GARY R. HERBERT
Governor
GREG BELL
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

Inspection Report

Permit Number:	C0150032
Inspection Type:	COMPLETE
Inspection Date:	Wednesday, March 20, 2019
Start Date/Time:	3/20/2019 3:30:00 PM
End Date/Time:	3/20/2019 6:00:00 PM
Last Inspection:	Tuesday, February 26, 2019

Representatives Present During the Inspection:	
OGM	Justin Eatchel
Company	Karin Madsen

Inspector: Justin Eatchel,
Weather: Sunny, partly cloudy and breezy. 43F
InspectionID Report Number: 6379
Accepted by:

Permitee: **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: **INACTIVE**

Current Acreages

1,257.75	**Total Permitted**
34.23	**Total Disturbed**
11.89	**Phase I**
	Phase II
	Phase III

Mineral Ownership

- [x] **Federal**
- [ ] **State**
- [ ] **County**
- [ ] **Fee**
- [ ] **Other**

Types of Operations

- [x] **Underground**
- [ ] **Surface**
- [ ] **Loadout**
- [ ] **Processing**
- [ ] **Reprocessing**

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

The Division met with Karin Madsen on Wednesday 3/20/2019 in the late afternoon for this complete inspection. A winter storm warning affecting the mountains of south/central Utah had been issued the previous day. Weather conditions at the time of this inspection were fair but windy. Water samples were taken at UPDES discharge #002, and delivered to the Utah State Health Laboratory in Taylorsville the following day.

Inspector's Signature: Justin Eatchel

Justin Eatchel,
Inspector ID Number: 73

Date Monday, March 25, 2019

telephone (801) 538-5340 • facsimile (801) 359-3940 • TTY (801) 538-7458 • www.ogm.utah.gov

UTAH DNR OIL, GAS & 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 performace 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	☑	☐	☑	☐
2. Signs and Markers	☑	☐	☑	☐
3. Topsoil	☑	☐	☑	☐
4.a Hydrologic Balance: Diversions	☑	☐	☑	☐
4.b Hydrologic Balance: Sediment Ponds and Impoundments	☑	☐	☑	☐
4.c Hydrologic Balance: Other Sediment Control Measures	☑	☐	☐	☐
4.d Hydrologic Balance: Water Monitoring	☑	☐	☑	☐
4.e Hydrologic Balance: Effluent Limitations	☐	☐	☐	☐
5. Explosives	☐	☑	☐	☐
6. Disposal of Excess Spoil, Fills, Benches	☐	☑	☐	☐
7. Coal Mine Waste, Refuse Piles, Impoundments	☑	☐	☐	☐
8. Noncoal Waste	☑	☐	☑	☐
9. Protection of Fish, Wildlife and Related Environmental Issues	☑	☐	☐	☐
10. Slides and Other Damage	☑	☐	☐	☐
11. Contemporaneous Reclamation	☑	☐	☐	☐
12. Backfilling And Grading	☐	☑	☐	☐
13. Revegetation	☑	☐	☐	☐
14. Subsidence Control	☑	☐	☐	☐
15. Cessation of Operations	☑	☐	☑	☐
16.a Roads: Construction, Maintenance, Surfacing	☑	☐	☑	☐
16.b Roads: Drainage Controls	☑	☐	☐	☐
17. Other Transportation Facilities	☑	☐	☐	☐
18. Support Facilities, Utility Installations	☑	☐	☐	☐
19. AVS check	☑	☐	☑	☐
20. Air Quality Permit	☑	☐	☑	☐
21. Bonding and Insurance	☑	☐	☑	☐
22. Other	☐	☐	☐	☐

1. Permits, Change, Transfer, Renewal, Sale

The existing DOGM permit was renewed on May 13, 2018, and will expire on May 13, 2023. The current UPDES permit was renewed on January 27, 2018, and will expire at midnight, January 31, 2023.

2. Signs and Markers

The permit identification sign at the entrance contains all of the necessary information. Topsoil signs are posted and visible on all topsoil piles, and disturbed area perimeter signs are in place.

3. Topsoil

All topsoil piles are covered by several feet of snow.

