

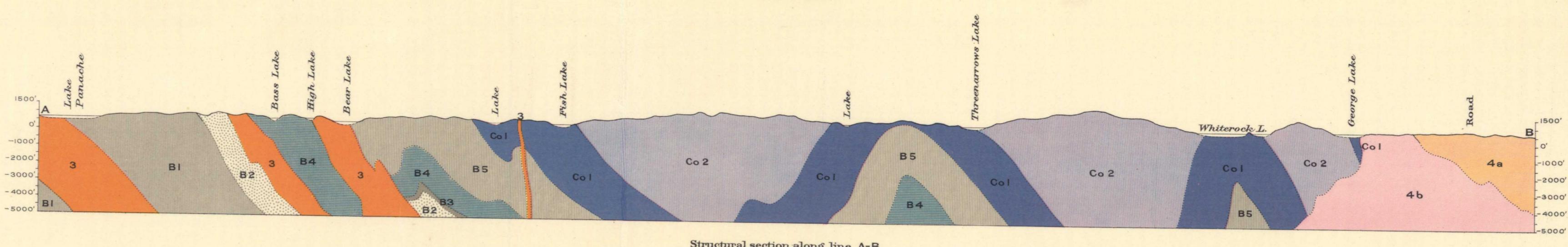
Canada
Department of Mines

HON. CHARLES STEWART, MINISTER; CHARLES CANSSELL, DEPUTY MINISTER.

GEOLOGICAL SURVEY

W. H. COLLINS, DIRECTOR.

Issued 1929



LEGEND

5	Dykes of olivine-bearing diabase
4c	KILLARNEAN BATHOLITHIC INTRUSIVES
4b	Granite and quartz-syenite
4a	Stalagmite mixture of pink and grey paragneisses and orthogneisses. The orthogneisses are closely related to 4b above; the paragneisses are, in some cases, at least, metamorphosed equivalents of the Huronian formations
3	BASIC INTRUSIVES
	Sills and dykes of quartz-diabase and closely related rocks
Co3	COBALT SERIES
B5	Banded Cherty Quartzite
B4	Fine grained thin bedded chert-like quartzite, grey to varicoloured
B2	LORRAINE QUARTZITE
	White quartzite, feldspathic in lower part, grey towards top; lenses of pebbly quartz-conglomerate locally
Co1	GOOGANDA FORMATION
	Boulder conglomerate, greywacke, impure quartzite and laminated (varved) greywacke; series of successive variable thicknesses
B5	BRUCE SERIES
B5	Serpent Quartzite
B4	Espanola Formation
	Highly indurated thin bedded green to grey calcareous silt with some beds of magnesian limestone (marble)
B3	B3 Thin bedded magnesian limestone (marble)
B2	BRUCE CONGLOMERATE
	Massive boulder conglomerate, with some stratified greywacke and impure quartzite towards top
B1	MISSISSAGI FORMATION
	Thick bedded coarse white feldspathic quartzite and minor conglomerate
U	Undifferentiated Huronian sediments

NOTE:—In the southeastern part of Panache quadrangle, which is underlain by the formations 4a and 4b and by some small areas of Bruce and Cobalt series, the sedimentary rocks, with the exception of the Mississagi, are so profoundly metamorphosed to paragneisses that they bear little resemblance to the much less metamorphosed rocks that occur in the northwestern part of the Panache quadrangle. The high pressure metamorphic belt of the Panache quadrangle ends abruptly at contacts with the Mississagi and Lorraine quartites; but it has a less definite boundary in the south, where it cuts across silt formations, because these formations are converted to paragneisses for a width of a few hundred feet. Within the boundaries of the Panache quadrangle, there are only a few spots in which the most argillaceous and calcareous sediments approximate paragneisses in texture.

Geological boundary (defined)
Geological boundary (approximate)
Geological boundary (assumed)
Dip and strike
Vertical strata
Road and buildings
Road not well travelled
Bush road, trail or portage
Triangulation station
Magnetic North
True North

