

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION

ORDER NO. 80-41

WASTE DISCHARGE REQUIREMENTS  
FOR  
RATTLESNAKE MINE  
North of Goffs - San Bernardino County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. George Wright (hereinafter also referred to as the discharger), 21932 Goshute Road, Apple Valley, California 92307, submitted a Report of Waste Discharge dated March 13, 1980.
2. The discharger proposes to separate gold and silver from mined ore by using the heap leaching process. This process would involve stacking a total of about 5,000 tons for each heap of broken ore on an impervious pad over a period of 2 months. The operation is to ultimately process 370,000 tons of ore. The ore would be periodically sprinkled with a solution consisting of 1.5 pounds of sodium cyanide (NaCN) and 0.5 pound of sodium hydroxide (NaOH) per ton of ore. The solution would leach through the ore to the pad where it is to be collected for recycling through a closed system. The closed system (comprised of holding tanks, pipes and gold removal apparatus) and the leaching pad would not contain more than 10,000 gallons at any given time. The leaching pad is to be located in the SE $\frac{1}{4}$  of Section 19, T12N, R18E, SBB&M, which is about 10 miles southeast of the mine access road turnoff on Ivanpah Road.
3. The discharger describes the impervious leaching pad as a layer of compacted soil that would be covered with four inches of sand, which would lie below a 20 mil polyvinyl chloride (PVC) liner. This liner would be covered with another four inches of sand to serve as the leaching medium.
4. The discharger states that at the end of processing each heap of ore on the pad chlorine would be added to neutralize all cyanide present prior to disposal of the tailings.

*Rescinded  
5/16/84*

5. The Water Quality Control Plan for the West Colorado River Basin was adopted by the Board on April 10, 1975. The Basin Plan contains water quality objectives for the Ward Hydrologic Unit.
6. The beneficial uses of the groundwaters of the Ward Hydrologic Unit are municipal supply and agricultural supply.
7. The discharger reports the depth to groundwater at the site is in excess of 200 feet. The supply water used for this heap leaching operation is to be piped from a well about 700 feet northwest of the pad site.
8. The discharger is hereby informed that there are no Class I solid waste disposal sites in the Colorado River Basin Region at this time.
9. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed discharge.
10. The Board in a public meeting heard and considered all comments pertaining to the proposed discharge.
11. The San Bernardino County Environmental Analysis Division has approved Negative Declaration EAD 1153-479N (approval date April 30, 1980 ) for this proposed mining operation. The Regional Board has reviewed this Negative Declaration. The below waste discharge requirements are designed to assure against any significant adverse effects on water quality.

IT IS HEREBY ORDERED, the discharger shall comply with the following:

A. Discharge Specifications

1. Neither the mining process nor the discharge of wastewater or other wastes shall create a pollution or a nuisance as defined in Division 7 of the California Water Code.
2. The cyanide solution shall be contained only in the processing system or leak-proof containers.
3. There shall be no wind transport of cyanide solution away from the leaching pad.
4. The leaching pad shall have a permeability which does not exceed  $1 \times 10^{-6}$  cm/sec.

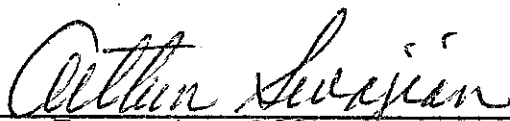
5. All drainage and collection facilities used to contain or transport leaching solution or ore wash water shall be effectively sealed to prevent exfiltration of these liquids.
6. A minimum freeboard of at least two (2) feet shall be maintained in the impervious pad and holding basins.
7. The processing area shall be protected from any washout or erosion which could occur as a result of floods having a predicted frequency of once in 100 years.
8. There shall be no discharge of wastewater containing any trace of cyanide at any location not approved by the Regional Board.
9. Prior to the removal of ore tailings from the impervious pad, the cyanide contained therein shall be neutralized and said tailings shall be discharged in an area permanently protected from a flood having a predicted frequency of once in 100 years.
10. Ore tailings to be abandoned on the pad shall be neutralized, and said tailings shall be permanently protected against a 100 year flood. Lack of construction or operational activity on the site for a period of one year shall constitute abandonment for the purpose of this Order.
11. All industrial containers and other waste materials shall be discharged at a Class I solid waste disposal site, or neutralized and discharged at a Class II-2 disposal site provided said discharged wastes are immediately covered. Said containers shall be rendered unusable prior to final disposal.
12. Adequate measures shall be taken to assure that unauthorized persons and animal pets are effectively excluded from the processing area.

#### B. Provisions

1. The discharger shall submit to the Board, at least 20 days prior to commencement of operations, a technical report showing the construction of the pad and flood protection facilities, and a certificate signed by a California Registered Civil Engineer stating that the pad and attendant facilities are constructed to meet the requirements of this Order.

2. The discharger shall comply with the "Monitoring and Reporting Program No. 80-41", and future revisions thereto, as specified by the Executive Officer.
3. Prior to any modifications in this facility which could result in material change in the quality or quantity of wastes discharged, or any material change in location of discharge, the discharger shall report thereon to the Board.
4. In the event of any change in operation, or in control of ownership of land or waste disposal facilities owned or controlled by the discharger, the discharger shall:
  - a. Notify this Board of such change; and
  - b. Notify the succeeding owner or operator by letter of the existence of this Order, a copy of which shall be filed with this Board.

I, Arthur Swajian, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on May 21, 1980.

