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Lieutenant Governor

# State of Utah

## DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER  
Executive Director

### Division of Oil, Gas and Mining

JOHN R. BAZA  
Division Director

August 5, 2014

David Hibbs, Resident Agent  
Andalex Resources, Inc.  
P.O. Box 910  
East Carbon, Utah 84520-0910

Subject: Midterm Review Completion, Andalex Resources, Inc., Centennial Mine, C/007/0019, Task ID #4602

Dear Mr. Hibbs:

The Division of Oil, Gas and Mining (the Division) has completed its midterm review of the Centennial Mine. The midterm review will now be closed; however, the Division identified deficiencies that must be addressed.

The deficiencies are listed as an attachment to this letter. The author of each of the deficiencies is provided in order to facilitate communication between your staff and the Division's if necessary. The one exception to this is the bonding deficiency. The identified author, James Owen, is no longer in the coal program. You may contact Pete Hess with any questions you may have relative to the bonding escalation deficiency.

Your response to these deficiencies will need to be submitted as an amendment to your MRP and will be processed as a separate task. Please submit the required amendment with the accompanying C1 and C2 forms by no later than September 12, 2014.

If you have any questions, please feel free to contact Daron Haddock (801) 538-5325 or myself (801) 538-5350.

Sincerely,

Steve Christensen  
Permit Supervisor

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## Technical Analysis and Findings

### Utah Coal Regulatory Program

**PID:** C0070019  
**TaskID:** 4602  
**Mine Name:** CENTENNIAL MINE  
**Title:** MIDTERM PERMIT REVIEW

### General Contents

#### Identification of Interest

##### Deficiencies Details:

R645-301-112.220. David Hibbs is listed on page 1-6 of Chapter 1 of the MRP. It is suggested that the Operator update page 1-6 to specify Jay Marshall as resident agent, as he has been the acting resident agent for the Centennial Mine.

R645-301-112.300. Some of the information in the current MRP does not match the information found in the OSM/AVS database. The following deficiencies must be addressed:

The AVS includes the following information for MURRAY ENERGY CORPORATION (#152552). Please address these discrepancies by either correcting the information in the MRP or by providing a Secretary's Certificate to correct the AVS.

##### MURRAY ENERGY CORPORATION

Michael McKown, Senior Vice President, 8/15/2012

B Cornelius, Senior Vice President, 8/15/2012

John Forrelli, Senior Vice President, 11/1/2010

Robert Moore, Exec Vice President, Chief Financial Officer, Chief Operations Officer, 8/15/2012

Paul Piccolini, Vice President, 1/4/2014

Robert Murray, Vice President, 8/15/2012

Jason Witt, Assistant Secretary, 4/30/2013

Michael Carey, Vice President, 6/1/2012

Ryan Murray, Vice President, 9/11/2007

Roy Heidelbach, Vice President, 9/11/2007

ssteab

#### Violation Information

##### Deficiencies Details:

R645-301-113 The operator should update Appendix 1, Part 3 of the Mining Reclamation Plan in order to contain a listing of all violations received within the last three years by Andalex and affiliated companies.

ssteab

## Operation Plan

### Hydrologic General

#### Deficiencies Details:

R645-301-512, -731.272: The Permittee must revise Plates 6, "As-Constructed Surface Facilities" and Plate 8, "Support Facilities Surface Area Drainage" to clearly and accurately reflect the drainage network at the mine-site. The narrative/text sections of the MRP that describe the surface drainage network must be revised as well.

During the field inspection conducted on July 7th and 8th, several instances were identified where Plates 6 and 8 did not accurately/clearly identify components of the mine-sites drainage network. For example:

I. Based on observations during the field inspection, Plate 8 does not appear to accurately reflect the alignment and length of culverts CD-9, CD-10 and CD-11.

II. Plate 8, Support Facilities Surface Area Drainage, does not depict Catch Basin B.

III. A 24' culvert located on the east side of the primary haul road (PR-1) was observed. The culvert is located approximately 300' -500' north of the guard shack. The culvert does not appear on either Plate 6 or Plate 8.

schrister

### Hydrologic Diversion General

#### Deficiencies Details:

: R645-301-731, -732.300, -741 and -742.300: The Permittee must update the MRP with Table IV-B (in the body of the MRP as well as the table of contents) and provide clarification that the typical cross-section for diversion DD-3 is Figure IV-3A.

