

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

March 30th, 2016

TO: Internal File
THRU: Daron Haddock, Coal Program Manager
FROM: Steve Christensen, Environmental Scientist



RE: 2015 3rd Quarter Water Monitoring (WQ15-3), Price River Terminal, LLC.,
Wellington Preparation Plant, C/007/0012, Task ID #5008

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 16 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?

Streams and Ponds YES NO

Surface water monitoring site reported an elevated total selenium concentration this quarter. The reported concentration of 50 ug/l was 2.82 standard deviations from the average of 18.21 ug/l. Additionally, surface water monitoring site SW-2A also reported an elevated total selenium concentration for this quarter. The reported value was also 50 ug/l which is 3.41 standard deviations from the average of 21 ug/l.

Wells YES NO

Monitoring well GW-1 reported slightly elevated concentrations for D-K, Cl and TDS the 4th quarter of 2015. The Cl concentration was again slightly elevated along with D-K and TDS the first quarter of 2015. The reported concentrations for the aforementioned parameters returned to historical ranges the previous quarter (WQ15-2). Elevated concentrations of sulfate and TDS were reported this quarter as well as a significant increase in total selenium with a reported concentration of 90 ug/l versus (4.58 standard deviations from the mean of 29.33 ug/l).

Monitoring well GW-10 reported an elevated total selenium concentration of 60 ug/l the last quarter of 2014. The selenium concentrations returned to within historic ranges for the 1st and 2nd

quarters of 2015. However; an elevated total selenium concentration was reported this quarter. The concentration of 90 ug/l is 5.34 standard deviations from the mean of 21.47 ug/l.

Monitoring well GW-13 reported a slightly increased concentration for D-K the previous quarter. Not enough water was in the well to be sampled this quarter.

Monitoring well GW-14 reported elevated concentrations for bicarbonate and total selenium. The total selenium concentration of 110 ug/l is 3.24 standard deviations from the mean of 31.15 ug/l.

GW-15A reported numerous concentrations outside of historical ranges last quarter. This quarters sampling produced only one elevated parameter. The total selenium concentration was 4.86 standard deviations from the mean of 23.14 ug/l with a reported value of 70 ug/l.

GW-15B reported large increases in concentration for total iron and total manganese the previous quarter. The concentrations for total iron and total manganese returned to historical ranges this quarter. However; an elevated concentration for total selenium was reported at 70 ug/l. The concentration is 4.60 standard deviations from the mean of 25.44 ug/l.

GW-16 reported elevated total selenium concentrations this quarter. The reported value of 80 ug/l was 3.96 standard deviations from the mean of 2983 ug/l.

Monitoring well GW-17 did not have enough water to obtain a sample.

Monitoring well GW-3 has not had a measurable water level since June of 2009.

Monitoring well GW-4 had previously reported a decrease in dissolved calcium (D-Ca), dissolved magnesium (D-Mg) and Total Anions (T-Anis) in the 1st quarter of 2014. A reduction in bicarbonate (CaCO₃) was during the 2nd quarter of 2014. A reduced concentration for dissolved calcium was reported for 3rd and 4th quarter of 2014. Concentrations for all required parameters returned to historical ranges the 1st quarter of 2015. Reported concentrations for the 2nd quarter of 2015 were slightly elevated for bicarbonate and total anions. Total selenium was reported 5.22 standard deviations from the mean of 19 ug/l with a concentration of 80 ug/l.

Monitoring well G-6 reported an elevated concentration of 80 ug/l for total selenium. The concentration is 3.95 standard deviations from the mean of 22.63 ug/l.

Monitoring well GW-7 reported an elevated total selenium concentration of 60 ug/l. The mean of 23.29 was exceeded by 5.71 standard deviations.

Significantly lower concentrations were reported for D-Ca, D-Mg, D-K, D-Na for monitoring well GW-8 during the 1st quarter of 2015. These parameters were reported within historic ranges the 2nd quarter of 2015. A reduced concentration for bicarbonate was the only irregularity reported this

quarter.

A reduction in D-Na and CaCO₃ was reported for monitoring well GW-9 during the 4th quarter of 2014. A reduced concentration for bicarbonate was reported again during the 1st quarter of 2015. A reduction of bicarbonate was again reported along with a reduction in dissolved sodium concentration during the 2nd quarter of 2015. Decreases in both dissolved sodium and bicarbonate were again reported outside of two standard deviations from the mean this quarter.

Monitoring well GW-9B reported a reduction in concentration for D-Mg, dissolved sodium (D-Na) and total cations (T-Cats) during the 3rd quarter of 2014. A continued reduction in D-Na was produced during the 4th quarter of 2014 and again during the 1st quarter of 2015. Sodium was again reported lower than the mean for 2nd quarter. An increase in total selenium was reported. The concentration of 100 ug/l is 2.60 standard deviations from the mean of 34.47 ug/l.

UPDES

YES NO

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?

NA