

FACT SHEET
(pursuant to NAC 445A.401)

Permittee Name: **Humboldt Mining Company Inc.**

Project Name: **Prunty Mine Project**

Permit Number: **NEV2011104 (New 2012)**

A. Location and General Description

Location: The facility is located on private land in Elko County in Sections 13, 14, 23, and 24, Township 44 North, Range 57 East, Mount Diablo Baseline & Meridian, approximately 63 miles north of the town of Elko. The site can be accessed by traveling east on Interstate-80 to exit 333, turning north and then immediately taking the frontage road east. After approximately 1-¼ miles, turn north on Charleston-Deeth Road. After approximately 41 miles, turn right onto county road NF-062 (Jarbidge-Charleston County Road), continuing for approximately 9 miles. Turn left onto the unnamed dirt road and continue approximately ½ mile to the mine site.

General Description: The Prunty Mine Project is an underground mining facility operated for the purpose of extracting gold ore for off-site processing at a separately permitted mill facility. No crushing or beneficiation is permitted at the site. The Prunty Mine Project is permitted as a physical separation facility pursuant to NAC 445A.414 and, as such, no chemicals are permitted to be used or stored at the facility. The facility is required to be designed, constructed and must be operated and closed without any discharge or release in excess of those standards established in regulation except for meteorological events which exceed the design storm event.

B. Synopsis

Geology

The sedimentary units seen in the mine area are referred to as shales and limestones instead of their actual metamorphic counterparts. Limestones are Devonian; Pilot shale and Joana limestone are Pennsylvanian in age. Near the margins of the intrusive, the sediments have all been metamorphosed.

The granodiorite plug is the oldest igneous unit on the property and is probably Jurassic in age. The intrusive is elongate to the northwest, parallel to the trace of the range-front fault. Along the southern edge of the intrusive in the Prunty mining area is a series of diabase dikes. It appears the Prunty mine was actually

developed on this dike. The dike is composed mainly of plagioclase, chloritized hornblende and biotite. Volcanic rocks on the property area are all of the Jarbidge rhyolite formation. Mineralization is hosted in relatively narrow (four [4] to six [6] feet wide) quartz veins that dip at approximately 45 degrees.

Mining

The Prunty Mine Project is in an area of historic mining and is itself a continuation of an existing underground mine, last worked in 1984. The underground mine will follow narrow quartz veins by developing a drift 11 feet wide by 13 feet high. The estimated distance planned for the drift is 500 feet but may vary depending on the mineralization encountered.

Ore and waste rock will be transported using small loaders to the lay down area outside the portal. Ore will be stockpiled prior to transport off-site for processing. Waste rock will be deposited in a designated disposal area. No crushing, processing or any other form of beneficiation will be carried out at the mine site. Ore extraction is limited by the permit to 1,000 tons per year.

Waste rock, oxide ore, and sulfide ore have been characterized using the Meteoric Water Mobility Procedure (MWMP), analyzing the leachate for Profile I constituents. The results showed exceedances of the Profile I reference values only for arsenic (0.017 mg/L) in the sulfide ore sample, and antimony (0.015 mg/L) in the waste rock sample. In addition, acid base accounting results showed all three samples to have much higher neutralizing capacity compared to acid generating potential. Quarterly characterization of the ore and waste rock for both MWMP and acid base accounting are required by the Permit.

Water for the mining activity, such as drilling and dust suppression, will be obtained primarily from the existing flow from the mine. The flow will first be conveyed to a series of three cast in place concrete sumps. The first sump will be approximately 12 feet by 12 feet by 4 feet deep and will settle out the majority of suspended sediments. A ramp provides access for loaders to remove sediments periodically. Overflow from the first sump passes to the second sump.

The second sump is approximately 6 feet by 10 feet by 4 feet deep and provides an additional settling stage. The second sump overflows to the third, with the same dimensions, for the final settling stage and includes an oil skimmer for removal of hydrocarbons. From the third sump the water passes through a Hydrokleen filter system and is then pumped to a 6,500 gallon (gal) water storage tank from which water is drawn for mine use. In the event that additional water is needed, it will be transported to the site in a tanker truck. Sediments from the sumps will be characterized using MWMP and acid base accounting prior to disposal either on-site or at an off-site facility.

In the event that water use is less than the flow from the mine, excess water will be pumped from the 6,500 gal tank to an evaporation pond just north of the mine entrance. The pond is lined with 60-mil high density polyethylene (HDPE) and measures approximately 155 feet long by 105 feet wide at the crest, with a depth of 11 feet. Total volume at 2 feet of freeboard is approximately 421,000 gal. This provides sufficient capacity to accumulate mine water during periods of minimal activity or seasonal closure without discharging to natural drainages.

A single-lined pad will be constructed using 40-mil HDPE to serve as a fueling and lubricating area. The perimeter will be bermed to prevent run-on and run-off of meteoric precipitation, and the liner covered with an overliner layer to protect the HDPE from damage due to vehicle traffic. A 6,000 gal diesel tank will be provided for fueling of vehicles. All spills of fuels or lubricants will be excavated, placed in sealed containers, and transported off-site for disposal at a facility licensed to receive hydrocarbon waste.

Earthen berms will be constructed around the work site as required to divert stormwater away from the area and into natural drainages. Based on the topography of the area, run-in of meteoric water into the mine entrance is not expected.

In the event of seasonal or temporary closure, the site will be secured to prevent unauthorized access. Sufficient personnel would remain on site to maintain the mine water management system.

C. Receiving Water Characteristics

Drilling results in the area suggest that the water table is approximately 90 feet below the elevation of the mine entrance. Mining to within 40 feet of the water table is prohibited by the Permit to minimize risk of encountering groundwater. If the Permittee desires to mine at lower elevations, additional data based on recent drilling log data must be presented to establish that penetration of the water table will not take place, or an appropriate plan for management of the water must be submitted which may require Permit modifications or a separate discharge permit, (associated fees may apply).

Water flows at a rate of approximately 1-3 gallons per minute (gpm) from the existing mine, varying seasonally, and presently combines with 76 Creek under NPDES permit NVG201000 as a de minimis discharge. Analysis of the water from the mine shows no exceedances of the Profile I reference values. This water is intended to be used for mining activity and will not be discharged to 76 Creek once mining activity begins, any excess being evaporated in the lined pond.

Surface water within one-half mile of the site includes 76 Creek, Badger Creek, and Union Gulch, all of which flow seasonally during periods of precipitation or snow melt. Only 76 Creek is downgradient of the mine site and has been

observed to persist through the summer months, although it dries up during years of below average precipitation.

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 **Elko Daily Free Press** 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 inspections of the fluid management system components and required routine sampling of downgradient surface 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.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: Paul Eckert
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