



April 9, 2024

Twentymile Coal Company  
Miranda Kawcak  
29515 RCR #27  
Oak Creek, CO 80467

Job Number: 99-3983

Subject: Quarterly Observation Report,  
Refuse Pile, Foidel Creek Mine, Routt  
County, Colorado.

Miranda,

As requested, NWCC, Inc. (NWCC) has prepared this report outlining our observations made during the first quarter of 2024 at the Refuse Pile located at Twentymile Coal Company's (TCC) Foidel Creek Mine in Routt County, Colorado. During this quarter, Timothy Travis of NWCC visited the project site on March 29, 2024 to provide the quarterly inspection/observations of the Refuse Pile.

At the time of our site visit on March 29, 2024, NWCC completed a site inspection of the existing refuse pile. Based on our observations made during this visit, it appeared that the contractor was presently stockpiling, grading and compacting refuse coal in the new Expansion Area. At the time of our site visit, the refuse coal had been placed and compacted to an elevation above the third bench situated along the east side of the stockpile.

Compaction testing in the new Expansion Area of the refuse pile was also completed on March 29, 2024. Eight compaction tests (#659 to #662) were taken in Expansion Area during this quarter. All of the tests taken during this quarter met the minimum compaction requirement of 90% of the maximum standard Proctor density. Copies of the compaction test results and the daily field reports are attached. It should be noted that the abbreviations given in the Nuclear Density Test Results (Proctor Data) are as follows: Maximum DD = Maximum Dry Density and OMC = Optimum Moisture Content. Both of these values have been determined in accordance with ASTM D698.

The internal roadways in the new expansion area of the pile are in good condition. The upper haul road to Areas 2, 3 and 4 of the refuse pile was not accessible at the time of our site visit due to snow.

A seepage area at the toe of the northeast end of the refuse pile expansion area, approximately 30 feet northwest of the outlet of the underdrain, developed in fall 2014. At the time of our observations, the seepage was surfacing at the toe of the slope and flowing into the drainage from the undrain outlet then into the existing pond east of the Refuse Pile Expansion Area. The discharge was clear, with no evidence of sediment. No signs of washout, slumps or slope instability were observed at this time. The seepage area will be monitored during future inspections and noted in our inspection reports. Photographs of the seepage area taken at the time of our inspection on March 29, 2024 are attached.

Based on our observations, the surface drainage conditions generally appeared to be adequate across the top and sides of the pile. Based on our observations, we did not observe any signs of instability, structural weakness or hazardous conditions at the refuse pile.

We were advised that the wash plant had produced approximately 124,214 tons of waste coal during the month of January 2024: approximately 51,962 tons during February 2024: and approximately 151,210 tons during March 2024. It is our understanding that the fines being produced at the wash plant, which consists of approximately 10 to 20 percent of the total materials being produced, are being pumped underground into the mine.

We were previously informed by Brian Watterson of TCC that all of the original monitor wells installed in the Refuse Pile were destroyed in July 2012. Two new monitor wells were constructed in Area 1 of the Refuse Pile in December 2013. NWCC was provided monthly monitor well readings for this quarter by TCC. The water level in the western monitor well (RW#1) was measured at 57.90 feet below the existing ground surface (bgs) on January 24<sup>th</sup> at 57.75 feet bgs on February 29<sup>th</sup> and at 58.00 feet bgs on March 20<sup>th</sup> of 2024. The water level in the eastern monitor well (RW#2) was measured at 56.80 feet bgs on January 24<sup>th</sup>, at 56.70 feet bgs on February 29<sup>th</sup> and at 57.30 feet bgs on March 20<sup>th</sup> of 2024. An additional monitor well (RW#3) was constructed at the southeast end of the 1<sup>st</sup> bench in the new Expansion Area in June of 2014. The water level in the expansion area monitor well (RW#3) was dry when checked on January 24<sup>th</sup>, February 29<sup>th</sup> and March 20<sup>th</sup> of 2024.

Based on our observations, it appears that the pile is currently being constructed and maintained in general accordance with the project specifications and plans submitted under 2.05.3(8) and that the potential hazard to human life and property at the site in its present condition is minimal. This report fulfills the quarterly inspection requirements as specified by Rules 4.09.1(11)(a), 4.09.1(11)(b), 4.10.2(2)(a) and 4.10.2(2)(b).

If you have any questions regarding this report or our observations, please contact this office.

Sincerely,  
**NWCC, INC.,**

Timothy S. Travis, P.E.  
Sr. Project Engineer

Reviewed by Brian D. Len, P.E.  
Principal Engineer 4-11-2024



## NORTHWEST COLORADO CONSULTANTS, INC.

<b>Project:</b>	Refuse Pile	<b>Project No.:</b>	99-3983	<b>Date:</b>	3/29/24
<b>Location:</b>	Foidel Creek Mine	<b>Report No.:</b>	111	<b>Time:</b>	2.0
<b>Client:</b>	Twentymile Coal Co.			<b>Mileage:</b>	45
				<b>Engr. /Tech:</b>	TT

### Work Performed:

As requested, we visited the project site on today's date and conducted compaction test No's 659 through 662 on the fill materials being placed within the Refuse Pile.

Twentymile Coal Company crews placed and compacted processed waste coal in the Refuse Pile.

We also obtained a sample of material and returned it to our laboratory in Steamboat Springs, CO for standard checkpoint Proctor testing. The sample matched previously determined Proctor 12P for this project.

### Remarks:

The material tested today generally met project specifications for compaction.

Please refer to attached sheet for results of today's testing.

### Verbal Discussions:

Nick Aromando of Twentymile Coal Co. was notified of today's test results.

## NUCLEAR DENSITY TEST RESULTS

**Project:** Refuse Pile

**Project No.:** 99-3983

**Date:** 3/29/2024

**Report No.:** 111

Test No.	Location Northing/Easting	Depth Elev.	Proctor No.	Dry Density (pcf)	Water Content (%)	Actual Compaction	Required Compaction
659	30772.86 / 16993.12	7029.961	12	103.2	5.9	94	90
660	30490.55 / 16721.13	7028.126	12	101.1	5.6	92	90
661	30305.38 / 16422.83	7031.408	12	99.8	7.6	91	90
662	30565.98 / 16897.09	7026.250	12	102.4	6.1	93	90

### PROCTOR DATA

No.	Maximum Dry Density (pcf)	Optimum Moisture Content (%)	Relative Density Minimum Density (pcf)	Relative Density Maximum Density (pcf)	Soil Type
12	109.8	7.6			Processed Waste Coal
11	100.3	10.2			Processed Waste Coal
10	107.6	11.0			Processed Waste Coal

**Comments:**

**BSG=** Below Subgrade Grade  
**SG=** Subgrade Grade  
**SBG=** Subbase Grade  
**BSBG=** Below Subbase Grade  
**BCG=** Base Course Grade  
**BBF=** Below Bottom of Footing

**NWC=** Northwest Corner  
**NEC=** Northeast Corner  
**SWC=** Southwest Corner  
**SEC=** Southeast Corner  
**BFG=** Below Footing Grade  
**FG=** Footing Grade



March 29, 2024-Drain Outlet and Seepage Area



March 29, 2024-Seepage Area



March 29, 2024- Areas 2, 3 and 4 from Expansion Area



March 29, 2024- Expansion Area



March 29, 2024- Expansion Area



March 29, 2024- Expansion Area