STATE OF COLORADO

Reilley - DNR, Robin <robin.reilley@state.co.us>

Bond Compliance Inspection Williams Fork Mine 2024

1 message

Reilley - DNR, Robin <robin.reilley@state.co.us> Mon, Jun 17, 2024 at 10:38 AM
To: "Ebert - DNR, Jared" <jared.ebert@state.co.us>, "Kawcak, Miranda" <MKawcak@peabodyenergy.com>, Robin Reilley - DNR <robin.reilley@state.co.us>

Good Morning,

Please find the above referenced document. The work associated took place over the 2023 and early 2024 field season.

I'm available to answer any questions or concerns

Thank you,

Robin Reilley, M.S. GISP
Environmental Protection Specialist II

COLORADO
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Department of Natural Resources

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Bond Compliance Inspection_2024_WF.pdf
183K

Interoffice Memo

RE: Bond Compliance Williams Fork Mine 2024

To: Jared Ebert
From: R. Reilley
Date: 17 June 2024

Over the course of the 2023 and 2024 field seasons a thorough evaluation of records, bond and facilities was conducted through field recognizance and permit documentation search. Pertinent rules assessed comprised 3.02.2(1). References included the most recent CIRCES Reclamation Cost Estimate, permit document, inspection reports, and the DRMS coal handbook. In association with RN8 issued in February of 2024 a site wide cost estimate was performed. Currently, it appears that DRMS is adequately bonded if not somewhat over bonded as reclamation has been completed on the following:

1. Wells except for monitoring wells have been sealed.
2. Vent shaft entries closed.
3. Portal 5A facilities area regraded and vegetated.
4. Portal 5A boxcut closed.
5. Sewage treatment ponds regraded.
6. Topsoil has been replaced at Refuse Pile.

With Phase I, II and III bond release applications anticipated for summer 2024 an updated bond calculation will be undertaken at that time. Records are up to date in the office at the Foidel site. Many records are available electronically on the office computer.

References attached:

- Exhibit 18 Culvert and Ditch Design Summary
- Map 26: Drainage and Sediment Control

COAL BOND COMPLIANCE INSPECTION

Mine	Williams Fork	Permittee	Moffat County Mining
Permit No.	C1981044	Operator	Miranda Kawcack
Date	17 June 2024	Inspector	R. Reilley

Photo 1: Overview of the Williams Fork cropland adjacent to the Williams Fork River.

Part 1 - Contemporaneous Reclamation - To be completed at least annually Backfilling and Grading

Compare the following field conditions to approved plans using the reclamation cost estimate, mine plan/operations plan maps, post-mining topography maps, and maps from annual reclamation reports, etc. Write a brief description of any observed discrepancies.

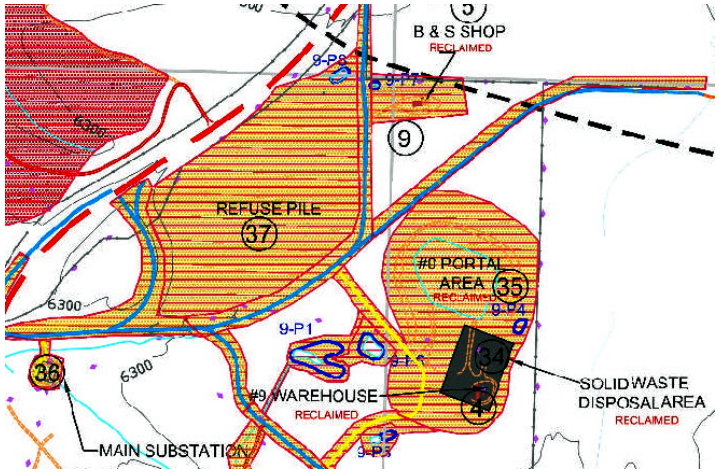
1. Number of mine shafts, and/or adits. open pits, and portals.
   NA

1.a. Approximate dimensions of pits/openings.
   NA all openings have been reclaimed, backfilled, graded, topsoiled, and seeded.

2. Number of spoil ridges at each pit, or time elapsed since the pit was last active.
   NA

3. Are there existing subsidence features that require backfilling and grading?
   Over the course of my oversight duties at Williams Fork Mine no subsidence features have been identified.

4. List refuse areas and their locations.
    a. Solid Waste Disposal Area
    b. Refuse Pile



Map 1: Location of Refuse Pile and Waste Disposal Area, northern portion of the permit reference Map.

