#### **FACT SHEET**

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

Permittee Name: Columbia Gold Mines, Ltd.

Project Name: Columbia Gold Mine Project

Permit Number: **NEV2014121** 

Review Type/Year/Revision: Renewal 2024, Fact Sheet Revision 00

## A. <u>Location and General Description</u>

Location: The facility is located in Esmeralda County, in the northeast quarter of Section 35, Township 2 South, Range 42 East, Mount Diablo Baseline and Meridian approximately 1 mile north of Goldfield, Nevada. The project is located on private land.

To access the facility, proceed south on US-95 from Tonopah. Turn right onto Grand Ave, then left on N Main Street; when the road forks turn to the right. The road will run into an unnamed dirt road; take a right. Follow the road for approximately 0.3 mile then turn left. The mill site will be on the left in approximately 0.1 mile.

General Description: The Columbia Gold Mine Project is a physical separation mining and beneficiation facility, pursuant to NAC 445A.414, designed to extract placer gold, with a maximum rate of 100 tons of ore per year. The facility is composed of a front end loader, 2-ton hopper, conveyor belt, jaw crusher, roll crusher, ball mill, classifier, agitator, conditioner, and concentrating table. Water is introduced at the ball mill and used through the rest of the physical separation process. No chemicals are authorized in the process. The facility is required to be designed, constructed, operated, and closed without any discharge or release in excess of those standards established in regulation, except for meteorological events that exceed the 25-year, 24-hour storm event.

#### B. Synopsis

The Project is located at the base of Columbia Mountain approximately 1 mile north of Goldfield, Nevada within the historic Goldfield Mining District.

Mining and Processing: The ore is taken from approximately 0.2 mile northeast of the facility; the ore is located within a section of rock drilled and blasted in the 1990s during the construction of a road. The road was never constructed.

The ore is loaded into a truck by a front end loader, or transported to the facility by the front end loader. The ore is then dumped into a 2-ton hopper equipped with a grizzly which will separate out the oversized rock. From the hopper, the ore will travel in an 18-foot long conveyor belt, past a magnet to remove any tamp iron, to a jaw crusher. The jaw crusher will reduce the ore to minus <sup>3</sup>/<sub>4</sub>-inch. The ore is fed to a roll crusher which will further reduce the material to minus 3/8-inch. Then the ore is transported by an auger conveyor to a hopper for controlled feed to the ball mill. Water is added at this point in the process. The ball mill reduces the material to minus 80-mesh. The composition is expected to be 60% solids and 40% water.

The slurry is sent in a 1.5-inch pipe to a magnetic separator or directly to a rake classifier then to an agitator and conditioner which feed to a concentrating table. The heavy concentrate will be collected, and the remaining slurry will be discharged into the settling pond.

*Ponds:* The facility has a settling pond and recirculation pond which are located next to each other south of the processing circuit. The settling pond is approximately 40 feet long by 20 feet wide and has a capacity of 6,600 gallons. The recirculation pond is approximately 40 feet long by 25 feet wide and has a capacity of 15,000 gallons. Both ponds are lined with 36-mil reinforced polyethylene. Both ponds are approximately 6.5 feet deep.

Material Characterization: A meteoric water mobility procedure test for the ore material showed elevated concentrations of arsenic (0.045 mg/l) and nitrate (16 mg/l) above Profile I reference values. The water from the setting pond will be sampled and submitted to the Division on a quarterly basis.

### C. Receiving Water Characteristics

Water for the processing circuit will be obtained from the town of Goldfield water supply, which is located approximately 10 miles north of the site. All the habitable buildings obtain water from the town water supply.

Depth to groundwater is believed to be about 350 feet below ground surface. The Goldfield Project well MW-16 is located 3,000 feet south of the site, static groundwater level is 352 feet below ground surface. A mineshaft located approximately 1,700 feet south of the site has water at a depth of 400 feet below ground surface.

### 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: <a href="https://ndep.nv.gov/posts/category/land">https://ndep.nv.gov/posts/category/land</a>. 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's 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, any affected 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. <u>Proposed Limitations, Schedule of Compliance, Monitoring, Special Conditions</u>

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 required visual monitoring of process components and required routine monitoring of process water. 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 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.

Columbia Gold Mines, Ltd.
Columbia Gold Mine
NEV2014121 (Renewal 2024, Fact Sheet Revision 00)
Page 4 of 4

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: TJ Mohammed, Ph.D.

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Revision 00: Permit Renewal.