FACT SHEET

(Pursuant to Nevada Administrative Code [NAC] 445A.401)

Permittee Name: **Nevada Gold Mines, LLC**

Project Name: **Robertson Mine Project 2**

Permit Number: **NEV2021114**

Review Type/Year/Revision: **New Permit 2025, Fact Sheet Revision 00**

A. Location and General Description

Location: The Robertson Mine Project 2 is located north central Nevada in Lander County. The project is approximately 58 miles southeast of Battle Mountain, Nevada and 70 Miles southwest of Elko, Nevada. The Robertson Mine Project 2 is 5 miles north of the Pipeline Project (NEV0093109), 8 miles northwest of the Cortez Project (NEV2007106), 12 miles northwest of the Goldrush Portals (NEV2016104). The facilities will be located within sections 3, 4, 5, 6, 7, 8, 9, 10, 15, 16, 17, 18, 20, and 21, Township 28 North, Range 47 East (T28N, R48E), Mount Diablo Baseline and Meridian, on both private land and public land administered by the U.S. Bureau of Land Management, Mount Lewis Field Office, Battle Mountain. The site may be accessed by traveling 40 miles west of Elko, or 30 miles east of Battle Mountain, on Interstate 80, then approximately 27 miles south on Nevada State Route 306.

General Description: The Robertson Mine Project 2 will consist of 3 open pits (Gold Pan, Porphyry Pit, Altenburg Hill Pit), a Heap Leach Facility, a Waste Rock Disposal Facility, Recovery Plant, sediment basin, event ponds, barren pond, pregnant pond, growth media stockpiles, oxide stockpiles, non-oxide stockpiles, crushing facilities, gravel borrow pit, fuel islands, admin buildings, guard shack, powder magazine, Explosive Silo, ready line, CIC Plant, Agglomeration Unit, Carbon Handling Area, Cyanide/Reagents Area, Assay Lab, Class III Landfill, substation, switching station, downgradient monitoring wells, a water supply well, dewatering wells and sumps, and ancillary facilities. PCS will be shipped offsite to the Pipeline Project. As proposed, the Robertson Mine Project has a life of 12 years.

B. Synopsis

History

Mining in the Tenabo sub-district of the Bullion Mining District began in 1869. Placer dredging in Robertson Gulch began in 1907. This dredging occurred in the area later occupied by the Project's process ponds and is no longer evident. The Robertson Project was first permitted on 25 November 1986. Construction of the process facilities was completed in 1988; loading of the heap leach pad was initiated in November of that year. Active mining ended in September 1989, and pumping of process solution to the heap leach pad ceased on 14 December 1989. The facility was originally permitted through the Division as NEV0060035, and the permit was terminated in 2020 as all reclamation and post closure monitoring was completed. Based on additional exploration and economic changes Nevada Gold Mines LLC (NGM), the Permittee, is proposing to mine the area again.

Geology

Boreholes that extend beyond 3,000 feet below ground surface show that the lower plate formations are predominantly limestone, shale, and dolomite carbonates. Siliceous material above the lower plate formations were placed by the Roberts Mountain Thrust. These are composed of deep marine cherts, argillite, shale, limestone, sandstone, and quartzite. Primary formations include the Devonian Slaven Chert, Silurian Elder Sandstone, and Ordovician Valmy Formation. The Valmy Formation contains chert, argillite, siltstone, quartzite, and greenstone occurring in thrust sheets. The Valmy Formation is overthrust by Elder Sandstone or Slaven Chert overlain by a Pennsylvanian/Permian overlap sequence on the western slopes of Mt. Lewis.

The Elder Sandstone is predominantly fine-grained feldspathic sandstone and arkose. The Elder Sandstone is highly folded and faulted so thickness varies from 2,000 feet to over 4,000 feet. Slaven Chert is exposed in the Shoshone Range and the Toiyabe Range and has an estimated thickness of 2,000 feet to over 4,000 feet. It is primarily composed of very thin to thin-bedded black chert with dark, carbonaceous shale partings separating the several-hundred-foot-thick chert beds.

The Tenabo granodiorite is of focal interest at the Altenburg Hill. Local contact metamorphism with the granodiorite at the Project produced hornfels that were structurally folded to create gold-hosting zones.

Basins within Crescent Valley were derived from material eroded and transported from adjacent mountain ranges. Older deposits consist of poorly consolidated or unconsolidated sands and gravels. Younger deposits consist of alluvial fans, basin lowlands, and stream floodplains. Valley-floor deposits are better sorted than the alluvial fans and consist of mostly clay, silt, and sand.

Mining

Ore and waste rock will be mined from all three pits using conventional open pit mining methods (Drill, Blast, Load, Haul). Overburden (soil, alluvium, and soft bedrock materials) will be stripped and stored in a growth media stockpile.

