

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

**Helium surveys over known geothermal resource areas
in the Imperial Valley, California**

By

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**This report is preliminary and has not been
edited or reviewed for conformity with U.S.
Geological Survey standards and nomenclature.**

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The concentration of helium in the soil gas was measured over the Dunes, East Mesa, Brawley and Salton Sea geothermal areas (fig. 1). Figures 2 through 5 illustrate the good correlation observed between the helium concentration (in ppm) and the temperature gradients in these areas. This strongly supports the possible utility of helium sniffing as a quick, inexpensive tool for geothermal reservoir prospecting.

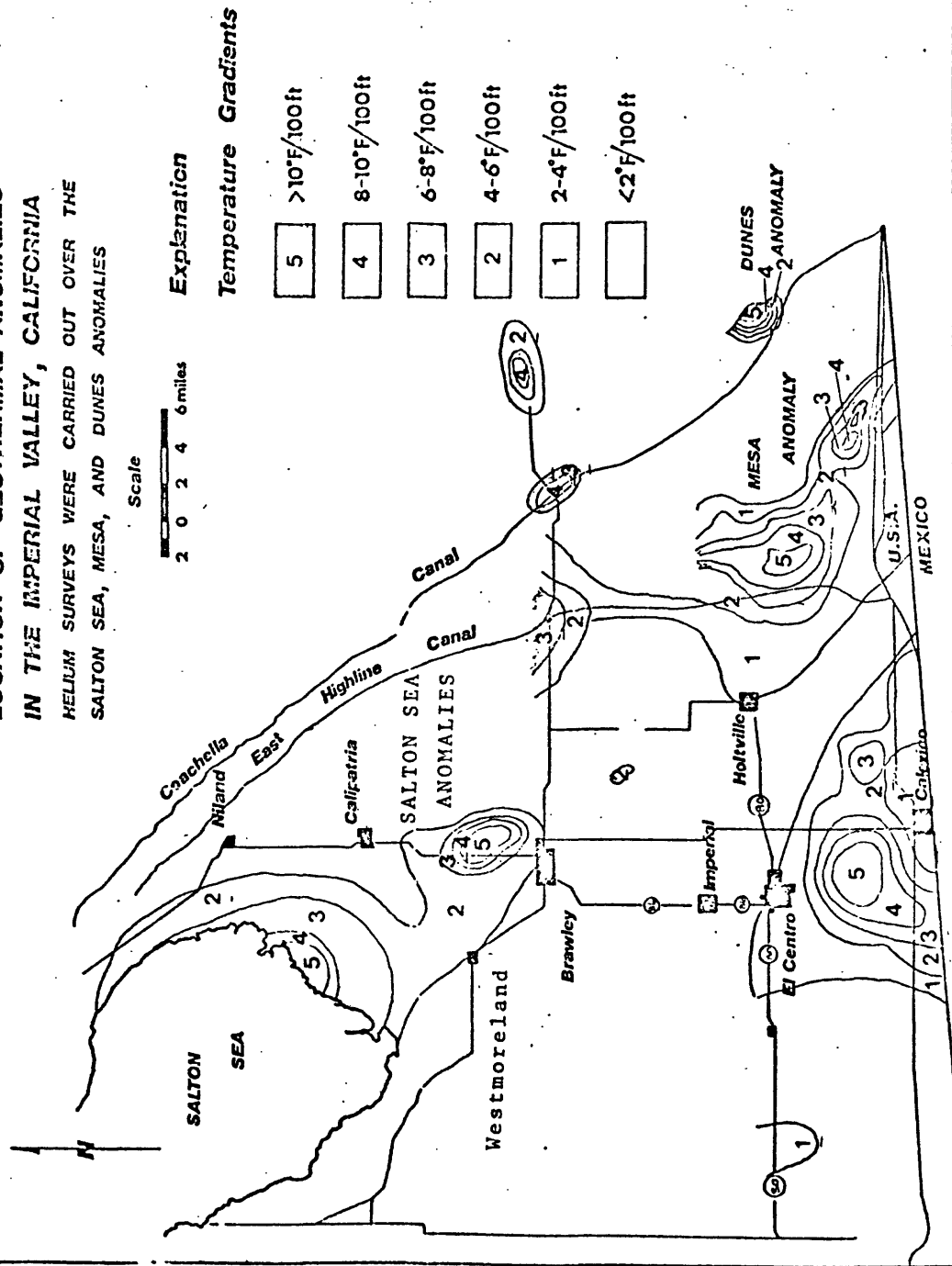
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FIGURE 1
LOCATION OF GEOTHERMAL ANOMALIES
IN THE IMPERIAL VALLEY, CALIFORNIA
 HELIUM SURVEYS WERE CARRIED OUT OVER THE
 SALTON SEA, MESA, AND DUNES ANOMALIES



