

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

February 10, 2004

TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor

FROM: James D. Smith, Senior Reclamation Specialist

RE: 2003 Third Quarter Water Monitoring, CO-OP Mining Company, Bear Canyon Mine, C/015/0025-WQ03-3, Task # 1742

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

SBC-11 has not been not accessible since early January 2003 because of a roof fall in the Hiawatha workings of Mine #1: the Permittee needs to enter "no access" for SBC-11 because it is still in the monitoring plan in the MRP. SBC-9A replaced SBC-11 for monitoring water in this section of the #1 Mine; however, additional roof falls have made most of Mine #1, including SBC-9A, inaccessible: this site also needs to be entered as "no access".

- 2. On what date does the MRP require a five-year resampling of baseline water data.**
See Technical Directive 004 for baseline resampling requirements. Consider the five-year baseline resubmittal when responding to question one above. Indicate if the MRP does not have such a requirement.

Resampling Due Date

Renewal submittal due 07/02/00, renewal due 11/02/00. Baseline parameters are to be taken in August of year 5 prior to each permit renewal (Table 7.1-8). Baseline parameters were measured August 2000 and included with the Third Quarter 2000 data submittal. Next baseline analysis will be in August 2005.

- 3. Were all required parameters reported for each site?** YES [X] NO []
Comments, including identity of monitoring site:

4. Were irregularities found in the data? YES [] NO []

Comments, including identity of monitoring site:

BC-2 July: water temperature (n = 137) was outside the two standard deviation range;

BC-2 Aug: water temperature (n = 137) was outside the two standard deviation range;

SBC-12 July: water temperature (n = 28) was outside the two standard deviation range;

SBC-15 July: flow (n = 17) was outside the two standard deviation range;

SBC-15 Aug: water temperature (n = 19) and flow (n = 17) were outside the two standard deviation range;

SBC-17: Ca (n = 11), Mg (n = 11), total hardness (n = 11), and total cations (n = 8) were outside the two standard deviation range;

SMH-1 July: water temperature (n = 34) and field conductivity (n = 35) were outside the two standard deviation range;

SMH-1 Aug: water temperature (n = 34) was outside the two standard deviation range;

SMH-2 July: water temperature (n = 31) was outside the two standard deviation range;

SMH-2 Aug: water temperature (n = 31) was outside the two standard deviation range;

SMH-3 July: field pH (n = 29) and field conductivity (n = 29) were outside the two standard deviation range;

SMH-3 Aug: field pH (n = 29) and field conductivity (n = 29) were outside the two standard deviation range;

SMH-4 July: water temperature (n = 30) and field conductivity (n = 32) were outside the two standard deviation range;

SMH-4 Aug: water temperature (n = 30) was outside the two standard deviation range;

SBC-3: water temperature (n = 48), K (n = 34), total hardness (n = 48), total anions (n = 45), and total cations (n = 45) were outside the two standard deviation range;

UPDES UTG040006 -004 July: water temperature (n = 229) and dissolved oxygen (n = 7; not a required parameter) were outside the two standard deviation range.

5. Were DMR data submitted for all required sites?

1st month, YES NO
2nd month, YES NO
3rd month, YES NO

Identify sites and months not monitored:

The data were submitted electronically.

6. Were all required DMR parameters reported?

YES NO

Comments, including identity of monitoring site:

DMR parameters that are not included in the operational parameter lists in the MRP - such as sanitary wastes, visible foam, and floating solids - are not reported in the electronic submittal.

7. Were irregularities found in the DMR data?

YES NO

Comments, including identity of monitoring site:

UPDES UTG040006 -004 July: water temperature (n = 229) and dissolved oxygen (n = 7) were outside the two standard deviation range.

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

Because of the large number of water temperatures that were outside the two standard deviation range, the thermometer should be checked for accuracy.

The large number of field parameters that were outside the two standard deviation range indicate that procedures used to obtain these data might need to be reviewed.

SBC-11 has not been not accessible since early January 2003 because of a roof fall in the Hiawatha workings of Mine #1: the Permittee needs to enter "no access" for SBC-11 because it is still in the monitoring plan in the MRP. The MRP should be amended to show this site is no longer monitored.

SBC-9A replaced SBC-11 for monitoring water in this section of the #1 Mine; however, additional roof falls have made most of Mine #1, including SBC-9A, inaccessible: this site also needs to be entered as “no access”. The MRP should be amended to show this site is no longer monitored.

Other irregularities in the water-quality parameters do not appear significant and, other than watching for possible trends, no further action is recommended.

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