

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

ORDER NO. 91-003

WASTE DISCHARGE REQUIREMENTS
FOR
GEO EAST MESA LIMITED PARTNERSHIP
GEOTHERMAL POWER PLANT COOLING WATER BASINS
East Mesa Area - Imperial County

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

1. GEO East Mesa Limited Partnership (hereinafter also referred to as the discharger), P.O. Box 748, Holtville, California, 92250, submitted updated information on the discharge of wastes, on October 23, 1990.
2. The discharger is discharging approximately 225,000 gallons-per-day of cooling water from the condensers of a 10-megawatt geothermal plant into 23 acres of plastic-lined storage basins, which are located in the S½ of Section 7, T16S, R17E, SBB&M. These basins also receive water from the East Highline Canal and condensate water from other operating plants. Prior to recirculation through the condensers, the water is treated with the following chemicals:

<u>Chemical</u>	<u>Usage</u>	<u>Concentration</u>
Sulfuric Acid	pH Control	12 mg/l (pH 3.6)
Tetrapotassium Pyrophosphate	Corrosion inhibitor	1- 15 mg/l
Chlorine	Anti-fouling	0.1 - 1.0 mg/l

3. The discharger reports that the total dissolved solids concentration in the storage basins ranges from 2,300 mg/l to 3,000 mg/l, and the pH varies from 7.5 to 8.7.
4. This power plant has been in existence for more than eleven years and the discharge into the basin has been subject to waste discharge requirements adopted in Board Order No. 85-095.
5. The discharger is also discharging wastewater into Warren Drain, which is governed by waste discharge requirements contained in Order No. 87-049 (NPDES No. CA 0104876).
6. The Water Quality Control Plan for the Colorado River Basin Region of California designates the beneficial uses of ground and surface waters in this Region.

RECORDED ON 9/16/99
BY ORDER NO. 99-045

7. The designated beneficial uses of ground waters in the Imperial Hydrologic Unit are:
 - a. Municipal supply (MUN)
 - b. Industrial supply (IND)
8. Deep ground waters are saline and are utilized for geothermal power production, while shallow ground waters in the local area are brackish and are not beneficially used. A 1977 ground water study for the site indicates that the source of shallow ground water which is within 10-feet of ground surface is infiltration from the Coachella and East Highline Canals. Monitoring reports received during the past year show that the TDS for the monitoring wells varies from 4,000 mg/l to 6,000 mg/l.
9. The Board has notified the discharger and all known interested agencies and persons of its intent to update waste discharge requirements for this discharge.
10. The Board in a public meeting heard and considered all comments pertaining to this discharge.
11. In accordance with Section 15301, Chapter 3, Title 14, of the California Code of Regulations, the issuance of these waste discharge requirements, which govern the operation of an existing facility involving negligible or no expansion of use beyond that previously existing, is exempt from the provisions of the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.).

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

A. Discharge Specifications

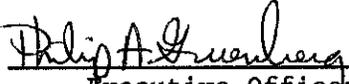
1. Neither the treatment nor the discharge of wastewater shall create a pollution or a nuisance as defined in Division 7 of the California Water Code.
2. Nothing other than that described in Finding No. 2, (above) shall be discharged at this location.
3. A minimum depth of freeboard of two (2) feet shall be maintained at all times in each basin.
4. Adequate measures shall be taken to assure that flood or surface drainage waters do not erode or otherwise render portions of the discharge facilities inoperable.
5. The discharger shall remove and relocate any wastes which are discharged contrary to the requirements contained in this Board Order.

B. Provisions

1. Prior to any modifications in this facility which would result in material change in the quality or quantity of wastewater treated or discharged, or any material change in the location of discharge, the discharger shall report all pertinent information in writing to the Regional Board; and obtain revised requirements before any modifications are implemented.
2. The discharger shall comply with "Monitoring and Reporting Program No. 91-003", and future revisions thereto, as specified by the Regional Board's Executive Officer.
3. In the event of any change in control or ownership of land or waste disposal facilities owned or controlled by the discharger, the discharger shall:
 - a. Notify the Board of such change; and
 - b. Transmit a copy of this Order to the succeeding owner or operator, and file a copy of the transmittal letter with this Board.

IT IS FURTHER ORDERED that Board Order No. 85-095 be superseded by this Board Order.

I, Philip A. Gruenberg, 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 January 16, 1991.



Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

MONITORING AND REPORTING PROGRAM NO. 91-003
FOR
GEO EAST MESA LIMITED PARTNERSHIP
GEOTHERMAL POWER PLANT COOLING WATER BASINS

Location of Discharge: S½ of Section 7, T16S, R17E, SBB&M

MONITORING

GEO East Mesa Limited Partnership shall obtain a water sample from each basin and each ground water monitoring well and report to the Regional Board concerning the following:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Total Dissolved Solids	mg/l	Grab	Monthly

The discharger shall report the water table elevation in each ground water monitoring well monthly.

