



COLORADO
Division of Reclamation,
Mining and Safety
Department of Natural Resources

April 1, 2024

Tony Tennyson
Colowyo Coal Company L.P.
5731 State Highway 13
Meeker, CO 81641

Re: Colowyo Coal Mine (Permit No. C-1981-019)
Minor No. 254 (MR-254)
Adequacy Review

Dear Mr. Tennyson:

After reviewing MR-254 from Colowyo Coal Company L.P. (Colowyo), the Division has the following comments:

1. When reviewing proposed Volume 15, Rule 4, pg. 9, there appears to be a text alignment issue with the currently approved pages before and after the referenced proposed page. Please provide updated Volume 15, Rule 4 as necessary to ensure all information is present within the proposed page as well as the currently approved pages. For reference, the Division has attached the currently approved Volume 15, Rule 4, pg. 8 through 10.

If you have any questions, feel free to contact me.

Sincerely,

Zach Trujillo
Environmental Protection Specialist
(303) 866-3567 ext. 8164
Zach.Trujillo@state.co.us



RULE 4 PERFORMANCE STANDARDS

4.05.12 Protection of Groundwater Recharge Capacity

Please see Section 4.05.11 in Volume 1.

4.05.13 Surface and Groundwater Monitoring

Colowyo will report discharges associated with its CDPS permit (sediment pond discharges) in accordance with the Clean Water Act of 1977 on a quarterly basis to the Colorado Department of Public Health and Environment. Surface water and groundwater monitoring data (monitoring locations listed in the tables below) is reported to the Division in an annual hydrology report. Annual hydrologic reports for the period of January 1st through December 31st will be submitted to the Division by April 1st of the following year.

Colowyo monitors the the following sites:

Sedimentation Ponds – Discharges associated with the sediment ponds will be monitored as required under Colowyo's CDPS Permit which is issued by the Colorado Department of Public Health and Environment. Colowyo will measure the quantity and quality of discharges from the permit area in compliance with the CDPS permit requirements. A copy of Colowyo's CDPS permit is available onsite for review as necessary.

At various times, Colowyo may obtain and discharge water under a CDPS minimal discharge permit. In the event that water is discharged under a minimal discharge permit, Colowyo will report as required by the CDPS permit.

Surface Water - Eleven surface water sites will be monitored because of mining activity at Colowyo. These points include five locations along Good Spring Creek, Taylor Creek, Jubb Creek, Little Collom Gulch, and Collom Gulch. Field parameters and laboratory analysis are gathered each quarter.

Monitoring Type	Monitoring Location	Monitoring Frequency	Quarterly Field Parameters	Quarterly Laboratory Parameters
Surface Water	Upper Collom Gulch (UCG) ¹	Quarterly	Flow from Parshall Flume. See List Below	See List Below.
Surface Water	Lower Collom Gulch (LCG) ²	Quarterly	Flow from Parshall Flume. See List Below.	See List Below.
Surface Water	Lower Little Collom Gulch (LLCG) ³	Quarterly	Flow from Parshall Flume. See List Below.	See List Below.
Surface Water	West Fork of Jubb Creek (WFJC) ⁴	Quarterly	Flow from Parshall Flume. See List Below	See List Below.
Surface Water	Confluence of Jubb Creek (CJC) ⁵	Quarterly	Flow from Parshall Flume. See List Below	See List Below.
Surface Water	Lower Taylor Creek (LTC) ⁶	Quarterly	Flow from Parshall Flume. See List Below	Flow from Parshall Flume. See List Below
Surface Water	Lower West Fork Good Spring Creek (LWFGSC) ⁷	Quarterly	Flow Only taken from Parshall Flume. Volume added to EFGSC measurement to apply to actual flow for NUGSC.	Flow Only taken from Parshall Flume. Volume added to EFGSC measurement to apply to actual flow for NUGSC.
Surface	East Fork	Quarterly	Flow Only taken from	Flow Only taken from

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Water	Good Spring Creek (EFGSC) ⁸		Parshall Flume. Volume added to LWFGSC measurement to apply to actual flow for NUGSC.	Parshall Flume. Volume added to LWFGSC measurement to apply to actual flow for NUGSC.
Surface Water	Upper West Fork Good Spring Creek (UWFGSC) ⁹	Quarterly	Flow from Parshall Flume. See List Below	Flow from Parshall Flume. See List Below
Surface Water	New Upper Good Spring Creek (NUGSC) ¹⁰	Quarterly	See List Below. Flow estimated by combining measurements taken from LWFGSC & EFGSC.	See List Below. Flow estimated by combining measurements taken from LWFGSC & EFGSC.
Surface Water	Lower Good Spring Creek (LGSC) ¹¹	Quarterly	Flow from Parshall Flume. See List Below	Flow from Parshall Flume. See List Below

