Suzanne Steab <suzannesteab@utah.gov>

2017 Annual Report Review Completion

Suzanne Steab <suzannesteab@utah.gov> Fri, May 25, 2018 at 6:55 AM
To: "Madsen, Karin" <kmadsen@coalsource.com>

The Division staff completed the review of the 2017 Annual Report for the Crandall Canyon Mine. Attached is a copy of the review with comments.

No hard copy will follow.

Thank you for your diligence in completing the Annual Report.

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Crandall.pdf
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ANNUAL REPORT

This Annual Report shows information the Division has for your mine. Submit the completed document and any additional information identified in the Appendices to the Division by the date specified in the cover letter. During a complete inspection an inspector will check and verify the information.

GENERAL INFORMATION

Company Name	Genwal Resources Inc.	Mine Name	Crandall Canyon Mine
Permit Number	C/015/0032	Permit expiration Date	5-13-18
Operator Name	Genwal Resources, Inc.	Phone Number	+1 (435) 888-4000
Mailing Address	PO Box 910	Email	kmadsen@coalsource.com
City	East Carbon		
State	UT	Zip Code	84520

		DOGM File Location or Annual Report Location
Excess Spoil Piles	☐ Required ☒ Not Required	
Refuse Piles	☐ Required ☐ Not Required	
Impoundments	☒ Required ☐ Not Required	Sediment Pond Annual Certification is included
Other:		

OPERATOR COMMENTS

REVIEWER COMMENTS ☒ Met Requirements ☐ Did Not Meet Requirements

The Permittee provides the sedimentation pond inspection report, completed 12/19/2017. The gabien wall has been repaired however, further repairs are necessary due to a seep that has appeared in the lower part of this wall. The Permittee plans to address the seep by repairing the original drainage line this Spring. The sediment levels were surveyed by Ware in November 2017 and are at 7766.3 feet, below clean-out level. The pond has approximately 3 feet of water. There exists no additional instability, structural weakness, or other hazardous conditions. The Permittee provides the Burma Pond Inspection report, completed 12/21/2017. No instability, structural weakness, or hazards were found at the Burma Pond. The sediment level was surveyed by Ware in November 2017 at 6515.1 feet. At the time of inspection, there was no standing water in the pond. Both pond inspections are PE certified by David Hibbs. [AU]

COMMITMENTS AND CONDITIONS

The Permittee is responsible for ensuring annual technical commitments in the Mining and Reclamation Plan and conditions accepted with the permit are completed throughout the year. The Division has identified these commitments below and has provided space for you to report what you have done during the past year for each commitment. If additional written response is required, it should be filed as an attachment to this report.

Title: MACROINVERTEBRATE SAMPLING
Objective: To monitor macroinvertebrate populations in Crandall Creek
Frequency: Annually, during the spring and fall beginning in 2009.
Status: Spring and Fall 2015 reports are due to the Division.
Reports: Submit surveys in annual report.
Citation: MRP, Volume A Text, Chapter 3, page 3-17.

OPERATOR COMMENTS

Macro-invertebrate Sutdy was completed by EIS for the Spring and Fall of 2017. Results are included in the annual report.

REVIEWER COMMENTS ☒ Met Requirements ☐ Did Not Meet Requirements

Macroinvertebrate studies were completed in the spring and fall of 2017. The studies are done in three reaches of Crandall Creek, one upstream of the mine to act as a control, one just below the discharge point of the mine, and one farther downstream. Surveys are completed to be used as potential indicators of water quality and overall health of the creek.

The results of the survey, similar to previous years, "show variability among all the sampled reaches and generally show reduced habitat quality and less than optimal conditions in all sampled locations." The upper reach, the control, appears to have decreased in quality standards over the last year while the lower reach has increased or remained stable since 2009. The overall quality of the middle reach is generally lower than the other two reaches. The results of this study fluctuate from season to season and year to year and are likely due to a number factors such as increased beaver dams, variability of substrate and habitat, heavy precipitation in 2017, as well as potential impacts from the 2012 catastrophic fire and subsequent flooding. (3/29/18 TM)

Title: SUBSIDENCE MONITORING
Objective: To determine subsidence effects from mining. Please provide a map that shows the locations of the monitoring points to compare variations due to mining.
Frequency: Annually
Status: Ongoing.
Reports: Submit surveyed monitoring data and map to Division annually.
Citation: MRP, Volume B, Chapter 5, Section 5.25.14, page 5-25.

OPERATOR COMMENTS

Subsidence monitoring was completed by Ware Surveying. Results are located in the Annual Report.

