

## OGMCOAL - Crandall Canyon Inspection Report 05/03/2011

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**From:** Kevin Lundmark  
**To:** Dana Marrelli; Dave Shaver  
**Date:** 5/23/2011 9:42 AM  
**Subject:** Crandall Canyon Inspection Report 05/03/2011  
**CC:** OGMCOAL; Steve Christensen  
**Attachments:** 20110523103217.pdf

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Dana, Dave,

The inspection report for May 3, 2011 is attached. There are a couple of follow-up items:

Can you please confirm that Ditch DD-10a has been cleaned out?

Bill Schneiders said he would be providing a revised MSDS for Nalco 7763 to reflect a higher NSF60 certification. Can you please forward a copy of the revised MSDS?

Thanks,  
Kevin

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Division of Oil, Gas & Mining  
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The State of Utah  
 Department of  
 Natural Resources  
 Division of  
 Oil, Gas & Mining

ROBERT L. MORGAN  
*Executive Director*

LOWELL P. BRAXTON  
*Division Director*

OLENE S. WALKER  
*Governor*

GAYLE F. McKEACHNIE  
*Lieutenant Governor*

| Representatives Present During the Inspection: |                |
|--|----------------|
| OGM  | Kevin Lundmark |
| Company  | Dana Marrelli  |

# Inspection Report

|                  |                       |
|------------------|-----------------------|
| Permit Number:   | C0150032              |
| Inspection Type: | PARTIAL               |
| Inspection Date: | Tuesday, May 03, 2011 |
| Start Date/Time: | 5/3/2011 10:15:00 AM  |
| End Date/Time:   | 5/3/2011 12:45:00 PM  |
| Last Inspection: |                       |

Inspector: Kevin Lundmark

Weather: Mostly sunny

InspectionID Report Number: 2749

Accepted by: jhelfric  
 5/19/2011

Permittee: **GENWAL RESOURCES INC**  
 Operator: **GENWAL RESOURCES INC**  
 Site: **CRANDALL CANYON MINE**  
 Address: **PO BOX 910, EAST CARBON UT 84520-0910**  
 County: **EMERY**  
 Permit Type: **PERMANENT COAL PROGRAM**  
 Permit Status: **ACTIVE**

### Current Acreages

|          |                        |
|----------|------------------------|
| 6,235.80 | <b>Total Permitted</b> |
| 27.15    | <b>Total Disturbed</b> |
|          | <b>Phase I</b>         |
|          | <b>Phase II</b>        |
|          | <b>Phase III</b>       |

### Mineral Ownership

- Federal
- State
- County
- Fee
- Other

### Types of Operations

- Underground
- Surface
- Loadout
- Processing
- Reprocessing

### Report summary and status for pending enforcement actions, permit conditions, Division Orders, and amendments:

Division inspector attended a field trial for an alternative chemical coagulant for use in treating minewater discharge from the Crandall Canyon Mine north portals. A sample of untreated minewater was also collected.

Inspector's Signature:

Kevin Lundmark,

Date: Wednesday, May 18, 2011

Inspector ID Number: 63

**Note:** This inspection report does not constitute an affidavit of compliance with the regulatory program of the Division of Oil, Gas and Mining.

**REVIEW OF PERMIT, PERFORMANCE STANDARDS PERMIT CONDITION REQUIREMENTS**

1. Substantiate the elements on this inspection by checking the appropriate performance standard.
  - a. For COMPLETE inspections provide narrative justification for any elements not fully inspected unless element is not appropriate to the site, in which case check Not Applicable.
  - b. For PARTIAL inspections check only the elements evaluated.
2. Document any noncompliance situation by reference the NOV issued at the appropriate performance standard listed below.
3. Reference any narratives written in conjunction with this inspection at the appropriate performance standard listed below.
4. Provide a brief status report for all pending enforcement actions, permit conditions, Divison Orders, and amendments.

