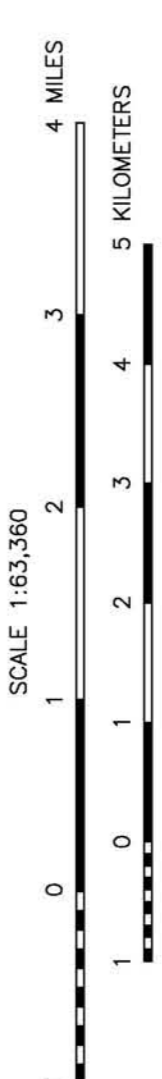
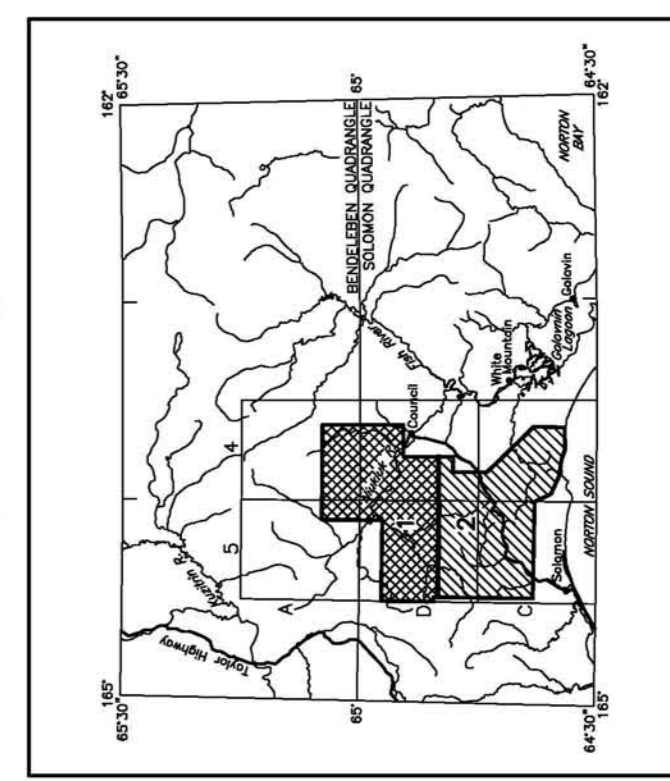


Section outline from U.S. Geological Survey Miscellaneous Publication 1-4, 1966, p. 5-10, 1966.
 Sections 2-4, 1972, 1973, 1975, Fairbanks, Alaska

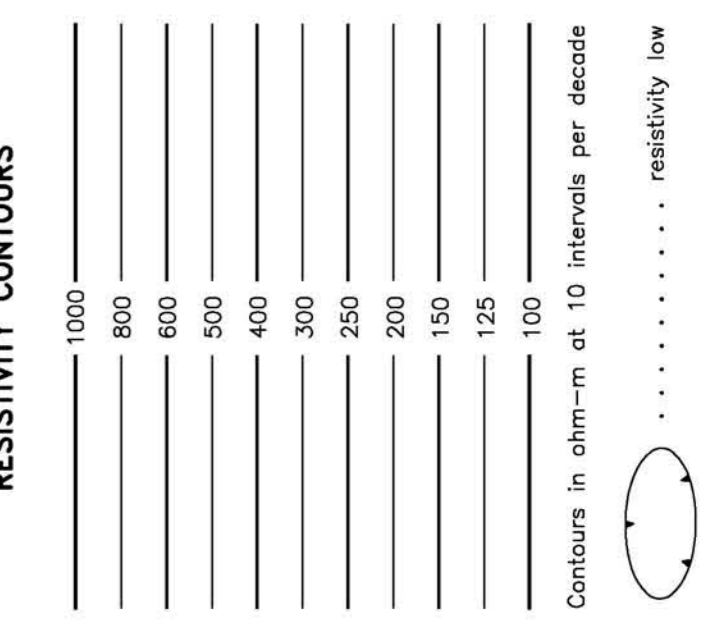


LOCATION INDEX



7200 HZ COPLANAR RESISTIVITY OF THE COUNCIL AREA, SEWARD PENINSULA, ALASKA PARTS OF BENELEBEN AND SOLOMON QUADRANGLES

2003



DESCRIPTIVE NOTES

The geophysical data were acquired with a DIGHEM V Electromagnetic (EM) system and a Scintrex cesium magnetometer. Both were flown at a height of 100 meters. The DIGHEM V system is a 50/60 Hz radar altimeter, GPS navigation system, 50/60 Hz magnetometer, and video camera. Flights were performed with a clearance of 200 feet along North-South (N-S) survey flight lines with a spacing of a quarter of a mile. Flight lines at intervals of approximately 3 miles. An Ashtech G24 NAVSTAR / GLOPASS Global Positioning System was used for navigation. The helicopter position was derived every 0.5 seconds with a relative accuracy of better than 5 m. Flight path positions were projected onto the Clarke 1866 datum using a central meridian (CM) of 165° a north constant of 0 and an east constant of 500,000. The datum used for the UTM grid is better than 10 m with respect to the UTM grid.

RESISTIVITY

The DIGHEM EM system measured inphase and quadrature components of the secondary magnetic field using three horizontal coplanar-coil pairs operated at 900, 7200, and 5500 Hz while three vertical coplanar-coil pairs operated at 1000 and 5500 Hz. The EM system responds to bedrock conductors, conductive overburden, and cultural sources. Apparent resistivity is determined from the ratio of the inphase to the quadrature component of the secondary magnetic field using the coplanar 7200 Hz system. The data were interpolated onto a regular 100 m grid using a modified Alma (1970) technique. Alma, H., 1970, A new method of interpolation and smooth curve fitting, *Journal of Geophysical Research*, v. 75, p. 656-662. *Geophysical Research Series*, v. 17, no. 4, p. 656-662. *Geophysical Research Series*, v. 17, no. 4, p. 656-662. *Geophysical Research Series*, v. 17, no. 4, p. 656-662.

SURVEY HISTORY

This map has been compiled and drawn under contract between the State of Alaska, Department of Natural Resources, Division of Geological and Geophysical Surveys (DGGS), and Stevens Exploration Management Corp. The geophysical data for the area were acquired by the Stevens Exploration Management Corp. under contract to the State of Alaska. The contract manager for DGGS, Laurel Burns was the contract manager for DGGS. This map and other products from this survey are available from the State of Alaska, Department of Natural Resources, Suite 200, Fairbanks, Alaska, 99703.