REVIEWER COMMENTS ☒ Met Requirements ☐ Did Not Meet Requirements

The subsidence information meets the annual report requirements. Included in the report is a table prepared by Olympus Aerial Surveys, Inc that provides subsidence data for 2017 as well as comparative data from 2003, 2007, and 2009. Most of the recent subsidence monitoring data points have registered as null, or no recordable subsidence. A small handful of points have registered several feet of vertical offset since 2009. JE

Title: Burma Pond Information/Sampling

Objective: Provide report of accumulated depth of sludge in the Burma Evaporatio Pond. Grab samples to obtained every five years or when 7.5" of solid waste has been deposited. Grab Samples to be analyzed for all RCRA metals.

Frequency: Annually

Status: Ongoing

Reports: Include in Annual Report

Citation: Appendix 7-66. Pg. 7

OPERATOR COMMENTS

Sampling was completed by Mt. Nebo in 2016. Will sample again in 2021.

REVIEWER COMMENTS ☒ Met Requirements ☐ Did Not Meet Requirements

NA- Mt. Nebo conducted sampling of the accumulated iron sludge material in the Burma Pond in 2016. The report was provided and rev

FUTURE COMMITMENTS AND CONDITIONS

The following commitments are not required for the current annual report year, but will be required by the permittee in the future as indicated by the "status" field. These commitments are included for information only, and do not currently require action. If you feel that the commitment is no longer relevant or needs to be revised, please contact the Division.

Title: RECLAMATION OF CULVERT
Objective: To reclaim part of the culverted section of the stream which provided habitat to the cutthroat trout population. And enhancement of the stream below the mine discharge point due to the impact on the stream habitat and aquatic wildlife that occurred because of the iron-laden water discharge.
Frequency: Once during reclamation.
Status: To be done during reclamation.
Reports: Submitted to the Division upon project completion.
Citation: MRP, Volume A, Chapter 3, page 3-16

Title: RAPTOR SURVEYS
Objective: To monitor raptor activity and nesting within and adjacent to the permit area.
Frequency: Every three years, or annually if a.) UDWR recommends it, b.) it will not unduly harrass raptors, or c.) it if is prudent to insure raptor safety and/or habitat. Raptor surveys are not required if the mine is not active AND no significant activity is taking place.
Status: Surveys required prior to installation of any discharge treatment facilities or prior to reclamation work.
Reports: In annual report.
Citation: MRP, Volume A, Chapter 3, page 3-17.

REPORTING OF OTHER TECHNICAL DATA

Please list other technical data or information that was not included in the form above, but is required under the approved plan, which must be periodically submitted to the Division.

Please list attachments:

Vegetation surveys on the East Mountain project were conducted by Mt. Nebo Scientific in 2017 in preparation for Phase II bond release. The report is included.

REVIEWER COMMENTS

A report titled "Revegetation Monitoring for Phase II Bond Release at the East Mountain Project" was submitted in the annual report. The report details vegetation surveys done in 2017 in preparation for Phase II bond release.

The East Mountain project deals with the reclamation of 7 drill pads and their associated access roads that were put in during a mining emergency in 2007. There are two vegetative community reference areas for this project: mountain shrub/grass and aspen. Access Roads 1, 2, 3, 5, and 7 as well as Drill Pads 1, 2, 5, 6, and 7 use the mountain shrub/grass reference area while Access Roads 4 and 6 and Drill Pads 3 and 4 use the aspen reference area. Survey results show that none of the 7 access roads or 7 drill pads are statistically significantly lower than their reference areas in terms of total living cover.

This 2017 report is a follow-up to a 2015 survey where the reference areas were selected and sampled. In 2015, vegetation monitoring suggested that some of the sites could have been candidates for Phase II bond release at that time. The 2017 report summarizes: "The data and analyses presented in this report suggest that the seeding for revegetation at the East Mountain Project has become established to a point that Phase II bond release through DOGM may be warranted."

(3/29/18 TM)

MAPS

Copies of mine maps, current and up-to-date, are to be provided to the Division as an attachment to this report in accordance with the requirements of R645-301-525.240. The map copies shall be made in accordance with 30 CFR 75.1200 as required by MSHA. Mine maps are not considered confidential.

Map Name	Map Number	Included		Confidential	
		Yes	No	Yes	No
Annual Subsidence Map	Not Required	☐	☒	☐	☒
Mine Map	Included	☒	☐	☐	☒
		☐	☐	☐	☐
		☐	☐	☐	☐
		☐	☐	☐	☐

REVIEWER COMMENTS ☒ Met Requirements ☐ Did Not Meet Requirements

The permitee has addressed the requirements of this commitment. Included is a complete mine map showing the configuration of all mined out workings. A subsidence map was neither required nor included. No mining occurred in 2017. JE