

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 79-105

WASTE DISCHARGE REQUIREMENTS
FOR
PICACHO PEAK MINE
North of Yuma - Imperial County

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

1. Chemgold Inc. (hereinafter also referred to as the discharger), P.O. Box 1488, Yuma, Arizona 85364, submitted a Report of Waste Discharge dated August 23, 1979.
2. The discharger proposes to separate gold from mined ore by using the heap leaching process. This process would involve stacking a total of about 10,000 tons for each load of broken ore on an impervious pad over a period of two months to one year. The operation is to ultimately process 200,000 tons of ore plus associated wastes. The ore would be periodically sprinkled with a solution consisting of 500 tons of .05% sodium cyanide (NaCN). The solution would leach through the ore to the pad where it is to be collected for gold removal and finally be recycled through a closed system. The closed system (comprised of holding tanks, pipes, settling basins and gold removal apparatus) and the leaching pad will not contain more than 48,000 gallons of solution at any given time. The leaching pad, designated as the only disposal site, is to be located (in a non-surveyed area) about 1 mile north and 1/2 mile east of the NE corner of Section 16, T14S, R22E, SBB&M, which is about 18 miles north of Yuma, Arizona.
3. The discharger describes the impervious leaching pad as a layer of compacted soil that would be covered with a 20 mil (0.020 in) thick P.V.C. (polyvinyl chloride) liner. About 1 foot of sand would serve as the leaching medium. The settling basins would be constructed to also be impermeable.
4. The discharger states that at the end of all operations at this site, chlorine would be added to neutralize all cyanide present.

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5. The Water Quality Control Plan for the East Colorado River Basin was adopted by the Board on April 10, 1975. The Basin Plan contains water quality objectives for the Colorado Hydrologic Unit.
6. The beneficial uses of the groundwaters of the Colorado Hydrologic Unit are agricultural supply, municipal supply and industrial supply.
7. The discharger reports the depth to groundwater at the site is in excess of 150 feet. The supply water used for this heap leaching operation is to be piped from the Colorado River, which is about 4 miles northeast 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 Imperial County Planning Department has approved Environmental Impact Report No. 229-79 (filing date June 1979) for this proposed mining operation. This report indicates that this project would not have any significant adverse effects on the quality of local groundwaters and of any surface waters resulting from infrequent storm runoff.

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 leakproof containers.
3. There shall be no wind transport of cyanide solution away from the leaching pad.
4. The leaching pad and settling basins shall have a permeability which does not exceed 1×10^{-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 settling basins.
7. The processing area shall be protected from any wash-out 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 may be abandoned on the pad, provided the cyanide in the ore is neutralized and said tailings are permanently protected from a 100 year flood. Lack of construction or operational activity on the site for a period of one year shall constitute abandonment for the purposes 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.

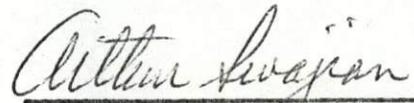
B. Provisions

1. The discharger shall submit to the Board, at least 10 days prior to commencement of operations, a technical report showing the construction of said pad, basins and flood protection facilities, and a certificate signed by a California Registered Civil Engineer stating that the pad, basins and attendant facilities are constructed to meet the requirements of this Order.
2. The discharger shall comply with the "Monitoring and Reporting Program No. 79-105" and the "General Provisions

for Monitoring and Reporting", 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 or 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 November 28, 1979.



Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 79-105

FOR

PICACHO PEAK MINE
North of Yuma - Imperial County

Location: 1 mile north and 1/2 mile east of NE corner of Section 16,
T14S, R22E, SBB&M.

MONITORING

Chemgold Inc. (discharger) shall report to the Regional Board concerning the following:

MONITORING AND REPORTING NO. 1

The discharger shall submit to the Regional Board monthly reports containing the following information:

- A. The current status of mining operations - whether the operation is active or inactive.
- B. An estimate of the total amount of ore (tons) that has been processed to date.

MONITORING AND REPORTING NO. 2

- A. 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.
- B. Upon request from this Board's Executive Officer, the discharger shall furnish technical and/or monitoring reports on the treatment and discharge of wastes.
- C. 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.
- D. Report of completion of cleanup of premises shall be submitted to the Regional Board in writing within one week following completion of work.

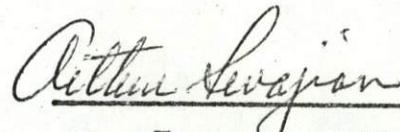
REPORTING

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

Monthly reports shall be submitted to the Regional Board by the 15th day of the following month. Reports for Items 2 A, B, C, and D (above) shall be forwarded immediately and if at all possible shall be preceded by phone communication to the Regional Board's office. Phone No. (714) 346-7491. Copies of the reports submitted to the Board pursuant to this Monitoring and Reporting Program shall be maintained at the operations site, and shall also be made available to staff of the Regional Board upon request.

