

**FACT SHEET**  
(pursuant to Nevada Administrative Code [NAC] 445A.401)

Permittee Name: **TNT Ventures LLC**  
Project Name: **Big Canyon Project**  
Permit Number: **NEV2008104 (Renewal 2014)**

**A. Location and General Description**

**Location:** The **Big Canyon Project** is a surface mine and physical separation facility located on public land (administered by U.S. Bureau of Land Management (BLM) Carson City District Office) in central Lyon County, Nevada.

The project site is within a portion of Sections 23, 24, and 26, Township 14 North, Range 24 East, Mount Diablo Baseline and Meridian (MDB&M), approximately 8 miles northwest of Yerington and 25 miles south of Silver Springs, within the Singatse Range. The Big Canyon Project is located in the historic Yerington Mining District on the site of the historic Guild Placer Claims. The area was extensively prospected, explored and mined during the 1930's and a limited amount of exploration activity occurred during the 1990's. A significant number of un-reclaimed disturbances remain throughout the area.

**Site Access:** *From Silver Springs:* Proceed south on US-95 Alternate, 25 miles to Campbell Lane. Proceed west on Campbell Lane for a distance of 2.6 miles to the intersection of two-track road. Proceed southwest approximately 2 miles to the project site. *From Yerington:* Proceed north on US-95 Alternate, 6 miles to Campbell Lane. Proceed west on Campbell Lane for a distance of 2.6 miles to the intersection of two-track road. Proceed southwest approximately 2 miles to the project site.

**General Description:** The Big Canyon Project consists of a surface mine and a physical separation facility, permitted pursuant to Nevada Administrative Code (NAC) 445A.414, with an authorized maximum production rate of up to 300,000 tons of pay gravel per year with a mine-life expectancy estimated 10 years. TNT Ventures, LLC (the Permittee) will mine gold-bearing placer gravels from the five "Guild Nugget Placer Claims" (numbered 3 through 7) located within an ancient river channel. Gold recovery will be accomplished via a small, wet gravity concentration circuit. The Big Canyon project is currently in the testing/feasibility phase.

Chemicals are not approved for use in the gold recovery process and make-up water will be obtained from an existing well located upgradient of the Nugget 6

and 7 claims. The facility is designed and constructed to operate and close without any discharge or release from the fluid management system except meteorological events that exceed the design storm limit. The project site is located in an area of significant historical disturbance; however the area of the Permittee's disturbance under this Permit will be less than five (5) acres at any given time. The Permittee will reclaim all new disturbances concurrent with their placer mining activities.

## **B. Synopsis**

*Background:* The Big Canyon Project is located within an area characterized by an extensive network of un-reclaimed exploration and mining disturbances, most of which date back to the 1920's and 1930's. During the early 1980's, an extensive geological study of the Guild claims identified several placer gold deposits within an ancient river channel (referred to as the "Guild Channel") for a distance of several miles. These gold-bearing "pay gravel" zones have an estimated width of 200 to 400 feet and depth of 30 to 50 feet below ground surface.

*Mining:* The Permittee has actively mined the placer deposits at the Guild Placer Claims-Big Canyon Project site since 2009. The current mine plan involves the excavation of trenches in both new and previously disturbed areas and fine tuning the gravity separation circuit.

Nominal excavation trench dimensions are 150 feet by 50 feet with a depth of no more than 50 feet; although actual trench configuration is dependent on the characterization of the overburden and pay gravel encountered. A perimeter fence surrounds each excavation trench site for public safety and to keep out wildlife. As the trench is excavated and mining advances along the Guild Channel, the Permittee performs concurrent backfilling, utilizing a combination of stockpiled overburden material and process tailings. Once backfilling is completed, the disturbed area is reclaimed (including regrading and recontouring) with stockpiled growth medium and seeded.

*Waste Rock Characterization:* Meteoric Water Mobility Procedure (MWMP) analytical results from ore and waste rock samples indicate no exceedence of any Profile I reference values. Based on the analytical test results provided and the depth to groundwater in the Big Canyon project area (refer to the section entitled *Receiving Water Characteristics* for additional information), the ore and waste rock do not pose any potential to degrade waters of the State.

