

Bentonite Performance Minerals, LLC
 Permit 267C
 Mine Plan-2.10

Section 2.10.58 WY State Lease 42804 (WSL04) Amendment Area Mine Plan

The claim that is included in the WY State Lease 04 Amendment area is as follows:

Amendment Areas	Legal	Total Acres
Wyoming State Lease 42804	SE4SW4, SW4SE4 Section 30 T57N R62W	80
	NE4, E2NW4, SW4, NW4SE4 Section 31T57N R62W	440
	W2NW4 Section 32 T57N R62W	80
		600

Section 2.10.58.1 Outstanding Permit Conditions and General Information

The WY State Lease 42804 surface is owned by 2U Ranch, LLC. An illustration of the mine plan for the claim is presented in Map 2.10.58-1. Mining is expected to start on the proposed portion of the WY State Lease 42804 amendment in 2020. The area has been surveyed/cleared baseline soils, wildlife and vegetation in accordance with WY-DEQ regulations.

WY State Lease 42804 Mining Description

The majority of the ore on the WSL04 claim lies in a single deposit, with only a couple small deposits out-laying. There will be four pit series on the WSL04 claim, labeled on the Mine Map as S4-A through S4-D. Most of the soil associated with mining in the WSL04 claim will be live-spread, however there may be situations which require soil to be stockpiled for later application. It is expected that there will be four areas where overburden will be placed in relation to mining the WSL04 claim. In each area the overburden will be graded and contoured with existing features in order to flow continuously with the existing topography. In addition, each of the areas where overburden is placed will be constructed at an elevation that is within the original USGS contours as not to change the topography more than that indicated on premine USGS maps.

The ore is a continuation of the same deposit that is in the adjacent Jolley Edsall 14 (JE 14) claim (Change #31 to permit 267C). Pit Series S4-A is the southernmost series and is a continuation of mining from the Jolley Edsall claim. Mining will progress from the east (coming from JE 14) to the west. Overburden will be placed near the central portion of the series on the southern edge, the overburden will be contoured into an existing hill to flow with the existing landscape. In addition salvaged soil will be placed near the south-central disturbance edge as well. This pit series will end when it meets the western claim border. Pit Series S4-A is bordered on the north by Pit Series S4-B.

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Pit Series S4-B begins in the northwestern corner of the southwestern portion of the claim (refer to Mine Map for illustration). The mining will progress initially to the southeast for a short time before turning and progressing north for a large portion of the series, eventually turning to the east and wrapping around in a horse-shoe pattern and moving to the west in the central portion of the permit area. Soil will be placed in multiple locations along the mining as illustrated on the mine map. Overburden will be placed near the end of this series, which is also the beginning of Pit Series S4-C.

Pit Series S4-C will begin just west of the end point of pit Series S4-B in the north-central portion of the claim. It is a relatively short pit series. Out of pit overburden pile will be placed on the southern edge of mining near the center of the series. Soil for this series will be placed in along the northeast edge.

Pit series S4-D is located in the southeast portion of the claim north of JE14. It is very small, consisting of only a couple pit cuts. Soil for these pits will be salvage and stored west of the mining and reapplied once mining has concluded.

The soil (0-54" based on Soil Report) will be live-spread on previous pits within that series or stockpiled for future use, 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. Pits will be backfilled, contoured, topsoiled and seeded per information provided in Section 2.11.3.3 (Reclamation Section).

The mining camp will remain on the disturbance from previous mining where soil has already been salvaged. Sumps will be constructed so potential petroleum spills in this area will be directed to the sumps thereby protecting area surface water. This is consistent with directives written into the permittee's SPCC plan. Any petroleum contaminated soil (PCS) in the area will be removed, hauled and placed in the permittee's permitted PCS treatment site located at the Colony Plant site. The quantity of soil removed will be documented in the permittee's Annual Report.

Section 2.10.58.2 Life of Mining Operations

The permittee expects that the mining operations associated with the WY State Lease 42804 Amendment will extend through 2040.

Section 2.10.58.3 Mining Operation and Progressions

Under the provision outlined in Section 2.10.6, the permittee will be submitting proposed mining disturbance in its 2019 Annual Report.

Section 2.10.58.4 Mine Progression Time Schedule

Under the provisions outlined in Section 2.10.7, the Permittee has presented the previous narration and accompanying illustration (Mine Plan Map 2.10.58-1) to describe the

progression. The permittee also commits to those timing requirements listed in section 2.11.3.3 of Permit 267C. The Mining Map is labeled as Map 2.10.58-1. The majority of soil salvaged during the mining process will be live-spread on the previous mining. Some soil from the mining in the S4 pit series may have soil piled adjacent to the mining. Some roads built in the area will be temporary and where possible be constructed on backfill where soil has already been salvaged, with the exception of landowner requested permanent road(s) which will remain in place once mining is completed.

Section 2.10.58.5 Mining Hydrology

The WY 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 general practices 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.

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.

All pre-mine 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.

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.

In addition, due to the revised Wyoming General Storm Water Permit for Mining Operations Authorization, Bentonite Performance Minerals will be allowed to discharge to "waters of the state" however will be required to monitor discharged water for Total Suspended Solids.

There are surface and ground water right claims within the eight surrounding sections, these water rights are presented in section 2.6.5.24. Bentonite mining takes place at a shallow depth and since groundwater is deep in the area bentonite mining is not expected to affect groundwater.

Section 2.10.58.6 Haul, Access, and Light-Use Roads

Under the provisions outlined in Section 2.10.17 (Volume 13, page 2.10-11), the permittee is required to submit the road types to be constructed in the WY State Lease 42804 Amendment permit application. Roads left as permanent features in the WY State Lease 42804 Amendment area will be upon landowner request. Road construction will be on surface where soil has been salvaged.

Section 2.10.58.7 Topsoil and Subsoil Salvage

The information and commitments in Sections 2.10.8 through 2.10.16 remain current for the WY State Lease 42804 Amendment Area. Disturbance of ten soil communities will take place with an estimated 177 acres of disturbance within the 600 acre project area. 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.

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, depending on the area and pit progression. The Subsoil will be salvaged and stored separately.

Section 2.10.58.8 Mining Commitments

The information and commitments in Section 2.10.9 through 2.10.23 remain current for the WSL04 Amendment area.

Section 2.10.58.9 Power Transmission and Communication Lines

There are no transmission or communication lines running through the WSL04.

Section 2.10.58.10 Mitigation

Habitat for the northern long-eared bat is present, however in a telephone consultation with WG&F it was decided that mitigation was not necessary for this case where no White Nose Syndrome has been recorded. The proposed mining will have "no effect" on the northern long-eared bat.

Due to the documentation of ground nesting passerines and waterfowl initial ground disturbing activities will occur outside the nesting and early brood rearing time frame of migratory birds (May 1 - July 15) to avoid direct mortality or nest destruction. (Refer to page 2.9.3.45-25 thru 27).