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Ontario Geological Survey, 2004. Airborne Magnetic Surveys, Shaded Image of the Second Vertical Derivative of the Magnetic Field and Keating Coefficients, Round Lake Batholith Area; Ontario Geological Survey, Map 81 885, scale 1:20 000.

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INTRODUCTION
The North Caribou-Wachukus lakes area is located in the North Caribou geotectonic belt (NCGB) east of the North Caribou Trench (NCT). This area was mapped as part of the 1:50,000-scale map of the study area compiled with digital topographic data (NTS map sheets 02A and 02B) and an aerial photograph (1960).

PREVIOUS WORK
The eastern portion of the North Caribou geotectonic belt was first mapped by the Geological Survey of Canada (Cartwright 1961) and the Ontario Geological Survey (OGS) (Cartwright and Cloutier 1970). The NCBG was mapped in detail by the OGS over a three-year period from 1961 to 1968, resulting in a Preliminary Map that covered the majority of the belt to a scale of 1:50,000 (Baker et al. 1960; Baker et al. 1960; Baker and Cloutier 1967).

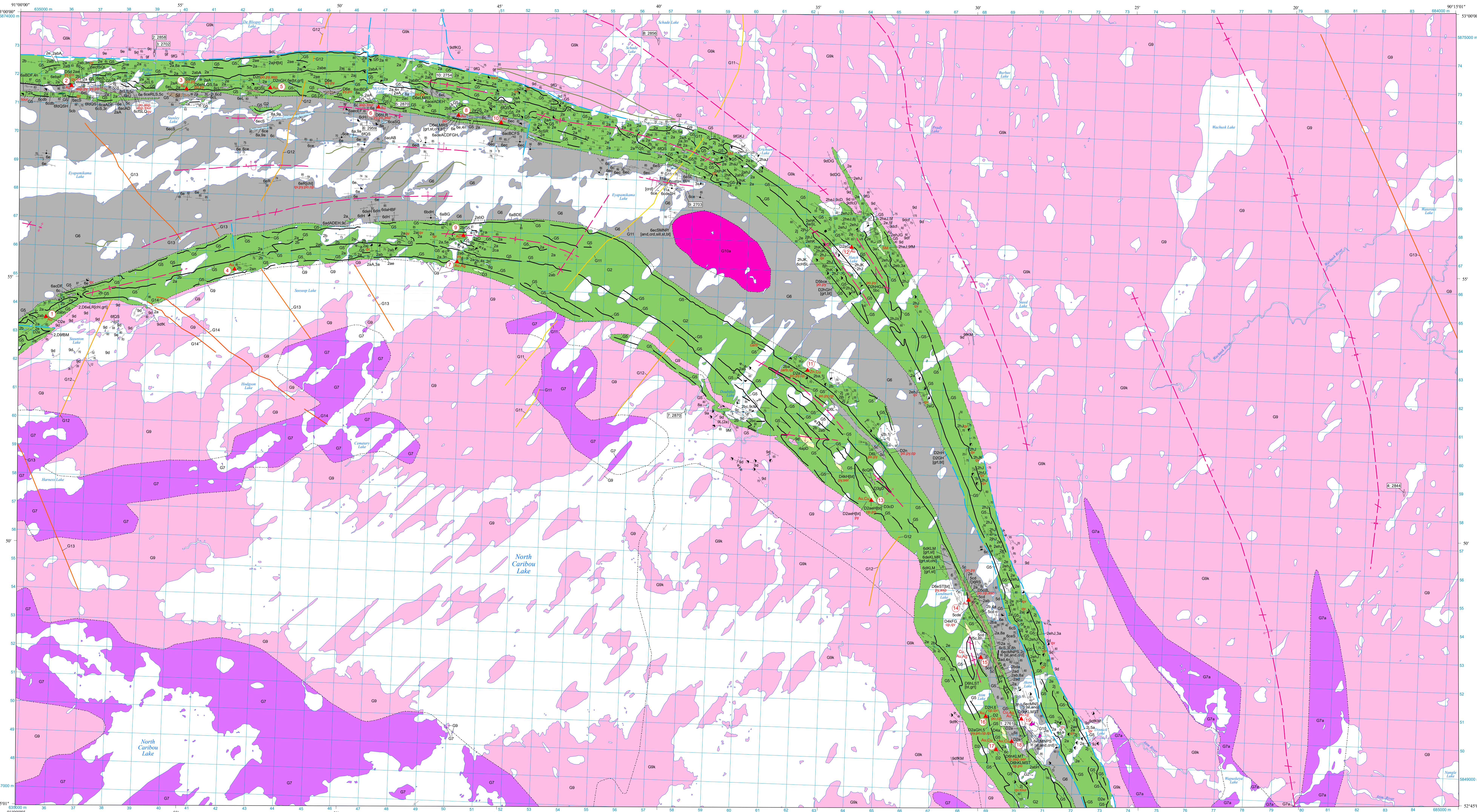
Geological interpretation of much of the area underlain by rocks of the Precambrian is based on the results of the study of the geotectonic belt of the North Caribou geotectonic belt, more extensively in the vicinity of the Muskoka. Most of the Precambrian rocks are of the same age as those in the North Caribou geotectonic belt and are summarized in Table 1. Their locations are shown on the map.