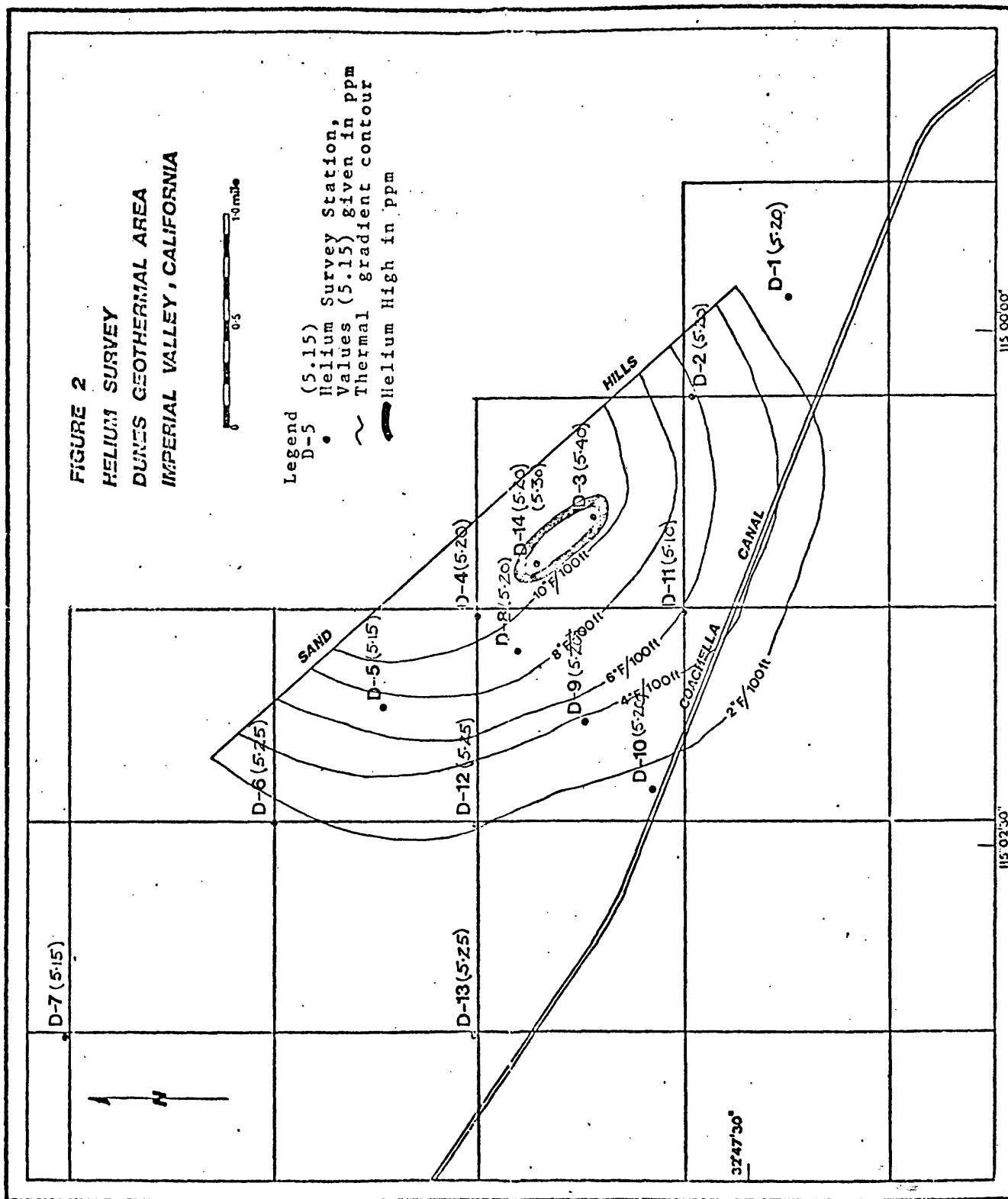


FIGURE 3
HELIUM SURVEY
MESA GEOTHERMAL AREA
IMPERIAL VALLEY, CALIFORNIA

