



**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:	<b>C0070039</b>
Inspection Type:	PARTIAL
Inspection Date:	Tuesday, December 3, 2019
Start Date/Time:	12/3/2019 10:30:00 AM
End Date/Time:	12/3/2019 12:30:00 PM
Last Inspection:	Wednesday, November 6, 2019

Representatives Present During the Inspection:	
OGM	Priscilla Burton
OGM	Todd Miller
Company	Jay Marshall

Inspector: Priscilla Burton,

Weather: sun, 38F

InspectionID Report Number: 6581

Accepted by: SCHRISTE  
 12/16/2019

Permitee: **CANYON FUEL COMPANY**  
 Operator: **CANYON FUEL COMPANY**  
 Site: **DUGOUT CANYON MINE**  
 Address: **PO BOX 1029, WELLINGTON UT 84542**  
 County: **CARBON**  
 Permit Type: **PERMANENT COAL PROGRAM**  
 Permit Status: **ACTIVE**

**Current Acreages**

9,568.00	<b>Total Permitted</b>
106.88	<b>Total Disturbed</b>
37.00	<b>Phase I</b>
19.00	<b>Phase II</b>
1.82	<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:**

Phase 2 of the refuse site expansion is imminent. Changes to the storage location of topsoil and subsoil stockpiles were discussed. The evaluation of the 2 foot cover test plot was discussed. Refer to RA Plate 2-2 for surface facility locations including topsoil and subsoil stockpiles and the test plot location..

**Inspector's Signature: Priscilla Burton**

Priscilla Burton  
 2019.12.16 10:02:41 -07'00'

**Date** Monday, December 16, 2019

Priscilla Burton,  
 Inspector ID Number: 37



**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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Signs and Markers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Topsoil	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4.a Hydrologic Balance: Diversions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.b Hydrologic Balance: Sediment Ponds and Impoundments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.c Hydrologic Balance: Other Sediment Control Measures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.d Hydrologic Balance: Water Monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

### **1. Permits, Change, Transfer, Renewal, Sale**

RA Plate 2-2 is an as-built which shows the configuration of the site at the completion of stage 2 of the Phase II expansion. To date, stage 1 has been completed. (Stage 1 added 2-acres of disturbed land.) The stockpile volumes described on RA Chap 2, p. 2-15 and shown on RA Plate 2-2 will not exist at the site until the final stage of Phase II expansion is completed (personal communication from B. King, 2/27/2018). Stage 2 will involve soil salvage from an additional 1.23 acres of land (mostly in Map Unit J, RA Volume, p. 2-14).

### **3. Topsoil**

Two topsoil and three subsoil stockpiles are at the waste rock site. All, but one, are shown on RA Plate 2-2. The one not shown is a subsoil stockpile on top of the waste rock site which holds the remainder of the subsoil salvaged from Phase 1. This soil pile is signed and bermed. Mr. Marshall stated that it was seeded. Only weedy species are growing on this stockpile.

The two stockpiles at the entrance to site are well vegetated. The topsoil pile is growing grasses and the subsoil pile is dominated by rabbitbrush. One subsoil and one topsoil pile are located on the West fence line, South of the refuse pile. These stockpiles are also growing mostly weedy species. These two stockpiles will be moved up to the flat surface of the waste rock site, to allow expansion of the pile.

We discussed expanding the current subsoil stockpile (on top) with subsoil from the West fence line and from the Phase 2 expansion. The topsoil from the West fence line and expansion would be placed in a separate stockpile on top. We discussed placement of the stockpiles on the final graded surface of the waste rock, so that soils could remain until needed for final reclamation. We discussed adding hydromulch to the seeded surface of the stockpiles, to hold seed in place, since the top of the waste rock is a windy location.

There is some confusion as to the labeling of the existing stockpiles. Both stockpiles on the West fence line are signed as topsoil, but according to RA Plate 2-2 one is topsoil and one is subsoil. The stockpile on top of the waste rock site was previously identified as topsoil, but it is subsoil and is currently signed as subsoil. The operator must ensure that subsoil stockpile on the West fence line is correctly identified, as shown on as built Plate RA 2-2.

## **7. Coal Mine Waste, Refuse Piles, Impoundments**

The slopes of the waste rock site were graded smooth and covered with mulch blanket after seeding in January 2018. In total, 1.9 acres were contemporaneously reclaimed in stage 1 of the Phase II expansion. The contemporaneous reclamation area includes the top of the waste rock pile at the North end (final height 5,996 ft.) and a portion of the North and East facing slopes.

The top of the waste rock site was surface roughened to incorporate straw before seeding. A small, approximately 0.65 acre, 2-foot-cover-test-plot on the North face of the waste rock pile was also seeded and blanketed in January 2018. The 2-foot-cover-test-plot was observed to have vegetative and snow cover. The reclaimed surface on the East face (3.5 feet of cover) was likewise vegetated, but without snow cover.

As currently described, the refuse pile will have a surface area of 18.9 acres at the completion of Phase II expansion (RA Attach 2-2). Mr. Marshall's main question was how to demonstrate the effectiveness of the two foot of cover and whether 2-ft-cover could be applied to future contemporaneous reclamation.

We recommended that an evaluation and comparison of vegetation cover on the 2 foot cover test plot, and the 3.5 foot cover slope and the reference area be completed in the next field season (2 years after seeding) and follow the established monitoring schedule for bond release.

It's possible that after five years the mulch blanket will have degraded and vegetation would be the sole erosion control on the slope. If at that time, growth on the 2 foot cover layer were indistinguishable from the 3.5 foot layer, with both meeting the reference area standard, the data may support the two foot cover. However, the difference in slope could be a factor.

The size of the test-plot on the North face should be confirmed. Division records suggest that it is between 0.15 and 0.65 acres. We discussed having a total of 20% of the final surface area in the 2-ft-cover-test-plot. So a test plot was proposed for the East face.

At the time of our discussion, I had a footprint dimension, but did not have the final surface area figure at hand. Since our field meeting, I have reviewed the MRP and know that the final surface area of the Phase II expansion is currently proposed to be 18.9 acres. Ideally, there would be a one acre test plot on each face. If the North face test plot is 0.65 acres, 3 more acres of test plots (East, South & West faces) would result in approximately 20% of the final 18.9 acre surface area being in test plot and provide good representation of the site conditions.

### **13. Revegetation**

The 2-ft. cover revegetation test plot on the north side of the site was observed. Due to the 3-4" of snow on the ground, it was difficult to make a conclusive observation, but the vegetation appeared to be well established considering it was seeded only two years ago. The visible vegetation primarily consisted of grasses though some forbs and a few "weedy" species were observed as well. It is too early at this point to make a conclusion regarding the efficacy of the 2-ft. cover in meeting revegetation success standards. An analysis conducted in the upcoming growing season (2020) could provide some useful insight but may still be too early to make any firm conclusions.

Dugout Mine – Inspection Report #6581 Photo Attachment

	<p>Looking North at the reclaimed portion of the East face</p>
	<p>Looking West across reclaimed portion of the top of the refuse</p>
	<p>Looking East across the 1 acre test plot on the North face</p>
<p>South face of refuse. Stockpiled subsoil and topsoil on left. Topsoil and debris from Dugout culvert in foreground. Boulder storage.</p>	