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Subject: Adequacy of Sedimentation Pond Following  
Extension of Culvert UC-3, Horizon Mine

Dear Sharon:

I appreciated the opportunity last Friday to discuss the proposed extension of culvert UC-3 at the Horizon Mine. As you indicated, there appears to be a mistake on the top part of Plate 7-5, where one undisturbed drainage area is indicated to have an area of 0.6 acre, while another of similar size is indicated to have an area of 1.7 acres.

I checked with Mr. Tom Suchoski of our office who performed the hydrologic calculations for the Horizon Mine. He indicated that the undisturbed drainage areas were initially estimated from a map with a scale of 1" = 1000', rather than the 1" = 200' map which appears at the top of Plate 7-5. We re-planimetered these two areas from Plate 7-5 and found that the 0.6-acre watershed actually has an area of 1.1 acres and the 1.7-acre watershed actually has an area of 1.3 acres. A revised copy of Plate 7-5 has been attached to clarify this error.

As a result, the actual undisturbed area draining to the Horizon sedimentation pond is 26.0 acres (14.9 + 1.1 + 1.3 + 8.7). The actual disturbed area, including the culvert extension, is 8.2 acres (as surveyed in the field). Hence the total area draining to the sedimentation pond is 34.2 acres.

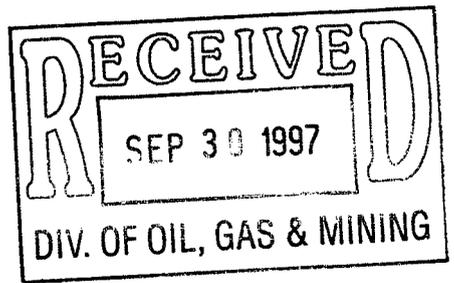
As indicated in Appendix 7-4 of the M&RP, the sedimentation pond was designed assuming a drainage area of 35.1 acres. Based on a weighted-average curve number of 70 for the combined undisturbed and disturbed areas, this resulted in a runoff volume of 0.56 acre-foot from the 10-year, 24-hour precipitation event. With the reduced area of 34.2 acres, the runoff volume would be 0.54 acre-foot. Hence, even with the additional pad created by the culvert extension, the actual runoff to the pond will be less than the design volume.

The sediment storage volume for the pond was based on a ratio of 0.1 acre-foot of sediment for every acre of disturbed area. Therefore, with a reduced disturbed area, the design storage volume for the pond could also be reduced. Hence, the pond is adequately sized to retain the runoff and sediment which would result from the culvert expansion.

Please contact me if you have any questions.

Sincerely,  
*Richard B. White*

Richard B. White, P.E.  
President



cc: Mike Gipson (Horizon Coal Corporation)