to stabilize this site is minimal. The Division would commend the Permittee for good stewardship if they seeded this area during reclamation.

The vegetation map (Plate 3-1, 2004) shows that the drill hole sites are in mixed conifer (DUGO104) and deciduous streambank (DUGO204) plant communities. There is no vegetation survey for the drill sites. The Richardson vegetation survey (1980; Appendix 3-1), however, details primary plant species found in communities similar to those within the drilling project.

The seed mix contains nine native species – two are mentioned in the Richardson survey. The species and planting rates are the following:

<b>Species</b>	<b>PLS/sq.ft.</b>
Kentucky bluegrass	16
Mountain brome	3
Sandberg bluegrass	25
Bluebunch wheatgrass	12
Bottlebrush squirreltail	4
Mountain lupine	1
Rocky Mountain penstemon	11
Wyoming big sage	29
Snowberry	5
<b>TOTAL</b>	<b>106</b>

**Findings:**

The Division considers the information adequate to meet the minimum requirements of the Revegetation section of the Reclamation Standards regulations.

**RECOMMENDATIONS:**

The Division would commend the Permittee for good stewardship if they seeded fill slope area near the stream at DUGO104 during reclamation.

Approve the April 29, 2004 Notice along with the May 26,2004 supplemental information.