4.a Hydrologic Balance: Diversions

In October of last year a series of heavy rain events that occurred over the burn scarred areas north of the main offices overwhelmed the C-6 culvert which diverts undisturbed drainage offsite via DD-1. Mud and other organic debris flooded the main offices as a result of the overwhelmed culvert. In response to this, a trench and collection basin were cut into the ground beside the culvert with the intention of diverting mud flows away from the culvert. This was accomplished to avoid a scenario where the culvert would become plugged with organic matter and require excavation to properly repair. Permittee confirmed that the mouth of the culvert is free from obstructions but could not discount the possibility that the culvert could be plugged further down as it approaches the 72" main culvert. Permittee acknowledges that there needs to be a more streamlined approach to directing undisturbed flows offsite from this area, but is leery of contributing to a scenario where DD-1 becomes plugged with silt and organic debris and requires excavation to repair. The Permittee recently consulted with hydrologist Erik Peterson concerning the matter of drainage in this area. Mr. Peterson asserted that given the size of the burn scar together with the generous snowpack in this region that another mudflow event is very likely to occur.

4.b Hydrologic Balance: Sediment Ponds and Impoundments

The mine sediment pond is covered by several feet of snow. The Burma pond appeared to be at approximately 70% capacity and partially frozen. Both ponds were inspected on October 24, 2018, and found to have no instability, structural weakness, or other visible hazards. The inspection reports for the lower pond at the main site as well as the Burma pond were both stamped and signed by J. Thomas Paluso, a Professional Engineer for the State of Utah.

4.d Hydrologic Balance: Water Monitoring

Water continues to discharge from the mine at a rate of 196 gpm. There is no flocculant or coagulant being applied to the mine water at this time since the water has been compliant for over a year. Water samples were taken at a point just prior to treatment and again at the UPDES discharge point 002, after the water has flowed through the treatment system. The samples were delivered to the Utah State Health Laboratory for processing.

8. Noncoal Waste

Site appeared clean and free of debris.

15. Cessation of Operations

Site has been in temporary cessation since 2007.

16.a Roads: Construction, Maintenance, Surfacing

Roads into the site were in good repair and the snow removed. No signs of sloughing or cracking were apparent anywhere.

19. AVS check

AVS check was conducted 03/26/2019 with no issues reported.

20. Air Quality Permit

Air quality approval order for permit DAQE - AN0225003-03 was approved and issued on March 20, 2003. It allows for 4,300,000 tons of coal to be stored per rolling 12 month average. This permit has no expiry.

21. Bonding and Insurance

Insurance is provided through Lloyd's Underwriters at London and is valid until June 1, 2019. A reclamation bond in the amouint of $2,802,910 is currently held through Indemnity National Insurance Co. Of that total $720,000 was tacked on to the original bond on July 2, 2012, and was put in place specifically to address the cost of perpetual mine water treatment. Recently the Permittee submitted a request to the Utah Board of Oil, Gas, and Mining for release of this amount considering the mine water discharge has been below the 1.24 mg/l regulatory limit for over a year. On February 20, 2019, the Board voted unanimously for the release of this bond (Docket No. 2010-026).

ATTACHMENT A – Crandall Canyon Complete Inspection, March 20, 2019

PHOTO 1 – WATER TREATMENT FACILITY
Overlooking the water treatment pond. Water sampling location Pre-002 is from the end of the white PVC left of center.

