

**EXPLANATION**

|                      |  |  |                         |
|----------------------|--|--|-------------------------|
| Pliocene to Holocene |  | Alluvium and windblown sand<br><i>Alluvial sand, gravel, silt, and clay, and well-sorted fine to medium sand of eolian origin in dunes and in thin sheets</i>  | TERTIARY AND QUATERNARY |
|                      |  | Conglomerate of Chocolate Mountains<br><i>Conglomerate and gravel composed chiefly of volcanic detritus. Ranges in age from Pleistocene to Miocene</i>   |                         |
| Pliocene             |  | Bouse Formation<br><i>Younger marine sedimentary rocks consisting chiefly of fossiliferous clay, silt, and fine sand. Exposed only in one area, 2-3 miles south-east of Imperial Dam</i>                     | TERTIARY                |
|                      |  | Nonmarine sedimentary rocks<br><i>Clastic sedimentary rocks ranging from megabreccia and fanlomerate to mudstone and shale (in part, of lacustrine origin). Locally interbedded with volcanic rocks (Tv)</i> |                         |
| Miocene and older    |  | Volcanic rocks<br><i>Pyroclastic and flow rocks ranging in composition from rhyolite to basaltic andesite or basalt. Locally interbedded with nonmarine sedimentary rocks (Tn)</i>                           | PRE-TERTIARY            |
|                      |  | Basement complex<br><i>Plutonic, metamorphic, and dike rocks. Granitic rocks, gneiss, and schist are most abundant</i>   |                         |

**Contact**  
Dashed where inferred

**Fault**  
Dashed where inferred; dotted where concealed; queried where location or trend doubtful. Sawteeth indicate upper plate of thrust fault. U, upthrown side; D, downthrown side. Arrows indicate inferred direction of horizontal displacement

**Gravity contours**  
Dashed where approximately located. Hachured contours enclose areas of low gravity. Contour interval 2 milligals

**Gravity station**

**Drill hole or test well**  
All numbers are preceded by "DH-" in text

Numbered or lettered profiles are illustrated in figures or on plates with this report

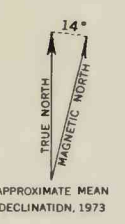
Resistivity profile

Gravity profile

Seismic-refraction profile  
•, location of shotpoint

Seismic-reflection profile

Base from U.S. Geological Survey  
El Centro, 1958



SCALE 1:250 000

5 0 5 10 15 MILES

5 0 5 10 15 KILOMETERS

CONTOUR INTERVAL 200 FEET  
WITH SUPPLEMENTARY CONTOURS AT 100-FOOT INTERVALS  
DATUM IS MEAN SEA LEVEL

**GEOLOGIC AND BOUGUER GRAVITY MAP OF THE YUMA AREA, ARIZONA AND CALIFORNIA**