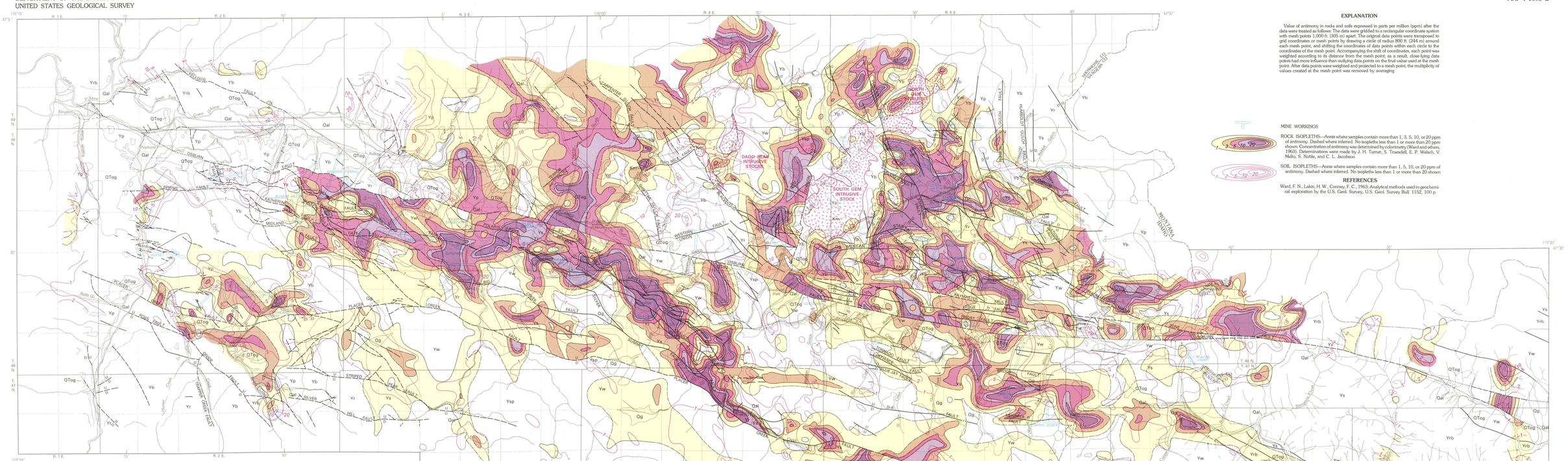
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

MISCELLANEOUS INVESTIGATIONS SERIES
MAP I–1093–B



Base from U.S. Geological Survey, 1:62,500, Kingston, Kellogg, Burke, St. Joe, Calder, and Wallace, 1957; Cooper Gulch and Saltese, 1956

SCALE 1:62 500

APPROXIMATE MEAN DECLINATION, 1979

Area of this report

EXPLANATION

Qal — Alluvial deposits	Holocene	QUATERNARY
Qg — Glacial and glaciofluvial deposits	Pleistocene	QUATERNARY
QTog — Channel and terrace gravels		QUATERNARY AND TERTIARY
Km — Monzonite and associated rocks		CRETACEOUS
Yws — Wishards sill		Belt Supergroup, PRECAMBRIAN Y
Ysp — Striped Peak Formation		Belt Supergroup, PRECAMBRIAN Y
Yw — Wallace Formation		Belt Supergroup, PRECAMBRIAN Y
Ys — St. Regis Formation		Belt Supergroup, PRECAMBRIAN Y
Yr, Yrb, Yb — Revett and Burke Formations; Yr, Revett Formation; Yb, Burke Formation; Yrb, undifferentiated		PRECAMBRIAN Y (?) or PRECAMBRIAN Y
Yp — Prichard Formation		Belt Supergroup, PRECAMBRIAN Y

Contact

Fault

Dashed where approximately located, dotted where concealed

A. DISTRIBUTION AND ABUNDANCE OF ANTIMONY IN ROCKS AND SOILS

EXPLANATION

Value of antimony in rocks and soils expressed in parts per million (ppm) after the data were treated as follows: The data were gridded to a rectangular coordinate system with mesh points 1,000 ft. (305 m) apart. The original data points were transposed to grid coordinates or mesh points by drawing a circle of radius 800 ft. (244 m) around each mesh point, and shifting the coordinates of data points within each circle to the coordinates of the mesh point. Accompanying the shift of coordinates, each point was weighted according to its distance from the mesh point; as a result, close-lying data points had more influence than outlying data points on the final value used at the mesh point. After data points were weighted and projected to a mesh point, the multiplicity of values created at the mesh point was removed by averaging