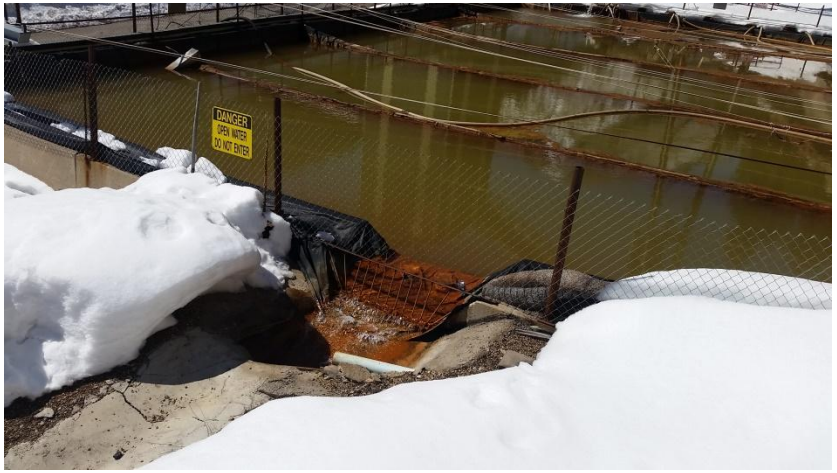

PHOTO 2 – TREATMENT POND OUTFALL
The water flowing through the outlet is sampling point for UPDES discharge #002.

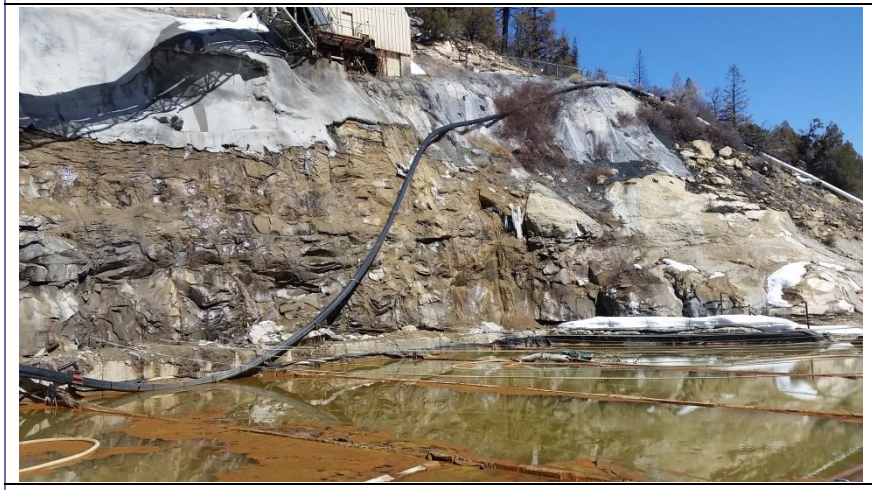

PHOTO 3 – WEEPING HIGHWALL
The face of the highwall overlooking the water treatment facility. No recent spalling or sloughing is evident.

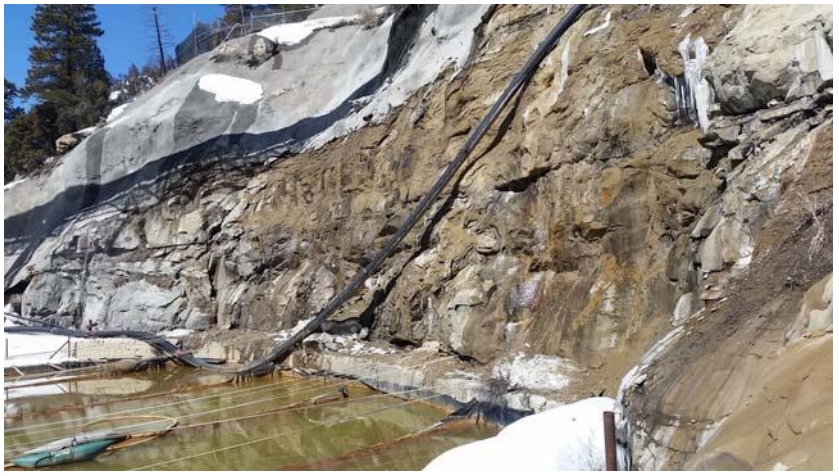

PHOTO 4 – WEEPING HIGHWALL
A view of the highwall from a different angle.

