State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

M/023/003

DOGM
MINERALS PROGRAM
FILE COPY

April 22, 1993

TO: Minerals File

FROM: Holland Shepherd, Senior Reclamation Specialist HLS

RE: Meeting With Utah Mining Association Representatives and Waste Water Treatment Operators, Land Application of Sewage Sludge

Date of Meeting: April 22, 1993
Time of Meeting: 12:00 to 2:30 pm
Participants: Bob Bayer, JBR; Bob Probst, EPA; Don Deines, Steve Lacki, Kennecott; Greg Hawkins, Brush Wellman; Glen Eurick, Barrick Mercur; Paul Crowth, DWQ; Reed Fischer, Ron Roberts, Central Valley Waste Water Treatment Facility (WWTF); John Adams, Salt Lake City WWTF; Holland Shepherd, DOGM; numerous other WWTF operators

I wanted to write a brief summary of my recent involvement at the Utah Water Pollution Control Association Meeting, in Park City. I attended one of the sludge workshops and then went to a luncheon meeting with some of the WWTF operators and mine operators.

The purpose of the luncheon meeting was to discuss the permitting hurdles involved in implementing a mined land application of sewage sludge program in Utah. The meeting was informal and was organized by Bob Bayer, representing the Utah Mining Association and Paul Crowth, representing the Division of Water Quality. It was arranged to facilitate a meeting between WWTF operators and mine operators interested in using sludge for land application. Bob Probst, with EPA was asked to attend the meeting, since he was the most knowledgeable concerning the new sludge disposal rules, recently published by the EPA (Feb. 93).

The application of sewage sludge on mined lands offers a win-win scenario for WWTFs, mine operations, municipal landfills and regulatory agencies.

The ability to take sludge directly from the WWTF and apply it to mined lands, will provide a great economic saving to both types of operations, while at the same time reducing the load on our landfills and creating more successful reclamation.

A great deal of interest is developing among the WWTF operators and the mine operators. Mine operations expressing the most interest, at this time are: Kennecott (Barneys and Bingham), Barrick Mercur, and Brush Wellman. The South, North and Central Valley Salt Lake City WWTFs were represented at the meeting, along with several others.

Briefly, questions concerning the regulatory requirements for land application still need to be worked out with the Division of Water Quality. Several individuals indicated that if a ground water permit was required, the sludge application program would probably be scrapped. Kennecott representatives indicated that their management was concerned about future CERCLA liability if the requirements for metals loading were to become more stringent in the future. The cumulative affect of metals contained in the sludge and metals in some of their wastes might put more problems in meeting metals limitations. Mr. Probst, with EPA, mentioned that fertilizer applications were exempt under the new requirements. This type of sludge application could be considered to be fertilizer. Bob Bayer indicated that if the sludge could be designated deminimus, under the groundwater rules, then their would be no requirement for a groundwater permit.

Apparently the state has no primacy over the new sludge disposal rules, at this time, according to EPA. But the state's groundwater rules might apply. If groundwater permits were not needed the mine operator would probably be working with EPA and DOGM, more than with DWQ. The WWTFs would work more with DWQ to ensure that a clean sludge was going to the various land application sites.

A consensus was reached at the meeting, concerning further discussion and education of the topic via a state-industry sponsored workshop. The workshop would involve presentations (technical papers and regulatory requirements), and then a panel discussion with a question and answer session involving EPA, DOGM, DEQ, and Industry. Glen Eurick came up with the idea, and indicated that he would ask Jay Christiansen, of the Utah Mining Association, to contact James Carter of DOGM and Don Ostler of DWQ.

Research is available on this type of application addressing mine sites (Henderson-Urad Mine, in Colorado) and on a superfund site in Denver, Colorado. There is some evidence to indicate that once these sites become established with

vegetation, that metals become tied up within the plant-soil matrix, so sludge application actually helps to mitigate a metals problem. One problem to consider would be the short term release of nitrates, during the time of initial application and prior to plant establishment.

The next meeting has not yet been scheduled.

jb
cc: Lowell Braxton
Priscilla Burton
Wayne Hedberg
Henry Sauer
sludge.mem