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# TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

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May 29, 2013

TO: Internal File

THRU: James Owen, Lead *JO*

FROM: Ingrid Campbell, Environmental Scientist III *IC*

RE: Phase III Bond Release, Plateau Mining Corporation, Star Point Mine, Permit C/007/0006, Task ID #4320

## SUMMARY:

On April 3, 2013, the Division received an application from Plateau Mining Corporation (PMC) for phase III bond release for the Star Point Mine. Phase I bond release was approved by the Division on October 12, 2004. Phase II bond release was approved on January 14, 2009. The last augmented seeding was completed in 2002 and vegetation monitoring was completed the last two years of the responsibility period (2011 and 2012). A site visit was conducted by the Division on May 23, 2013.

Phase III bond release is recommended for approval.

**TECHNICAL MEMO**

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**TECHNICAL ANALYSIS:**

**RECLAMATION PLAN**

**POSTMINING LAND USES**

Regulatory Reference: 30 CFR Sec. 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

**Analysis:**

The postmining land uses for the Star Point Mine are the same as the premining which include livestock grazing, wildlife habitat, recreation, and forestry. Some areas were previously converted to industrial land uses for oil and gas drilling. These postmining land uses were achieved by meeting ground cover, production, and woody species density standards explained in the below sections.

**Findings:**

The information provided is considered adequate to meet the regulatory requirements for this section.

**REVEGETATION**

Regulatory Reference: 30 CFR Sec. 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

**Analysis:**

**Revegetation: Standards For Success**

Year 9 vegetation monitoring was conducted in 2011 by Mt. Nebo Scientific. Cover, Frequency and composition were documented as well as density, biomass production, sample size and adequacy. Three plant communities were disturbed by the construction of the mine. These communities include Sagebrush, Mountain Grassland and Saltbush. Each of these communities has a corresponding reference area that was selected previously. The reclaimed areas were divided into pre-SMCRA and post-SMCRA disturbed areas due to the different success standard requirements.

In the post and Pre-SMCRA area, total living cover was at least 90% of the reference area estimates. Woody species density was predetermined for all areas at 2,000 stems per acre. All areas had at least 90% of the success standard density. Biomass was only calculated at post-SMCRA sites. The biomass for all sites was greater than the reference area measurements.

Year 10 vegetation monitoring for bond release was conducted by Mt. Nebo Scientific in 2012. The same indicies were calculated in year 10 as year 9. However, diversity and similarity between the reclaimed areas and their associated reference areas were also calculated. The total living cover for both the pre-SMCRA and post-SMCRA areas was higher than that of the reference areas. Woody species density for all areas was greater than the approved standard of 2,000 stems per acre. The annual biomass production in the post-SMCRA area was greater than that of the reference area. Biomass was not calculated on pre-SMCRA areas.

Jeff Fenton, Rangeland Management Specialist with the NRCS monitored the reclaimed areas within the Star Point Mine for vegetation establishment and soil stability. Plant production, health and vigor were reported as very good, good seed production was recorded and good soil stability at all sites.

The Division biologist, Joe Helfrich, visited the reclaimed areas on May 23, 2013. His observations are located in inspection report #3488.

**Findings:**

The information provided is considered adequate to meet the regulatory requirements for this section.

**RECOMMENDATIONS:**

Phase III bond release is recommended for approval.