



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor *DRH*

FROM: James D. Smith, Senior Reclamation Specialist *JDS*

RE: 2000 Third Quarter Water Monitoring, Energy West Mining Company, Trail Mountain Mine, C/015/009-WQ00-3

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

T-14a and T-16 were dry all third quarter.
UG-3 wasn't sampled until October 3, 2000.

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 10/21/04, renewal due 02/21/05. Baseline analyses were performed in 1996 and will be repeated every 5 years, i.e., next baseline analyses will be in 2001.

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 [X] NO []
Comments, including identity of monitoring site:

SW-1: K is outside two standard deviation range and exceeds maximum value recorded in the APPX database(number of samples, n = 13);
SW- 2: alkalinity (n = 87), bicarbonate (n = 91) , total anions (n = 68), total cations (n = 68), lab conductivity (n = 80), TDS (n = 109), and Ca (n = 13) outside two standard deviation range;

SW- 3: alkalinity (n = 96), bicarbonate (n = 100), carbonate (n = 40), and lab pH (n = 93) outside two standard deviation range and alkalinity and lab pH exceed maximum value recorded in the APPX database;

T-6: Na exceeds maximum value recorded in the APPX database (n = 7);

T-8: acidity outside two standard deviation range and exceeds maximum value recorded in the APPX database (n = 2);

T-10: acidity outside two standard deviation range and exceeds maximum value recorded in the APPX database (n = 1);

T-14: Na outside two standard deviation range and exceeds maximum value recorded in the APPX database (n = 6);

T-15: Mg (n = 8) and Na (n = 8) outside two standard deviation range and exceed maximum value recorded in the APPX database;

T-18: Sulfate (n = 50) and acidity (n = 1) outside two standard deviation range, and sulfate exceeds maximum value and acidity falls below minimum value recorded in the APPX database;

T-19: alkalinity (n = 41), total anions (n = 39), Mg (n = 15), K (n = 14), Na (n = 15), TDS (n = 42), and sulfate (n = 42) outside two standard deviation range, and alkalinity, total anions, Mg, K, and Na exceed maximum value recorded in the APPX database.

TM-1B: Field conductivity (n=13) and lab conductivity (n=14) below minimum values recorded in the APPX database:

UG-3: acidity outside two standard deviation range and exceeds maximum value recorded in the APPX database (n = 1).

5. Were DMR forms submitted for all required sites?

1st month, YES [X] NO []
2nd month, YES [X] NO []
3rd month, YES [X] NO []

Identify sites and months not monitored:

6. Were all required DMR parameters reported?

YES [X] NO []

Comments, including identity of monitoring site:

7. Were irregularities found in the DMR data?

YES [X] NO []

Comments, including identity of monitoring site:

At 002A:

Average and Maximum Flows for July and September are outside two standard deviation range and exceed maximum value recorded in the APPX database(n=6).

TSS 30-day Average for August is outside two standard deviation range and exceeds the maximum value recorded in the APPX database (n=1);

TSS Daily Max for August exceeds the maximum value recorded in the APPX database

(n=1);

Total Iron Daily Max for July exceeds the maximum value recorded in the APPX database and for August and September falls below the minimum value recorded in the APPX database (n=6);

TDS Daily Max for July, August, and September falls below the minimum value recorded in the APPX database (n=6).

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

The deviations of UPDES 002A parameter values from those in the APPX database appear to be due to the small number of samples in the APPX database and there is no further action recommended.

Several parameters in T-18, T-19, SW-1, SW-2, and SW-3 were high. Other sites had anomalous values, but the sample sizes for these other sites are low, so the anomalies may not be significant. All these sites should be watched for trends.

High values for acidity in many of these samples are atypical - this value is usually below the detection limit: these high acidity values are probably due to collection or lab procedures rather than to changes in water quality. **Acidity is not a required parameter for operational monitoring.** This will be monitored during following quarters to see if these high Acidity values persist.