

state of utah



DIVISION OF WILDLIFE RESOURCES

EQUAL OPPORTUNITY EMPLOYER

1596 West North Temple/Salt Lake City, Utah 84116/801-533-9333

DOUGLAS F. DAY
Director

Copy to Mr. Joe and file this one in Plateau Mining work file
ACT/007/006

May 13, 1981

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DIVISION OF OIL, GAS & MINING

Mr. Cleon B. Feight, Director
Division of Oil, Gas and Mining
1588 West North Temple
Salt Lake City, UT 84116

Attention: Ron Daniels

Dear Jack:

In response to Ron Daniels' request for the Division to evaluate Plateau Mining Company's existing overland coal conveyor at the Star Point Mines, the following comments are offered. As you know, there is a concern within the professional biological community relative to the potential impact coal conveyors or similar industrial facilities could have on the movement of big game. This concern is primarily oriented to facility designs that could represent a barrier to migration movement. We are somewhat concerned that your Division has issued a notice of violation to Plateau Mining Company for such a problem without first consulting our resource analyst in Price. As you know, the Division has earlier suggested that the conveyor be evaluated during a migration period in order to determine if crossing structures for deer need to be developed. Such an evaluation was made during early April by our south-eastern region at the request of Plateau Mining Company.

Generally speaking, Plateau's conveyor lies within Wattis Canyon which represents a low elevation area of the high-priority summer range on herd unit 33. High-priority valued winter range lies immediately east of the terminal end of the conveyor. The conveyor alignment is such that it parallels the general direction of the local deer migration movement. Thus, a concern for "barrier" problems is relative to only lateral migration and daily movements within Wattis Canyon.

From observations by our personnel over a period of many years, the majority of concentrated use that this summer range area in Wattis Canyon receives by deer is during the spring and fall migration periods. It is important to note that some deer have always been known to reside in Wattis Canyon during the summer period (May 16 through October 31). Also, the south facing exposure of Wattis Canyon does support some deer during most winters (November 1 through May 15). Division personnel have also observed that the wintering deer in Wattis Canyon do make limited use of the north facing exposure. In summary, the demonstrated use by deer of Wattis Canyon is such that they have need to cross the conveyor during migration periods and on a daily basis during all seasons of most years.

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Throughout the 1980-81 winter our southeastern region has solicited candid comments from persons associated with the mine concerning their observations of deer in relation to the conveyor. There was one reported instance in late November 1980, of a mature doe with twin fawns jumping the conveyor. Throughout the winter, there have been reports of numerous instances where deer have crawled underneath the conveyor in order to move across Wattis Canyon. One observer commented that a spike buck crawled under the conveyor at a point where it was so low to the ground that he was concerned the animal would "get stuck." An immediate inspection on the observer's part showed that the deer had safely passed. The reported observations of deer crossings included situations where deer had been startled by the presence of man and also situations where deer crossed seemingly unaware of the observer. Crossings have also been noted during periods when the conveyor was in operation as well as when it was idle.

Between April 10 and April 30, 1981, Division personnel have made 15 inspections of the conveyor in relation to deer movement. During this period, 149 crossings under the conveyor by mule deer have been documented; most of the documentation is by tracks, but many have been visual observations. No deer have been observed to attempt a jump over the conveyor. Seventy four percent of the deer crossings were made at points where the conveyor structure allowed 23 to 32 inches of clearance. (It is interesting to note that one deer "squeezed" under the conveyor structure at a point that only allowed 13 inches of clearance.) Seventeen percent of the crossings were at points that allowed clearances greater than 32 inches.

One hundred fifty random measurements along the length of the conveyor structure that provides 10 feet or less of clearance showed that the mean clearance to be 26 inches and the least clearance to be 3 inches. Only 44 percent of the random measurements fell within the range of 23 to 32 inches of clearance. Thirty nine percent of the random measurements were within the range of 3 to 22 inches of clearance and the remaining 17 percent of measurements exceeded the 32 inch height of clearance. This demonstrates that most of the deer are not randomly crossing the conveyor structure, but rather they are selecting their points of crossing.

Deer have been observed to cross the conveyor during daytime or nighttime conditions, when it was in operation or idle, and when they were stressed due to the presence of man or not stressed and unaware of an observer. At this point in time, our biologists are not certain as to whether or not there are habitat factors that determine the points of crossing or if they are just associated with historic migration routes. They are continuing to evaluate this facet of the deer crossings.

The Division's opinion is that the existing overland conveyor does not represent a barrier to migration or daily movements of mule deer. It is recommended that snow removal from the maintenance road that lies adjacent to the conveyor be accomplished in such a manner that snow is not wind-rowed along the conveyor. Such a condition could temporarily preclude passage of deer. The planting of browse and tree species along with the existing

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grass-forb seeding adjacent to the areas where most deer crossings are known could enhance deer use of the area. Accomplishment of this recommendation could result in an improved travelway for the deer. It is believed that the preferred crossing areas would be enhanced if there were more clearance between the bottom of the conveyor and the ground; the company will create some additional clearance by jacking up the conveyor along areas where it has settled. Possibly, additional benefits or enhancement could be realized if 12 to 18 inches of soil was removed from beneath the conveyor at the preferred crossing areas.

We are continuing measurements along this conveyor in order to increase our understanding of conveyor-deer relationships. The biologists involved with the evaluation will prepare a detailed, professional report when they conclude their work. At that time, we will make that report available to your office. In the interim, your staff may want to keep in touch with Larry Dalton, the southeastern region's resource analyst.

Sincerely,



Douglas F. Day
Director