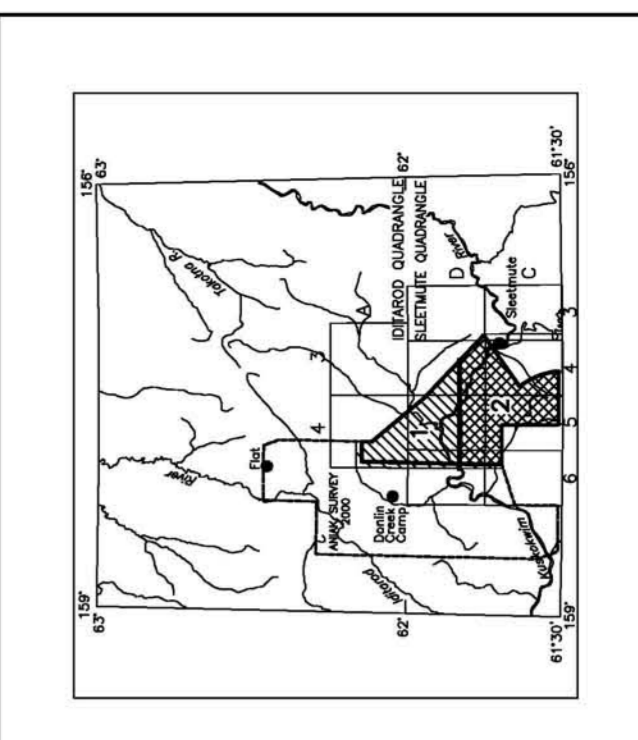


LOCATION INDEX



# 900 Hz COPLANAR RESISTIVITY OF THE SLEETMUTE AREA, SOUTHWESTERN ALASKA PARTS OF IDITAROD AND SLEETMUTE QUADRANGLES 2003

RESISTIVITY CONTOURS

1000
800
600
500
400
300
200
150
125
100

Contours in ohm-m at 10 intervals per decade

**RESISTIVITY**

The DIGHM™ EM system measured inphase and quadrature horizontal coplanar-coil pairs operated at 800, 7200, and 5500 Hz. The EM system responds to bedrock conductors, conductive overburden, and cultural sources. Apparent resistivity is the ratio of the induced magnetic field to the applied current. The coplanar 900 Hz using the pseudo-layer half space model (Fraser 1978). The data were interpolated onto a regular 100 m grid using a modified Memo (1970) technique.

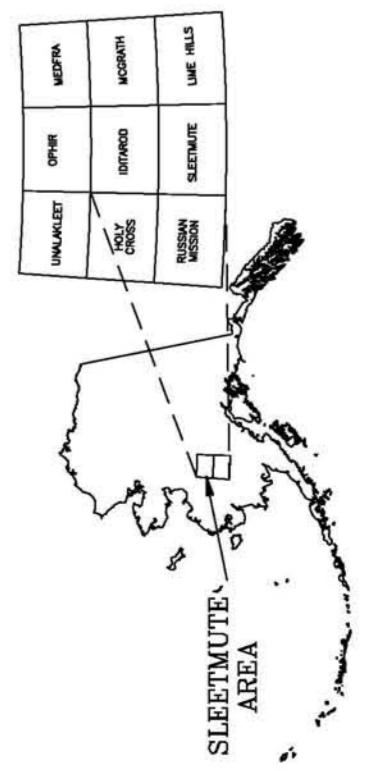
Moore, H., 1970. A new method of interpolation and smooth curve fitting. *Proceedings of the International Symposium on Geophysical Methods*, v. 17, no. 4, p. 589-602.

Fraser, G., 1978. *Geophysical Methods*, v. 17, no. 4, p. 589-602.

**DESCRIPTIVE NOTES**

The geophysical data were acquired with a DIGHM™ Electromagnetic (EM) system and a Sinterex cesium magnetometer. Both were flown at a height of 100 meters. The DIGHM™ system consists of a 50/50 Hz radar altimeter, GPS navigation system, 50/50 Hz magnetometer, and video camera. Flights were performed with a clearance of 200 feet along NW-SE (340°) survey flight lines with a spacing of a quarter of a mile. The instrumented and flight line direction, (2000) were similar to the current survey.

An Ashtech G024 NAVSTAR / GLOMASS 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 spheroid using a central meridian (CM) of 159°, a north constant of 0 and an east constant of 500,000. The horizontal accuracy is better than 10 m with respect to the UTM grid.



**SURVEY HISTORY**

This map has been compiled from an earlier resistivity map between the State of Alaska, Department of Natural Resources, Division of Geological & Geophysical Surveys (DGGGS), and Stevens Exploration Management Corp. (SEMCO) and Stevens Exploration Management Corp. (SEMCO) and Stevens Exploration Management Corp. (SEMCO) and processed by Fugro Airborne Surveys in 2002. The project was funded by the U.S. Bureau of Land Management (BLM). The Airtek survey data shown along the western edge of the current survey were provided by the BLM. The current survey was conducted by BLM, and published by DGGGS. The contract manager for DGGGS.

This map and other products from this survey are available to the public. The map is available in hard copy form at the BLM's Bureau of Land Management, 100 Seward Road, Douglas, Alaska, 99824.