

2020 Award Winners

KGHM Robinson Mine **Lane City Waste Rock Facility**

Robinson is part of a district in White Pine County where mining dates back to the mid-1860s. Numerous predecessor operators had employed various methods of extracting copper and other metals, generating Waste Rock Facilities (WRF), such as the Lane City WRF, with the potential to negatively impact the environment.

Though not part of current reclamation obligations, KGHM Robinson initiated reclamation of this legacy mining feature by re-grading the west, north, and east slopes of the WRF to 2.5:1. A stormwater pond and rip-raps had to be constructed on the top surface and northern slopes to drain sediment away from the creek. Previous test results from WRF surface samples indicated a potential to generate low pH runoff that could degrade waters of the State. Limestone, with its buffering capacity, was added to the WRF to significantly decrease the acid generating potential.

Today, the Lane City WRF is capped with limestone, growth media and seed to establish vegetation. Stormwater from the WRF drains via a series of rip-rapped channels into a sediment collection pond.

Award Category **Legacy Waste Rock Reclamation**



Hudbay Minerals / Mason Resources **Mason Exploration Project**

The Mason Project, held by Hudbay Minerals through their subsidiary Mason Resources (US) Inc., is a copper exploration project located in Lyon County, west of the town of Yerington. The project is permitted to disturb up to 50 acres of public land and is a phased-bonded project, whereby a specific exploration phase (or sequence) may be bonded for in lieu of bonding for the entire permitted disturbance.

The reclamation consisted of earthwork on exploration roads and pads in addition to successful re-vegetation. Prior to this bond release the project reported a total disturbance of 24.5 acres. The release of 10.2 acres represents a 42% reduction of surface disturbance reclamation obligation at the project.

Concurrent reclamation is a best management practice that minimizes environmental impacts associated with a permitted surface disturbance activity.

Award Category **Concurrent Exploration Reclamation**



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NOV **Big Ledge Mine West Waste Rock Facility**

The Big Ledge Mine, operated by NOV, is located in Elko County. Barite was mined by a previous operator between 1978 and 1983; this activity predated NV mining reclamation regulations. NOV began mining the deposit in 2009. In 2016, acidic waters were identified at the base of the historic West Waste Rock Facility (WWRF). NOV initiated a corrective action plan which included a temporary regrade from 1.5 to 2.5H:1V, construction of monitor wells and a well and surface water sampling program.

In 2018, a lined catchment pond was constructed to contain and control acid rock drainage. Final regrade of the WWRF was completed in 2019 at 2.5-3H:1V. 2.3M sq-ft of 80-mil AGRU Super Gripnet® liner, 16-oz protective geotextile and 2-foot rock cover with 2 lb/ton quicklime was installed in mid-2020. NOV constructed 8,900 linear ft. of stormwater channels and was an early adopter of Hydroturf® over traditional rip-rap.

This project is the first of its kind for full encapsulation at high elevation.

Award Category **Innovative Reclamation and Closure**

