



CORRELATION OF MAP UNITS

[Geologic map generalized from Berg and others (1978)]

Qu	} Quaternary and Tertiary	QUATERNARY AND TERTIARY
QTV		QUATERNARY AND TERTIARY
Tmp		TERTIARY
Tep	} Miocene	TERTIARY OR CRETACEOUS
TKp		CRETACEOUS OR JURASSIC
TKp	} Eocene	JURASSIC OR TRIASSIC
KJup		TRIASSIC
KJs	} Lower Cretaceous	MEZOZOIC OR PALEOZOIC
KJv		PALEOZOIC OR OLDER
Jkt	} Upper Jurassic	
Jkvs		
Trv	} Middle and Upper Paleocene	
Tru		
Trv	} Silurian Order	
Pzs		
Pzv		
Pzp		
Pzv		

DESCRIPTION OF MAP UNITS

Qu	UNCONSOLIDATED DEPOSITS, UNDIVIDED (Quaternary)
QTV	VOLCANIC ROCKS (Quaternary and Tertiary)
Tmp	UNDIVIDED MIOCENE PLUTONIC ROCKS
Tep	UNDIVIDED EOCENE PLUTONIC ROCKS
TKp	UNDIVIDED TERTIARY OR CRETACEOUS PLUTONIC ROCKS
KJup	GRAVINA ISLAND FORMATION AND UNNAMED CORRELATIVE ROCKS (Lower Cretaceous or Upper Jurassic)
KJs	Ultramafic and other plutonic rocks
KJv	Metasedimentary rocks
KJv	Metavolcanic rocks
Jkt	TEXAS CREEK GRANODIORITE (Jurassic or Triassic)
Jkvs	METAMORPHOSED VOLCANIC AND SEDIMENTARY ROCKS (Jurassic or Triassic)
Trv	METAMORPHOSED SEDIMENTARY AND VOLCANIC ROCKS (Upper Triassic)
Tru	PARAGNEISS AND AMPHIBOLITE (Mesozoic or Paleozoic)
Tru	METAMORPHIC ROCKS, UNDIVIDED (Mesozoic or Paleozoic)
Pzs	METAMORPHOSED SEDIMENTARY AND MINOR VOLCANIC ROCKS (Middle and upper Paleocene)
Pzv	FELSIC METAVOLCANIC ROCKS (Paleozoic or older)
Pzp	PLUTONIC ROCKS, CHIEFLY TRONDHJEMITE (Silurian or older)
Pzv	METAMORPHOSED SEDIMENTARY AND VOLCANIC ROCKS (Silurian or older)

SYMBOLS

- Contact. Approximately located; dotted where concealed
- High-angle fault. Dashed where inferred; dotted where concealed
- Thrust fault. Dashed where concealed, inferred, or assumed Sawtooth on upper plate

Folio of the Ketchikan and Prince Rupert Quadrangles, Alaska

Koch and others -- Geochemistry -- Cr

In the course of U.S. Geological Survey investigations of the Ketchikan and Prince Rupert quadrangles, 2602 stream-sediment samples were collected. Samples were analyzed for up to 30 elements by a 6-step, semiquantitative emission spectroscopic method (Grimes and Marranzino, 1968) and for up to 5 elements by atomic-absorption spectrophotometry (Ward and others, 1969). This map shows sample collection sites for 2602 samples which were analyzed for chromium by the spectrographic method. Complete analytical data plus location maps (scale 1:125,000), station coordinates, and a discussion of sampling and analytical procedures for samples from sites shown on this map are published in two reports (Koch and Elliott, 1978b, c). These data are also available on magnetic computer tape (Koch, Van Trump, and McDaniel, 1978).

Background levels vary for different lithologies and in different areas. Because of this and variability introduced from other sources such as sampling practice, analytical variance, and degree of chemical weathering, it is impossible to select a specific analytical level above which values indicate mineralization. For this reason, the analytical values have been grouped into four ranges with each range represented by a different symbol on the map. Higher values may indicate a greater likelihood of bedrock mineralization but confidence levels are low for single-element "anomalies" and results which are not supported by neighboring values.

Selected References

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Grimes, D. J., and Marranzino, A. P., 1968, Direct-current arc and alternating-current spark emission spectrographic field methods for the semiquantitative analysis of geologic material: U.S. Geol. Survey Circ. 591, 6 p.

Koch, R. D., and Elliott, R. L., 1978a, Analyses of rock samples from the Ketchikan quadrangle, southeastern Alaska: U.S. Geol. Survey open-file rept. 78-156A, 163 p.