  
Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BAIIN REGION

MONITORING AND REPORTING PROGRAM NO. 80-41  
FOR  
RATTLESNAKE MINE  
North of Goffs - San Bernardino County

Location: Portion of SE $\frac{1}{4}$  of Section 19, T12N, R18E, SBB&M

MONITORING

George Wright (the discharger) shall report to the Regional Board concerning the following:

- A. Quarterly reports explaining the current status of mining operations, and whether the operation is active or inactive.
- B. Immediate reporting of any accidental spillage or release of waste material, and also, plan for immediate measures being taken to correct same and limit detrimental effects.
- C. Upon request from this Board's Executive Officer: technical and/or monitoring reports on the treatment and discharge of wastes.
- D. At least thirty (30) days prior to any proposed discharge of ore tailings or wastewater, or termination of the operation described in this Order, the discharger shall submit a copy of the results of analysis of cyanide concentration of wastewater, and shall request a Regional Board staff inspection to approve the proposed discharge or cleanup procedure.
- E. Report of completion of cleanup of premises shall be submitted to the Regional Board in writing within one week following completion of work.

REPORTING

The above monitoring program shall be implemented immediately upon adoption of this Order.

Quarterly reports shall be submitted to the Regional Board by

January 15, April 15, July 15, and October 15 of each year. Reports for Item B (above) shall be forwarded immediately and if at all possible shall be preceded by phone communication to the Regional Board's office. Phone number (714) 346-7491.

Mail reports to:

California Regional Water Quality Control Board  
Colorado River Basin Region  
73-271 Highway 111, Suite 21  
Palm Desert, CA 92260

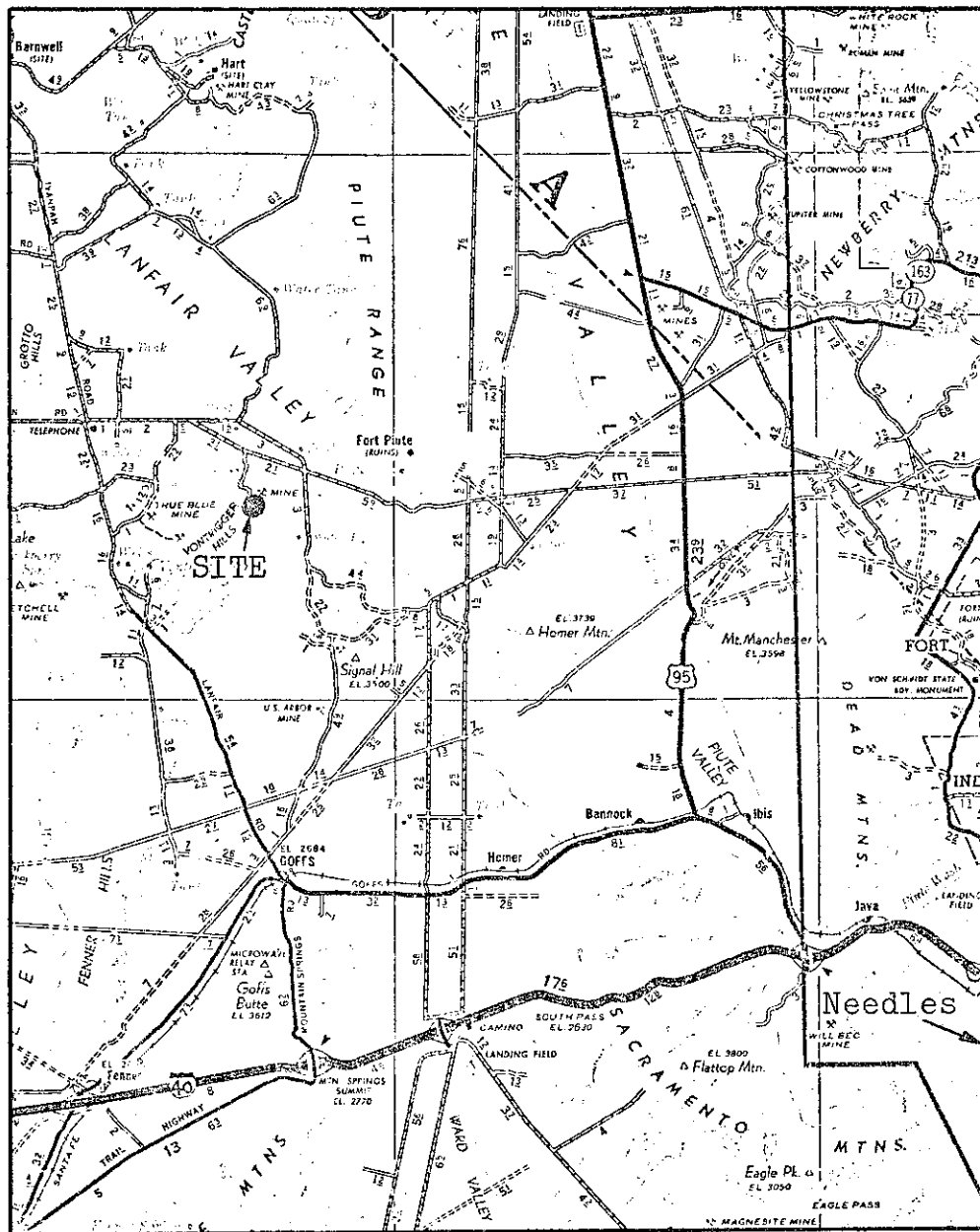
Ordered by

Arthur Levjian  
Executive Officer

May 21, 1980

Date

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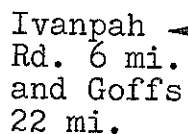


SITE MAP NO. 1

RATTLESNAKE MINE  
North of Goffs - San Bernardino County

Order No. 80-41

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD - 7



Scale:  
1" = 1 mi.

SITE MAP NO. 2

RATTLESNAKE MINE  
North of Goffs - San Bernardino County

Portion of SE $\frac{1}{4}$  of Section 19, T12N, R18E, SBB&M  
USGS Landfair Valley 15 min. Topographic Map

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