



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

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May 1, 2001

Mike Glasson, Environmental Coordinator
Andalex Resources
P.O. Box 902
Price, Utah 84501

Re: Approval of Addendum to Appendix B and Completion of Midterm Review, Andalex Resources, Inc., Centennial Mine, COB2001-11 T99, Centennial Mine

Dear Mr. Glasson:

As you are aware the Division reviewed the reclamation cost estimate as part of the midterm review for the Centennial Mine. At the Division's request, you submitted (January 30, 2001) a revised reclamation cost estimate to be inserted to the Mining and Reclamation Plan (MRP) in Appendix B. It is hereby approved, and a stamped incorporated copy is enclosed for insertion into your copy of the MRP.

We have also enclosed a copy of our Technical Analysis and a copy of the reclamation cost estimate, which was calculated based on the information you provided. We suggest that you compare our reclamation cost estimate to yours so that any discrepancies between the two can be rectified for future submittals. Our review has determined that your current bond is adequate for the present.

This concludes the midterm review process for the Centennial Mine. All of the other midterm issues had been resolved earlier. Thank you for your help during this process. If you have any questions, please call me.

Sincerely,

Daron R. Haddock
Permit Supervisor

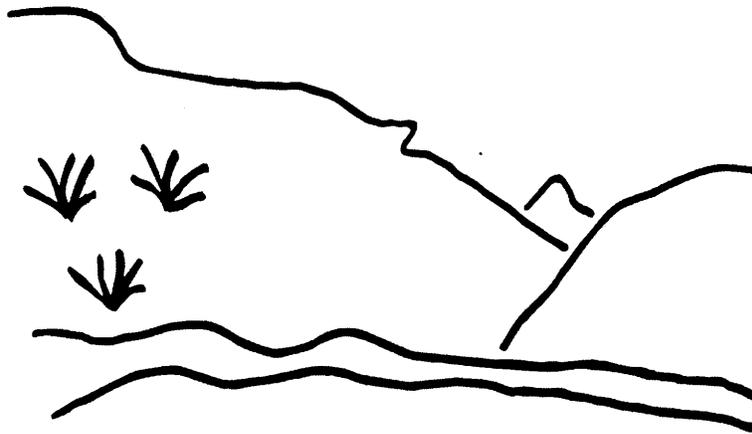
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Enclosures: (3)

cc: Joe Wilcox, OSM
Richard Manus, BLM
Mark Page, Water Rights w/o
Dave Ariotti, DEQ w/o
Derris Jones, DWR w/o
Price Field Office

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State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Centennial Mine
Midterm Review
C/007/019-MT99-3
Technical Analysis
April 27, 2001

INTRODUCTION

TECHNICAL ANALYSIS

INTRODUCTION

As part of the midterm review the Division evaluated the reclamation bond for the Centennial Mine. The review consisted of updating the indirect costs to standards developed in June 2000, updating concrete demolition costs and converting the spreadsheets from Quattro Pro to Excel. The Division used the existing reclamation costs in MRP.

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INTRODUCTION

RECLAMATION PLAN

RECLAMATION PLAN

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR Sec. 800; R645-301-800, et seq.

Analysis:

Determination of bond amount

As part of the midterm review the Division examined the reclamation bond and cost estimate for the Centennial Mine. The Division revised the bond amount based on several factors included the updated indirect costs and revised concrete demolition costs. The Division also converted the spreadsheets from Quattro Pro to Excel. A revised reclamation cost summary is attached to this memo.

The current bond is \$1,080,839 in 1999 dollars. The Division's revised reclamation cost estimate is \$1,013,000 in 2004 dollars. The revised reclamation cost estimate is \$67,839 lower than the existing bond. The main reason for the decrease is revised vegetation costs, which the Division is required to include into the cost estimate.

Demolition Costs: The Division calculated the demolition costs for the Centennial Mine on information in the MRP, Means, the OSM Reclamation Cost Estimating Handbook, and common Division practices. The Division calculated the demolition costs to be \$319,118.

Earthwork Costs: The Division used the standard methods for earthwork calculations as outlined in the *OSM Handbook*, *The Caterpillar Handbook* and *Blue Book*. The earthwork cost is \$290,235

Vegetation Costs: The vegetation costs include the following:

- The approved vegetation plan calls for the soil preparation prior to seeding. On gentle slopes the soil will be disked and on steep slopes gouging/pocking will be used. The vegetation plan does not identify the exact number of acres that will be disked or pocked. The Division estimates that half the area can be disked and half will be pocked. The unit disking costs were from *Means*. The Division assumed that the amount of dirt to be moved during pocking is equal to one acre-foot per acre. The unit cost was the lowest *Means* unit cost for excavation with a trackhoe, which is the type of equipment usually used for pocking.
- The Division calculated the costs for seeds and seedling and then determined the equipment and labor costs for seeding and transplanting. The Division reviewed the seed mixture and then contacted locale suppliers for costs. The suppliers quoted the seed cost for the mine site

at \$624.5/acre for seed and \$1,500 for seedling. The Division added 10% for overhead and profit. The Division estimated that 15.02 acres could be drill seeded and 19.18 acres would be hydroseeded. The Division used the equipment and labor costs and productivity calculations from *Means* for both drill seeding and hydroseeding. The transplanted costs for the seedlings came from *Means*.

- The vegetation plan calls for 32.05 acres to be hydromulched and the remaining 2.15 acres to be power mulched. The hydromulching will be done separately from hydroseeding as usually required by the Division. Vendors quoted the Division a cost of \$395/acre for hydromulch materials and \$175/acre for mulch. The Division then added 10% for profit and overhead. The equipment and labor costs were from *Means*.

A copy of the reclamation cost estimate will be sent to the permittee. The Division recommends that the permittee review the cost estimate and forward comments to the Division.

Findings:

The permittee has met the minimum requirements of this section.