Geological Interpretation
The total magnetic intensity (PmT) and the calculated total magnetic field (magnetic intensity plus magnetic declination) are presented in Figure 2.

Structural Geology
Three deformation events (D1, D2, and D3) have been documented throughout the NCBG (Baker and Cloutier 2001). The D1 deformation event (<2884 Ma) is the most recent, resulting in a thrusting along the North Caribou Trench (NCT) and the formation of the North Caribou Trench (NCT).

Metamorphism
Metamorphism in the NCBG ranges from greenschist to lower amphibolite facies, generally increasing in grade across the belt from north to south.

Economic Geology
The North and South Caribou Geotectonic Belts (NCGB) have been mapped by the Geological Survey of Canada (Cartwright and Cloutier 1970). The study of the geotectonic belt of the North Caribou geotectonic belt, more extensively in the vicinity of the Muskoka.



LEGEND
PHANEROZOIC
CENOZOIC
QUATERNARY
RECENT
PLEISTOCENE
LACONFORMITY
PRECAMBRIAN
PROTEROZOIC
MESOPROTEROZOIC
PALEOPROTEROZOIC
ARCHEAN
NEARARCHEAN
MESARCHEAN
ABBREVIATIONS
SYMBOLS
Table 1. Published zircon U-Pb ages in the North Caribou-Wachukus lakes area.

