



State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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**DIVISION OF OIL GAS & MINING
FIELD VISIT FORM
TECHNICAL**

Date: August 15, 1996

Time: 1:00 to 4:00 P.M.

Mine: B Canyon

File Number: ACT/007/007, Folder #2

DOGM Staff: Paul Baker

Other Attendees: None

Purpose: To get a general overview of the B (or C) Canyon area

Observations: Despite the name, the biggest part of the disturbance would be in C Canyon. Only part of the road would be in lower B Canyon.

My feeling was the canyon is probably fairly typical of smaller canyons in the Book Cliffs. The drainages are both ephemeral (except that they may be considered intermittent by regulatory standard). The canyon sides are very steep with about 2h or 1.5h:1v slopes. Except near the coal outcrop, I found little shale; nearly all the rocks were sandstone. For this reason, I would expect the soils to have more sand and less clay than in some areas.

There is not much sign of past disturbance. In C Canyon, there are two places where the coal seam would be accessed. One is in the main canyon, and the other is in a fork that comes in from the left. In this left fork, the road goes nearly to the outcrop. I did not walk the road in the main canyon, but the map shows it ending about 2500 feet before the outcrop. At the outcrop in the left fork, it looks like someone may have used hand tools to uncover two small sections of the seam, but I don't think a backhoe or similar equipment could have gained access to the site.

There has been little rain in the area this summer, and the plants show definite signs of being water stressed. Most have not set seed which can make identification more difficult.

At the outcrop in the left fork, there is some cheatgrass which indicates past disturbance. Along the road and in some places in the channel, there are several patches of dogbane (*Apocynum cannabinum*). Although this is a native species that commonly grows in stream channels, it also tends to grow in disturbed areas like a weed and is thus indicative of



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disturbance. It is poisonous to livestock.

In one location along the road, I found some intermediate wheatgrass and Russian wild rye. Since I found these nowhere else, I'm sure these species were seeded.

I found canyon sweetvetch all along the channels from about 6500 feet to the outcrop at 7100 feet. I have been told this species doesn't grow at very high elevations, but it was in Douglas fir, mountain lover, and rocky mountain maple at the outcrop. I have never seen as much of this species as I saw in C Canyon. It was literally everywhere near channels and washes. In one place, there was a thirty-foot tall bank, and canyon sweetvetch was growing clear to the top.

I was impressed that Utah serviceberry and birchleaf mountain mahogany grew on the banks of the ephemeral channels much like willows along a perennial or intermittent channel. Their branches overhung the channel almost continuously in some places.

Sandberg bluegrass was the dominant grass in the upland areas. I believe there was also some mutton grass. Other grasses included Indian ricegrass and Salina wild rye. (I'm not certain of the identification of this last species.)

Other shrubs I found were rabbitbrush and cliffrose at the lower elevations especially near the channel; both basin and black sage at lower elevations; numerous small and a few very large curlleaf mountain mahogany; a patch of Wood's rose; a few scattered elderberries; and mountain lover in the understory of Douglas fir at higher elevations. Trees included Douglas fir and Rocky Mountain maple at higher elevations and pinyon and juniper below. There were no areas dominated by sagebrush; everything was high enough for pinyon-juniper.

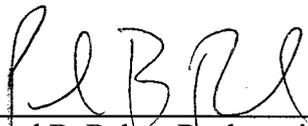
The dominant forb in most places was hairy goldenaster (*Heterotheca villosa*). Others included canyon sweetvetch, northern sweetvetch, rock goldenrod (*Petrorhiza pumila*), a penstemon (probably *P. palmeri*), Canadian goldenrod, blueleaf aster (not too prevalent), and dogbane near disturbed areas especially along the channel. There was another plant that may have been an *Astragalus*, but I wasn't certain.

The reference area shown on Map S5-25 is on a very steep and rocky slope with pinyon juniper and sparse understory. Most of the areas that would be disturbed according to the previous plan would be in areas with much less steep slopes. They also have a lot more understory. I would have to see a more definite proposal before allowing or not allowing a particular reference area, but I felt this one would probably not be comparable to the area proposed to be disturbed in the plan the Division has on file..

Overall, I thought the vegetation composition was good. I would like to see a little less pinyon and juniper, but most other species, particularly the grasses, are desirable. While the channel shows some signs of erosion, I felt it was not excessive and that the channel was reasonably stable.

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Recommendations/Conclusions: The Division will have to wait until it has a proposal to mine the area before making final judgments about whether the reference area is appropriate and about what design criteria can be used. Canyon sweetvetch is common in the canyon, and any proposal will need to include a mitigation plan.

Signature:  on August 16, 1996
Paul B. Baker, Reclamation Biologist

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