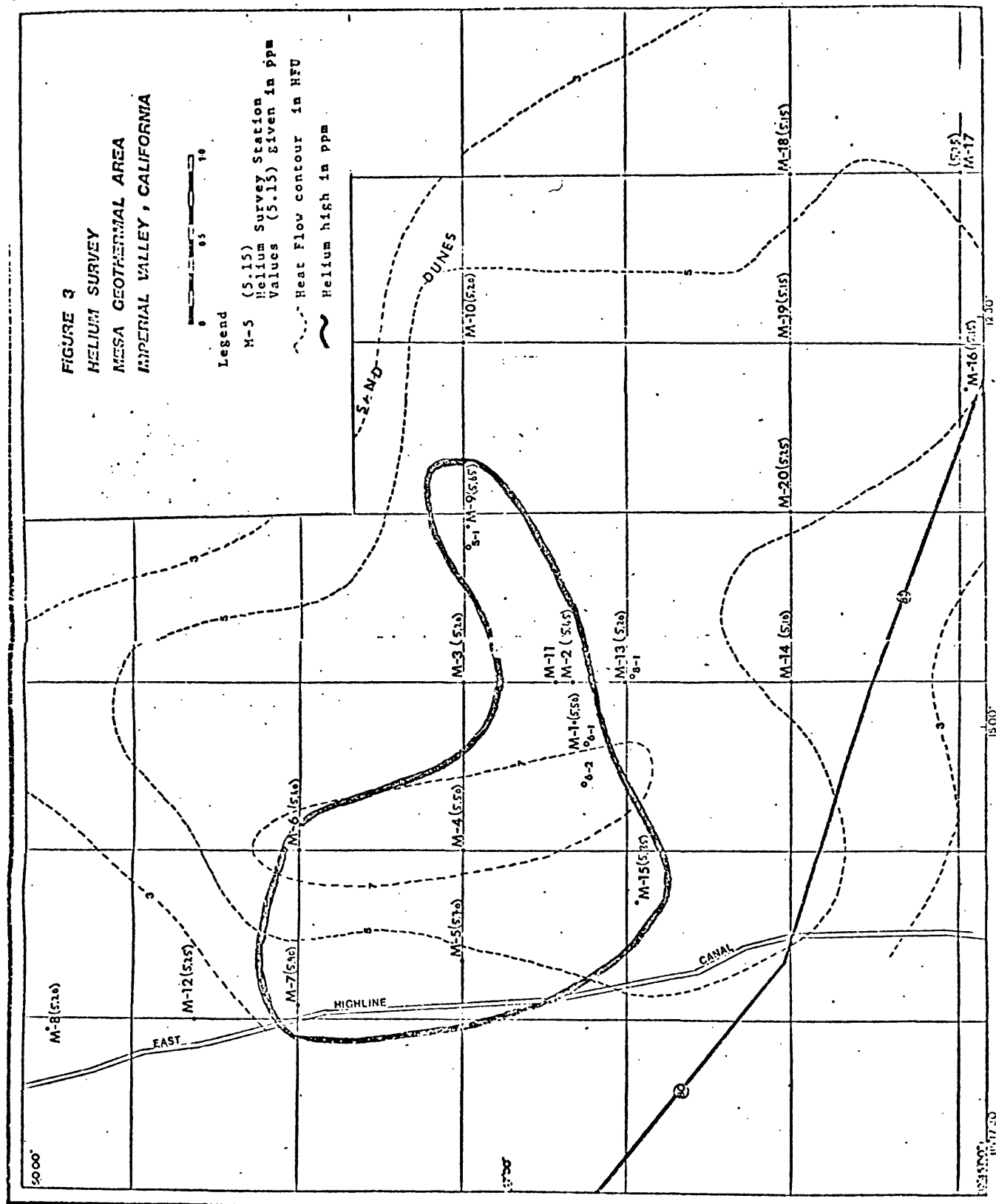


FIGURE 4
HELIUM SURVEY
SALTON SEA GEOTHERMAL AREA
IMPERIAL VALLEY, CALIFORNIA