4.a. For each refuse area, list the status of reclamation (compaction, cover, topsoil, revegetation).
    a. Solid Waste Disposal Area reclaimed in 2009 Phase I. Vegetation is adequate for the site, not lush.
    b. Refuse Pile reclaimed in 2020 Phase I. Vegetation is sparse and tends towards weedy.

Topsoil

1. How large is the area ahead of the active mining area where topsoil has been removed?
NA**,** Site has been reclaimed and only topsoil piles for pond reclamation remain. These are located adjacent to ponds and are marked with a TPost.

2. What is the approximate area of graded areas where topsoil has not been redistributed?
NA

3. List Topsoil stockpiles and their locations.
Most topsoil stockpiles are associated with ponds as listed below in Section 3, Hydrology. For ponds that will be reclaimed stockpiled tospsoil will be utilized. *Map 26 Drainage and Sediment Control* show all topsoil piles. Small area exemptions are associated with topsoil stockpiles.

Revegetation

1. How much area ahead of the pit and topsoil removal areas has been brushed?
NA, the site has been in reclamation since 2017. Phase III bond released sites include the Strip Pit and the Utah Tract. Overall vegetation is adequate on this dry site.

COAL BOND COMPLIANCE INSPECTION

Mine: Williams Fork Permittee Moffat County Mining

Permit No. C1981044 Operator Miranda Kawcack

Date 17 June 2024 Inspector R. Reilley

Part 2 - Aerial Inspection - To be completed at least once annually.

Date of Photograph: 28 May 2024
If Available: Time __ Scale NA Images taken by B. Bowles from State Patrol Plane.

Compare the following to the approved permit application maps, text, and the reclamation cost estimate. Describe any inconsistencies.

1. Number and area of pits or mine openings, mine benches, stockpile/storage pads.
   The site has been reclaimed and the only stockpiles comprise those adjacent to ponds.

2. Location/progression of pit areas.
   NA

3. Number of spoil ridges at each pit.
   NA

4. Area stripped ahead of pit areas.
   NA

5. Number of buildings and other structures.
   The only structures at the site comprise the service building (permanent) near the No 5A Portal and the bridge across the Williams Fork River.

6. Offsite/remote facilities.
   NA

7. Ponds and Diversions
   Diversion ditches are listed in Exhibit 18 (attached) and comprise information for the 10 year 24 hour event and the 100 year 24 hour event. Field inspections over the course of the 2023 and 2024 field season verified the condition and construction material of the ditches and found the ditches to be functioning adequately.

   Ponds do not hold water except under highly unusual precipitation events. Ponds are listed below in Part 3 Hydrology Section, Topic 6. Ponds and diversion ditches are depicted on *Map 26: Drainage and Sediment Control.*

8. Roads (light use, access and haul roads).
   Haul road and access road to the No 5 Portal are permanent facilities.

9. Location and approximate size of coal stockpiles.
NA

COAL BOND COMPLIANCE INSPECTION

Mine	Williams Fork	Permittee	Moffat County Mining
Permit No.	C1981044	Operator	Miranda Kawcak
Date	17 June 2024	Inspector	R. Reilley

Part 3 - Support Facilities/Hydrologic Structures -To be completed at Permit Renewal and Midterm

1. Verify that all roads are documented in the permit. If not, list all undocumented roads and their approximate width and length. Verify the type of surfacing used on each road (gravel, asphalt pavement, etc.)
   All haul roads are documented in the permit and are gravel covered roads.

2. Verify that all culverts are documented in the permit. If not, list their diameter and length.
   All culverts are documented in the permit. The majority of culverts comprise road culverts and will remain in place once reclamation is completed. All road culverts were surveyed and exist as documented. Some culverts have been removed in the course of reclamation activities. References: *Culvert List Exhibit 18 and Map 26: Drainage and Sediment Control.*

3. List the location, type of opening (drift, shaft, incline), and dimensions of all mine openings.
   NA

4. Verify that all drill holes, bore holes, degas wells, etc, are documented in the permit. If not, list the type of opening, its location, diameter, and depth. Document dimensions of any structures associated.
   Wells, boreholes, and degas wells are documented in the permit.

