

# WATER QUALITY MEMORANDUM

## Utah Coal Regulatory Program

---

June 24, 2020

TO: Internal File

THRU: Steve Christensen, Coal Program Manager 

FROM: Amanda Daniels, Environmental Scientist 

RE: 2019 4<sup>th</sup> Quarter Water Monitoring, Canyon Fuel Company, LLC, Sufco Mine, C/041/0002, Task ID #6113

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 3<sup>rd</sup> 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

041: Cations, Dissolved Calcium, Dissolved Magnesium, Conductivity, Chloride  
046: Temp, D.O., Cations, Anions, Dissolved Calcium, Dissolved Magnesium, Total Hardness, TDS, Conductivity, Dissolved Sodium, SO<sub>4</sub>, Chloride, Total Calcium, Total Potassium, Total Sodium  
047: Dissolved Calcium  
047A: D.O., Dissolved Sodium, Total Potassium, Total Sodium  
090: Conductivity  
CPC Lower: Total Calcium  
Horse Creek: TSS, Bcrb CaCO<sub>3</sub>, Total Iron, Cations, Anion, Dissolved Calcium, Dissolved Magnesium, Dissolved Sodium  
Muddy Ck Blw Hr: TSS, Total Iron, Conductivity, Dissolved Sodium, Total Sodium

## Springs

M-SP100: TSS  
M-SP105 TSS, TDS  
M-SP15: TSS, TDS  
Pines 100: SO<sub>4</sub>, Chloride  
Pines 104: SO<sub>4</sub>  
SP60 Creek: SO<sub>4</sub>

**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.