

WATER QUALITY MEMORANDUM

Utah Coal Regulatory Program

August 23, 2016

TO: Internal File

THRU: Steve Christensen, Permit Supervisor 

FROM: Keenan Storrar, Hydrologist 

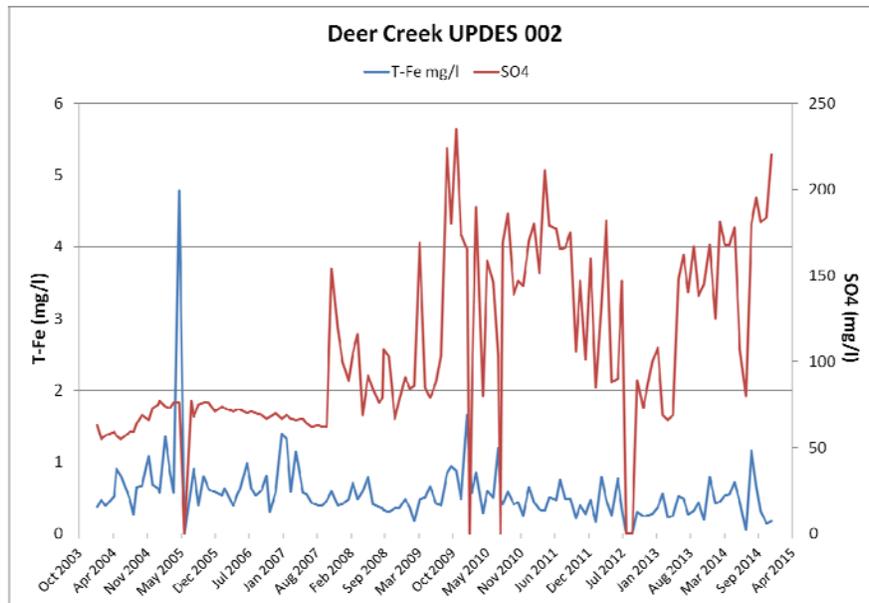
RE: First Quarter 2016 Water Monitoring, PacifiCorp, Deer Creek Mine.
C/015/0018, Task ID #5123

The Deer Creek Mine monitoring plan is described in Appendix A-1 of Volume 9 of the MRP. The Deer Creek Mine indefinitely ceased operations January 7th, 2015 and is transitioning towards reclamation. The Permittee is proposing to pipe gravity drainage mine water from the Rilda Right portals down to and consumed by the Huntington power plant. In the event the power plant shuts down, the Permittee is developing an alternative treatment scenario for the mine water discharge expected to be high in T-Fe.

1. **Were data submitted for all of the MRP required sites?** YES NO
2. **Were all required parameters reported for each site?** YES NO
- Springs** YES NO
- Streams** YES NO
- Wells** YES NO
- UPDES** YES NO
3. **Were any irregularities found in the data?**
Listed parameters are more than two standard deviations above the mean.
- Springs** YES NO
- Streams** YES NO
- RCW4: D-K
- Wells** YES NO
- UPDES** YES NO

Mine water discharge at the UPDES outfall has ceased. The south half of the Deer Creek mine has been sealed. The pumps in the Mill Fork lease which produced the vast

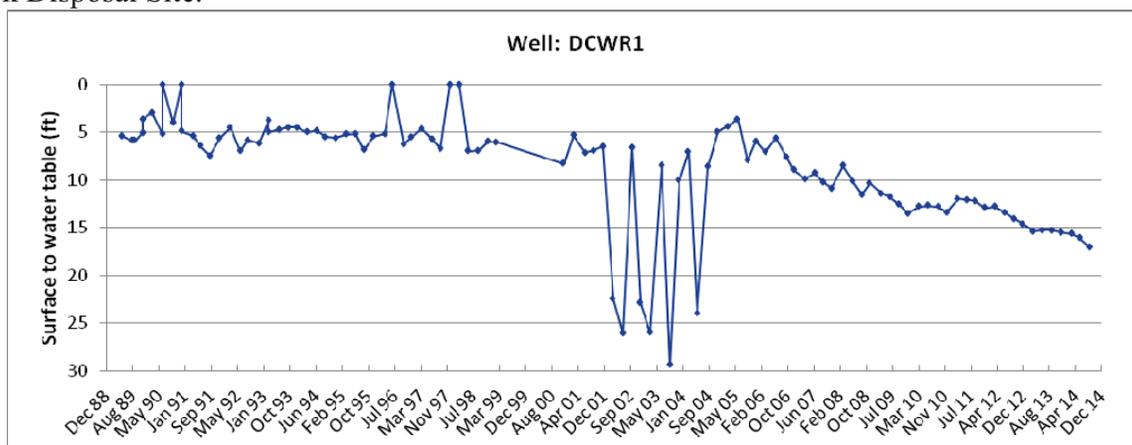
majority of in-mine dewatering were shut off as of mid-2015. Mine pools are developing in the old workings and will eventually gravity drain at two locations, the Deer Creek and Rilda Right portals. Since there is no discharge from the Deer Creek mine portals the graph below is not applicable. Once gravity drainage reaches the Deer Creek and Rilda Right portals this graph should be reintiated.



Wells

YES NO

The Deer Creek Waste Rock well has been dropping since 2006 (following a small rise in 2004-2005). These changes are probably from factors other than disposal of waste rock at this site: a similar drop in water level is seen at WCWR1 at the Cottonwood/Wilberg Mine Waste Rock Disposal Site.



This well is no longer a Pacificcorp water monitored site. It is now monitored by Bowie as the Deer Creek Waste Rock site.

4. **On what date does the MRP require a five-year resampling of baseline water data.**
Baseline analyses were performed in 2001, 2006 and 2011 and are to be repeated every 5 years. The next baseline analyses will be conducted in 2016.

5. **Based on your review, what further actions, if any, do you recommend?**
There is no indication of trends or extremes in any of the parameter values. No further action recommended at this time.

6. **Does the Mine Operator need to submit more information to fulfill this quarter's monitoring requirements?** YES NO

7. **Follow-up from last quarter, if necessary.**
None.

8. **Did the Mine Operator submit all the missing and/or irregular data (datum)?**
NA.

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