Most mined ore will be hauled to the primary crusher, conveyed to a screen and secondary crusher, and then conveyed to a second screen and tertiary crushers located just north of the Heap Leach Facility (HLF). Mined ore may also be hauled to the Pipeline Mill Facility or the Area 30 Heap Leach Pad, both of these areas are permitted under the Pipeline Project (NEV0093109). The crushers will be connected via conveyor belts. All conveyors will be covered and equipped with baghouse dust collection systems to minimize fugitive dust.

Petroleum Contaminated Soils (PCS) will be transported to the PCS disposal area on the Pipeline Project

Waste rock will be mined with the same conventional open pits methods as ore. Waste will be hauled to the Waste Rock Facility (WRF) and managed as described in the Waste Rock Management Plan (WRMP).

Pits (3)

The three pits will be Gold Pan, Porphyry, and Altenburg Hill. Gold Pan Pit will be mined below the recovered water table and will form a pit lake of approximately 280 feet deep. Porphyry Pit will extend below the water table; NGM is planning on backfilling the pit, placing 45 feet of material (43 feet of waste rock, 2 feet of growth media) to prevent the creation of a pit lake. Altenburg Hill Pit is not planned to extend below the recovered water table and will not create a pit lake as proposed.

The closed and released Robertson Heap Leach Pad and process ponds are in the proposed footprint of the Gold Pan Pit. NGM will remove the spent ore and liners. The material will be placed on the Area 28 Heap Leach Facility, the new Robertson Mine HLF, or in another location approved by the Bureau of Land Management and the Division.

Heap Leach Facility

The Heap Leach Facility (HLF) will be constructed in 11 lifts with 14 cells within each lift. Each cell will be 300 feet wide along the length of the HLF. Each cell will be delineated by a 2-foot-tall internal berm. Internal solution will be collected through a system of perforated piping spaced throughout the cell which will be routed to the main solution collection channel. The HLF has been designed to contain leach material and solution in accordance with NAC 445A.432 as well as 43§ CFR 3809.420, the International Cyanide Code, and NGM's internal engineering and environmental standards.

The HLF collection system will be constructed top to bottom of the following: 30-inch layer of gravel, 12-inch solution collection pipes, an 80-mil HDPE geomembrane liner, and a prepared subgrade. The solution collection channel is designed to withstand a 100-year, 24-hour storm event.

Recovery Plant

A Recovery Plant will be constructed with a Carbon-in-Column plant, a Carbon Handling Area, and a Cyanide/Reagents area. Containments within each of these areas can be broken down into Retention, Primary Containment, Secondary Containment, and Reactive Management. Retention in the recovery area is achieved through piping and tanks. Primary containment will be constructed on either a HDPE Liner or reinforced concrete. Reinforced concrete will be constructed with PVC water stops at all joints. Secondary Containment will be accomplished by utilizing the containment areas for the different processes plus the lined ditches to provide a flow path for multiple solution spills or failures to flow back to the pregnant solution pond.

Leached materials will be run through the Carbon-in-Column circuit. The Loaded Carbon product of the circuit will be trucked to Mill 2 of the Pipeline Project. Carbon fines will be transported to Carlin for further processing.

Ponds

There will be four solution collection ponds. The event pond, barren solution pond, pregnant solution pond, and secondary event pond. All ponds will be stripped to a subgrade with native soil compacted, under liner, 80 mil geomembrane secondary layer, leak detection system, geonet, and an 80-mil HDPE geomembrane primary layer. Design basis for all four ponds included capacity for a 100-year, 24-hour storm event and a pad drain down associated with a 100-hour power outage. All four ponds will be connected by open channel spillways 100 feet wide by 5 feet deep. The secondary event pond will be equipped with a spillway designed to pass the 24-hour PMP event, which exceeds the 25-year 24-hour storm event, assuming all the ponds are operating at the spillway invert (5 feet below crest elevation) prior to the storm occurring, while maintaining 3 feet of freeboard. Solution collection ponds will be double lined with 80 mil HDPE geomembrane with an interlayer of geonet for leak detection. Pond bottoms will be sloped to direct any leaks through the primary liner to a LCRS sumps in each pond. Removal of fluid from the ponds will be via a pump inserted into a pump tube placed along each of the pond slopes. The pump tube will consist of an eight-inch diameter HDPE pipe that extends through a twelve-inch diameter corrugated steel support pipe. All ponds will be constructed to a depth of 37 feet and with slopes 2H:1V. Crest and Spillway Elevations will be the same for all ponds. The Barren Pond will be the smallest pond, and the Secondary Event Pond will be the largest. The Pregnant Solution Collection Pond will be constructed to dimensions of 642ft x 450ft x 37ft, giving the maximum internal spillway operating volume of 49.21 million gallons. The Pregnant Pond will take direct overflow from the Barren Pond. The Barren Solution Collection Pond will be constructed to dimensions of 262ft x 450ft x 37ft, giving the pond a maximum internal spillway operating volume of 15.92 million gallons. The Barren Pond will take direct overflow from the Event Pond and Pregnant Ponds. The Secondary Event Pond will be constructed to dimensions of 900ft x 600ft x 37ft, giving a maximum internal spillway operating volume of 101.12 million gallons. The Secondary Event Pond is designed to take overflow from the pregnant pond, which takes overflow from the other ponds. As discussed above the spillway is designed to pass a 24-hour PMP event, which exceeds the standard of a 24-hour 25-year storm event.

