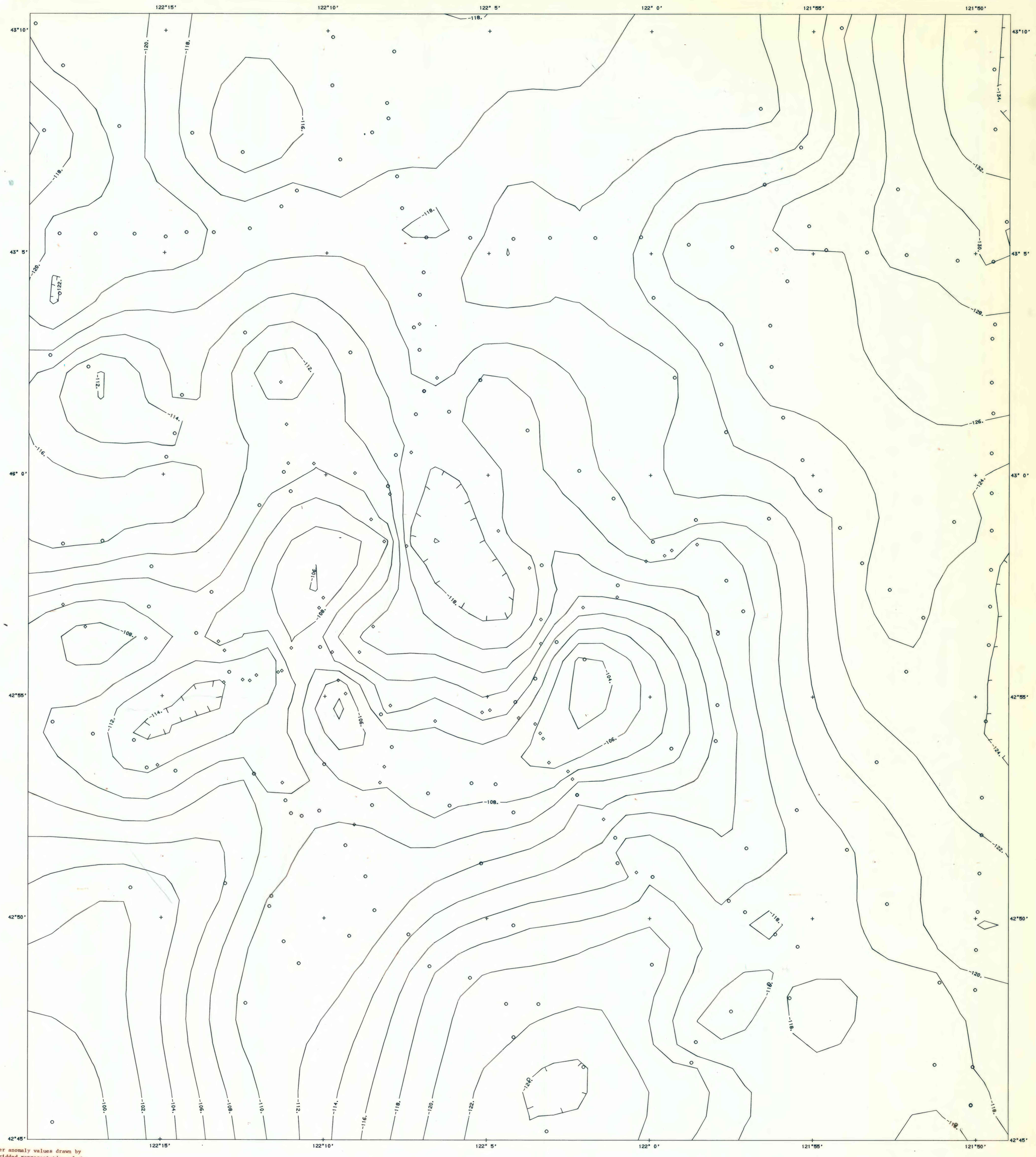
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

OPEN-FILE REPORT
82-592



EXPLANATION

Contours of Bouguer anomaly values drawn by computer from a gridded representation of the data. Contour interval is 2 milligals.

Hachures indicate gravity lows. Squares (□) mark the locations of stations collected by the author and circles (○) indicate data collected from other sources (Couch, et al., 1981). UTM projection.

Anomalies were calculated relative to the 1967 Geodetic Reference System formula for theoretical gravity (International Association of Geodesy, 1971), and base values conform to the International Gravity Standardization Net of 1971 (Morelli, 1974). Terrain corrections have been calculated from the station to 166.7 km using a modification of the terrain correction program of Plouff (1977). The reduction density is 2.2 g/cm³.

REFERENCES CITED

Couch, R. W., Pitts, G. S., Veen, C. A., and Gemperle, M., 1981, Complete Bouguer Gravity Anomaly Map, Cascade Mountain Range, Southern Oregon: State of Oregon, Department of Geology and Mineral Industries, GMS 16.

International Association of Geodesy, 1971, Geodetic Reference System 1967: International Association of Geodesy Special Publication, no. 3, 116 p.

Morelli, C., (ed.), 1974, The International Gravity Standardization Net 1971: International Association of Geodesy Special Publication, no. 4, 194 p.

Plouff, D., 1977, Preliminary documentation for a FORTRAN program to compute gravity terrain corrections based on topography digitized on a geographic grid: U.S. Geological Survey Open-File report 77-535, 45p.

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards.

COMPLETE BOUGUER GRAVITY MAP NEAR CRATER LAKE, OREGON

BY CAROL FINN

1982

SCALE 1:62,500

1 1/2 0 1 2 3 4 5 MILES

1 0 1 2 3 4 5 KILOMETERS