OXBOW MINING, LLC
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FOURTH QUARTER 2021 ENGINEERING INSPECTION
EAST YARD, WEST VALLEY FILL AND II WEST COAL MINE WASTE DISPOSAL PILES

The approved Oxbow Mining, LLC (OMLLC) Mine permit includes a requirement for quarterly inspections of coal mine waste piles for stability. The inspection is to be performed by a registered engineer or other qualified professional specialist, who is experienced in the construction of earth and rock fill embankments. Visual inspections were performed of the, West Valley Fill, II West and East Yard coal mine waste disposal areas on December 7, 2021.

EAST YARD - The East Yard disposal area has reached its design capacity, and no new waste material has been placed since June of 2001. The revegetated slope was inspected for signs of erosion or instability. No erosional features were noted on the slope. The covering of the waste pile is considered complete. Nothing was observed during the inspection that would indicate the pile has a potential for structural failure. Fill material from the reclamation activities on the Elk Creek Mine Middle Bench was placed at the base of the waste pile per the reclamation plan.

WEST VALLEY FILL – No waste material was hauled to the West Valley Fill area during this quarter. This refuse pile has been completed with topsoil and has been seeded.

On August 3 of 2018, compaction tests were completed on the West Valley fill. The area was then capped with a minimum of 4' of topsoil. Drainage courses were completed during September and the area was seeded.

The refuse pile was previously surveyed at the approximate 6228' elevation not including the addition of the topsoil. In the fourth quarter of 2018, the final elevation was surveyed to be 6,233' and the area is gently sloped toward the drainages. The active waste storage area is no longer available as an interim storage area for wet refuse re-handled later to II West and as a staging area for miscellaneous projects and material storage.

During the third quarter of 2015, a burning coal odor, dead vegetation and a warm surface indicated a zone of spontaneous combustion under the reclaimed surface located on the west end of the second bench at the approximate 6200' elevation. An MSHA remediation plan was submitted and approved. The work was completed on 10/15/2105 and was reseeded 10/27/2015. No heating was detected this quarter. Vegetation has covered the area well.

The revegetated out slope was inspected for signs of erosion and instability. No erosional features were noted on the slope. The third bench (approximate 6220' elevation) setback remains established for the ramp constructed on the waste pile to provide access to the II West Coal Refuse Facility light use road. This road continued to be utilized during the quarter. No springs or seeps were noted. Surface drainage control features are performing according to the plan. Nothing was observed during the inspection that would indicate the West Valley Fill has a potential for structural failure.

All reclaimed areas were seeded in third quarter of 2018.

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II WEST – The II West disposal area received no new coal mine waste material during the quarter, but was completed with topsoil and was seeded during the third quarter of 2018.

On August 3 of 2018, compaction tests were completed on the West Valley fill. The area was then capped with a minimum of 4' of topsoil. Drainage courses were completed during September and the area was seeded.

II West waste was previously surveyed at the approximate 6141' elevation, not including the addition of the topsoil. In the fourth quarter of 2018, the final elevation was surveyed to be 6,148' and the area is gently sloped toward the drainages.

The 2013 regraded out slope area seeded on November 7, 2013 remains stable. Older seeded areas continue to perform according to the plan. All reclaimed areas have been seeded as of third quarter of 2018. No springs or seeps were noted. Surface drainage control features are performing according to the plan. Nothing was observed during the inspection that would indicate the II West Valley Fill has a potential for structural failure.

Inspected by Doug A. Smith

Michael W. Ludlow 24046 Date
Colorado Licensed Professional Engineer No. 24046