|  | Evaluated                           | Not Applicable           | Comment                             | Enforcement              |
|--|-------------------------------------|--------------------------|-------------------------------------|--------------------------|
| 1. Permits, Change, Transfer, Renewal, Sale                      | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 2. Signs and Markers   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 3. Topsoil   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 4.a Hydrologic Balance: Diversions                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4.b Hydrologic Balance: Sediment Ponds and Impoundments          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4.c Hydrologic Balance: Other Sediment Control Measures          | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4.d Hydrologic Balance: Water Monitoring                         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 4.e Hydrologic Balance: Effluent Limitations                     | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 5. Explosives  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 6. Disposal of Excess Spoil, Fills, Benches                      | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 7. Coal Mine Waste, Refuse Piles, Impoundments                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 8. Noncoal Waste   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 9. Protection of Fish, Wildlife and Related Environmental Issues | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 10. Slides and Other Damage                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11. Contemporaneous Reclamation                                  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 12. Backfilling And Grading                                      | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 13. Revegetation   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 14. Subsidence Control   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 15. Cessation of Operations                                      | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 16.a Roads: Construction, Maintenance, Surfacing                 | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 16.b Roads: Drainage Controls                                    | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 17. Other Transportation Facilities                              | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 18. Support Facilities, Utility Installations                    | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 19. AVS Check  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 20. Air Quality Permit   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 21. Bonding and Insurance  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |
| 22. Other  | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |

#### **4.a Hydrologic Balance: Diversions**

Diversion ditch DD-10A was observed to be filled with coal, soil and rock which had slid from the slope adjacent to the highwall. Sediment control was still provided by filter logs, which have been maintained. Operator indicated that contractor (Scamp) will be coming to the site soon to perform maintenance activities, including cleanout of DD-10A. Operator committed to completing cleanout of DD-10 within 2 weeks.

#### **4.b Hydrologic Balance: Sediment Ponds and Impoundments**

Water level in primary sediment pond was approximately two feet below 10-yr 24-hr marker. The depth and amount of sludge / sediment was not visible due to turbidity of water within the pond. Operator indicated that pond was decanted on April 15, 16 and 17, 2011 to facilitate taking minewater treatment system off-line to install new flow meter. UPDES sampling on April 15, 2011 found 1.25 mg/L (total) iron, 80 mg/L TSS, 0.77 mg/L (total) aluminum. Results have been provided to DWQ.

#### **4.c Hydrologic Balance: Other Sediment Control Measures**

Minewater treatment settling basin cell numbers 2 and 3 were approximately 1/2 and 1/3 full, respectively. Cells 4 and 5 were generally free of sludge. Randy Wilcox of Watersolve (contractor) was on-site to test a ferric chloride coagulant (Solve 3) as an alternative to the aluminum-based chemistry (Nalco 8187). Based on settling rates of flocculant observed in samples collected at outlet of oxidizer unit, the ferric chloride product performs well. The pH of supernatant water in samples was 7.75, as measured by inspector. Ferric chloride dosage rate was 40 ppm. Flocculant (Nalco 7763) dosage rate was 2.5 ppm. Representative from Nalco (Bill Schneiders) was also on-site, and informed Operator and inspector that Nalco has re-certified their 7763 product for a an NSF60 rating of 3.0 ppm. Nalco representative committed to forwarding a copy of the revised MSDS to Operator.

#### **4.d Hydrologic Balance: Water Monitoring**

Minewater flow 906.3 gpm (Area-Velocity meter, including recirculation) at 10:35. Minewater flow 900 gpm (A-V, w/ recirculation) and 380 gpm (Mag-Flux meter, no recirculation) at 10:42 and 10:44, respectively, indicating 520 gpm recirculation. Sample Pre-002 collected 11:05. At Inspector's request, Operator analyzed untreated minewater for ferrous iron at 11:20, result 0.378 mg/L Fe<sup>2+</sup>. Total iron also analyzed, result 2.194 mg/L. Operator inquired about requirement to continue analysis for residual polymer. Inspector indicated that, unless indicated otherwise from Forest Service or DWQ, it may be acceptable to discontinue analysis or reduce frequency of analysis for residual polymer if the following conditions are met: 1) consistent results over several months, 2) no changes in chemical product or manufacturer, and 3) no changes in chemical dosage rate. Inspector also requested Operator to include their polymer monitoring protocol in the MRP.

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Inspection Type: PARTIAL  
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**10. Slides and Other Damage**

Slides have occurred at the slope adjacent (east) of the highwall, resulting in accumulation of coal, soil and rock in Ditch DD-10A. See comment for Diversions, above.