1. Upper Collom Gulch (UCG) represents the water quality conditions in Collom Gulch upstream of the Collom Lite mining area. No impact on flow or water quality at UCG is anticipated.
2. Lower Collom Gulch (LCG) represents the conditions in Collom Gulch downstream of mining impacts. No impact on flow or water quality at UCG is anticipated.
3. Lower Little Collom Gulch (LLCG) represents the conditions in Little Collom Gulch downstream of all mining disturbances. Because Little Collom Gulch is ephemeral, and the mining area extends nearly to the headwaters, no upstream monitoring location can be established.
4. West Fork of Jubb Creek (WFJC) represents conditions in the Jubb Creek watershed adjacent to the mining disturbance.
5. Confluence of Jubb Creek (CJC) represents the aggregate water quality in the Jubb Creek basin, downstream of potential mining impact areas.
6. Lower Taylor Creek (LTC) represents the water quality conditions of Taylor Creek directly downstream of the South Taylor mining area and immediately prior to the confluence with Wilson Creek and immediately downstream of the Gossard Loadout.
7. Lower West Fork Good Spring Creek (LWFGSC) represents this tributary after potential impacts caused by South Taylor mining.
8. East Fork Good Spring Creek (EFGSC) represents the upstream, undisturbed background condition of the East Fork Good Spring Creek.
9. Upper West Fork Good Spring Creek (UWFGSC) represents the upstream, undisturbed background condition of the West Fork Good Spring Creek.
10. New Upper Good Spring Creek (NUGSC) represents the water quality of Good Spring Creek downstream of the confluence of the east and west forks of the creek and downstream of the South Taylor mining area.
11. Lower Good Spring Creek (LGSC) represents the water quality downstream of the South Taylor and existing mining areas.

Quarterly Surface Water Field Parameters

Temperature	Flow	pH	Conductivity
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Quarterly Surface Water Laboratory Parameters

pH	Conductivity @ 25°C	Total Dissolved Solids	Total Suspended Solids
Calcium (Ca ⁺²) ^D	Magnesium (Mg ⁺²) ^D	Ammonia (NH ₃) ^D	Nitrate-Nitrite ^D
Sodium (Na ⁺) ^D	Sulfate (SO ₄) ^D	Arsenic (As) ^{TR}	Iron - Total ^T
Mercury (Hg) ^{TR}	Manganese (Mn) ^{TR}	Selenium (Se) ^{TR}	Zinc (Zn) ^{TR}
Phosphorus (P) ^T	Lead (Pb) ^{TR}	Bicarbonate (HCO ₃) ^D	
D = Dissolved T = Total			

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TR = Total Recoverable

Prior to mining at Lower Wilson, the following three surface water monitoring sites will be added to the sampling schedule:

1. Upper Wilson Creek (UWC) represents water quality upstream of all mining impacts.
2. Upper Middle Wilson Creek (UMWC) represents water quality downstream of the proposed Lower Wilson mining area.
3. Lower Wilson Creek (LWC) represents water quality immediately upstream of the confluence with Taylor Creek.

Groundwater – Eleven valley fill groundwater sites and one deep groundwater well will be monitored as a result of mining activity at Colowyo. Please refer to Exhibit 26, Item 1 for additional details regarding the wells in the Collom Area. Field parameters and laboratory analysis are gathered each quarter.

<u>Monitoring Type</u>	<u>Monitoring Location</u>	<u>Monitoring Frequency</u>	<u>Quarterly Field Parameters</u>	<u>Quarterly Parameters</u>
Valley Fill Groundwater	MC-04-01 ¹	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Valley Fill Groundwater	MC-04-02 ²	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Valley Fill Groundwater	MLC-04-01 ³	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Valley Fill Groundwater	MJ-95-01 ⁴	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Valley Fill Groundwater	MJ-95-03 ⁵	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Valley Fill Groundwater	Gossard Well ⁶	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Valley Fill Groundwater	A-6 Well ⁷	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Valley Fill Groundwater	North Good Spring Well ⁸	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Valley Fill Groundwater	MT-95-02 ⁹	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Valley Fill Groundwater	A-7 ¹⁰	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Valley Fill Groundwater	A-8 ¹¹	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Groundwater Well	Trout Creek Well ¹²	Quarterly	Water level, Temperature, pH, Conductivity	See Below
Alluvial Well	LGSW-1	Quarterly	Water level, Temperature, pH, Conductivity	Please see Volume 2C Exhibit 7, Item 19, Table 16
Alluvial Well	LWCW-1	Quarterly	Water level, Temperature, pH, Conductivity	Please see Volume 2C Exhibit 7, Item 19, Table 16

1. MC-04-01 – Located in the Collom Gulch valley fill, this site represents the condition of the Collom Gulch valley-fill aquifer adjacent to the Collom Pit.
2. MC-04-02 – Located in the Collom Gulch valley fill, this site represents the condition of the Collom Gulch valley-fill aquifer downgradient of the Collom Pit. This location is additionally designated as a “Point of Compliance” well for valley fill groundwater monitoring purposes.
3. MLC-04-01 – Located in the Lower Collom Gulch valley fill, this site will be located north of the temporary spoils pile in Lower Collom Gulch. This location is additionally designated as a “Point of Compliance” well for valley fill groundwater monitoring purposes.