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DIVISION OF WILDLIFE RESOURCES

DOUGLAS F. DAY
Director

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Reply To SOUTHEASTERN REGIONAL OFFICE
455 West Railroad Avenue, Box 840, Price, Utah 84501
(801) 637-3310

November 29, 1979

RECEIVED
DEC 10 1979
DIVISION OF
OIL, GAS & MINING

Mr. John C. Osmond, President
Eureka Energy Company
215 Market Street, Room 258
San Francisco, CA 94106

ATTENTION: Bob Goudge

Dear Mr. Osmond:

It has come to my attention that Utah's Division of Oil, Gas and Mining has directed your company to secure data relative to intensity of mule deer use of winter ranges at the Sage Point-Dugout Canyon project.

For your information, the 1978-79 winter was the most severe recorded for the geographic area that surrounds the mine plan and adjacent areas. Therefore, use by mule deer (herd unit 27b) of the winter range on Eureka's project area (mule deer herd unit 27b) during the 1978-79 winter represented maximum use by the existing population of deer.

During late April and early May of 1979, Utah Division of Wildlife Resources biologists conducted intensive measurements (920 plots to measure use through pellet group counts) of mule deer use on winter ranges of Eureka Energy Company's project site. Use by mule deer on crucial-critical use areas averaged 29.26 deer days use per hectare based on a sample of 700 plots; in the high-priority use area, the average was 21.35 deer days use per hectare based on a sample of 220 plots. Total deer days use of the entire winter range at Eureka's project averaged 27.42 deer days use per hectare during the 1978-79 winter.

Currently, the mule deer population is significantly lower than carrying capacity of the range. Based on a 10-year average of pellet group density from permanently marked transects located on high-priority winter range in herd unit 27b, deer use has averaged 38.8 deer days use per hectare. From this expected value, statistical analysis indicated that only 761 plots needed to be evaluated to estimate deer use within $\pm$ 10 percent precision

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at a probability level of 95 percent. Our estimates utilized data from 920 plots and showed 37 percent more use by mule deer of crucial-critical winter ranges over high-priority winter ranges during a "worst case condition."

I hope this information will be useful to you in the permit application process.

Sincerely,

Larry J. Wilson, Supervisor
Southeastern Region

LJW:JBD:ah

cc: Darrell Nish, Chief of Resource Analysis, Utah Division of Wildlife Resources
Phil Garcia, Conservation Officer, Utah Division of Wildlife Resources
Cleon Feight, Director, Utah Division of Oil, Gas and Mining
Leon Berggren, Bureau of Land Management