

#3336

K

WATER QUALITY
MEMORANDUM
Utah Coal Regulatory Program

March 28, 2011

TO: Internal File

THRU: Daron Haddock *DRH*

FROM: James D. Smith, Environmental Scientist *JDS 29 Mar 11*

RE: 2009 Second Quarter Water Monitoring, Canyon Fuel Company, LLC, SUFCO Mine, C/041/0002, WQ09-02, Task ID #3336

The SUFCO Mine is an operating longwall mine. Current operations are in the Quitcupah 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.

1. Were data submitted for all of the MRP required sites? YES NO

Springs

The MRP requires the Permittee to monitor 25 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. Link Portal-East and Link Portal-West are listed with the springs in Table 7-2 but they are reported as "Other" in the database.

Each of the required spring locations was monitored during the second quarter of 2009.

Streams

As per Table 7-2, the MRP requires the Permittee to monitor 18 streams during the second, third and fourth quarter, plus FP-1 and FP-2 "on or near October 1 of each year".

Each of the required stream locations was monitored during the second quarter of 2009.

Wells

The MRP requires the Permittee to monitor water levels for 6 wells. Monitoring wells US-80-2, 89-20-2W, 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.

All wells on the quarterly protocol were gauged during the second quarter of 2009.

Additional wells not listed in the MRP associated with the waste rock disposal site are in the database including: WRDS-B3, WRDS-B5, WRDS-B6, WRDS-B8, and WRDS-B9. These wells were sampled for analytical parameters during the second quarter of 2009.

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. Outfall 001 reported no flow this quarter. The mine water discharge outfall location to the North Fork of Quitchupah Creek averaged a flow of 3,556 gallons per minute (gpm) and an average TDS concentration of 629 mg/L this quarter.

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

Listed parameters were outside two standard deviations from the mean. An asterisk (*) indicates this is not a parameter required by the MRP.

Springs YES NO

PINES 100: bicarbonate as CaCO₃, total cations, D-Ca, D-Mg, total hardness as CaCO₃*, D-Na, SO₄, and Cl;

Streams YES NO

SUFCO 041: Total Fe (9.99 mg/L – 2.38 mg/L mean);
SUFCO 047A: field specific conductivity;
SUFCO 090: field specific conductivity;

UPDES YES NO

Wells YES NO

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?

There is no further action recommended at this time.

6. Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements? YES NO

7. Follow-up from last quarter, if necessary. NA

8. Did the Mine Operator respond adequately to queries about missing or irregular data?

YES NO NA

The Division made no queries regarding missing or irregular data.