

FACT SHEET
(pursuant to NAC 445A.401)

Permittee Name: Phillip Geerston
Project Name: Star Creek Placer Mine Test Site
Permit Number: NEV2010106 (New Permit 2012)

A. Location and General Description

Location: The Star Creek Placer Mine Test Site is a small surface exploration project and physical separation facility, located in Pershing County, approximately 32 miles northeast (by air) of the town of Lovelock and 9 miles southwest (by air) of the town of Mill City. The project site is located within an ancient stream bed near Star Creek in the historic Star Mining District, on the eastern flank of the Humboldt Range and west of Buena Vista Valley. The Permittee intends to sample alluvial gravels from an ancient stream bed and utilize a hand-operated portable wet v-trough to recover gold. Up to 18,250 tons of alluvial material will be processed annually. Depending on the testing results, a larger physical separation facility may be constructed and operated at the Star Creek site. This will require the submittal of a new application.

The project site is located within portions of Section 19, Township (T) 31N, Range (R) 35E and Section 24, T31N, R34E, Mount Diablo Baseline and Meridian (MDB&M).

Site Access: To access the Star Creek Placer Test Site, proceed on Interstate-80 east from Lovelock or west from Winnemucca to *Exit 149—Mill City/State Route (SR)-400 (Unionville-Bloody Canyon Road)*. Proceed approximately 9 miles south on SR-400 and then west approximately 3 miles to the project site, located on the south side of the road.

General Description: A bucket excavator will be used to sample the alluvial gravels. The Permittee intends to excavate four (4) test pits within an ancient stream bed for testing. Water used for the V-trough operation will be obtained from Star Creek, from which the Permittee has received a Water Appropriation Right from the Nevada Division of Water Resources (NDWR). Project life is estimated at five (5) years or less and the total disturbance over the life of the project will be less than five (5) acres. Reclamation will be concurrent with test pit development.

The Star Creek Placer Test Site is designed to operate and close without any discharge or release from the fluid management system except for meteorological events that exceed the design storm limit.

B. Synopsis

Background: The Star District was first organized in 1861 following the discovery of silver in Star Canyon. Although the district was never a major silver producer, several underground silver mines operated until the 1950's, the most notable being the Queen of Sheba, Pflum, and DeSoto. Since the district was first organized, several small gold placer operations are also known to have operated.

The Star District is also known for an antimony-copper-iron-lead sulfide deposit within Bloody Canyon, approximately one mile south of Star Canyon. The deposit was first discovered in 1868 and active mining commenced in 1870. From 1871 and until its closure at the end of First World War, the Bloody Canyon Mine was the largest antimony producer in Nevada.

Geology: Placer gold deposits in the Star District are found in Quaternary gravels and at the bedrock-gravel interface. Gravel depth typically exceeds 100 feet in thickness and the source of the gold appears to be the quartz-tourmaline veins and veinlets of Koipato Group rocks. Historical documents indicate that placer gold has been found at depths as shallow as 15 feet within the gravel bed. Meteoric Water Mobility Procedure (MWMP) characterization results from the Star Creek Placer Mine waste rock and overburden material indicates both to be non-acid generating, however arsenic and antimony concentrations in the MWMP extract solution are slightly above their respective Profile I Reference Values.

Depth to groundwater is approximately 290 feet below ground surface, as measured from the nearest groundwater well (NDWR #102793) located approximately 2 miles east and downgradient of the mouth of Star Creek Canyon.

Mining: The Star Creek Placer is located within the confines of the Lucky Star #1 and #2 Claims which parallel Star Creek. The Permittee intends to excavate samples of gold-bearing alluvial material for gravity testing from four (4) test pits using a bucket excavator. Nominal pit size is 20 feet by 100 feet by 20 feet deep. Only one pit will be excavated at a time and once a bulk sample is obtained and tested, the pit will be backfilled with overburden and alluvium and reclaimed.

Processing: As stated previously, the Star Creek Placer Mine Test Site is an exploration project and physical separation facility, pursuant to Nevada Administrative Code (NAC) 445A.414. Chemicals are not authorized for use in the process.

Excavated alluvial material will be stockpiled near the test pits for gravity testing. Gold-bearing alluvium will be shoveled into a hand-operated V-trough device with riffles for wet gravity separation and concentration. The gold and dense black sands are collected in the riffles while the tailing slurry is discharged into the test pit, backfilled with overburden and waste rock, and then reclaimed. At no

time will tailings slurry enter Star Creek. Water used for the wet gravity operation will be obtained from Star Creek via gravity fed 4 or 5-inch diameter pipeline over a distance of several hundred feet, from which the Permittee has received a Water Appropriation Right from the Nevada Division of Water Resources (NDWR). Project life is estimated at five (5) years or less and the total disturbance over the life of the project will be less than five (5) acres.

There are no fuel storage tanks or water collection ponds on site and all equipment is portable, allowing for easy movement to the next test pit. The plant is permitted to process up to 18,250 tons of alluvial material per year by gravity separation.

Depending on the testing results, a larger physical separation facility with settling ponds, etc. may be constructed and operated at the Star Creek site.

C. Receiving Water Characteristics

NDWR Water Appropriation Right Permit Number 8026 allows the Permittee to use up to 0.55 cubic feet per second (246 gallons per minute) from October 16 through March 14 of the following year. Star Creek is a perennial creek with its origins in Star Canyon. The creek runs east for several miles, crossing under SR-400 where it eventually discharges into Nash Creek, locate east of the Santa Clara Ranch. Nash Creek runs north-south for several miles before it discharges onto the playa. Star Creek is subject to the most restrictive surface water standards pursuant to Nevada Administrative Code (NAC) 445A.121, NAC 445A.1236, and NAC 445A.1966. Water quality chemistry for Star Creek currently meets all applicable standards.

Water quality from groundwater well NDWR #102793, located approximately 2 miles east and downgradient of the mouth of Star Creek Canyon, is good at meets the Profile I Reference Values.

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 Lovelock Review-Miner Newspaper for publication. 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 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 required routine monitoring of make-up water and trench backfill material. 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.C. 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 CFR 10, April 15, 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.

Prepared by:
Date:
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New Permit and Fact Sheet.