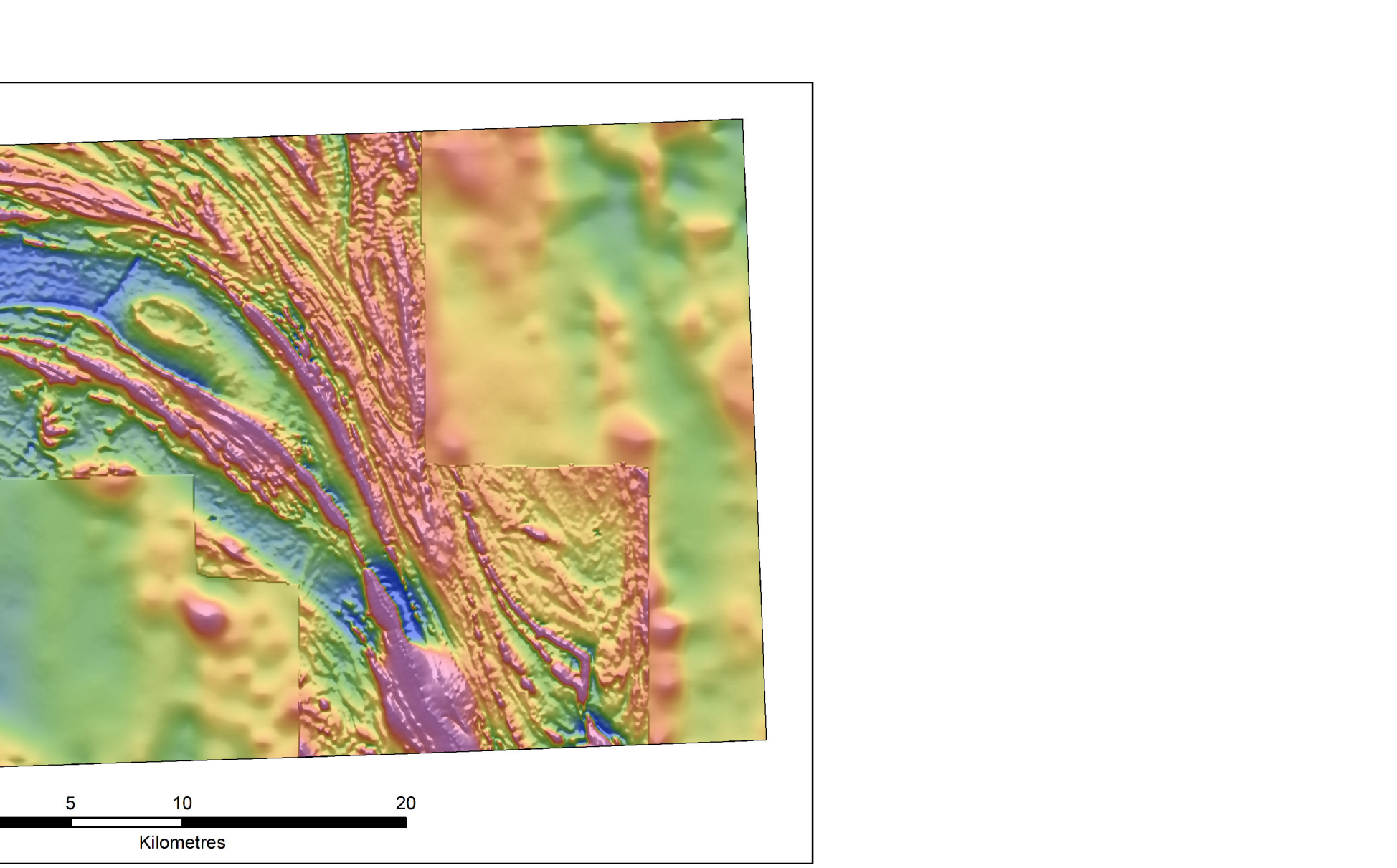
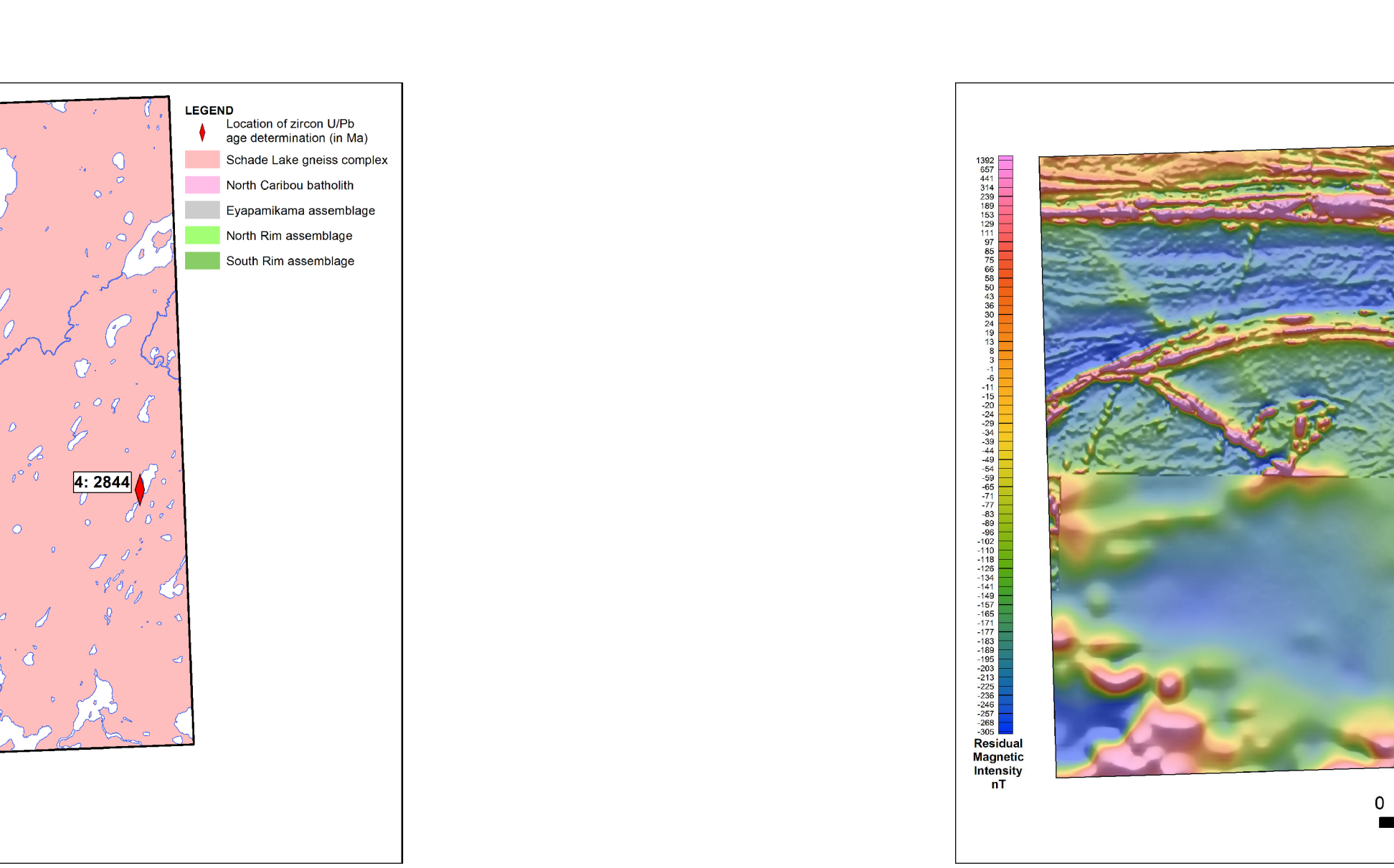
