

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

March 26, 2020

TO: Internal File

THRU: Steve Christensen, Coal Program Manager 

FROM: Amanda Daniels, Environmental Scientist 

RE: 2019 3rd Quarter Water Monitoring, Canyon Fuel Company, LLC, Sufco Mine, C/041/0002, Task ID #6038

The Sufco Mine is an operating longwall mine. Water monitoring requirements can be found in Section 7.3.1.2 of the MRP, see Tables 7-2, 7-3, 7-4, 7-5, and 7-5A.

Sufco has added additional stream monitoring points to their plan: Sufco 006A, 006B, 006C, and 006D are intended to monitor the upstream and downstream flow along the South Fork of Quitchupah Creek. Additional spring sample locations were approved for the South Fork reach of Quitchupah located in the headwaters area and further downstream. These springs include: Spring 006A, Roberts Spring, RS-A, RS-B, Wedge Spring, Amanda Spring, 94-113 Seep.

1. Was data submitted for all of the MRP required sites?

Springs

YES NO

The MRP requires the Permittee to monitor 29 springs during the second, third, and fourth quarter as per Table 7-2. Some require full laboratory analysis according to Table 7-4, while others simply require field measurements.

Streams

YES NO

The MRP requires the Permittee to monitor 20 streams during the second, third and fourth quarter as per Table 7-2. Perennial stream monitoring of Box Canyon is required at FP-1 and FP-2 at the beginning of the month of October each year.

Wells

YES NO

The MRP requires the Permittee to monitor water levels for 7 wells. Monitoring

wells US-80-2, 89-20-2W, US-81-3, US-81-4 and 01-8-1 are monitored quarterly.
Monitoring wells US-80-4 and US-79-13 are monitored annually during the 3rd quarter.
Groundwater monitoring at the Waste Rock site occurs three times per year.

UPDES

The UPDES Permit/MRP require bi-weekly monitoring of 3 outfalls: UT0022918-001: mine water discharge to Spring Canyon; UT0022918-002: sedimentation pond discharge to Spring Canyon; and UT0022918-003A: the mine water discharge to the North Fork of Quitcupah Creek.

The Permittee submitted all required samples for the UPDES sites.

2. Were all required parameters reported for each site? YES NO
3. Were any irregularities found in the data? YES NO

The following parameters were more than 2 standard deviations from the mean:

Streams

042: Carb CaCO₃
046: Cations, Anions, Dissolved Magnesium, TDS, Conductivity, Chloride
Cowboy Middle: Carb CaCO₃
Horse Creek: TSS, Carb CaCO₃, Total Iron, Total Cations, Total Anion, Dissolved Calcium, Dissolved Magnesium, Dissolved Sodium, Dissolved Potassium
Muddy Creek ABV HR: Flow
Pines 403: Total Cations, Total Anions, Dissolved Calcium, Dissolved Magnesium, TDS, Conductivity, Dissolved Sodium, Dissolved Potassium, SO₄, Chloride

Springs

Broad Hollow Sp: Conductivity
GW-8: Conductivity
GW-9: Conductivity
M-SP101: Conductivity
M-SP08: pH
M-SP15: TSS, Conductivity
M-SP53: Conductivity
Pines 100: Dissolved Magnesium, SO₄
Pines 206: Conductivity
Pines 209: Conductivity

4. On what date does the MRP require a five-year re-sampling of baseline water data.

There is no commitment in the MRP to resample for baseline parameters.

5. Based on your review, what further actions, if any, do you recommend?

No recommendations are warranted at this time.