

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

February 17th, 2017

TO: Internal File

THRU: Daron Haddock, Coal Program Manager

FROM: Steve Christensen, Environmental Scientist 

RE: 2016 2nd Quarter Water Monitoring, Price River Terminal, LLC., Wellington Preparation Plant, C/007/0012, Task ID #5234

The Wellington Preparation Plant is currently in temporary cessation of coal mining or reclamation operations. However; trans-loading of oil is currently being conducted at the site by Price River Terminal, LLC (the Permittee). Water-monitoring requirements are in Sections 7.23 and 7.31.2 through 7.31.22, and Tables 7.24-2 and 7.24-5 of the MRP.

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

Baseline parameters are collected in the year preceding permit renewal. The next baseline collection event will be the 3rd quarter of 2019.

2. Were data submitted for all of the MRP required sites?

Streams and Ponds

YES NO

The surface water monitoring plan requires sampling of nine surface water sites (SW-1, SW-2, SW-2A, SW-3, SW-4, SW-5, SW-6, SW-7 and SW-8). The required water quality parameters are provided in Table 7.24.5 with the exception of SW-2. Flow is the only data collected at monitoring site SW-2. Surface water monitoring sites are no longer monitored for BTEX-N. The reduction in monitoring at these sites was the result of inactivity at the site (Task ID #4253). Four of the sites are retention ponds (SW-5, SW-6, SW-7 and SW-8).

Water quality data was obtained from three sites: SW-1, SW-2, and SW-2A. The remaining monitoring locations reported no flow (SW-3, SW-4, SW-5, SW-6, SW-7 and SW-8).

Wells

YES NO

The Permittee is required to analyze samples quarterly from 15 well sites. GW-12 is no longer required for monitoring (since 1st quarter 2012. Mid-term). GW-1, GW-3, GW-4, GW-6,

GW-7, GW-8, GW-9, GW-9B, GW-10, GW-13, GW-14, GW-15A, GW-15B, GW-16, and GW-17 for the parameters in Table 7.24-2, and to measure depth only at GW-2.

Monitoring well GW-12 is no longer an actively monitored site. It was dropped during the most recent mid-term review (Task ID #4253). It was last sampled during the 4th quarter of 2012.

Data was submitted for all of the required monitoring well sites. Monitoring wells GW-3, GW-13 and GW-17 did not have enough water to collect a sample (i.e. they were reported dry).

UPDES

YES NO

Six UPDES permitted outfalls at the Wellington Preparation Plant are monitored monthly: #UTG040010-003, 004, 005, 006, 007, and 008. None of the UPDES discharge points reported a discharge this quarter.

3. Were all required parameters reported for each site?

Streams and Ponds

YES NO

Wells

YES NO

UPDES

YES NO

4. Were any irregularities found in the data?

Beginning in the 3rd and 4th quarters of 2015, total selenium concentrations began to show elevated concentrations in numerous ground and surface water samples. It was noteworthy in that historically, total selenium levels above the laboratory detection limit were sporadic and only occurring periodically. During the 2nd quarter of 2015, the total selenium concentrations reported by the laboratory (SGS) for all of the 16 samples that tested for total selenium produced a concentration below the detection limit of 0.02 mg/L.

As indicated previously, elevated total selenium was detected in 14 samples during the 3rd quarter of 2015. Additionally, all of the 15 samples tested for selenium during the 4th quarter reported elevated total selenium concentrations. The Division contacted the Permittee and discussed with them the presence of the elevated selenium. It was agreed that the Permittee would contact the laboratory and inquire as to the possibility that some type of lab error or change in method could've caused the elevated total selenium.

This course of action was reasonable for several reasons: 1) the 2nd quarter of 2015 did not report any total selenium concentrations above the laboratory detection limit. 2) the

monitoring sites that reported elevated total selenium concentrations were located both above and below stream of the mine site as well as up-gradient and down-gradient. 3) there were no activities occurring at the mine site that could potentially explain the elevated total selenium concentrations. As a result, it seemed possible that the laboratory may have produced some error during the sample extraction/analysis.

The Permittee instructed SGS Laboratory (the lab) to re-run for total selenium on the samples collected from the previous three quarters. The lab investigated and found that there had been errors in the reported total selenium values and the errors were produced as a result of calculation (dilution) errors. The lab staff were able to review the archived data and correct the analytical results. The amended reports have been provided to the Division. The corrected total selenium concentrations will hand keyed into the Water Quality Database.

Surface Water Monitoring Sites:

SW-1, SW-2A reported elevated total selenium (T-Se) during the 1st quarter of 2016. However; the total selenium concentrations were reported below the detection limit (<20 ppm) for both the 2nd and 3rd quarters of 2016.

SW-2 reported T-Se concentrations below the detection limit during the period in question (i.e. 3rd and 4th quarter 2015).

Ground Water Monitoring Sites:

The following ground water monitoring sites did not report elevated T-Se concentrations for 1st, 2nd and 3rd quarter of 2016: GW-1, GW-10, GW-14, GW-4, GW-6, GW-7, GW-8, GW-9,

GW-15A, GW-16, and GW-15B reported elevated T-Se the 1st quarter of 2016; however, the T-Se concentration was below the detection limit (<20 ppm) for the 2nd and 3rd quarters of 2016.

GW-1 reported slightly elevated concentrations of D-K, TDS and T-Cats the 2nd quarter of 2016. GW-14 reported an elevated concentration for D-K the 2nd quarter of 2016. GW-15A reported elevated TDS and D-Mg concentrations the 2nd quarter of 2016.

GW-6 reported a slightly elevated concentration for bicarbonate 2nd quarter 2016. GW-8 produced an elevated concentration for D-K 2nd quarter of 2016. GW-9 reported an elevated D-K concentration the 2nd quarter of 2016.

5. Does the Mine Permittee need to submit more information to fulfill this quarter's monitoring requirements?

YES NO

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

NA

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

Continued monitoring of total selenium concentrations will continue in order to determine if the lab is consistently calculating/reporting the values.