ATTACHMENT A – Crandall Canyon Complete Inspection, March 20, 2019

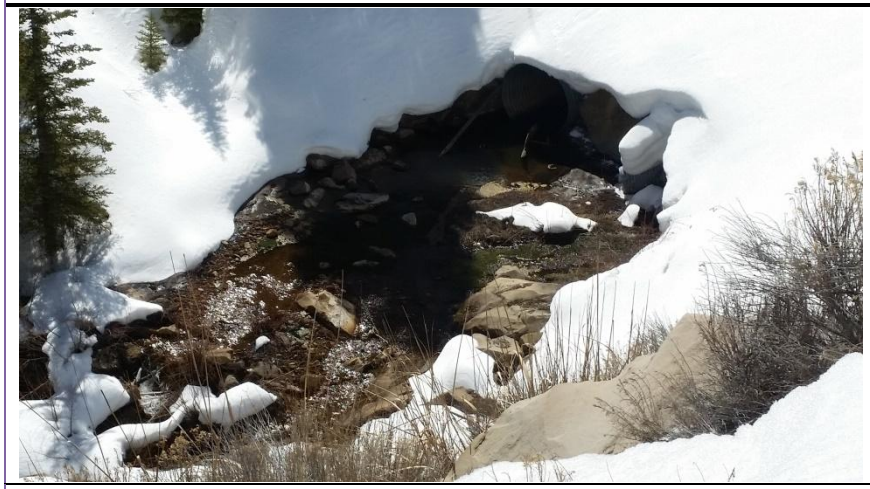

PHOTO 5 – CRANDALL CREEK
The discharging culvert at center is the 72" bypass that runs beneath the main mine site.

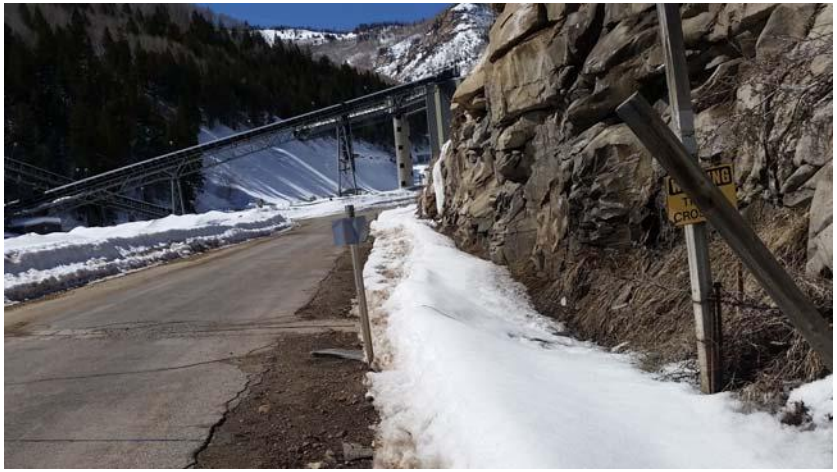

PHOTO 6 – DD-7
Drainage ditch DD-7 is located beneath the snow drift that lines the USFS road here. Highwall appears stable.

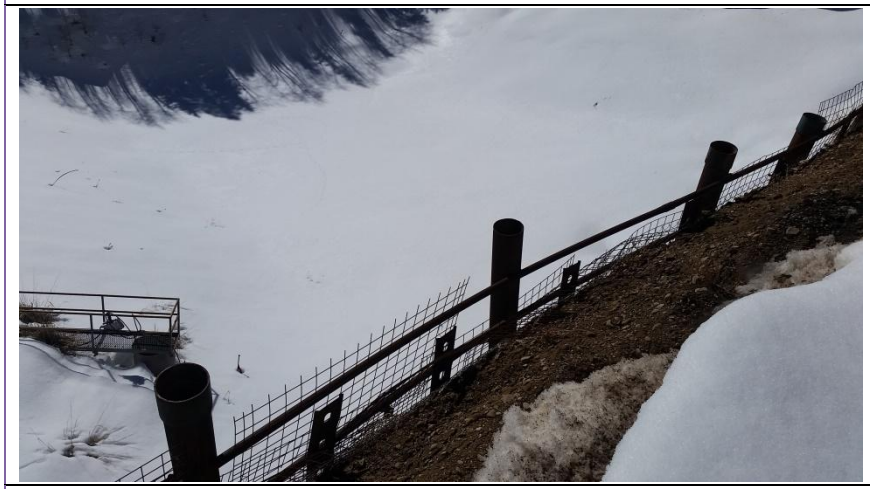

PHOTO 7 – SEDIMENT POND
The sediment pond is still covered by a thick blanket of snow.

