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# WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

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March 8, 2012

TO: Internal File

THRU: Steve Christensen, Permit Supervisor *S/KC*

FROM: April A. Abate, Environmental Scientist III *AAA*  
*3-8-2012*

RE: 2011 3rd Quarter Water Monitoring, Savage Services Corporation, Savage Coal Terminal, C/007/0022, Task #3914

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 Section 731.200.

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. There are no springs to monitor at the Savage coal terminal site.

## Streams

Stream site CV-14-W is required to be monitored during the 2<sup>nd</sup> and 4<sup>th</sup> quarters of each year.

CV-14-W was not monitored during the 3rd quarter of 2011.

## Wells

There are three groundwater monitoring wells at the site: S-1-GW, S-2-GW, and CV-1-W.

As of 4th quarter 2010, the MRP states that wells S-1-GW, S-2-GW will be monitored bi-annually during the 2<sup>nd</sup> and 4<sup>th</sup> quarters of each year. CV-1-W is required to be monitored during the 2<sup>nd</sup> and 4<sup>th</sup> quarters of each year.

An additional groundwater sample from well S-2-GW was collected on September 13,

2011 in response to recent detections of oil and grease in groundwater from this well.

## 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 under Permit # UTG040005 that is due to expire on April 13, 2013.

The location was monitored monthly during the 3rd quarter 2011. The Permittee recorded no flow at the UPDES point during the period.

2. **Were all required parameters reported for each site?** YES [X] NO [ ]
3. **Were any irregularities found in the data?** YES [X] NO [ ]

Oil and grease has been detected in groundwater monitoring well S-2-GW on a somewhat sporadic basis but in significant concentrations. Savage monitored the groundwater sample in well S-2-GW for oil and grease this quarter, where it was detected at a concentration of 4.86 mg/L. Further testing of the sample was performed for total petroleum hydrocarbons (TPH). The results of the TPH analysis indicated that diesel range organics from the sample were reported at a concentration of 1.05 mg/L and gasoline range organics (GRO) were reported at a concentration of <0.02 mg/L. No set trend has been identified in the oil and grease detections.

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

The permit renewal was issued on August 6, 2010. The permittee has committed to collecting baseline samples once every 5 years. The next scheduled baseline sampling is 4<sup>th</sup> quarter of 2013.

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

The source of the oil and grease detection in the groundwater samples collected from S-2-GW should be further investigated. The UPDES limit for oil and grease at the permitted outfall is listed at 10 mg/L. Although this standard does not apply to groundwater, it can be used as an indicator of water quality issues that should be investigated.

The Permittee has committed to collecting monthly samples for oil and grease from well S-2-GW which has shown decreasing but detectable concentrations of oil and grease. The French drain CV-1-W has also starting detecting oil and grease in the previous quarter as well. Additional monthly oil and grease sampling of the French drain is recommended. If concentrations are detected above 10 mg/L, additional TPH analysis should be conducted.