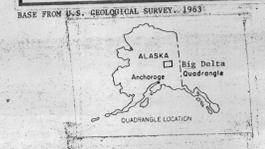
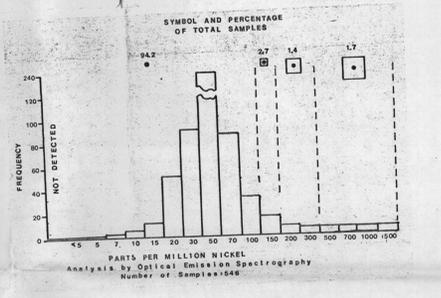
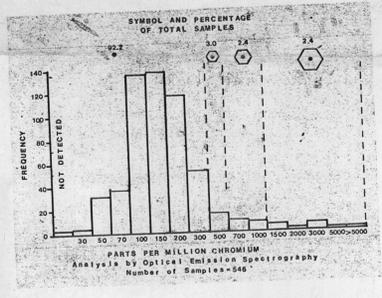
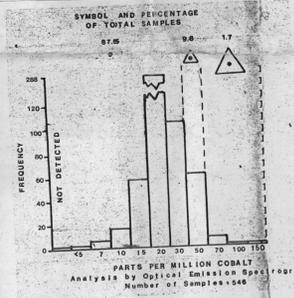
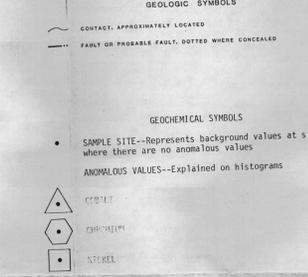
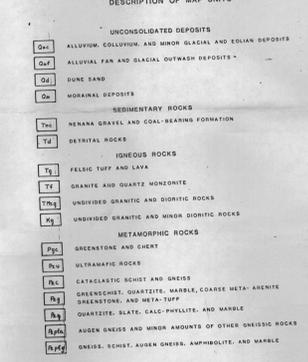
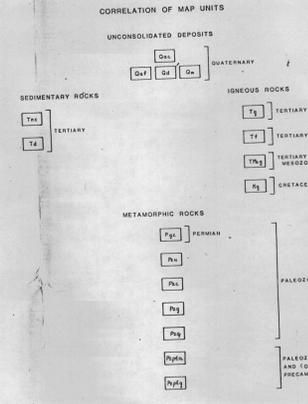


DEPARTMENT OF INTERIOR
 UNITED STATES GEOLOGICAL SURVEY



GEOCHEMICAL MAP SHOWING THE DISTRIBUTION AND ABUNDANCE OF COBALT, CHROMIUM, AND NICKEL IN MINUS 80 MESH STREAM-SEDIMENT IN THE BIG DELTA QUADRANGLE, ALASKA
 BY T. D. HESSIN, D. F. STEKS, AND G. W. DAY
 1978

EXPLANATION
 GEOLOGY GENERALIZED FROM NEAREST STRIKED SHEET



DISCUSSION

This map shows the distribution and abundance of cobalt, chromium, and nickel in 546 stream-sediment samples collected in the Big Delta quadrangle in 1975 and 1977. This sampling was a part of geochemical studies made for the Alaska Mineral Resource Assessment Program. Stream sediments were collected from the active channels of streams draining areas ranging from approximately 10 to 25 km². The areas within the quadrangle that show a low density of sample sites, particularly along the major northeast-trending fault and in the northwestern part of the quadrangle, were areas where dense brush and trees prevented helicopter landings. Areas in the southwestern and south-central parts of the quadrangle were not sampled because they are covered by thick unconsolidated deposits of Quaternary material, which limits effective geochemical sampling within the scope of the present geochemical studies.

The stream sediments were air-dried and sieved through an 80 mesh (0.2 mm) screen. A split of the -80 mesh material was analyzed for cobalt, chromium, and nickel by semi-quantitative emission spectrography (Grimes and Marranzino, 1968). Map plots and histograms were produced from the analytical results. The range of anomalous values for each element was determined from the histograms and was subdivided into two or more plotting intervals represented by the symbols on the map and histograms.

Complete analytical data for all of the sample sites shown on this map are available in a U.S. Geological Survey Open-File Report by R. M. O'Leary and others (1978).

REFERENCES CITED

Grimes, D. J., and Marranzino, A. P., 1968, Direct-current arc and alternating-current spark emission spectrographic field methods for the semi-quantitative analysis of geologic materials: U.S. Geological Survey Circular 591, 6 p.

O'Leary, R. M., Cooley, E. F., Day, G. W., Hessin, T. D., McDougal, C. M., and McDaniel, S. K., 1978, Spectrographic and chemical analyses of geochemical samples from the Big Delta quadrangle, Alaska: U.S. Geological Survey Open-File Report 78-571, 127 p.

Weber, F. R., Foster, H. D., Keith, T. E. C., and Dusek-Bacon, Cynthia, 1978, Preliminary geologic map of the Big Delta quadrangle, Alaska: U.S. Geological Survey Open-File Report 78-529A, scale 1:250,000.

BACKGROUND INFORMATION RELATING TO THIS MAP IS PUBLISHED AS U.S. GEOLOGICAL SURVEY CIRCULAR 783 AVAILABLE FREE OF CHARGE FROM THE U.S. GEOLOGICAL SURVEY, RESTON, VA. 22092