5. List all offsite remote structures their composition, and dimensions. (Example: ventilation fans, weather stations, rail loops, loadouts).
   NA

6. List all sedimentation ponds, impoundments, and their locations. Document the type and the approximate dimensions of each structure.
   Ponds are depicted on *Map 29, the Reclamation Plan Map*. The following structures have achieved bond release:
   - Ponds 9A-P1, 9A-3 and 9A-P4
   - Sewage treatment ponds have been reclaimed.

Pond	*Pond*	*Pond*	*Pond*
5-P1	5-P2	5-P3	9A-P2
9-P1	9-P2	9-P2	9-P3
9-P4	9-P5	9-P6	9-P7
9-P8	HR-P1A	HR-P1B	SH-P1
SH-P2	5-A		

7. Are there stock tanks or dozer basins on site? If so, what is their average size and aerial density.
Yes, stock tanks are present in the Phase III released Strip Pit.

Mine	Williams Fork	Permittee	Moffat County Mining
Permit No.	C1981044	Operator	Miranda Kawcak
Date	17 June 2024	Inspector	R. Reilley

Part 4 – Structures and Facilities - *Completed at Permit Renewal and Midterm*

Photo 2: Service Building/ Shop at No 5 Portal.

1. List all structures, their composition, rough dimensions, and whether or not they are on concrete foundations and/or footings.

	Dimensions	Composition	Foundation	Footers
name or purpose	l X w X h	steel, concrete, cinder block, wood, etc.	yes/no reinforced vs. plain concrete	yes/no reinforced vs. plain concrete
Shop at No 5 Portal	150'x50'x15'	Sheet metal	Reinforced concrete pad	yes
Bridge across Williams Fork River		Reinforced concrete		yes

2. List the amounts and types of materials on site which may be costly to remove (Examples: soiled solvents, waste oils [metal laden], hydraulic fluids, antifreeze, etc.) and types of containers (Examples: 55-gallon drums, 5-gallon bucket, 100-lb. sacks, etc.). Inquire as to whether any of these materials are stored underground, and document accordingly.
NA, with the exception of some waste at the entrance and above portal 5A all materials have been removed and hauled off for disposal or recycling. The remaining material will be disposed of in the same manner.

Photo 3: Wood utility poles and other waste awaiting disposal.

3. List the number and volume of any PCB or PCB contaminated transformers. If no evidence of "PCB Free" certification is found, and operator cannot produce documentation during inspection, list all transformers and volumes.
NA

4. Give the location, area, and **rough** volume of all equipment storage/bone yard areas on site. **Rough** volume is obtained by estimating the height of material stored and approximate area covered by the material.
NA

5. List the location of any buried fuel tanks or fuel lines. If there are buried tanks, inquire about the volume of them.
NA All tanks have been removed.

6. Briefly describe any factors that might complicate reclamation activities (Examples: restricted roads or bridges to access the site, utility corridors, transportation corridors, confined work areas, low wet areas, overburden problems, etc.)
The site has been reclaimed. Phase II and Phase III bond releases are pending. There is one bridge across the Williams Fork River providing access to the bottomlands/cropland area, and The Strip Pit. The Strip Pit and Utah Tract achieved Phase III bond release in 2021.

Cyprus Empire Corporation
Culvert Design Summary

Culvert No.	Ditch	Culvert Size CMP (inches) Required	Existing
1	Road Culvert	6	15
2	HR-D3	12	20 & 24
3	HR-D3	12	14 & 21
4	HR-D3	12	18 & 18
5	HR-D4	18	24
6	HR-D4	18	15 & 18
7	HR-D4A	18	24
8	State Highway Culvert	12	54
9	5D-10	6	24
10	5D-10	6	36
12	5-D9	8	18
13	5-D9	8	12 & 18
15	9-D4	8	24
16	9-D4 & 9-D3	12	24
17	9-D6	8	12
19	9-D10[1]	8	24
21	9-D14	8	24
22	Pond 5-P2 (5-D6 & 5-D9)	8	24
23	9-D15	18	20
24	HR-D4[2]	9	18
25	Road Culvert	6	18
26	HR-D4	15	30
27	HR-D3	12	24
28	Road Access Unloading Ramp	8	12
29	5-D1A	8	24

