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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

September 26, 2012

TO: Internal File

THRU: Steve Christensen, Permit Supervisor *SKC*

FROM: April A. Abate, Environmental Scientist III *AAA*
9-27-2012

RE: Hydrology Monitoring Plan, Bear Canyon Mine, Castle Valley Mining LLC, C/015/0025, Task ID #4164

SUMMARY

On September 7, 2012, Castle Valley Mining LLC, (the Permittee) submitted a response to a Division of Oil, Gas and Mining (the Division) deficiency letter dated July 25, 2012 in regard to revisions to their operational water monitoring plan.

The water-monitoring plan proposes to reactivate several water sampling locations that were temporarily suspended from the quarterly monitoring plan because the mine plan did not call for mining in the Wild horse Ridge/Mohrland area. The Permittee is now planning to mine the area within the next six years and as required by the Mining and Reclamation Plan, is obligated to monitor the springs and stream locations above the area to be undermined.

The plan will reactivate six stream samples along Fish Creek and five spring samples above the Mohrland #4 mine area. In addition, the Permittee responded to a Division request to add dissolved oxygen to the surface water operational sample list.

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OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Page 7-60A of the approved Mining and Reclamation Plan (MRP) indicates that all sites projected for re-initiation of monitoring are based on the projected mine plan. Mining is planned under the perennial reach of Fish Creek. The Fish Creek stream and spring locations outlined in Table 7-14 will be monitored on a weekly basis one month prior to mining, during mining, and one month after mining. Monitoring will then be reduced to monthly for an additional 6 months, then will resume its normal quarterly schedule. The weekly monitoring reports are to be sent to the Division via email as indicated in the MRP. The Division requested a timeline for this sampling protocol showing the forecasted duration of the mining.

The Permittee provided the Division with the requested timeline. According to the timeline provided, mining was planned beneath Fish Creek locations FC-3, FC-4, FC-6, FC-7, and FC-8 started in August 2012. According to the weekly monitoring reports the Permittee has been providing to the Division, weekly sampling of Fish Creek locations began on July 2, 2012. The Permittee provided a revised version of page 7-60A and Table 7-14 indicating that the following locations are slated for weekly monitoring:

Right Fork of Fish Creek
FC-2, FC-3, FC-4, FC-5, SCC-2

Left Fork Fish Creek
FC-1, FC-6, SBC-16, SBC-16A, SBC-16B, SBC-18, SBC-21

The Permittee has been providing weekly sampling data for FC-3, FC-4 and FC-6, since these locations are the first on this list to be undermined starting in August 2012. FC-7 and FC-8 are also planned to for undermining starting in August 2012; however these locations are not part of the weekly monitoring plan specified in the MRP, likely because there has been no flow data since 2007 when data collection began and reportedly that flow has only been observed at these locations during major storm events or spring runoff periods.

In the July 25, 2012 letter, the Division pointed out that spring sample SBC-20 is included in the narrative text of the MRP for weekly sampling, but was not marked for weekly sampling on Table 7-14. Given that this spring does not have a water right associated with it and that the flow data does not show a consistent flow (approximately 4-5 gallons per minute in late

spring only), the Division recommended that SBC-20 could be removed from the narrative text on Page 7-60A.

The Permittee has elected to remove sample SBC-20 from the MRP and has submitted a revised page 7-60A omitting it from the list.

Findings:

The Permittee has provided the requested information and has made revisions to the MRP. The information supplied meets the requirements of the Utah Coal Rules and complies with the MRP.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

The Division requested that the Permittee review Plates 5-1A, 5-1B, and 5-1C, the Blind Seam, Hiawatha Seam and the Tank Seams to determine if the maps were up to date and provide updated maps to the Division if it is determined to be necessary. These areas are located below Fish Creek and were all forecasted for mining between 2007 and 2014.

The Permittee responded that all of the maps were up to date and did not require any updates at this time.

Findings:

The information provided meets the Utah Coal Rules.

RECOMMENDATIONS:

Final approval is recommended.