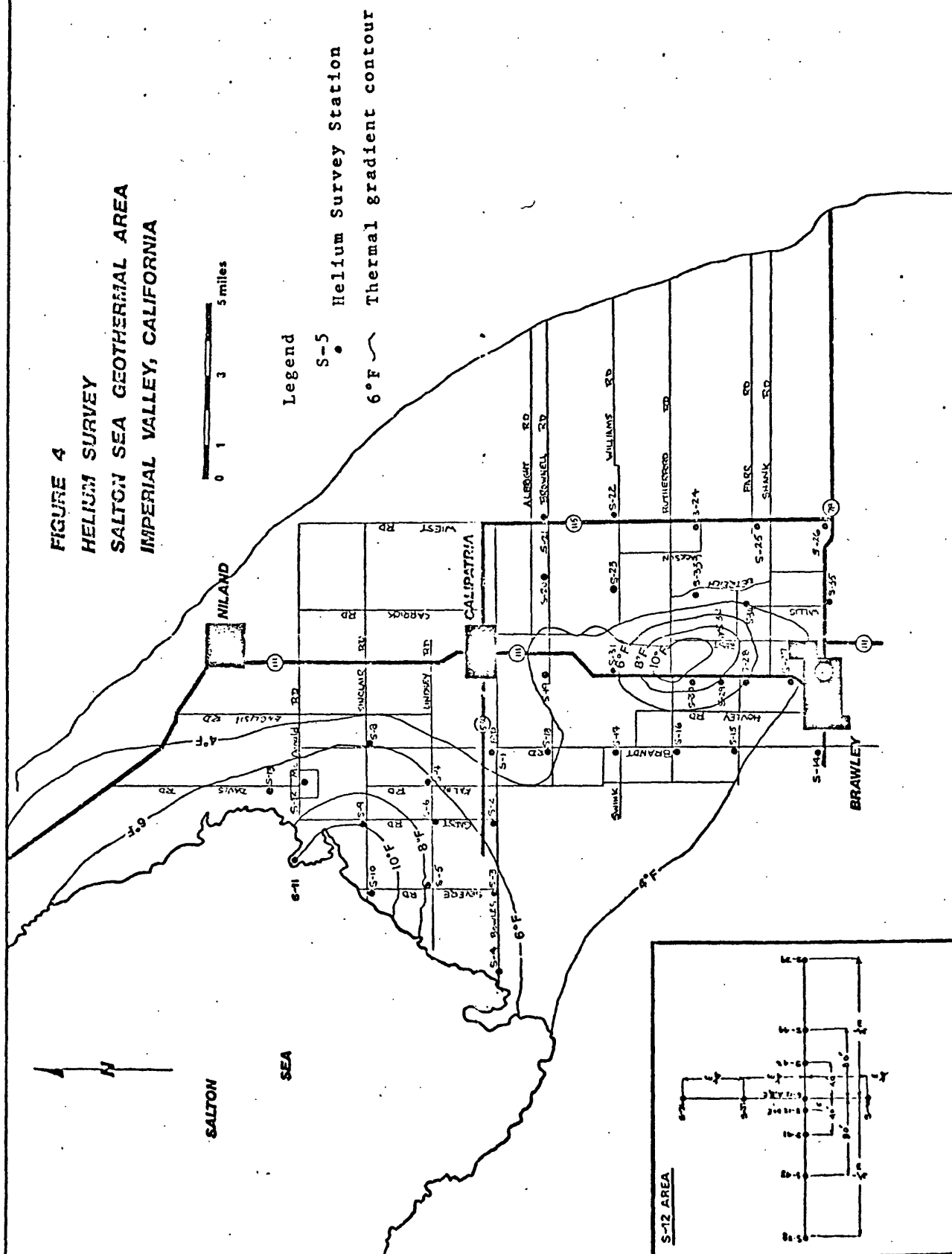


FIGURE 5
HELIUM SURVEY
SALTON SEA GEOTHERMAL AREA
IMPERIAL VALLEY, CALIFORNIA

