

**WATER QUALITY
MEMORANDUM
Utah Coal Regulatory Program**

January 11, 2010

TO: Internal File

THRU: James D. Smith, Permit Supervisor *JDS 01/13/10*

FROM: Steve Christensen Environmental Scientist *SKC*

RE: Water Monitoring, Covol Engineered Fuels, LC, Wellington Dry-Coal
Cleaning Facility, C/007/0045, Task ID #3420

Covol Engineered Fuels, LC (the Permittee) operates the Wellington Dry-Coal Cleaning Facility (the facility). The facility is a coal-cleaning facility, which processes material received from off-site clients. An air-jig method is utilized to process coal-bearing materials.

Based upon an agreement entered into by the Permittee and the Division of Oil, Gas and Mining (the Division) on September 15th, 2008 the Permittee installed one groundwater monitoring well down gradient from the operation site during the 4th quarter of 2008. The agreement further stipulated that the Permittee would obtain quarterly ground water monitoring for a period of one year in order to obtain baseline information. Additional ground water sampling will not be required/performed until the first year of reclamation after operations at the site have ended. Surface water sampling/monitoring is not required under the approved provisions of the approved Mining and Reclamation Plan (MRP).

On page 7-13 of the MRP, the Permittee discusses the ground water monitoring at the site. Water-level data and water-quality samples were collected in December 2008 and were continued through the 3rd quarter of 2009. The required analytical parameters are listed in Table 7-1.

The primary form of sediment control at the site is the utilization of two sediment ponds. As a result, the site is associated with two Utah Pollutant Discharge Elimination System (UPDES) outfalls (one for each sediment pond).

The Permittee submitted all four quarters of water quality data on November 11th, 2009. As a result of the inclusiveness of the submittal (i.e. all 4 quarters of ground water data), this document represents the water quality report for all four quarters. As indicated above, the approved water-monitoring plan does not require any surface water samples.

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

Springs

No springs are sampled as part of the approved MRP. Due to the arid nature of the site and surrounding area, no springs are located within the permit and adjacent area.

Streams

No streams or surface water sites are monitored. No ephemeral, intermittent or perennial streams are located within the permit area. A small ephemeral drainage is located approximately 400-500 feet southwest of the permit area (outside of the approved permit area).

As part of the September 15th, 2008 agreement between the Permittee and the Division, no surface water sampling is required as part of the approved MRP.

Wells

The MRP outlines the sampling requirements on page 7-13. The Permittee installed one ground water monitoring well in the 4th quarter of 2008 and performed 4 rounds of sampling. Table 7-1, *Results of Groundwater Analyses, COVOL Monitoring Well*, provides the analytical results.

The Permittee submitted all required samples for the well for each of the 4 quarters.

UPDES

The facility has a Utah Pollutant Discharge Elimination System permit (#UTR000685). The permit identifies two outfalls (one for each of the sediment ponds utilized at the facility). The sediment ponds have been designed for full containment of the sediment and storm water runoff resulting from the 10-year, 24-hour design storm event.

During the period of data collection, no discharge from either of the sediment ponds was recorded/observed by the Permittee, thus no samples were required.

2. Were all required parameters reported for each site? YES NO

3. Were any irregularities found in the data? YES NO

The analytical result for total iron and total dissolved solids (TDS) showed a pronounced spike during the first sampling event.

A total iron value of 300 milligrams/liter (mg/L) was produced during the first sampling event with corresponding values of 5.6 mg/L, 0.27 mg/L and 5.6 mg/L for the following three quarters of sampling. TDS values produced a similar trend with an initial value of 11,000 mg/L followed by reduced values of 8,900 mg/L, 8,800 mg/L and 8/400 mg/L in subsequent sampling.

None of the other parameters that were submitted for analyses produced a similar trend. It would appear that the initial spikes in total iron and TDS could be attributed to improper development of the monitoring well following its installation.

After the installation of a ground water monitoring well, approximately 3-5 volumes of water must be purged prior to initiating sampling. The purging provides for the removal of any sluff or drilling material that could have been inadvertently deposited within the casing of the well during installation. It would appear that improper well development might have caused the initial spikes in total iron and TDS as the three subsequent sampling events produced very similar values.

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

The approved MRP does not call for the resampling of baseline parameters until the first year of reclamation following the termination of coal-cleaning activities at the facility.

As economic conditions will ultimately determine the length of time the facility remains in operation, an exact date as to when ground water sampling will again be initiated is unknown at this time.

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

No further actions are necessary 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.

No.

8. Did the Mine Operator submit all the missing and/or irregular data?

Yes.