

FACT SHEET

(Pursuant to Nevada Administrative Code (NAC) 445A.236)

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

Project Name: **Toiyabe Exploration Project II**

Permit Number: **NEV2018110**

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

A. Location of Discharge

The Toiyabe Exploration Project II is located in Lander County, within Sections 33-35, Township 26 North (T26N), Range 46 East (R46E); Sections 7, 18, 19, T25N, R47E; Sections 1-3, 10-15, 23-26 T25N R46E, Mount Diablo Baseline and Meridian, approximately 40 miles southeast of Battle Mountain, Nevada.

Site is accessed from the town of Battle Mountain by traveling east on Interstate 80 approximately 30 miles to the Beowawe Exit and turning south onto State Highway 306. Drive south for approximately 30 miles; then shortly before the Pipeline Mine, take a left turn onto the Cortez Gold Mine Road; a sign on the right shows “Cortez Hills Mine” just before the turn. Proceed 12 miles to the Cortez Canyon Road and turn left (south). This turn is approximately 0.7 miles *before* the entrance to the ranch. Proceed south for 4.7 miles; stay to the left at the fork; then turn left immediately afterward; proceed south for approximately 6 miles on an unmarked dirt road to the Project site.

B. Description of Discharge

In an effort to manage drilling fluid generated as a result of the Toiyabe Exploration Project, Temporary Water Pollution Control Permit TNEV2017113 (expired on 4 March 2018), authorized the discharge of up to 43,200 gallons per day (gpd) of drilling fluid into constructed collection sumps located adjacent to each drill pad.

Since the Division has no regulatory authority to renew Temporary Discharge Permits, Barrick Gold Exploration Inc. (Permittee) applied for a 5-year Water Pollution Control Permit on 12 October 2018 for the Toiyabe Exploration Project.

Eleven locations have initially been identified for exploratory drilling at the Project site. Additionally, boreholes may be added in subsequent years. The number of boreholes is not limited by this Permit, but all boreholes and sumps must be located within the specified Project area and must comply with all Permit requirements. The location of all active drill sumps must be identified in each quarterly monitoring report, along with a notice of new discharges in accordance with NAC 445A.258, subsection 1. The drilling program requires the construction of drill pads and collection sumps to manage excess drilling fluid generated. Following completion of drilling activities, the boreholes will be plugged and abandoned pursuant to Nevada Division of Water Resources regulatory requirements, then the pads and sumps will be backfilled and graded. Table 1 displays the locations of the initial boreholes.

Table 1: Initial boreholes planned for the drilling project. All data are in meters, Universal Transverse Mercator, North American Datum 1983.

Drill Hole ID	Easting	Northing
A	520150	4436270
B	519590	4435840
C	520360	4435830
D	519410	4435220
E	520340	4435150
F	520950	4435140
G	519510	4434680
H	520330	4434640
I	520940	4434670
J	520340	4433710
K	520860	4433560

At each borehole, excess drill water will be discharged to a two chambered sump, approximately 15 feet wide by 20 feet long by 15 feet deep (total volume at crest approximately 9,000 cubic feet). Each sump is divided into two chambers, “A” and “B”, separated with weed-free straw bales/wattles for trapping drill cuttings and silt. The drilling fluid is pumped to Sump A, which captures the coarse cuttings and some of the suspended solids (drilling mud). Overflow from Sump A filters through the straw bales/wattles to Sump B, where the drilling fluid is further clarified via settling. The drilling water is managed to preclude surface discharges when possible, but in some cases the available sump capacity is exceeded and excess drilling water is discharged to the surrounding land surface. Any overflow discharge from Sump B to the surrounding land surface is monitored, sampled, and analyzed for Profile I parameters, and the surface discharge flow rate is measured or estimated, as best as practicable, for reporting and comparison with Permit limits. Best management practices (BMPs) shall be utilized to clarify the surface discharge at each overflowing sump, and to dissipate the energy of the overflow for the purpose of limiting the erosion and sediment transport caused by the discharge.

Because the earthen sumps do not include engineered containment, discharge to groundwater also occurs as drilling water infiltrates into the subsurface through sump walls and bottoms. Discharge to groundwater may also occur as infiltration along the flow path of a surface discharge. Typically, before a sump overflows to the surrounding land surface, the Permittee will use a pump to convey the clarified water out of the sump in a more controlled manner. The discharge will be via a non-perforated pipe to a perforated pipe wherein the overflow is dispersed over the ground surface. Sprinklers may also be used to disseminate excess water. This process is active only when Sump B has reached overflow capacity. When the water level has declined and stabilized below the overflow status in Sump B, the water discharge process is not necessary. Overflow will not be discharged into or near any drainage, except during a storm event that causes surface runoff and if such a discharge cannot be reasonably prevented.

Discharge will be intermittent and seasonal during dryer months with the maximum permitted discharge of 36,000 gpd and a maximum instantaneous discharge rate from an individual outfall of 25 gallons per minute.

Hydrologic pump tests of boreholes or wells may be performed under this Permit only if compliance is maintained with all Permit requirements. If this may not be possible (for example, if the pump test discharge flow rate will exceed Permit limits, or if it is anticipated that the pump test water may flow into an existing surface water body, other than as a result of a concurrent storm event), a separate permit must be obtained prior to such testing.

C. **Proposed Determination**

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

D. **Receiving Water Characteristics**

The closest monitoring wells to the site are those at the Toiyabe Mine Project (Water Pollution Control Permit NEV0060050), approximately 1.5 miles to the southeast. There are 8 wells that are monitored per the Permit. See Table 2.

Table 2: Toiyabe Mine Project Monitoring Well Data.

Well I.D.	Total Depth (ft. bgs) ^(a)	Depth to Water, (ft. bgs) ^(a)	Screen Interval, (ft. bgs) ^(a)
WBT-01	300	273	295 – 300
WBT-02	300	240	295 – 300
WBT-04	300	280	295 - 300
WBT-05	120	96	115 - 120
WBT-07	240	164	235 - 240
WBT-08	200	185	195 - 200
WBT-10	310	278	245 - 305
WBT-11	220	165	180 - 210

(a) ft. bgs = feet below ground surface.

The above wells primarily monitor groundwater downgradient of the three closed heap leach pads. There are no wells within the Project area itself. Therefore, groundwater chemistry is not known. There are no regulated surface water bodies within 1 mile of the Project area.

E. **Proposed Effluent Limitations, Schedule of Compliance, Monitoring, Special Conditions**

See Section I of the Permit.

F. **Rationale for Permit Requirements**

The Permittee shall not discharge a pollutant that would result in the degradation of existing or potential underground sources of drinking water, or that would cause an exceedance of an applicable surface water quality standard or regulation.

The primary methods for ensuring compliance will be required routine monitoring and reporting, augmented by Division site inspections. Specific monitoring requirements can be found in the Permit.

G. **Procedures for Public Comment**

The Notice of the Division's intent to issue a Permit authorizing the discharge, 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, 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. The public hearing must be conducted in accordance with Nevada Revised Statutes (NRS) Chapter 233B, unless waived by the applicant.

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. 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 2800 Cottage Way, Room W-2606, Sacramento, California 95825, (916) 414-6464, for additional information.

Prepared by: Allie Thibault
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