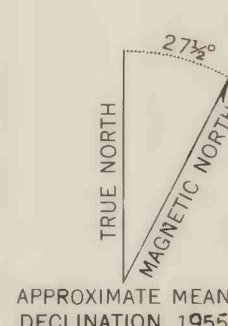
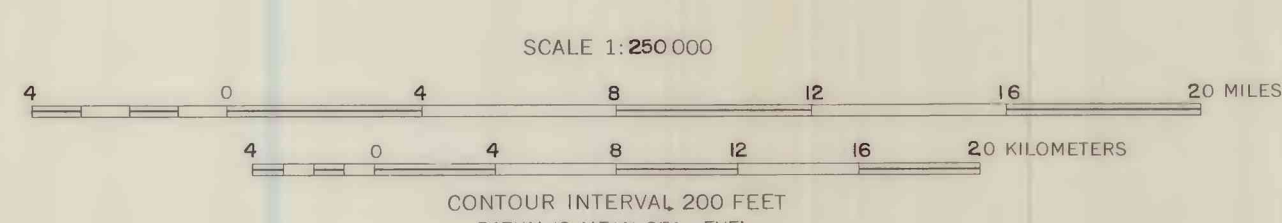
1978b, Analyses of rock and stream-sediment samples from the Prince Rupert quadrangle, southeastern Alaska: U.S. Geol. Survey open-file rept. 78-156B, 98 p.

1978c, Analyses of stream-sediment samples from the Ketchikan quadrangle, southeastern Alaska: U.S. Geol. Survey open-file rept. 78-156C, 214 p.

