

STATE OF COLORADO

DIVISION OF RECLAMATION, MINING AND SAFETY

Department of Natural Resources

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May 21, 2012

Glenn Williams
Cotter Corporation
P.O. Box 700
Nucla, CO 81424

John W. Hickenlooper
Governor

Mike King
Executive Director

Loretta E. Piñeda
Director

RE: C-JD-8 Mine, Permit No. M-1984-014, Second Adequacy Review, Environmental Protection Plan (EPP), Amendment AM-01.

Dear Mr. Williams,

On June 8, 2011 the Division of Reclamation, Mining, and Safety (Division) called Cotter Corporation's (Cotter) submittal of an Environmental Protection Plan (EPP) amendment, AM-01 for the C-JD-8 Mine, Permit No. M-1984-014, complete for review. On October 3, 2011 the Division issued a Preliminary Adequacy Review (PAR) regarding administrative and technical issues. The Division received a response to the PAR on April 18th, 2012. Staff has reviewed the responses submitted and has a few issues that need additional clarification or correction: Please respond to the following:

- 1) On June 20, 2011 the Division received and forwarded comments from the Colorado Historical Society. The Society noted five sites in the area were surveyed in the past. They recommended resurvey of sites after ten years. The Division requested Cotter respond to the Historical Society and copy to Division staff. On May 4, 2012 the Division received a Cultural Resource Inventory Report from ERO Resources on behalf of Cotter. The report was forwarded by ERO to the State Historic Preservation Society on May 15, 2012. One site, 5MN973, was found to be eligible for the National Register of Historic Places. *Please provide documentation that the site will be outside the proposed future fan pad sites and access roads.*
- 2) Rule 1.6.5(2), the applicant must provide proof of publication. The Division received proof of publication but it was of poor quality. *Cotter submitted a clear replacement copy on May 4, 2012.*
- 3) The Gamma Survey Map, E-2, gives an overview of the entire project area but are very general. Details are lacking as to the readings around relevant structures within the permitted area. *Please provide a map, preferably similar in size and nature to storm water maps submitted with the response.*

- 4) On Page 6, # 6 and in other sections relevant to this issue Cotter has submitted data that supports no or very limited groundwater interdiction with mine workings. Item 6 discusses the practice of gobbing waste materials underground. *The practice is common in dry mines with the following stipulation: Should groundwater be unexpectedly encountered in quantities that require retention measures and / or pumping, approximately a gallon per minute or more, Cotter shall notify the Division in writing within 30 days. No gobbing will be allowed below the initial groundwater elevation encounter until the water regime is fully analyzed and Cotter receives Division written approvals to resume the practice. Please indicate Cotter understands the requirements of the stipulation.*
- 5) On Page 8, #16 it is noted that a Threatened and Endangered Species Study "will be conducted for the current and proposed affected areas "later this spring". *Please note the survey has not been submitted.*
- 6) On Page 13 and 14, # 17 notes clay materials will be used for a geo-synthetic liner on ore pads. *The response notes clay materials will be brought in from an outside source. Please clarify the materials will come from a properly permitted site in the vicinity. Also discussed is compaction and proctor testing of the materials during placement. Please clarify that the test results will be submitted to the Division for acceptance prior to placement of any ore materials on the pad.*
- 7) On Page 22, #7 the Division and Cotter have discussed the location of the compliance well in correlation to planned future mining. *Based on in person discussions please review the location of the proposed monitor well to locate a suitable location closer to proposed underground workings.*
- 8) Figure 4, Location of cross-sectionals for water levels and drill holes, shows three cross-sectionals across future mining areas. *Please provide a cross-sectional D-D' in the general area of holes 77-108 to 84-8 across the area to be developed first beyond current workings.*

Tim Cazier, Division Engineer: Review and Comments on Cotter Response to Adequacy Review, Attachment 4/Attachment A Drainage Design Plan prepared by Whetstone Associates (dated March 25, 2012)

General Comments:

1. It appears the labels on Figures 1 and 2 are reversed. Beginning on page 1, references are made to six drainage areas shown on Figure 2, labeled 1 through 6, as indicated in Table 1. These six drainage areas appear to be on Figure 1, not Figure 2. Page 2 appears to correctly reference Figure 2 for drainage areas N-A through N-F. However, the figure references appear to be reversed in the remainder of the drainage plan. For example, on page 9 it refers to Retention Pond 2 (Zone 6 in Figure 2). These are both on Figure 1. *Please correct the figure numbers and/or the references in the text to correctly refer to the appropriate figures.*

2. Three separate terms are used interchangeably to "label" the 12 different areas from which runoff is contributed: zone, area/drainage area, and catchment. *Please use consistent nomenclature in the text and figure labels. Typical nomenclature is either sub-basin or sub-catchment.*
3. Figure 3: Page 13 refers to Areas 1 and 4 on Figure 3. Neither Area 1 nor Area 4 appears to be delineated or labeled on Figure 3. *Please delineate and label in a manner consistent with the text.*

Technical Comments:

4. *Please provide an explanation why "drainage area" N-E (reference Figure 2) is considered "non-contributing" when the current waste rock clearly extends into sub-basin N-E. Paragraph 3.1 on page 7 also indicates "catchment" N-E is non-contributing.*
5. Table 9: The travel time for sheet flow in "Catchment" 1-2-3 is presented as 0.62 hours. *Please provide justification as to how it takes water 37 minutes to travel less than 300 feet. The 0.2 hours for sheet flow travel time in "Catchment" 4-5-6 also appears excessive. These excessive travel times result in very low peak flow estimates. It should also be noted that travel times less than one minute (0.017 hours) are negligible and should be ignored (reference channel travel times in Table 9).*
6. Culverts: The culverts presented in Attachments 1a and 1b are 12- and 15-inch diameter pipes. Common practice is to use a minimum culvert diameter of 18 inches to reduce the potential of plugging with wind-blown debris and animal denning activities. *Please commit to using at least 18-inch diameter culverts.*

There remain outstanding review issues that must be addressed that do not allow sufficient time for completion prior to the 365 day limit per Rule 1.4.1(9) of June 8, 2012. The Division and operator agree that an additional sixty (60) days, July 15, 2012, will allow completion of review so a decision can be issued on the EPP submittal. The additional time also allows for addressing the requirements of the public participation process as an objection has been received on the EPP. A hearing will be scheduled before the Mined Land reclamation Board for the August 8th~9th, 2012 MLRB meeting. The objecting party has been notified of the extension request and has verbally indicated no issue with it.

If you need additional information please contact me at the Division of Reclamation, Mining and Safety, Grand Junction Field Office, 101 S. 3rd St., Suite 301, Grand Junction, Colorado 81501, by telephone at 970.241.1117, or by e-mail at russ.means@state.co.us.

Sincerely,



G. Russell Means
Environmental Protection Specialist II

Ec: Tony Waldron, Mineral Program Supervisor
Tim Cazier, DRMS Engineer

Attachments: Cover letters from ERO Resources Corporation regarding Cultural Resources Report.