REPORTING

Monthly monitoring reports shall be submitted to the Regional Board by the 15th day of the following month:

Forward monitoring reports to:

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

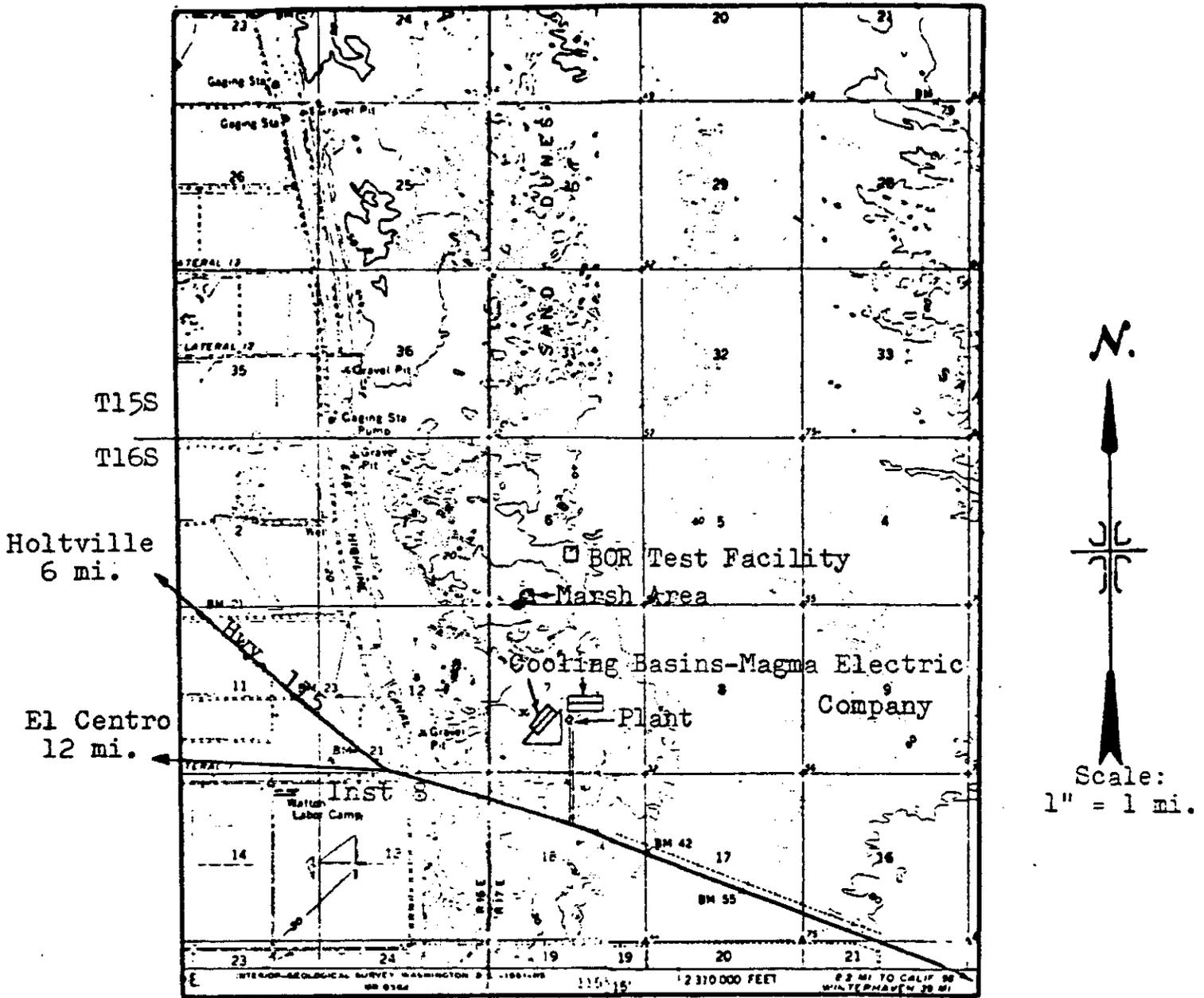
ORDERED BY:

Philip A. Gronberg
Executive Officer

January 16, 1991

Date

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD -7



SITE MAP

GEO EAST MESA LIMITED PARTNERSHIP
 GEOTHERMAL FACILITY COOLING WATER BASINS
 East Mesa Area - Imperial County
 S $\frac{1}{2}$ of Section 7, T16S, R17E, SBB&M
 Holtville and Glamis 15 min. Topographic Maps