



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

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December 1, 1993

TO: File

THRU: Daron Haddock, Permit Supervisor

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

RE: Diversion Designs, Andalex Resources, Centennial Project,
ACT/007/019-93F, Folder #2, Carbon County, Utah

SUMMARY

When repairing damage caused to Catch Basin B in an August 25, 1993 storm, a new culvert was installed between cells B-3 and B-2. By placing this culvert the operator intends to deter future storms from re-damaging the catch basin. A plan was submitted and reviewed by the Division to demonstrate the suitability of the culvert and proposing a new culvert between cells B-1 and B-2 in the same catch basin. This amendment was reviewed for hydrologic accuracy.

ANALYSIS

Proposal:

Two 18-inch culverts are to be added between cells to the primary settling basin to prevent breaching of dikes between cells. One between cells B-1 and B-2, and another between B-2 and B-3. A culvert already exists between cells B-3 and B-4 for the same reason. The inflow to the basins is 2.79 cfs (based on inflow of CD-12 and CD-13), which required a diameter of 0.95-feet. The culverts will not affect the storage capacity of the cells. The cells are cleaned when sediment accumulations reach 50% of the cell volume of 0.54 acre-feet, or 0.27 acre-feet as noted on Plate 11.

Analysis:

The addition of the culverts should not affect the function of the sediment cells, except to decrease the likelihood of future storms eroding the dike



away. The sediment cleanout level is shown for cell B-2, but not shown for cells B-1, B-3, or B-4 on Plate 11. This plate shows the maximum water levels for cells B-1, B-3, and B-4, but not cell B-2. Sediment levels and water levels should be shown for all four cells. The two proposed culverts are shown on Plate 11; however, the existing culvert between cells B-3 and B-4 is not drawn on the plate. This is confusing and should be corrected.

Deficiency:

1. None.

RECOMMENDATION

This amendment is technically accurate and approval is recommended. Modifications to Plate 11 are needed to accurately show proposed conditions. These changes are: 1) the culvert between cells B-3 and B-4 should be included, and 2) maximum water levels and sediment cleanout levels should be included for all cells.

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