

# WATER QUALITY MEMORANDUM

## Utah Coal Regulatory Program

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March 29, 2016

TO: Internal File

THRU: Steve Christensen, Permit Supervisor



FROM: Amanda Daniels, Environmental Scientist



RE: 2015 Third Quarter Water Monitoring, Canyon Fuel Company, LLC, SUFCO Mine, C/041/0002, WQ15-3, Task ID #5005

The SUFCO Mine is an operating longwall mine. Current operations are in the Quitchupah and Muddy Tracts. 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. Page 7-48 contains the important statement that (non Box-Canyon, non-UPDES) “monitoring sites are sampled three times per year,” meaning the second, third, and fourth quarters.

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 Quitchupah 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 sites reported parameters more than two standard deviations from the mean:

**Springs:**

Amanda Spring – Conductivity

**Streams:**

046 – Dissolved magnesium

042 – Dissolved magnesium, TDS, conductivity, SO4

006 – Conductivity

Pines 403 – Dissolved calcium, dissolved magnesium, TDS, conductivity, dissolved potassium, SO4

**Wells:**

WRDS-B3 - 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?**

None.

No recommendations are warranted at this time.

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