Figure IV-3, Typical Disturbed Diversion Ditch, contains a footnote (See footnote 2) that indicates that this typical cross-section applies to "all disturbed diversion ditches except DD-3, which has a one-foot bottom width." The only design drawing that depicts a diversion with a flat bottom channel is Figure IV-3A, Typical Section for Trapezoidal Ditch. Figure IV-3A states that "minimum depth and/or area will be maintained to dimensions shown on Table IV-B" However; Table IV-B is not contained within the approved MRP nor found on the list of tables found on page lvii of the Table of Contents.

schrister

## Reclamation Plan

### Contemporaneous Reclamation General

#### Deficiencies Details:

R645-301-121.100, Appendix X, Table 1-2 itemizes acres of original and existing degas well disturbance, reflecting the reduced disturbance due to contemporaneous reclamation. This table should be updated to reflect the work that has been done recently.

R645-301-121.100, Reclamation techniques described in Chapter 2 and 3 should be updated to reflect the used of 1 Ton/acre hay mulch rather than the wood fiber mulch stated.

R645-301-244.200 and R645-301-357.331, Grazing has severely impacted the revegetation of the contemporaneous degas well pads. The plan describes fencing of reclaimed well sites during operations and until bond release (Chap. 3, Section 333.300 and Section 341). Consequently, the Permittee must install grazing exclusion fences around all the reclaimed well pads.

pburton

### Contemporaneous Reclamation General

*Deficiencies Details:*

The information in the MRP is not adequate to meet the requirements of these sections of the regulations. Prior to approval the following information is required in accordance with R645-301-330 and 340 et. sec.. It is suggested that the permittee meet with DOGM staff to:

Develop and implement a plan to fence the the GVH sites in accordance with Section 333.300, page 3-10 of Appendix X, Protective Measures, Refer to Section 333.300 of the approved M&RP, and Section 333 above. All well sites will be fenced and road construction will be minimized by utilizing existing roads where possible.

Discuss when the bond clock and vegetation monitoring will commence for sites 1 and 5, (Reclamation was completed in 2009. However no monitoring has been initiated to date), and the remaining GVH sites. Appendix X of the approved MRP includes a two phased approach to reclaiming the sites, (contemporaneous and final), the remaining sites would need to be adequately plugged, risers and collars removed and compacted areas ripped and seeded before the liability period could begin.

Discuss the possible need of a weed control protocol for the sites reclaimed in 2013 that showed a dominance of knotweed.

**RECLAMATION SUCCESS** The permittee needs to address the following deficiency noted in this commitment; Reclaimed areas will be monitored monthly for the first two growing seasons following reclamation. Volume 1 chapter 3 page 3-17 paragraph 5. This commitment was from the original MRP under the heading Measures to Determine Success. The GVH sites were later permitted separately under Appendix X. The Protective Measures section in Appendix X (p. 3-10) refers to Section 333.300 of the MRP, but the correct citation should be MRP Section 301-331 p. 3-17, Measures to Determine Success Therefore the monitoring of the Gob Vent holes should take place at least twice in a growing season. At an average elevation of 8400' the number of frost free days would average about 60. Therefore monitoring during the growing season at this elevation should occur in June and July. Please make the correction in Appendix X of the MRP.

jhelfric

## **Bonding Determination of Amount**

*Deficiencies Details:*

R645-301-830.140. Please provide updated information for estimated bonding costs with supporting calculations for the estimates. This includes updated unit costs (to be used to update bond calculation spreadsheets) and updated escalation factors. Updates should be provided using the 2013 data from R.S. Means Heavy Construction Cost data manual and the Caterpillar Handbook or other appropriate resources. The bonding summary sheet and corresponding bond calculation sheets need to be updated and appropriately escalated to 2019 dollars using Division's approved 1.9% and 5 year escalation.

jowen