

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

**ORDER NO. 86-31**

**WASTE DISCHARGE REQUIREMENTS  
FOR  
CHEVRON GEOTHERMAL COMPANY OF CALIFORNIA  
TWO GEOTHERMAL TEMPERATURE OBSERVATION  
BORINGS  
HEBER KNOWN GEOTHERMAL RESOURCE AREA (KGRA)  
Imperial County**

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

1. Chevron Geothermal Company of California, (hereinafter also referred to as the discharger), P.O. Box 7147, San Francisco, California, 94120-7147, submitted a Report of Waste Discharge dated January 30, 1986.
2. The discharger proposes to drill two (2) permanent temperature observation borings in the Heber KGRA on private fee leased property at the following locations:

<u>Boring</u>	<u>Location</u>
GTW #4	NE $\frac{1}{4}$ of SE $\frac{1}{4}$ of Section 4, T17S, R14E, SBB&M
GTW #6	SW $\frac{1}{4}$ of NE $\frac{1}{4}$ of Section 3, T17S, R14E, SBB&M

A site map with boring locations is shown in Attachment "A", appended hereto as part of this Order.

3. The borings will be drilled to a depth of 6,000 feet (measured vertically) using a closed loop mud system. The discharger will generate approximately 1000 barrels of waste drilling mud for each boring and the mud from the first boring will be reused on the second.
4. The discharger estimates that each boring will generate 8500 cubic foot of cuttings.
5. The drilling muds and cuttings will be contained in 500 barrel portable tanks until the drilling operations are completed, therefore, no sump is required. When the muds and cuttings become too viscous for drilling operations, the tanks would be emptied onto plastic sheets to dry. The dried muds and cuttings are then taken to a disposal site.
6. The borings will be completed as temperature observation holes only. The casing will be cement grouted from the surface down to 1200 feet. The 2 7/8" tubing string will be closed by a shoe and the open hole annulus below 1200 feet will be filled with weighted salt water (approximately the same TDS concentration as the formation water 14,000 mg/l).

*Superseded  
11/27/88  
by 88-7*

7. No geothermal fluids will be produced from the borings, therefore no disposal of geothermal fluids is anticipated.
8. The Water Quality Control Plan for the Colorado River Basin Region of California was adopted by the Regional Board on November 14, 1984. The Basin Plan contains water quality objectives for the Imperial Hydrologic Unit.
9. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the proposed operation.
10. The Board in a public meeting heard and considered all comments pertaining to the operation.
11. Imperial County Planning Department adopted on December 12, 1979, Environmental Impact Report (EIR) No. 213-79 for the Heber project. Imperial County indicates that these observation borings are covered in EIR No. 213-79 and there is no significant adverse effect on water quality expected.

IT IS HEREBY ORDERED, Chevron Geothermal Company of California shall comply with the following:

A. Discharge Specifications

1. Neither the treatment nor the discharge of wastes shall create a pollution or a nuisance as defined in Division 7 of the California Water Code.
2. Drilling muds with extractable water containing a total dissolved solids (TDS) concentration exceeding 6,000 mg/l shall be discharged at a Class I or Class II waste management unit.
3. The nontoxic residual muds and drill cuttings (less than 6,000 mg/l TDS) shall be neutralized, as necessary, and discharged at a waste management site approved by the Regional Board to receive such wastes.
4. The borings shall be completed as temperature observation holes only.
5. The borings shall be sufficiently sealed to eliminate any intercommunication of subterranean aquifers.
6. Temporary storage of drilling muds and cuttings other than in the proposed 500 barrel tanks is prohibited.

B. Provisions

1. The discharger shall comply with "Monitoring and Reporting Program No. 86-31", and future revisions thereto, as specified by the Executive Officer.

