



STATE OF UTAH
NATURAL RESOURCES
Wildlife Resources

Norman H. Bangerter, Governor
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Southeastern Region • 455 West Railroad Avenue • Price, UT 84501-2829 • 801-637-3310

October 17, 1988

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Mr. Lowell Braxton
Utah Division of Oil, Gas and Mining
355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, UT 84180-1203

DIVISION OF
OIL, GAS & MINING

Attention: Susan Linner and Rick Summers

Re: Pollution of Eccles Creek by Skyline Mine

Dear Lowell:

The trout fishery in Eccles Creek has suffered substantial negative impacts during the last two years from excessive nutrient loading. Eutrophication resulting from nitrogen and phosphorous pollution as well as toxic effects from high levels of nitrite are the primary problems. This pollution has been evident since the summer of 1987, and it has always been accepted that the problem originated from the Skyline Mine's sedimentation pond effluent.

Background nitrate nitrogen and nitrite nitrogen measurements in the drainage above the mine were 0.29 mg/l and 0.0 mg/l in 1987, respectively. Those same measurements at the mine's sedimentation pond effluent were 0.35 mg/l nitrate nitrogen and 0.11 mg/l nitrite nitrogen in July, 1987 as well as 14 mg/l nitrate nitrogen and 0.09 mg/l nitrite nitrogen in October, 1988. Long term LC₅₀ values for nitrate nitrogen on trout are 1,060 mg/l. Nitrate nitrogen levels of 10 mg/l or less are recommended for culinary water. Nitrite nitrogen at or below 0.06 mg/l should be protective of trout, since higher levels result in mortality.

Phosphate phosphorus in the sedimentation pond's effluent were measured as 0.045 mg/l (July, 1988) and 0.06 mg/l (October, 1988). Values in excess of 0.04 mg/l, although not toxic to trout, are excessive and promote eutrophication.