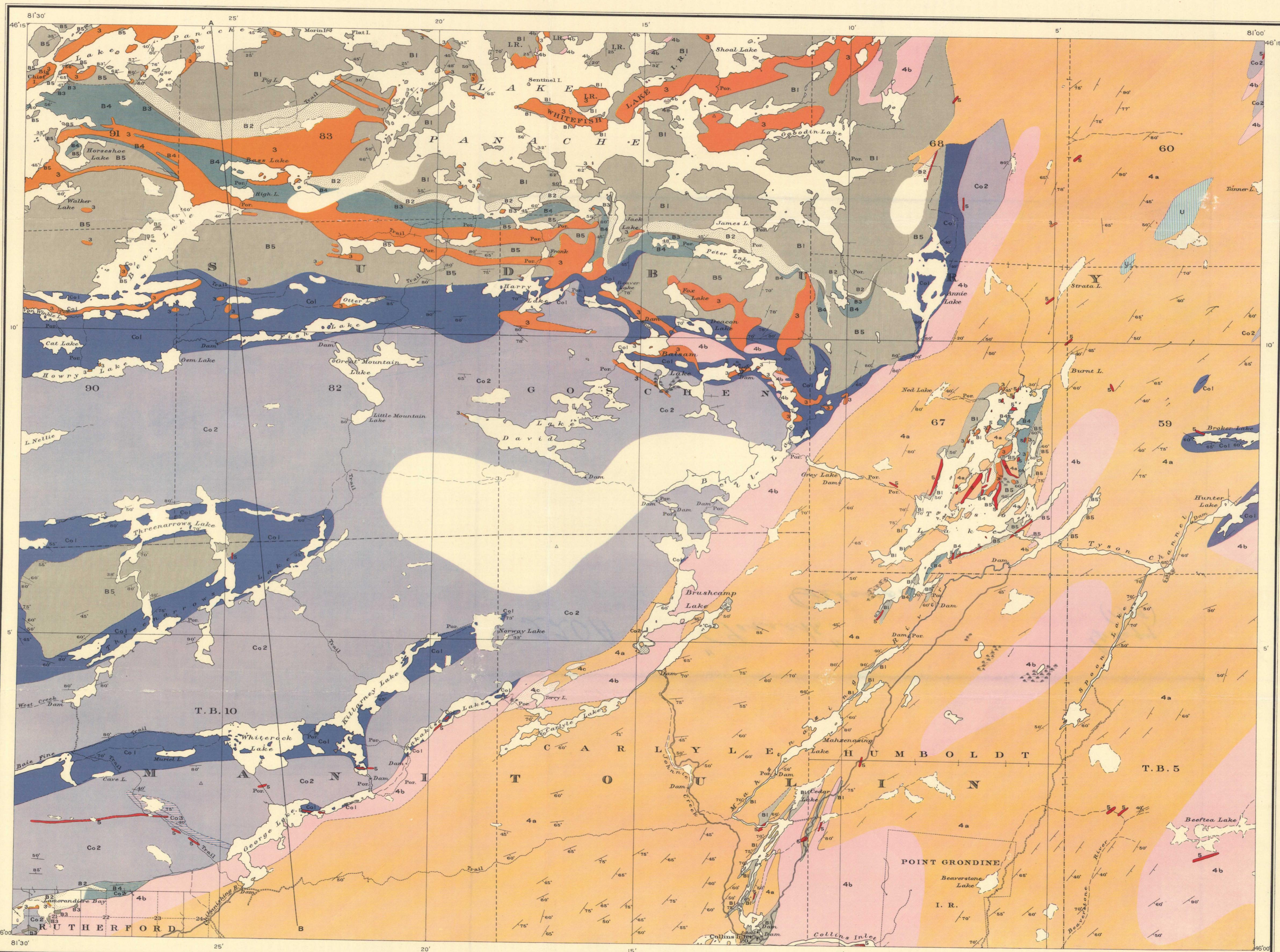
Approximate magnetic declination 6° 15' West.

SOURCES OF INFORMATION

Geology by W. H. Collins, 1916-1918; P. Eskola, 1922; and T. T. Quirke, 1923; and Survey by E. E. Freeland, 1924; A. G. Hartman, 1925-1926; W. H. Collins, 1926; T. T. Quirke, 1927; and by Department of Lands and Forests, Ontario.

Triangulation control by S. C. McLean, 1923.

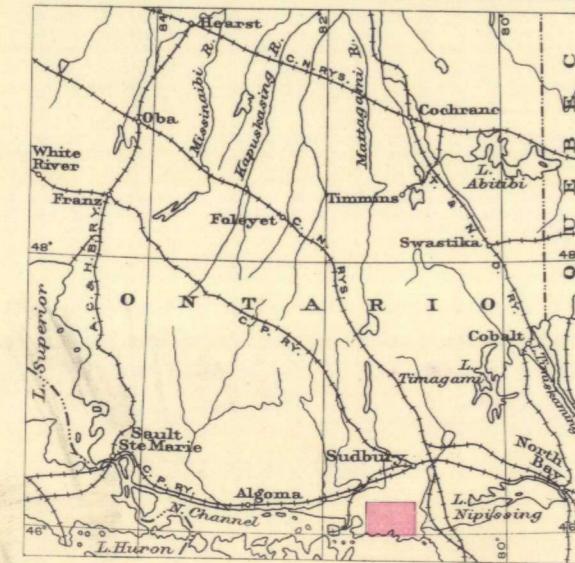
To accompany Memoir by T. T. Quirke and W. H. Collins.



MAP 220A
PANACHE SHEET
SUDSBURY AND MANITOULIN DISTRICTS
ONTARIO

Scale, 1:3560 or 1 Inch to 1 Mile
1 Kilometre

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220A