*Processing:* Pay gravel is removed from the excavation trench via shovel or front end loader and then stockpiled at the process pad area. Nominal stockpile size is approximately 500 tons. The pay gravel is processed in a portable 40 ton per hour (tph), 320 ton per day (tpd) wash plant located within the excavated trench. A

Minor Modification dated 26 March 2012, authorized the replacement of the existing wash plant with a larger, 150-ton per day wash plant and added small jig for testing purposes. An Engineering Design Change (EDC) (approved 16 December 2013) authorized the installation and operation of a 5 ton per hour and 30 ton per hour wash plants to improve the recovery of fine gold.

The wash plants are comprised of a hopper with grizzly, trommel, sluice and several conveyors for stacking processed material and eventually returning it back to the trench for use as backfill. Make-up water requirements for the wash plants is estimated at 50 gallons per minute (gpm), with water provided by a nearby production well and from the recycle water pond (see below).

Excavated pay gravel is discharged onto a 6-inch vibrating grizzly and hopper for coarse size separation. The oversize cobbles are removed and returned to the excavation trench as backfill; the undersize are discharged onto a 2-inch grizzly, for additional size separation. The oversize cobbles are removed and returned to the excavation trench as backfill; the undersize are discharged to an 8-foot trommel screen with ½-inch screen grates where they are combined with water. The oversize material is discharged to a nugget trap for hand cobbing of any gold nuggets; the reject material is removed and returned to the excavation trench as backfill. The undersize fraction is discharged to a shaker/sluice for wet gravity separation. The gold-bearing concentrates are collected and transported off-site for additional processing and recovery; the reject material (slimes) is discharged to the settling pond for sedimentation. Clean water from Pond 1 overflows to the recycle water pond (Pond 2) and is then returned to the wash plant for reuse. Collected pond sediment is removed periodically, combined with oversize cobbles, and returned to the excavation trench as backfill.

Both ponds are nearly identical in size and shape; each approximately 80 feet by 100 feet by 12 feet deep with a volume (at 2 feet of freeboard) of approximately 600,000 gallons. Each pond is unlined and has sufficient capacity to contain operating volume plus run-off from a 100-year/24-hr storm event. Clean water from the settling pond is allowed to overflow to the recycle water pond via a discharge pipe. Recycled water is pumped back to the wash plant for reuse. The pond area is bermed and fenced for public safety and to keep out wildlife.

Ancillary Activities: Permanent facilities will not be constructed on the project site. Fuels, lubricants, gasoline and diesel fuel are stored in above-ground tanks or drums within a bermed HDPE-lined basin (with a minimum capacity of 150 percent of the largest tank).

### **C. Receiving Water Characteristics**

Surface Water: The closest surface water (Walker River) is located 6 miles southeast of the project site. There are several intermittent streams that originate

in the hills above the project site and the existing terrain diverts any run-off away from the proposed project processing area. Stormwater diversion structures constructed by a previous operator(s) are also located upgradient from and around the site. Construction of additional engineered diversion structures to control stormwater is not planned at this time.

Groundwater: Make-up water for the wash plant is obtained from a well located up gradient of Nugget Claims 6 and 7. Depth to groundwater at this location is 320 ft below ground surface (bgs). Groundwater meets the Profile I reference values for all constituents.

The Permittee has been granted a Mineral Exploration Waiver from the Nevada Division of Water Resources (NDWR) [NDWR waiver #MM-156] authorizing the allocation of up to 4.6 million gallons of water from the well per year.

**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 sent to the Mason Valley News in Yerington for publication. The Notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed Permit can do so in writing within a period of 30 days following the date of public notice. 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 Permit.

**F. Proposed Effluent Limitations, Schedule of Compliance, 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 visual component inspections and routinely sampling of the production well and ponds. 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 United States Code (USC) 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 [CFR] 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.

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 (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.

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