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STATE OF UTAH
NATURAL RESOURCES
Oil, Gas & Mining

file INA/015/002
Norman H. Bangerter, Governor
Dee C. Hansen, Executive Director
Dianne R. Nielson, Ph.D., Division Director

355 W. North Temple • 3 Triad Center • Suite 350 • Salt Lake City, UT 84180-1203 • 801-538-5340

December 14, 1987

TO: John Whitehead, Permit Supervisor
FROM: Brent A. Stettler, Reclamation Biologist *BS*
RE: October 1987 Shrub Density Survey at the Reclaimed
J.B. King Mine, Western States Minerals Corporation,
INA/015/002, Emery County, Utah

I was asked to ascertain what revegetation monitoring was required by the approved mine plan, and assess if the study complied with approved commitments.

The J.B. King Revegetation Plan, general requirements, UMC 784.13, states: ". . . species composition, frequency and plant densities will be monitored during the first growing season after planting." It is further stated: "Woody plant densities will be monitored during the first, third and fifth years following initiation of reclamation."

The report, submitted to Western States Minerals Corporation by Reclamation Projects, Inc., meets these commitments, except that the sampling actually took place during the second growing season after planting, instead of during year one--the first growing season after planting. Other than the delay of one year, sampling methods were in compliance with the approved mine plan.

I called Thomas L. Hughes, Environmental Coordinator of Western States Minerals Corporation, and asked about the apparent confusion in the vegetation sampling schedule. Mr. Hughes described the 1987 shrub density sampling as a "catch up" effort which should have taken place in 1986.

I asked Mr. Hughes about future monitoring of vegetative cover and woody plant densities. The permit declares: "Vegetative cover (total and by species) will be monitored on all revegetated areas during the third and fifth

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years after planting. Woody plant densities will be monitored during the first, third and fifth years following initiation of reclamation." Mr. Hughes replied that vegetative cover and woody plant density sampling would be conducted in 1988, in keeping with the approved monitoring schedule.

It may be of interest to note that J.B. King's approved shrub density standard of 500 stems per acre has been exceeded by a factor of four. However, the approved diversity standard states that: ". . . no one shrub species will exceed 50 percent relative density." Fourwing saltbush (Atriplex canescens) approaches 70 percent relative density which is of course contrary to the diversity standard.

djh
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