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

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

DIVISION OF OIL GAS & MINING
FIELD VISIT FORM
TECHNICAL

Date: July 9, 1996

Time: 9:30 - 10:30 A.M.

Mine: Castle Gate

File Number: ACT/007/004, Folder #2

DOGM Staff: Paul Baker and Mike Suflita

Other Attendees: Johnny Pappas and Ben Grimes (Amax and Cyprus) and Patrick Collins (Mt. Nebo Scientific)

Purpose: To evaluate vegetation growing on the pad near the propane tanks in Crandall Canyon. Amax has proposed using the material on the upper pad as substitute topsoil material. In tests on this soil, it did not appear it had physical or chemical characteristics that would limit its use. However, it did not appear there was as much vegetation growing on the pad as expected for the type of soil and climate.

Mr. Suflita's primary objective was to look at work being done to clean sediment and other debris from the main channel and some of the culverts. The results of this work are discussed in his field visit memo and in my July inspection report.

Observations: Dr. Collins and I estimated there was about 35-40% vegetative cover on the pad. The revegetation reference area has about 50% vegetative cover. On the pad, there was little cover from grasses. Nearly all of the cover was from hairy goldenaster (*Heterotheca villosa*), curlleaf mountain mahogany, green rabbitbrush, and sagebrush. Grasses we found on the pad or in nearby areas include slender wheatgrass, thickspike wheatgrass, western wheatgrass, smooth brome, Basin wild rye, Russian wild rye, and crested wheatgrass.

There were a few areas where it looked like someone had ripped or gouged small areas and planted smooth brome. My impression was that the smooth brome was growing very well and would likely exclude other species if it was planted in a mix.

It looked like the pad had had gravel placed on the surface. None of us knew details of the history of the area and how much it was used for parking or storing equipment, but it looked like the surface was probably very compacted. We also didn't know if the area had ever been

seeded or if the plants were all (except for the smooth brome) volunteers.

Recommendations/Conclusions: We decided the best thing to do to test whether the substitute topsoil would serve as a suitable growth medium was to try loosening the soil by ripping or gouging it then planting some grasses and shrubs. Dr. Collins suggested planting all grasses in one area and grasses and shrubs in another. Mr. Grimes asked me to recommend a seed mixture which I have done. We all felt the problems with the amount of vegetation were because of the rocks on the surface and compaction. We believe loosening the soil and planting should result in a more diverse mixture of species with more cover.

Signature: _____ on August 6, 1996

Paul B. Baker, Reclamation Biologist

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