



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)

March 1, 1995

TO: Daron Haddock, Permit Supervisor

FROM: Steven M. Johnson, Reclamation Hydrologist *SMJ*

RE: Draft Review, IBC--Remote Fan Installation, Centennial Project, Andalex Resources, ACT/007/019, Working File, Carbon County, Utah

#2 ad Permit Binders

SYNOPSIS

Andalex Resources, Inc. submitted an amendment to their Mining and Reclamation Plan (MRP) for the construction of a new fan portal on September 12, 1994 and on October 24, 1994. The first submittals were not approved by the Division so Andalex Resources resubmitted on February 21, 1995. The project requires an incidental boundary change (IBC). The hydrology of the submittal was reviewed on February 27, 1995.

ANALYSIS

HYDROLOGIC INFORMATION

Regulatory Reference: R645-301-722.500, 731.100, 731.600, 732.400, 742, 742.110, 742.300, 742.313, 742.320, 742.400, 751, 752, 760, 762

Analysis:

Construction of the fan portal and pad area in Left-Hand Fork of Deadman Canyon will require road improvements to an existing trail. The Bureau of Land Management (BLM) right of way application shows that the road will be graded from the existing county road to the fan portal pad. The purpose of the right-of-way is construction and maintenance access to the fan facility. Andalex has included two culverts into the design of the road and a series of water bars to rout water off of the road. The first culvert, located in the main canyon, is near the junction of the new road and the county road. The second is located below the pad fill, and is called the Upper Canyon Culvert. Andalex has included calculations and designs for the culverts. Portions



of the road and the pad, and the entire topsoil pile are shown to be located within 100 feet of the stream channel.

Sediment control is shown on a Plate LF-1, Aberdeen Mine Left-Hand Fork Fan Installation Sedimentation/Drainage Control, as silt fence and/or straw dike along the base of the pad fill. Berms and a ditch will route flow from the upper portions of the pad to the sediment control measure. Top soil will be placed up canyon from the pad and will be encompassed by a berm.

Findings:

Andalex proposes to build a road and pad within 100 feet of the Left-Hand Fork stream channel. The drainage area for this reach is greater than one square mile, so, by regulation, this is an intermittent stream. No stream alteration permit is required by the Utah Division of Water Rights because it is not by their definition an intermittent or perennial stream. However, by the Utah coal mining rules it is an intermittent stream so all regulation regarding that definition, including stream buffer zones should be addressed to comply with R645-301-731.600, 732.400, and 742.320.

The use of alternate sediment control measures is allowable by the regulations. A diversion is shown on the map to help route flow to the sediment control, but there were no designs included for this diversion. Miscellaneous diversions should be designed to convey the 2-year, 10-hour storm event for miscellaneous flows (R645-301-742.333). Andalex has not included plans for sediment control in the construction stages of the pad and road and in the reclamation stages of these facilities. It is assumed that sediment control on the topsoil pile is a retention berm, but no design for such berm was included. The map shows a berm around the pad area but no designs or mention for sediment control on the pad.

Drainage control for the road includes two culverts which route the main channel under the road. Andalex has designed water bars to route the smaller drainages across the road. There is no reclamation times schedule or reclamation sediment control plans for the pad area, road, and culverts. Andalex should submit these plans in accordance with R645-301-542-600, 742.313, and 764.

RECOMMENDATION

Andalex's amendment addressing the construction of the Left-Hand Fork Fan portal is not complete and should not be approved. The following items must be addressed prior to approval:

- 1) Andalex has not properly addressed activity within the stream buffer zone respecting the 48-inch culvert at the lower road/stream crossing and in places where the road will be improved within the stream buffer zone. (R645-301-731.600.)
- 2) Andalex should commit to do work within the stream buffer zone only in periods of no flow. (R645-301-731.600.)
- 3) Andalex has not submitted sufficient information and designs on miscellaneous diversions on the pad and top soil pile. (R645-301-742.330.) Diversions and any berm acting as a diversion should be designed by showing that the channels size is sufficient to convey the 10-year, 6-hour storm event. This made be completed by using any number of modeling method such as the computer models Storm and SedCad.