[1] See ditch design HR-D4 Subwater Sheds 1, 2, 5

[2] See ditch design HR-D4 Subwater Shed 3

Cyprus Empire Corporation
Culvert Design Summary

Culvert No.	Ditch	Required (Inches)		Existing
30	5-D1 & 5-D8	24		24
31	5-D1	12		24
32	Access to Sub-station	8		36
33	5A-D1	9		21
34	5A yard	15		24
35	5-D1	15		24
36	Road Culvert	6		18
37	HR-D4	18		24
38	5-D1	15		18
40	Silo Area	8	inlet outlet	18 & 18 24
42	Road Culvert	6		18
43	Pond 9-P5	8		18
44	Road Culvert	8		24
45	Road Culvert	6		18
46	Road Culvert	12		12
48	Road Culvert	12		24
49	Road Culvert	9		36
50	9-D14	9		18
51	9-D7	15		18
52	Road Culvert	6		16
54	Road Culvert	6		18
56	Road Culvert	8		12
57	5A-D1B	6		24
58	5A-D1C	6		24
59	5A-D2D	6		15
60	5A-D2B	9		18
61	5A-D2B	8		18
62	5A-D2A	6	SQUARE	36W x 18D
63	5-D1	12		18

Cyprus Empire Corporation
Ditch Design Summary (10 yr 24 hr event)

Ditch No.	Shape	Lining	Depth* (ft.)	Top Width (ft.)	Bottom Width (ft.)	Side Slopes	Riprap D50(ft)
•5A-D1	Triangle	Grass	1.04	4.16	NA	2:1	NA
•5A-D1A	Trapezoid	Riprap	0.53	3.12	1.0	2:1	0.41
•5A-D1B	Trapezoid	Riprap	0.30	9.60	9.0	1:1	0.50
•5A-D1C	Trapezoid	Riprap	0.30	9.60	9.0	1:1	0.50
•5A-D2A	Triangle	Shale Bottom	0.74	1.48	NA	1:1	NA
•5A-D2B	Triangle	Shale Bottom	0.90	1.80	NA	1:1	NA
•5A-D2C	Triangle	Shale Bottom	0.80	3.20	NA	2:1	NA
•5A-D2D	Triangle	Shale Bottom	0.57	1.14	NA	1:1	NA
•5A-D3A	Triangle	Grass or Annuals	1.50	6.0	NA	2:1	NA
•5A-D3B	Trapezoid	Riprap	0.33	6.66	6.0	1:1	0.50
•5A-D3C	Trapezoid	Riprap	0.32	9.64	9.0	1:1	0.50
•SH-D3	Triangle	Grass or Annuals	1.38	2.76	NA	1:1	NA
•SH-D2	Triangle	Grass	1.00	6.00	NA	3:1	NA
•9-D12	Triangle	Grass or Annuals	1.18	4.72	NA	2:1	NA
•9-D14	Triangle	Grass or Annuals	1.02	4.08	NA	2:1	NA
•9-D14A	Trapezoid	Grass or Annuals	0.94	4.26	0.50	2:1	NA
•9-D14A (alternate)	Trapezoid	Riprap	0.74	3.46	0.50	2:1	0.35
•9-D2	Trapezoid	Grass	0.63	3.52	1.00	2:1	NA
•9-D3	Trapezoid	Grass or Annuals	0.94	4.76	1.00	2:1	NA
•9-D4	Triangle	Grass or Annuals	0.46	0.92	NA	1:1	NA
•9-D6	Triangle	Grass or Annuals	0.82	1.64	NA	1:1	NA
•9-D7	Trapezoid	Grass or Annuals	1.06	8.24	4.00	2:1	NA
•9-D7 (alternate)	Parabola	Belting	0.87	2.28	NA	NA	NA
•9-D8	Parabola	Belting	0.58	2.33	NA	NA	NA
•9-D8A	Trapezoid	Riprap	0.47	3.88	2.00	2:1	0.41
•9-D1	Trapezoid	Grass or Annuals	0.77	3.58	0.50	2:1	NA
•9-D5	Triangle	Grass or Annuals	0.95	3.80	NA	2:1	NA
•HR-D4	Trapezoid	Riprap	0.63	7.78	4.00	3:1	0.41
•HR-D4A	Triangle	Grass or Annuals	1.31	10.48	NA	4:1	NA

*Includes 0.3 ft. of freeboard

Cyprus Empire Corporation
Ditch Design Summary (10 yr 24 hr event)