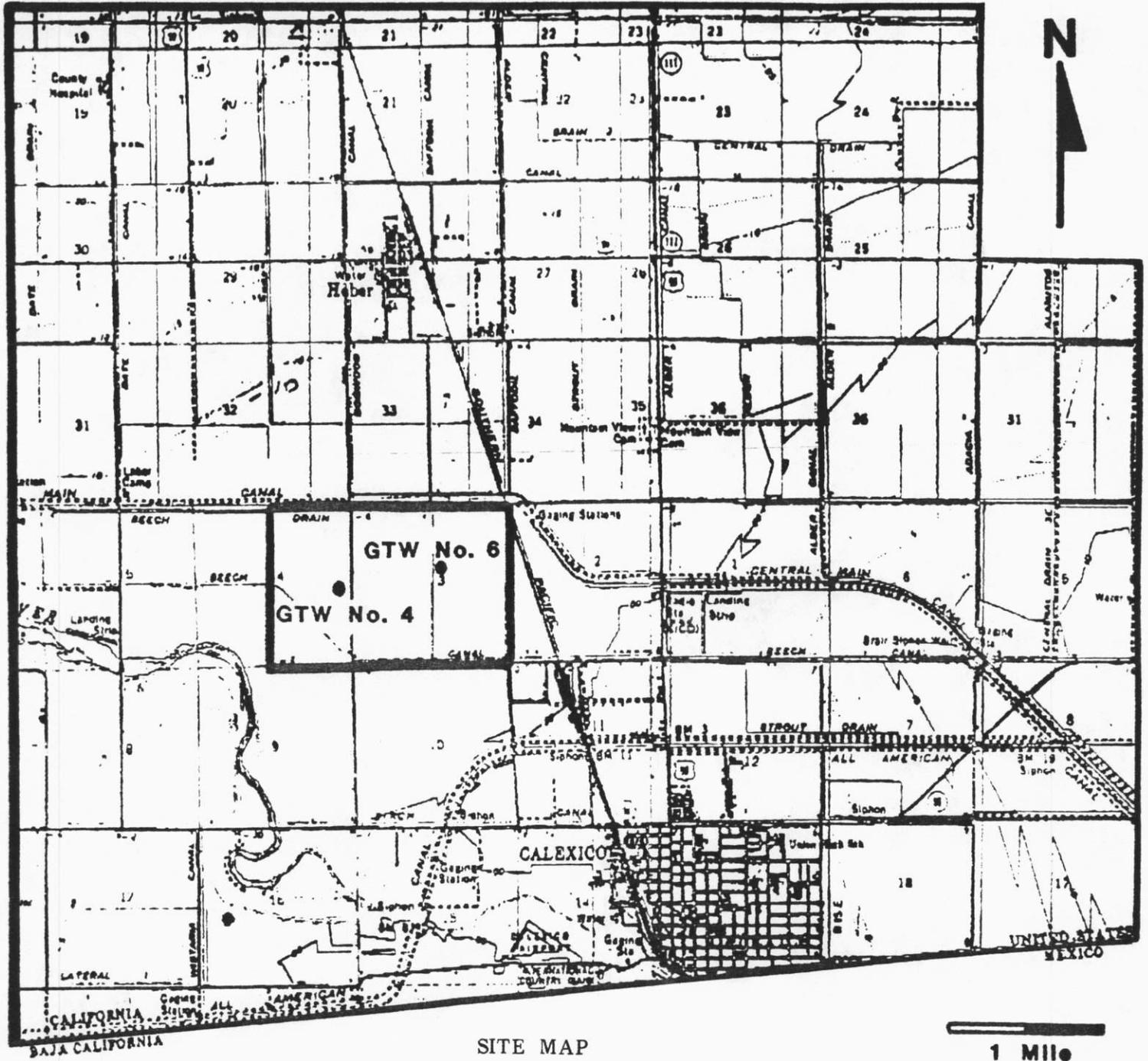
Mail monitoring reports to:

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

ORDERED BY: Arthur Swajian  
Executive Officer

March 19, 1986  
Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD - REGION -7



CHEVRON GEOTHERMAL COMPANY  
Two Geothermal Temperature Observation Borings  
Heber KGRA - Imperial County

Order No. 86-31

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

**MONITORING AND REPORTING PROGRAM NO. 86-31  
FOR**

**CHEVRON GEOTHERMAL COMPANY OF CALIFORNIA  
TWO GEOTHERMAL TEMPERATURE OBSERVATION BORINGS  
Heber Known Geothermal Resource Area (KGRA)  
Imperial County**

Location of Discharge: NE $\frac{1}{4}$  of SE $\frac{1}{4}$  of Section 4, T17S, R14E, SBB&M  
SE $\frac{1}{4}$  of NE $\frac{1}{4}$  of Section 3, T17S, R14E, SBB&M

MONITORING

Chevron Geothermal Company of California shall report monitoring data to the Regional Board in accordance with the following schedule:

1. The discharger shall submit a one time final report containing the following information:
  - a. Total volume, in gallons, of drilling muds/cuttings containing greater than 6,000 mg/l TDS concentration discharged at a Class I or Class II waste management unit and name of unit; and
  - b. Total volume, in gallons, of drilling muds/cuttings containing less than 6,000 mg/l TDS concentration discharged at a Class III waste management unit and name of unit.
2. Immediate reporting of any accidental spillage or release of waste material, and immediate measures undertaken to correct same.

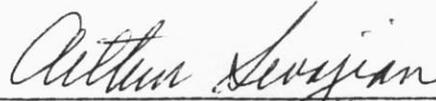
REPORTING

The above monitoring program shall be implemented immediately upon commencement of drilling at each site.

The final report shall be submitted to the Regional Board within ten (10) days following completion of the drilling operation. Reports for No. 2 (above) shall be forwarded immediately and shall be preceded by phone communication to the Regional Board's office (619) 346-7491. Copies of the report submitted to the Board pursuant to this Monitoring and Reporting Program shall be maintained at the operations site, and shall be made available to staff of the Regional Board upon request.

2. This Order does not authorize violation of any federal, state or local laws or regulations.

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 March 19, 1986.

  
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Executive Officer