Waste Rock Facility

There will be a single Waste Rock Facility (WRF) that will be adjacent to the Porphyry Pit. Mined waste rock will be hauled and placed by end dumping from the top of the active dump face. Each lift will be fifty feet tall. The WRF operating slopes will be 3H:1V. The height of the WRF will range from 675 feet to 745 feet above the ground surface. NGM has conducted condemnation drilling in the proposed WRF to ensure there is no economic resources in the footprint of the WRF. The geotechnical information gained from the condemnation drilling will be used to refine the WRF stability analysis prior to commissioning of the WRF. Geochemical characterization has been compiled with the 650 boreholes across the deposit totaling more than 272k feet of drilling. Humidity Cell Testing conducted to support the WRMP and Pit Lake studies. The HCT's showed that 4% of the

waste rock would be potentially acid generating. Humidity Cell Testing of a PAG/non-PAG mix at a ratio that matches the ratio that would be seen during production showed that the waste rock would leach a circum-neutral pH liquid. This supports random mixing as a viable WRMP.

Monitoring Wells

There are currently three monitoring wells for the Robertson Project. The upgradient well is RMW-1 and is adjacent to the Mixed Ore Stockpile. RMW-2 and RMW-3 are both downgradient of the Robertson Project. RMW-2 is down gradient of the HLF across Highway 306. RMW-3 is downgradient of the ponds and WRF. RMW-3 is across Highway 306 from the ponds.

C. Receiving Water Characteristics

The Robertson Mine Project is located within the Crescent Valley Hydrographic Sub-Basin of the Humboldt River Basin. There are no seeps or springs within one mile of the project boundary. One perennial drainage, Indian Creek, is located north of the Project boundary.

Groundwater recharge generally occurs in the winter and spring months with snow melt and storm events. This runoff flows off the mountain blocks onto the alluvial fan and infiltrates into the alluvial fan. NGM will install diversion channels around the disturbed areas to divert runoff flow. Ground water discharge occurs mainly through evapotranspiration from valley bottoms and as discharge to the Humboldt River and its main tributaries. Within the vicinity of the Robertson Project, groundwaters flows eastward from the Shoshone Highlands towards Crescent Valley.

D. Procedures for Public Comment

The Notice of the Division's intent to issue a Permit authorizing the facility to construct, operate and close, subject to the conditions within the Permit, is being published on the Division website: https://ndep.nv.gov/posts/category/land. The Notice is being mailed to interested persons on the Bureau of Mining Regulation and Reclamation mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date the public notice is posted to the Division website. The comment period can be extended at the discretion of the Administrator. All written comments received during the comment period will be retained and considered in the final determination.

A public hearing on the proposed determination can be requested by the applicant, any affected State or intrastate agency, or any interested agency, person or group of persons. The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.403 through NAC 445A.406.

E. Proposed Determination

The Division has made the tentative determination to issue the new Permit.

F. Proposed Limitations, Schedule of Compliance, Monitoring, Special Conditions

See Section I of the Permit.

G. Rationale for Permit Requirements

The facility is located in an area where annual evaporation is greater than annual precipitation. Therefore, it must operate under a standard of performance which authorizes no discharge(s) except for those accumulations resulting from a storm event beyond that required by design for containment.

The primary method for identification of escaping process solution will be placed on required routine monitoring of leak detection systems as well as routinely sampling downgradient monitoring well(s). Specific monitoring requirements can be found in the Water Pollution Control Permit.

H. Federal Migratory Bird Treaty Act

Under the Federal Migratory Bird Treaty Act, 16 U.S. Code 701-718, it is unlawful to kill migratory birds without license or permit, and no permits are issued to take migratory birds using toxic ponds. The Federal list of migratory birds (50 Code of Federal Regulations 10, 15 April 1985) includes nearly every bird species found in the State of Nevada. The U.S. Fish and Wildlife Service (the Service) is authorized to enforce the prevention of migratory bird mortalities at ponds and tailings impoundments. Compliance with State permits may not be adequate to ensure protection of migratory birds for compliance with provisions of Federal statutes to protect wildlife.

Open waters attract migratory waterfowl and other avian species. High mortality rates of birds have resulted from contact with toxic ponds at operations utilizing toxic substances. The Service is aware of two approaches that are available to prevent migratory bird mortality: 1) physical isolation of toxic water bodies through barriers (e.g., by covering with netting), and 2) chemical detoxification. These approaches may be facilitated by minimizing the extent of the toxic water. Methods which attempt to make uncovered ponds unattractive to wildlife are not always effective. Contact the U.S. Fish and Wildlife Service at 1340 Financial Boulevard, Suite 234, Reno, Nevada 89502-7147, (775) 861-6300, for additional information.

Prepared by: Charles Schmitz
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