Ditch No.	Shape	Lining	Depth* (ft.)	Top Width (ft.)	Bottom Width (ft.)	Side Slopes	Riprap D50(ft)
HR-D3	Trapezoid	Riprap	0.57	4.28	2.00	2:1	0.40
HR-D3A	Trapezoid	Grass or Annuals	0.81	5.24	2.00	2:1	NA
9A-D1	Triangle	Grass	0.65	2.60	NA	2:1	NA
9A-D2	Triangle	Grass	0.42	1.68	NA	2:1	NA
9A-D5	Triangle	Grass	0.70	2.80	NA	2:1	NA
9A-D8	Triangle	Grass	0.41	1.64	NA	2:1	NA
5-D10	Trapezoid	None	0.41	2.14	0.50	2:1	NA
5-D1	Trapezoid	Grass or Annuals	1.42	4.84	2.00	1:1	NA
5-D1A	Trapezoid	Grass or Annuals	1.00	4.00	2.00	1:1	NA
5-D1B	Triangle	None	1.07	2.14	NA	1:1	NA
5-D8	Trapezoid	Grass or Annuals	1.26	11.56	4.00	3:1	NA
5-D9	Triangle	Grass or Annuals	0.43	0.86	NA	1:1	NA
5-D6	Triangle	Grass or Annuals	1.44	2.88	NA	1:1	NA
Utah Tract (See SAE)	Triangle	Grass	0.85	1.70	NA	1:1	NA

Ditch Design Summary (100 yr 24 hr event)

9-D10	Trapezoid	Riprap	0.72	12.32	8.0	3:1	0.38
9-D15A	Triangle	Grass or Annuals	1.43	11.44	NA	4:1	NA
9-D15B	Trapezoid	Riprap	0.62	7.72	4.0	3:1	0.33
9-D15C	Triangle	Grass or Annuals	1.27	10.16	NA	4:1	NA
9-D16A	Triangle	Grass or Annuals	1.36	10.88	NA	4:1	NA
9-D16B	Triangle	Grass or Annuals	1.17	9.36	NA	4:1	NA
9-D17	Triangle	Grass or Annuals	1.06	6.36	NA	3:1	NA
9-D18A	Triangle	Grass	1.91	7.64	NA	2:1	NA
9-D18B	Triangle	Grass or Annuals	1.69	10.14	NA	3:1	NA

*Includes 0.3 ft. of freeboard

30

29

31

32

6

5

REFUSE PILE

NOTE: FOR CONSTRUCTION AND DESIGN OF FRENCH DRAIN REFER TO EXHIBIT 21, WASTE DISPOSAL SITE.

NOTE: NO MINE WATER BEING PUMPED FROM No. 9 MINE

TOPSOIL

EROSION CONTROL FURROWS

TRACK SCALES

PUMP HOUSE

DISCHARGE DITCH

No. 5 MINE DEWATERING BORE HOLE SITE

WISE HILL NO. 4 WATER BOREHOLE

100 YEAR FLOOD PLAIN

POWDER MAGAZINES

4" FIRE SUPRESSION LINE

Old Substation Site

WASH DOWN PAD

FUEL ISLAND

SHOP & WAREHOUSE AREA

WASTE TREATMENT SITE

BERM

OVERLAND CONVEYOR

MINE DISCHARGE LINE

ROCK CRUSHER

ROCK DIVERSION CHUTE

DISTURBANCE CORRIDOR

MULIPLE SERVICES BUILDING

STOCK WATER POND

CONTRACTOR STAGING AREA SAE

△1005 6319.58

△6363.2

SAE

TOPSOIL SAE

LEGEND

- DRAINAGE BOUNDARY
- EROSION CONTROL DITCH / FURROW
- DIVERSION DITCH
- COLLECTION DITCH
- MINE WATER DITCH
- FLOW DIRECTION
- (A) STORED MATERIALS
- SAE — SMALL AREA EXEMPTION
- 20 — SAE NUMBER
- CONVEYOR
- 100 — STORMWATER MOVEDISCHARGE POINT
- 003 — NPDES MONITOR SITE
- (1) — CULVERT
- HAUL ROAD

N

300 0 300 600

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MAP 26

BTU EMPIRE CORPORATION

DRAINAGE & SEDIMENT CONTROL PLAN

FILE NAME AND LOCATION

Empire\revisions\04-45\MAP 26 (2004)

SCALE 1"=300'	DATE 02/23/04	NO.	REVISION	DATE
COMPILED J.E.S.				
CHECKED				
XREF'D FILES XREF\PLSS XREF\LEGAL XREF\SURFACE XREF\CONTOUR		SHEET	OF SET	