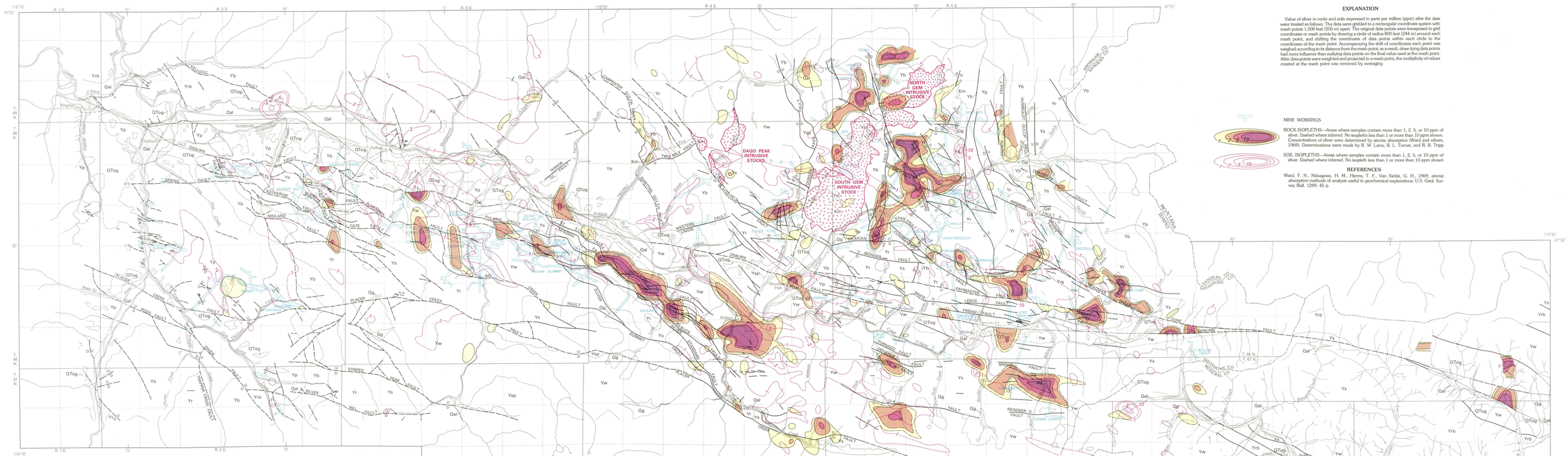
MINE WORKINGS

ROCK ISOPLETHS—Areas where samples contain more than 1, 3, 5, 10, or 20 ppm of antimony. Dashed where inferred. No isopleths less than 1 or more than 20 ppm shown. Concentration of antimony was determined by colorimetry (Ward and others, 1963). Determinations were made by J. H. Turner, S. Truesdell, E. P. Welsch, V. Mello, S. Noble, and C. L. Jacobson

SOIL ISOPLETHS—Areas where samples contain more than 1, 5, 10, or 20 ppm of antimony. Dashed where inferred. No isopleths less than 1 or more than 20 shown

REFERENCES

Ward, F. N., Lakin, H. W., Cooney, F. C., 1963, Analytical methods used in geochemical exploration by the U.S. Geol. Survey, U.S. Geol. Survey Bull. 1152, 100 p.



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Yp — Prichard Formation		Belt Supergroup, PRECAMBRIAN Y

Contact

Fault

Dashed where approximately located; dotted where concealed

B. DISTRIBUTION AND ABUNDANCE OF SILVER IN ROCKS AND SOILS

EXPLANATION

Value of silver in rocks and soils expressed in parts per million (ppm) after the data were treated as follows: The data were gridded to a rectangular coordinate system with mesh points 1,000 feet (305 m) apart. The original data points were transposed to grid coordinates or mesh points by drawing a circle of radius 800 feet (244 m) around each mesh point, and shifting the coordinates of data points within each circle to the coordinates of the mesh point. Accompanying the shift of coordinates each point was weighed according to its distance from the mesh point; as a result, close-lying data points had more influence than outlying data points on the final value used at the mesh point. After data points were weighted and projected to a mesh point, the multiplicity of values created at the mesh point was removed by averaging

MINE WORKINGS

ROCK ISOPLETHS—Areas where samples contain more than 1, 2, 5, or 10 ppm of silver. Dashed where inferred. No isopleths less than 1 or more than 10 ppm shown. Concentrations of silver were determined by atomic absorption (Ward and others, 1969). Determinations were made by R. M. Leinz, R. L. Turner, and R. B. Tripp

SOIL ISOPLETHS—Areas where samples contain more than 1, 2, 5, or 10 ppm of silver. Dashed where inferred. No isopleth less than 1 or more than 10 ppm shown

REFERENCES

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

GENERAL DISTRIBUTION OF ANTIMONY AND SILVER IN ROCKS AND SOILS OF THE COEUR D'ALENE DISTRICT, IDAHO AND MONTANA

By
Garland B. Gott and John B. Cathrall
1979

INTERIOR—GEOLOGICAL SURVEY, RESTON, VA.—1979—G77231

Geology west of 115°42'30" modified from Hobbs, Griggs, Wallace, and Campbell (1965); geology east of 115°42'30" modified from Wallace and Hosterman (1956)

Data computation and program by Jack B. Fife
Data reduction by Theodore M. Billings

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