

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

March 3, 2009

TO: Internal File

THRU: Jim Smith, Permit Supervisor *DS 03/4/09*

FROM: April A. Abate, Environmental Scientist II *AAA 3-3-09*

RE: 2008 4th Quarter Water Monitoring, Hiawatha Coal Company (HCC), Hiawatha Mine, C/007/0011-WQ08-4 Task #3131

Hiawatha Coal Company has supplied schedules for water monitoring and parameter reporting in Tables 7-12 through 7-17, in the MRP, updated on June 6, 2003.

The Hiawatha Mine is currently not producing coal from the underground mine. There is currently no underground mining taking place at the Hiawatha Mine. Coal fines are being extracted from the #1 tailings ponds and trucked to Bear Canyon where the fines are blended with the mined coal.

1. Was data submitted for all of the MRP required sites? YES [] NO [X]
Identify sites not monitored and reason why, if known:

Springs HCC monitors six springs at the minesite, SP-2, SP-4, SP-5, SP-11, SP-12 and SP-13. Operational sampling is established in the MRP as two times per year, for spring sites, in June and October. Spring sampling this quarter occurred from October 27-30, 2008. No flow was reported at spring sample locations SP-2, SP-12, and SP-13. Samples are analyzed for parameters identified in Table 7-12.
All springs were monitored during this quarter.

Streams HCC monitors 10 stream locations at/near the mine site, ST-1, ST-2, ST-2B, ST-3, ST-3A, ST-3B, ST-4, ST-4A, ST-4B, and ST-5. HCC currently monitors field parameters of streams on a monthly basis from April through October, (Table 7-16).
Water quality data were reported in September and October 2008 for stream sample locations: ST-1, ST-2, ST-2B, ST-3, ST-4 and ST-5. All other stream locations were reported as dry.

UPDES There are a total of 13 UPDES sample locations listed in Permit #UT0023094 for the Hiawatha Mine used to establish discharge quality. UPDES locations are monitored monthly according to Table 7-13. Only two sites have yielded flow (D001 and D002). The UPDES locations D003 through D013 are listed in the current UPDES permit, which is due to expire on September 30, 2009. All UPDES sample locations are outlined below:

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Pond No.	Location
D001	Mohrland Portal
D002	Overflow at Hiawatha
D003	Upper Coal Storage Yard
D004	North of Slurry Pond No. 1
D005	East of Slurry Pond No. 4
D006	North East of Slurry Pond No. 5
D007	South East of Slurry Pond No. 5
D008	Middle Fork Mine Yard
D009	South Fork Mine Yard
D011	South Fork Truck Loading Facility
D012	Mohrland Pipeline Drain
D013	King 6 Water Tank Overflow

All UPDES sample locations were monitored this quarter except D005. This is the second quarter in a row that this point has not been monitored. All others were monitored; only D001 and D002 yielded flow.

2. Were all required parameters reported for each site?

Springs YES [X] NO []

Streams YES [X] NO []

UPDES YES [] NO [X]

Oil and Grease and Iron parameters were not sampled during the 4th quarter. These parameters are required to be sampled on a quarterly-basis as stipulated in the UPDES permit #UT0023094 issued by the Department of Environmental Quality.

3. Were irregularities found in the data?

Springs YES [X] NO []

Spring sample location SP-4 was outside of more than two standard deviations for the following parameters: dissolved magnesium and hardness. This sample location is an upgradient spring of the Left Fork of Miller Creek and represents spring water quality conditions upstream of the mine.

Streams YES [X] NO []

Stream sample location ST-1, right fork of the north fork of Miller Creek exceeded established effluent limitations for TDS with a result of 1,192 mg/l. The site-specific TDS limit of 981 mg/l was established for Hiawatha based on the West Colorado River Basin total maximum daily load (TMDL) allocations in UPDES permit #UT0023094.

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ST-3 was outside two standard deviations for several parameters including: dissolved calcium, d-magnesium, d-sodium, and hardness. These parameters reported lower than usual concentrations. This sample represents stream conditions at the confluence of the middle fork and north fork of Miller Creek.

ST-4 at the South Fork of Miller Creek near the confluence with the North Fork was also in exceedance of TDS limits with a value of 1,154 mg/l.

ST-5 had a **5-fold** increase in the total suspended solids (TSS) result (512 mg/L) compared to previous data. TSS effluent limits established per UPDES permit #UT0023094 for TSS are 70 mg/l. This stream sample is located below the confluence of the south fork of Miller Creek.

UPDES YES [] NO [X]

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

Resampling due date: July 2009

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

Resume monitoring UPDES sample D005 starting with the next round of sampling. Oil and Grease and iron samples should be collected on a quarterly basis for **all** UPDES sample locations.

The stream samples ST-1, ST-3, ST-4, and ST-5 exhibited higher than normal TDS or TSS values. These areas should be evaluated closely to determine if there is a source for any extra contributions of sediment that are getting into Miller Creek.

6. Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements? [X] Yes [] No

Provide an explanation to the Division as to why UPDES D005 has not been sampled or why it is infeasible to sample.

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

Did the Mine Operator submit all the missing and/or irregular data (datum)?

NONE