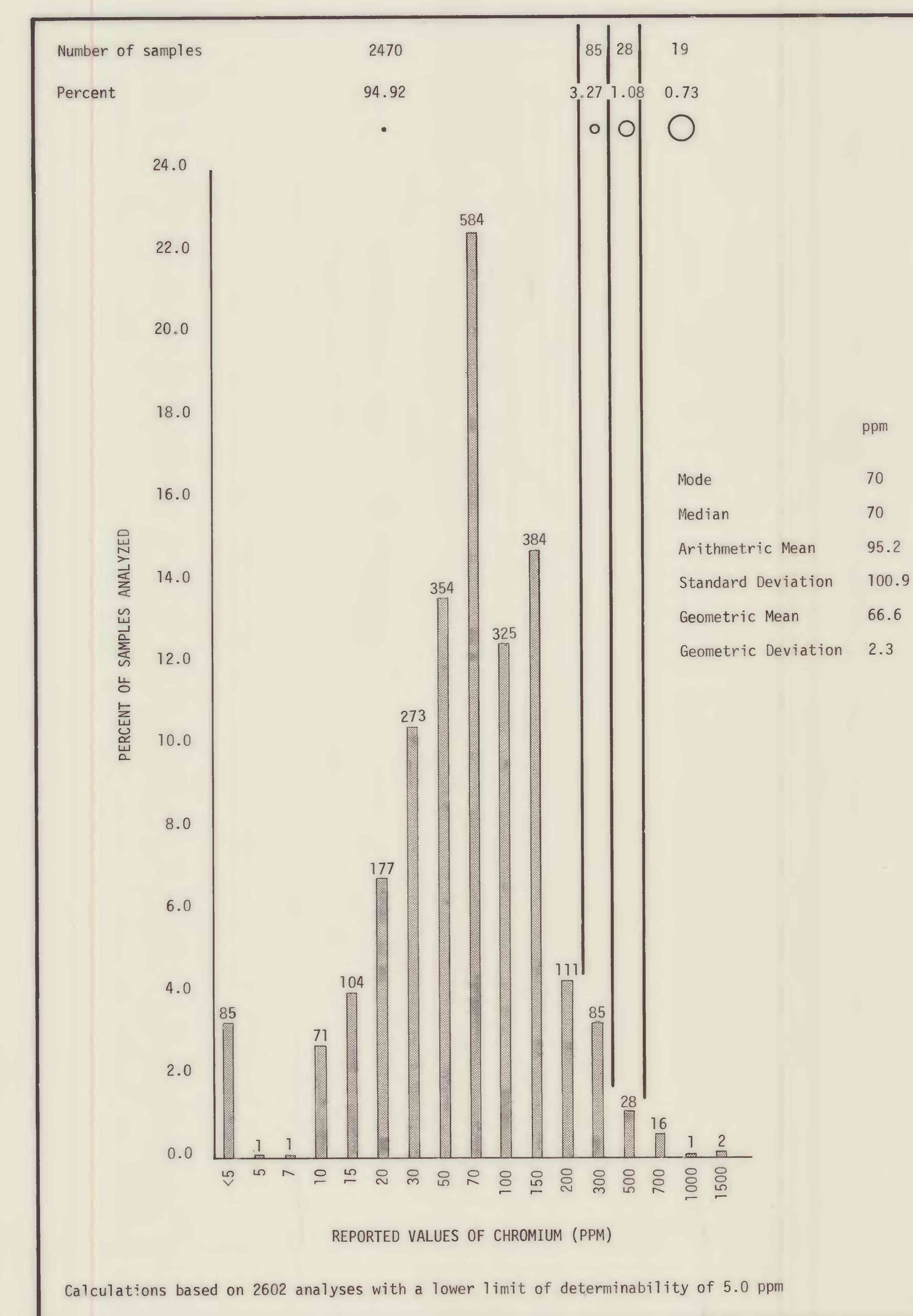
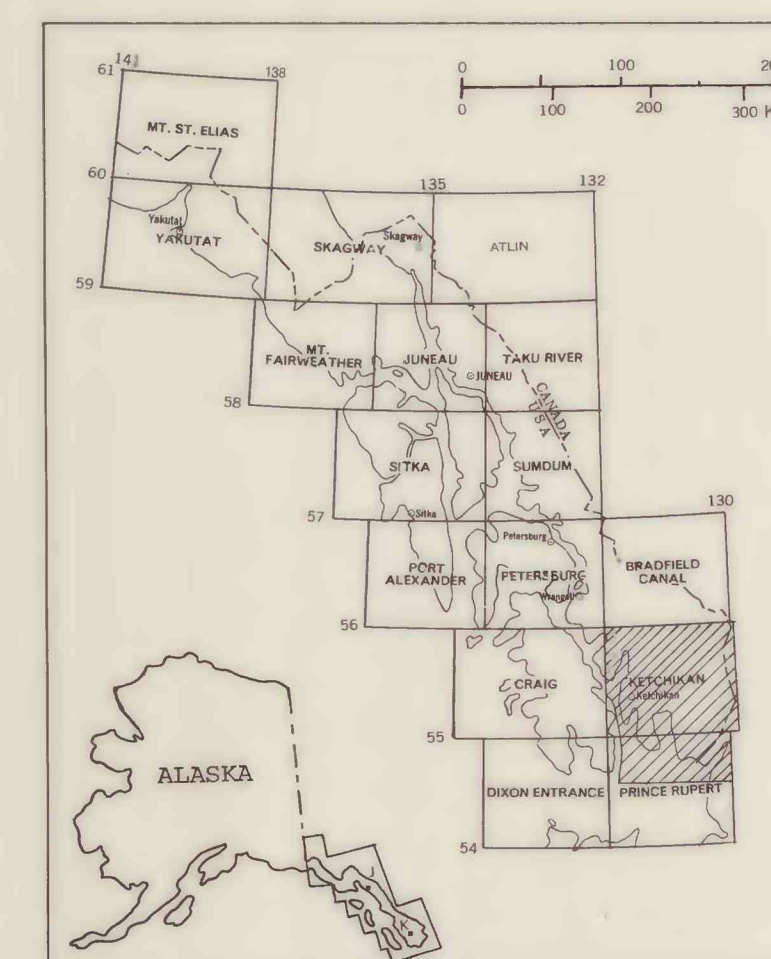
Koch, R. D., Van Trump, George, Jr., and McDaniel, S. K., 1978, Magnetic tape containing analytical data for rock and stream-sediment samples from Ketchikan and Prince Rupert quadrangles, southeastern Alaska: U.S. Geol. Survey Rept., 8 p., computer tape [available from the Natl. Tech. Inf. Service, U.S. Dept. Commerce, Springfield, VA NTIS PB-276-777].

Ward, F. N., Nakagawa, H. M., Harms, T. F., and Van Sickle, G. H., 1969, Atomic-absorption methods of analysis useful in geochemical exploration: U.S. Geol. Survey Bull. 1289, 45 p.

Base from USGS 1:250,000 topo series: KETCHIKAN, 1958; PRINCE RUPERT, 1959. ALASKA-CANADA.



Geology by H. Berg, R. Carten, J. Childs, A. Clark, W. Condon, M. Diggles, G. Dunne, R. Elliott, C. Holloway, J. Houghton, R. Koch, R. Miller, R. Ruder, J. Smith, B. Wiggins, 1966-1977



MAP SHOWING SPECTROGRAPHICALLY DETERMINED CHROMIUM IN STREAM SEDIMENTS, KETCHIKAN AND PRINCE RUPERT QUADRANGLES, ALASKA