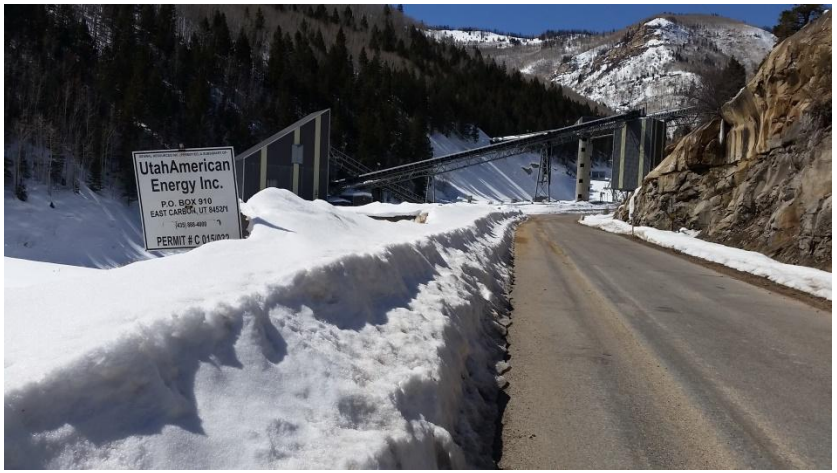

PHOTO 8 – USFS ROAD
The road into the site was in good condition and free of ice and snow.

ATTACHMENT A – Crandall Canyon Complete Inspection, March 20, 2019

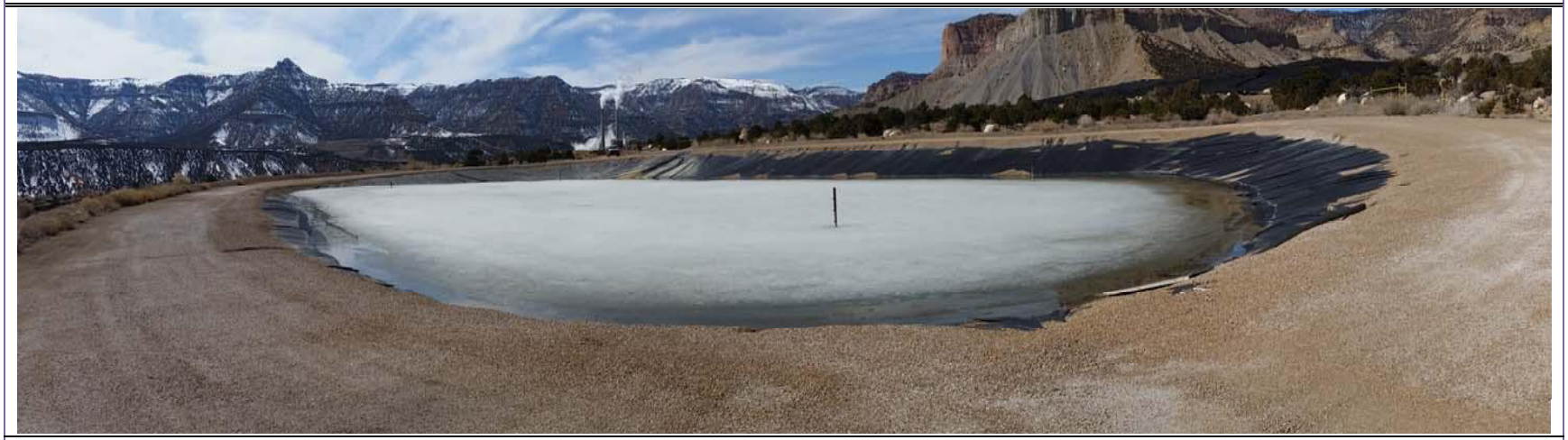

PHOTO 9 - BURMA POND, LOOKING SOUTHWEST

Pond appears to be at approximately 60% - 70% capacity, and is covered by a layer of ice that is diminishing around the edges. Pond appears stable, and the liner free of rips or tears.