State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

GARY R. HERBERT
Governor

GREG BELL
Lieutenant Governor

Inspection Report

Permit Number:	**C0150015**
Inspection Type:	TECHNICAL
Inspection Date:	Tuesday, November 14, 2017
Start Date/Time:	11/14/2017 9:30:00 AM
End Date/Time:	11/14/2017 12:30:00 PM
Last Inspection:	Wednesday, October 25, 2017

Representatives Present During the Inspection:	
OGM	Priscilla Burton
Company	Kit Pappas

Inspector: Priscilla Burton,

Weather: partly cloudy 55F

InspectionID Report Number: 6012

Accepted by:DHADDOCK
11/16/2017

Permitee: **BRONCO UTAH OPERATIONS, LLC**
Operator: **BRONCO UTAH OPERATIONS, LLC**
Site: **EMERY DEEP MINE**
Address: **PO BOX 527, EMERY UT 84522**
County: **EMERY**
Permit Type: **PERMANENT COAL PROGRAM**
Permit Status: **ACTIVE**

Current Acreages

473.80	**Total Permitted**
85.90	**Total Disturbed**
	Phase I
	Phase II
	Phase III

Mineral Ownership

- [x] Federal
- [ ] State
- [ ] County
- [x] 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:

Mining from the Emery 2 portals was ongoing. The face is 1,000 ft inby. The mine is currenytly dry. The ROM coal stockpile was estimated at 20K tons. Trucks were lined up at the loadout. We observed and discussed the topsoil and excess spoil stockpiles created during Emery 2 construction. Seth McCourt, Mining Engineer for Bronco Energy, accompanied us during the inspection. Fer to Plate II-1 for stockpile locations.

Inspector's Signature: Priscilla Burton Priscilla Burton 2017.11.16 16:40:32 -07'00' **Date** Wednesday, November 15, 2017

Priscilla Burton,
Inspector ID Number: 37

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

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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 Division approved the Emery 2 construction on Feb, 10, 2017. Emery 2 added 10.3 disturbed acres to the disturbed area (Chap III, p. 21). The box cut construction is into rock. The floor of the box cut was dry. The electrical and water conveyences are tucked above the portal entries. The site was very tidy.

2. Signs and Markers

Fan portal topsoil berm and topsoil pile T2 were signed.

3. Topsoil

Topsoil is stored in a berm around the fan pad and in topsoil pile T-2 at the waste rock site. Volume of the fan pad berm topsoil will be surveyed and provided to the Division with an as-built. Topsoil at the fan was salvaged in March 2017. Since that time a surface crust has formed which will make it difficut for seed to adhere to the soil piled at angle of repose.

Topsoil and subsoil was salvaged from the box cut and placed on the existing topsoil pile T-2. The topsoil pile is bermed. Slopes are less than described in Chap IV, p. 8c. Topsoil pile T2 held only 362 CY previous to the Emery 2 construction. Mr. McCourt provided a March 22, 2017 survey of topsoil pile T2. On 3/22/2017, the total volume of soil in Topsoil pile T2 was 2,370 CY, meaning 2,008 CY of topsoil and subsoil was salvaged during the Emery 2 construction. This is one quarter of the volume anticipated (Chap III, p. 21a). This volume of topsoil could cover 3 acres to a depth of four inches. The as-built reporting should adjust actual replacement depths described in Chap. III, p. 21 and Chap IV, p. 8c.

Topsoil pile T2 was surface roughened at the time of placement, but also has formed a surface crust.

The MRP Chap II, p. 23 describes the use of mulch on topsoil piles. We discussed mimicking the surroundings which have pebble and gravel mulch (aka. desert pavement). Equipment is already available on site to sort pebble sized fragments from the excess spoil sandstone for use on the topsoil pile T-2 and the fan portal topsoil berm. A single layer of rock will be placed on the surface of the topsoil. This will serve to protect the soil surface, break the soil crust, reduce rain water impact, collect dew and provide shade for germinating seed.

There are two interim seed mixes described in the MRP Chap VIII, p. 20. The Operator is seeking advice on which seed mix to use. The native mix was seeded in January 2015 on the test plots. The 2016 Annual report App. B5 Emery Reclamation Study report states that seeded grasses died out after two years and but seeded shrubs were still present on the plots. These shrubs in order of dominance were Atriplex canescens (fourwing saltbush), Atriplex confertifolia (shadscale), and Krascheninnikovia lanata (winterfat). The non-native interim seed mix has two non native grass species: Agropyron cristatum (Highcrest crested wheatgrass) and Leymus angustus (Russian wildrye) and the native Fourwing saltbush.

4.a Hydrologic Balance: Diversions

The outlet of the UC-2 culvert on the East side is under construction. Water from Quitchupah is pumped to a water tank on the fan pad for underground use.

4.b Hydrologic Balance: Sediment Ponds and Impoundments

Sediment pond 3 and pond 8 were dry.

4.c Hydrologic Balance: Other Sediment Control Measures

We discussed seeding the cut slopes along the road and the topsoil berm along the road, as well as stockpiles.

6. Disposal of Excess Spoil, Fills, Benches

Excess spoil was either placed at the waste rock site as described (Chap IV, pages 8c and 39b) or piled at the East side of the box cut entrance. Mr. McCourt provided survey volumes of the waste rock site. Surveys were conducted by Ware surveying. Prior to construction, the waste rock site held 44,700 CY (MRP Chap III, p. 15g). On June 24, 2017, it was surveyed at 97,960 CY. Therefore, 53,260 CY excess spoil was hauled to the waste rock site during construction. (This is much less volume than was estimated in Chap IV p. 8c or Chap III p. 15g, indicating that the swell factor of 30% was off.) The as-built report should modify reclamation plans in Chap III accordingly.

Approximately 890 (bank) CY of this excess spoil is large sandstone rock fragments from the raised-bore construction of the fan portal (Chp IV, p. 8d). The Permittee has been sorting gravels and pebbles from this spoil pile for use on roads underground and within the disturbed area.

7. Coal Mine Waste, Refuse Piles, Impoundments

A quarterly inspection of the refuse pile was completed on 9/20/2017 by Tom Paluso.

12. Backfilling And Grading

Estimated cut/fill volumes are provided in Chap III, p. 15 g and Chap IV p. 8f. Mr. McCourt provided surveyed volumes of 119,000 CY cut (which includes the coal removed) and 35,500 CY fill (which includes the constructed ramp and approximately 7,000 CY of loose fill at the box cut entrance). These volumes are much less than anticipated.

ATTACHMENT A – Photos	Emery Inspection November 14, 2017
PHOTO 1 Emery 2 portals. Box cut dimensions smaller than anticipated.	**PHOTO 2** Fan pad topsoil berm
PHOTO 3 Topsoil pile T2 North end	**PHOTO 4** Topsoil pile T2 East face

ATTACHMENT A – continued **GVH Sites**

PHOTO 5 Topsoil pile T2 East face with excess spoil pile behind

PHOTO 6 Surrounding desert pavement

PHOTO 7
Excess spoil sorting operation

PHOTO 8
Christiansen Wash enters Quitchupah