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**KAISER
COAL**

KAISER COAL CORPORATION
Sunnyside Coal Mines
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ACE/007/007
#2

June 18, 1985

RECEIVED

JUN 20 1985

**DIVISION OF OIL
GAS & MINING**

Mr. Steve Cox
State of Utah Natural Resources
Division of Oil, Gas, and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203

Dear Steve:

Re: Vegetation sampling methodology for collecting
baseline data on the proposed C Canyon and Horse
Canyon Mines, Kaiser Coal Corporation

This letter is in response to the conversations I held with you on May 1 and June 17, 1985, concerning the vegetation sampling methods that will be used for the baseline data collection program for the C Canyon and Horse Canyon Mines. This letter also serves as a confirmation of the vegetation sampling programs and methods for these two proposed mines. These data will be collected for these two mines beginning June 10, 1985, utilizing the same methods. Data parameters that will be collected are as follows: cover for all species, density for trees and shrubs, basal diameter for trees only. Per our conversation on May 1, 1985, production data will not be collected on the baseline. However, productivity will be estimated for the reference areas only by the Soil Conservation Service once these reference areas have been delineated and approved by the Division of Oil, Gas, and Mining.

Cover data will be collected using a modified point intercept method in all vegetation types. This method is basically the same as the point frame. A 50-meter line is randomly located within a given vegetation type, and a camera tripod is placed along the line at one-meter intervals. A piece of PVC pipe is vertically mounted on the tripod. Cover is determined by sighting through this piece of PVC pipe in which cross hairs are fixed. The intersection of the cross hairs determines the hit; i.e., vegetation species, rock, bare ground, or litter. An adequate number of samples will be taken within each vegetation type to be disturbed, or a maximum of 50 transects per type will be taken. Density of the shrub and tree species will be obtained using the same methodology as that used for the Sunnyside Mine Permit; i.e., the Lindsey elbow. This method entails using a 30 X 3 meter plot located at right angles to one another. All trees and shrubs are counted within these plots and are delineated according to species and adult or seedling. Seedlings are defined as individuals less than seven inches high. An adequate number of samples will be taken within each vegetation type, or a maximum of fifty Lindsey elbows will be observed.

Mr. Steve Cox
June 18, 1985
Page 2

Basal diameter will be obtained for each tree adult (over 7 inches in height) within the Lindsey elbow. As directed by the Utah Guidelines, no adequacy levels will be met for this parameter.

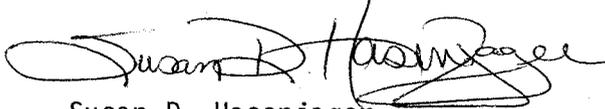
It should be noted that the vegetation types for these two mine properties are either forest or shrub types. Consequently, the 80% confidence with a 10% change in the mean standard will be used to determine sample adequacy for all of the vegetation types.

All other aspects of the vegetation programs will be conducted according to procedures outlined in the Guidelines. The other aspects include mapping, reference area determination, etc.

Thank you for all of your help concerning these programs. I am sorry that you will be leaving the Division but wish you the best of luck in your new endeavors.

Sincerely,

KAISER COAL CORPORATION

A handwritten signature in cursive script, appearing to read "Susan D. Hasenjager". The signature is written in dark ink and is positioned above the typed name.

Susan D. Hasenjager
Permitting/Environmental
Consultant

SDH:th