

# WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program



July 17, 2006

TO: Internal File

THRU: D. Wayne Hedberg, Permit Supervisor 

FROM:  Dana Dean, P.E., Senior Reclamation Hydrologist

RE: 2005 Second Quarter Water Monitoring, Savage Services Corporation, Savage Coal Terminal, C/007/0022, Task #2514

The Savage Coal Terminal is an operating coal loadout where coal is crushed, screened, blended, and then loaded onto rail transport.

Pertinent water monitoring requirement information is in the MRP in Sections 7.16, and 7.2.5, and figure 7-15.

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

**Springs** –

*The Permittee is not required to monitor any springs at the Savage Coal Terminal.*

**Streams** –

*The Permittee is required to sample CV-14-W for the parameters outlined in Figure 7-15 in the second and fourth quarter of each year.*

The Permittee monitored and reported the essential data for CV-14-W as required during this quarter.

**Wells**–

*The Permittee is required to sample CV-1-W for the parameters outlined in Figure 7-15 in the second and fourth quarter of each year.*

The Permittee monitored and reported the essential data for CV-1-W as required during this quarter.

**UPDES**–

*There is one active UPDES outfall at the Savage Coal Terminal, CV-15-W, or UTG040005-001. The Permittee is required to monitor this UPDES site monthly.*

The Permittee monitored and reported the essential data for CV-15-W as required during this quarter. The UPDES site recorded no flow during the period.

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

Total values were reported instead of dissolved for some metals at CV-1-W. They were calcium, magnesium, potassium, and sodium. The Permittee indicated that the persons collecting the samples marked the lab sheets incorrectly. The Permittee should be diligent in assuring that the parameters marked in the approved plan are those sampled in the future.

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

Some routine Reliability Checks were outside of standard values at CV-1-W. They were:

Reliability Check	Value Should Be...	Value is...
TDS/Conductivity	>0.55 & <0.75	1.06
Conductivity/Cations	> 90 & < 110	62
Mg/(Ca + Mg)	< 40 %	54%
Ca/ (Ca + SO4)	> 50 %	13%

The Permittee should work with the lab to make sure that samples pass all quality checks so that the reliability of the samples does not come into question. These inconsistencies do not necessarily mean that a sample is wrong, but it does indicate that something is unusual. An analysis and explanation of the inconsistencies by the Permittee would help to increase the Division's confidence in the samples. The Permittee can learn more about these reliability checks and some of the geological and other factors that could influence them by reading Chapter 4 of *Water Quality Data: Analysis and Interpretation* by Arthur W. Hounslow.

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?

No further actions are required at this time.