

Bentonite Performance Minerals, LLC  
 Permit No 267C  
 Reclamation Plan-2.11

**Section 2.11.41 Wyoming State Lease 42804 (WSL04) Amendment Reclamation Plan**

The area that is included in the Wyoming State Lease 42804 Amendment area is as follows:

| <b>Amendment Areas</b>           | <b>Legal</b>                                   | <b>Total Acres</b> |
|----------------------------------|--|--------------------|
| <b>Wyoming State Lease 42804</b> | SE4SW4, SW4SE4<br>Section 30 T57N R62W         | 80                 |
|                                  | NE4, E2NW4, SW4, NW4SE4<br>Section 31T57N R62W | 440                |
|                                  | W2NW4<br>Section 32 T57N R62W                  | 80                 |
|                                  |  | <b>600</b>         |

The WSL04 surface is owned by 2U Ranch, LLC. The area has been surveyed/cleared for baseline soils, wildlife and vegetation in accordance with WY-DEQ regulations.

**Section 2.11.41-1 General Reclamation Standards & Practices**

The information and commitments in Permit 267C Sections 2.11.1 through 2.11.8.1 remain current for the reclamation operations performed on the Amendment area. Reclamation progress will follow that listed in Section 2.11.3.3. In regards to post-mining slope, topography and through drainage, reclamation on the WSL04 Amendment will not deviate from the standards listed in Section 2.11.4.

**Section 2.11.41-2 Permanent Out-of-Pit Overburden**

As stated in section 2.11.3.2 of Permit 267C when the permittee creates permanent overburden stockpiles, the reclamation will achieve the performance standards of LQD Non Coal Rules and Regulations including:

- Overburden placement will not occur on native slopes that exceed 20 degrees (approximately 33% or 3:1 slopes)
- Stabilizing the overburden slopes by grading and contouring them to blend with adjacent native and reclaimed lands
- Covering the stabilized overburden with subsoil and topsoil.
- Seeding the topsoil with an approved permanent seed mix.
- Overburden placement will not block ephemeral, intermittent or perennial drainage channels
- Overburden which is placed on pre-Act affected lands will be subject to the other reclamation practices in the reclamation section of the permit.

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Specifically regarding the WSL04 Amendment four out of pit overburden piles will be constructed in relation to mining on the WSL04 claim; two will be in relation to Pit series S4-A, one will be in relation to Pit series S4-B and one for S4-C. These post mine features are illustrated on the reclamation map 2.11.41-1. The out of pit overburden will be contoured to match existing topography, be within elevation of original USGS contour intervals and have topsoil, subsoil, or third lift spread over it. This practice is consistent with mining progression Schedule A and Schedule C illustrated in Section 2.10.6 of the permit. The soil (0-54+” based on Soil Report) will be removed and live-spread or stockpiled adjacent to the active mining for reclamation. Seeding will take place in the fall of each year as outlined in Section 2.11.8.

### **Section 2.11.41-3 Permanent Post-Mining Impoundments**

One new permanent post-mine impoundment is planned for the WY State Lease 42804 Amendment area per landowner request. This impoundment will be immediately west of the largest pond found on the Amendment area and can be found illustrated on the Reclamation Plan map 2.11.41-1. In addition, one impoundment will be mined through and enhanced through reclamation with steeper slopes and a greater depth. It is noted in the letter from WG&F has suggested constructing no impoundments, but these recommendations are directly conflicting of the land owner’s desires. Therefore, enhancements will be made, such as steeper slopes and greater depths than what currently exist, but impoundments will still be replaced.

### **Section 2.11.41-4 Ephemeral Drainage Construction**

The information and commitments in Section 2.11.6 remain current for the reclamation operations on the WY State Lease 42804 Amendment area.

### **Section 2.11.41-5 Subsoil and Topsoil Redistribution Methods and Depths**

Refer to section 2.11.7 for general reclamation practices regarding soil management. Topsoil and subsoil depths are delineated in the Soil Section (2.7.3.45). The soil (0-54” based on Soil Report 2.7.3.45) will be live-spread on previous pits within that series or stockpiled for future use (subsoil will be salvaged and stored separately), depending on the area and pit progression. The permittee will adjust the “general backfilling and handling of overburden in the ‘tiered’ system” manner as discussed in Section 2.5.3 in order to ensure that the most suitable overburden material lies next to the topsoil.

Disturbance of ten soil communities within 177 acres of the 600 acre project area will take place. Refer to pages 2.7.3.45-10 & 11 or the Soils Map 2.7.3.45-1 for a table listing all projected soil types, affected acreage and salvage depths for the amendment area.

### **Section 2.11.41-6 Revegetation & Seed**

The information and commitments in Section 2.11.8 remain current for the revegetation process of the WY State Lease 42804 Amendment lands. The Permit 267C approved seed mix (Pages 2.11-16 and 2.11-17) is to be used in the reclamation.

In the correspondence from the WGFD (Section 2.9.3.45, Addendum B), it is recommended that reclamation efforts target restoration of the pre-disturbance shrub components. The permit seed mix is entirely made up of native seeds and offers a variety of forbs, grasses and shrubs (depending on availability) for the permit area. Refer to Reclamation section 2.11 pages 2.11-13 & 2.11-14 for a list of species in seed mix. Specifically shrub species are listed in section 2.11.8.2. Sampling results are presented in the Vegetation section (2.8.8.36). Based on the comment, reclamation plans will include this shrub component.

### **Section 2.11.41-7 Husbandry Practices on Revegetated Lands**

The information and commitments in Sections 2.11.9 through 2.11.11 remain current for the WY State Lease 42804 Amendment area.

### **Section 2.11.41-8 Fencing**

Any fencing removed by the permittee will be temporarily replaced during mining events. Any fencing removed by the permittee will be permanently replaced in equal or better condition of initial fencing as part of the reclamation plan.

### **Section 2.11.41-9 Hydrologic Restoration**

The Wyoming State Lease 42804 amendment covers 600 acres on rolling to hilly terrain with most of the disturbance occurring in the flat open areas located amongst the steeper terrain. The Belle Fourche River is located 0.6 miles to the east, 1.35 miles to the north and 1.6 miles to the northeast since it forms an inverted U-shaped meandering corridor near the permit area. Green Mountain is located in the northwest quarter of the amendment area where the elevation rises to 3,754 feet at the summit. The lowest elevation on the site is 3,585 feet at the southern edge of the site.

Refer to section 2.6.3 regarding drainages within the mining area.

One unnamed drainage will be affected by mining in the amendment area. Approximately 1000 yards of this drainage which course through the center of the amendment area from east to west will be affected; the largest pond in the claim spills into this drainage. This drainage will be reclaimed back to its original contour with the exception the addition of a pond at the beginning of the drain on the west. This pond will have steeper slopes as well as greater depth than the water that currently collects in that area making a marshy pool.

In addition the small southern most pond in the amendment area will be mined through and replaced with improvements, including steeper slopes and greater depth. See WYG&F correspondence regarding post mine impoundments on private surface.

All surface water on the amendment area underwent quarterly baseline water sampling for a year. Results from this sampling can be found in section 2.6.5.24. Information regarding wetlands in the amendment area can be found in section 2.12-20, this is also where correspondence with USACE can be located as well as illustrations of the wetlands within the amendment area.

General BMP's utilized, concerning discharge, are listed in the Bentonite Performance Minerals' Wyoming General Storm Water Permit for Mining Operations Authorization and are listed in Section 2.10.11-1 of Permit 267C.