

## FACT SHEET

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

Permittee Name: **Progressive Contracting, Inc.**

Project Name: **Maggie Creek Plant**

Permit Number: **NEV2012111**

Review Type/Year/Revision: **Renewal 2023, Fact Sheet Revision 00**

### **A. Location and General Description**

**Location:** The facility is located in Eureka County, within Section 2, Township 34 North, Range 51 East, Mount Diablo Baseline and Meridian, and approximately 12 miles northwest of the town of Carlin. The site can be accessed by proceeding east on Interstate Highway 80 to Carlin, turning north on State Highway 766. Continue north for approximately 13.5 miles and the site will be on the left side of the road.

**General Description:** The Maggie Creek Plant is a beneficiation facility operated for the purpose of extracting barite in a physical separation circuit. The facility is located on private land. The Maggie Creek Plant is permitted as a physical separation facility and, as such, no chemicals are permitted to be used or stored at the facility. Ore processing is limited by the Permit to 75,000 tons of ore per year. 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**

#### *Process Circuit*

Barite ore, from historic operations at the site, is presently located in stockpiles or deposited randomly over the property to an average depth of approximately 10 feet, and a maximum depth of approximately 20 feet. Ore will not be received at the facility from off-site sources. Excavation of the ore will be by front-end loader or similar means without the need for drilling or blasting. Due to the relatively shallow deposition of the ore, groundwater will not be intercepted by the excavations.

The ore will be collected and fed into a portable impact crusher for reduction to ½-inch or less, after which it will be deposited on the jig feed stockpile. The material will then be loaded into the portable jig plant feeder. Water for the jig plant will be provided by the well just east of the process area (PW-1). The portable jig plant separates the material using gravity into four classifications:

1. Course Barite (1/2-inch to 3/16-inch)
2. Fine Barite (3/16-inch to number 10 mesh)
3. Course Waste (greater than number 120 mesh)

#### 4. Fine Waste (smaller than number 120 mesh)

The first three will be dewatered and stockpiled. The coarse and fine barite will be shipped off-site for further processing. The water, including the fines (item 4 above) will be deposited in the tailings ponds for settling, after which it will be recycled into the process. The fine solids in the ponds will be periodically dredged out and used, along with the coarse waste, for reclamation, if approved by the Division based on results of Meteoric Water Mobility Procedure – Profile I (MWMP-Profile I) and Acid Neutralizing Potential: Acid Generating Potential (ANP:AGP) analysis results. Any tailings not approved for use in reclamation will be required to remain on lined containment or shipped off-site to an appropriately licensed waste facility.

##### *Material Characterization*

Analytical results of MWMP-Profile I of leachate from ore samples indicate that the material meets all Profile I reference values except for pH (6.44 standard units [S.U.]). Static ANP:AGP test results from representative ore samples indicated a potential for acid generation. However, humidity cell test results showed a stable pH above 6.5 S.U., suggesting that low pH will not be an issue, and analysis of the leachate showed all Profile I constituents to be below their respective reference values. Ore and tails solids will be characterized using MWMP-Profile I and ANP:AGP testing quarterly, as required by the permit.

Near the end of 2014 the Division approved the processing of the Coyote Ore Stockpile at the site. The characterization of the material indicated the pH remaining above 6.4 S.U. With further monitoring of the process solution from the beneficiation process has recently shown low exceedances of Profile I referenced values in aluminum, cadmium and manganese. The Permittee will ensure the process solution remains in containment at the site.

##### *Tailings Ponds*

The Permittee proposed four tailings ponds and as of April 2018 only Pond 1 and Pond 2 have been constructed. The four Tailings Ponds are located just south of the process circuit. Pond 1 measures 138 feet by 95 feet at the crest, Pond 2 measures 138 feet by 110 feet, Pond 3 measures 138 feet by 209 feet, and Pond 4 measures 280 feet by 73 feet. All are lined with 40-mil high density polyethylene (HDPE) geomembrane liner, over a compacted subbase (8-inches compacted to 90% of maximum dry density). Each pond is designed with an overflow weir so that the northernmost pond (Pond 1) overflows to the second (Tailings Pond 2), the second to the third (Tailings Pond 3), and the third to the fourth (Tailings Pond 4), thereby maintaining a minimum 2-foot freeboard.

In August 2018 the Division became aware that Pond 4 was constructed with the dimensions of 100 feet by 280 feet taking up the foot print of Pond 3 and 4 mentioned above. A minor modification fee and as-built report was provided for this change.

##### *Stormwater Control*

The west side of the facility is protected from upgradient run-on by a stormwater diversion berm. The berm embankment measures 2 feet high and runs from the northern boundary of the property around to the unlined stormwater pond south of the tailings ponds. Meteoric precipitation in the process area is diverted around the tailings ponds by their embankments, and flow south to the stormwater pond. A second 2-foot berm along the eastern edge of the property prevents direct precipitation from leaving the site, diverting it south to the stormwater pond as well.

The stormwater pond is triangular in plan view, with sides approximately 350 feet long and depth in the lower corner of approximately 4 feet. This provides sufficient volume to hold all run-off resulting from the 100-year, 24-hour storm event. Run-off from any storm accumulating in the stormwater pond will be allowed to evaporate and/or be used in the process.

#### *Ancillary Facilities*

Ancillary facilities at the site include equipment storage containers, a small office, and parking area. No fuel is stored on site; all necessary fuel is brought in each day by light vehicles. Any soil which becomes contaminated by petroleum products will be excavated and stored temporarily in metal drums for shipment off-site to an appropriately licensed waste facility.

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

Static groundwater level at the site is approximately 35 feet below land surface, as measured in the downgradient water well PW-1 just east of the property. Analysis of a well sample showed circumneutral pH (8.18 S.U.) and no exceedances of the Profile I reference values. PW-1 will be monitored quarterly while operating to confirm the beneficiation process does not degrade waters of the State.

The only surface water nearby is Maggie Creek, approximately ½ mile east of the site. Surface runoff from the project will be collected within the stormwater management system of berms and ponds, and the creek is additionally separated from the site by Maggie Creek Road which runs just to the east of the facility. For these reasons, the Project is not expected to impact Maggie Creek water quality.

#### **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: <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 or 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 renewed Permit.

**F. Proposed Limitations, Schedule of Compliance, Monitoring, 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 inspection of the process components as well as routinely sampling the downgradient well. 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 (the 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 (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.

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Revision 00: 2023 Renewal with Boiler updates.