Mail reports to:

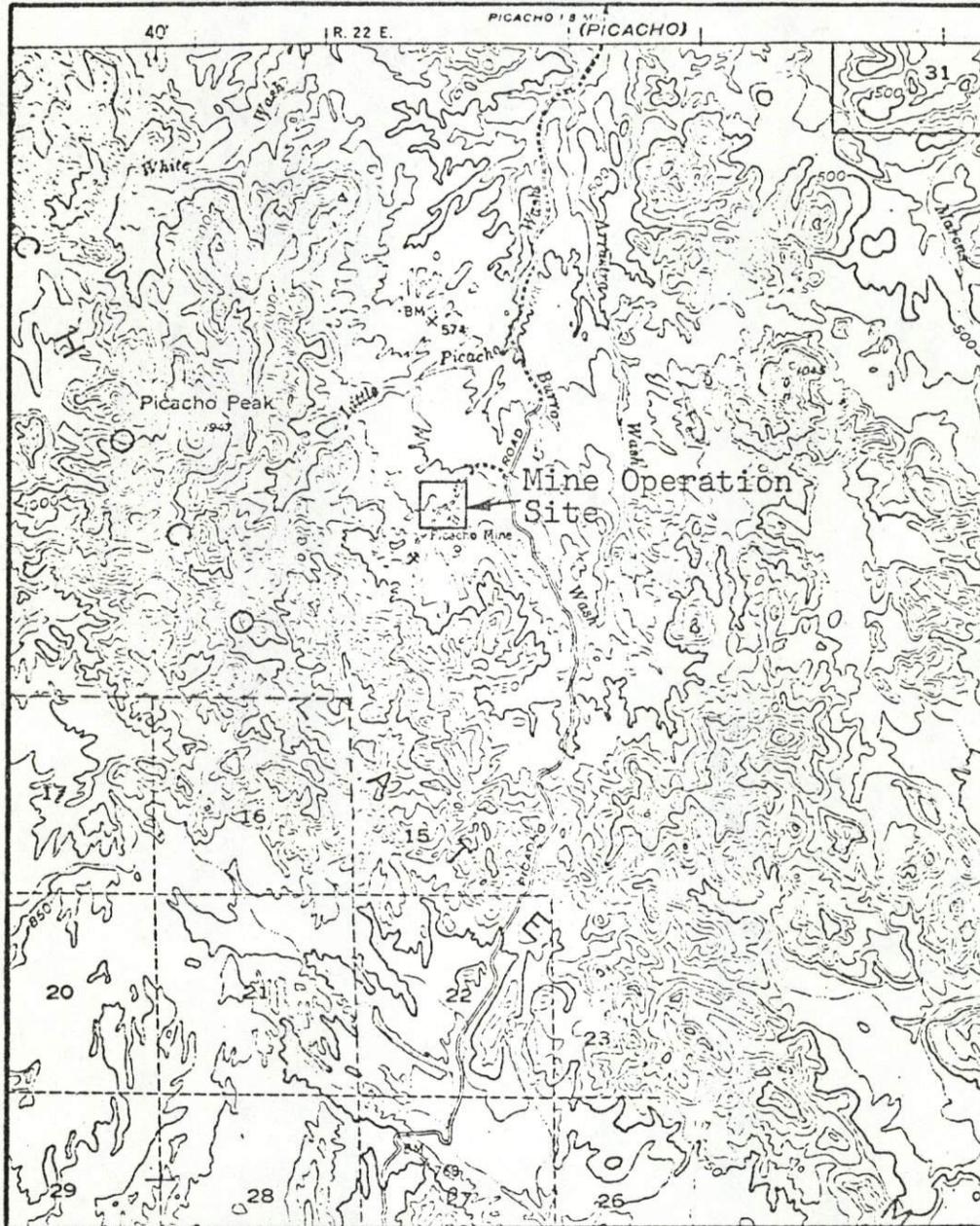
California Regional Water Quality Control Board
Colorado River Basin Region
73-271 Highway 111, Suite 21
Palm Desert, CA 92260



Executive Officer

November 28, 1979

Date



Winterhaven ↓ 12 miles

SITE MAP

PICACHO PEAK MINE

North of Yuma - Imperial County

Location: 1 mile north and 1/2 mile east of
NE corner of Section 16, T14S, R22E, SBB&M
USGS Picacho Peak 15 min. Topographic Map

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

GENERAL MONITORING AND REPORTING PROVISIONS

GENERAL PROVISIONS FOR SAMPLING AND ANALYSIS

Unless otherwise noted, all sampling, sample preservation, and analyses shall be conducted in accordance with the current edition of "Standard Methods for the Examination of Water and Waste Water" or approved by the Executive Officer.

All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Public Health or a laboratory approved by the Executive Officer.

All samples shall be representative of the waste discharge under the conditions of peak load.

GENERAL PROVISIONS FOR REPORTING

For every item where the requirements are not met, the discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time and submit a timetable for correction.

By January 30 of each year, the discharger shall submit an annual report to the regional board. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the discharger shall discuss the compliance record and the corrective actions taken or planned which may be needed to bring the discharge into full compliance with the waste discharge requirements.

The discharger shall file a written report within 90 days after the average dry-weather flow for any month that equals or exceeds 75% of the design capacity of the waste treatment or disposal facilities. The report shall contain a schedule for studies, design, and other steps needed to provide additional capacity or limit the flow below the design capacity prior to the time when the waste flow rate equals the capacity of the present units.