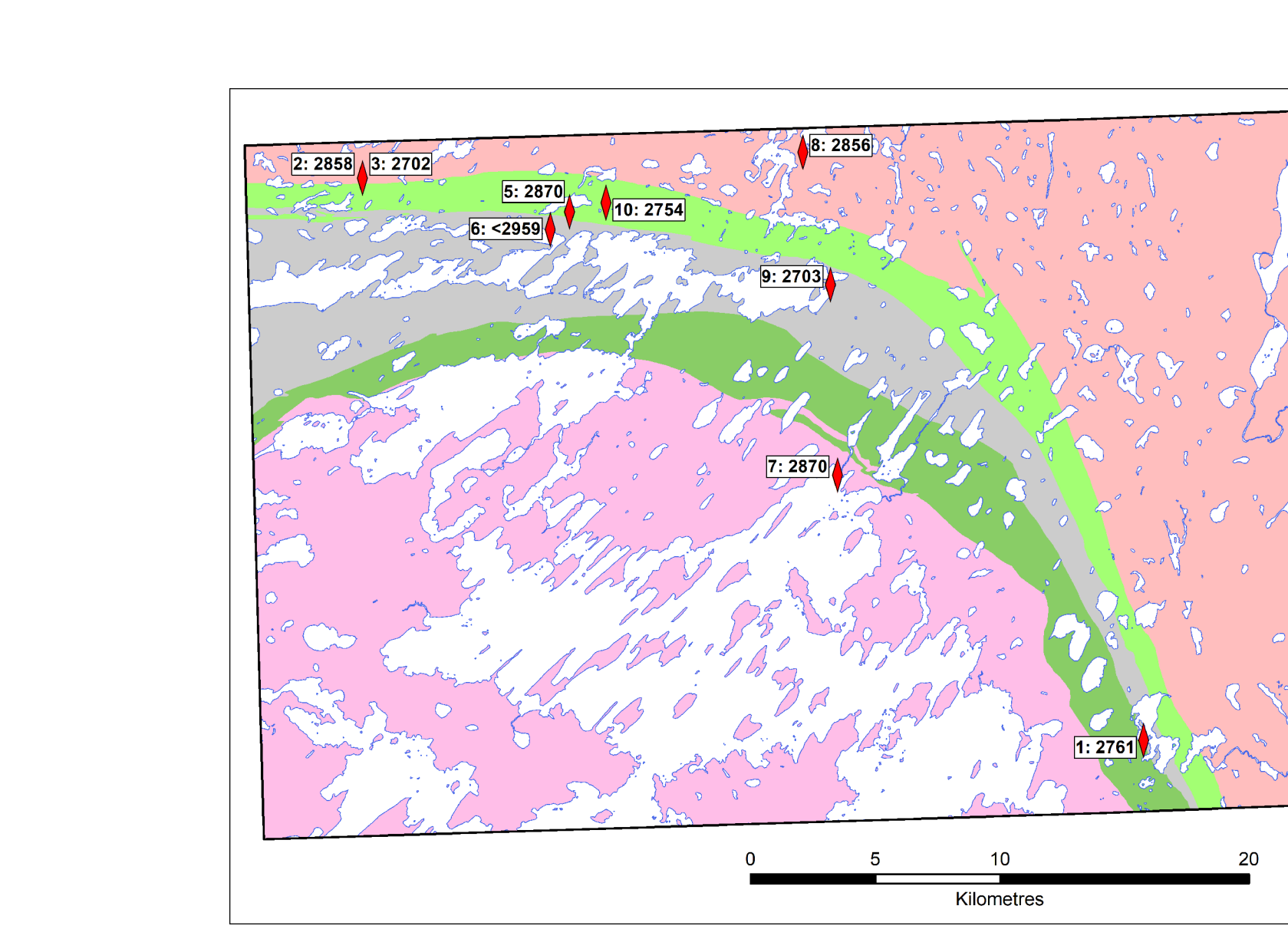
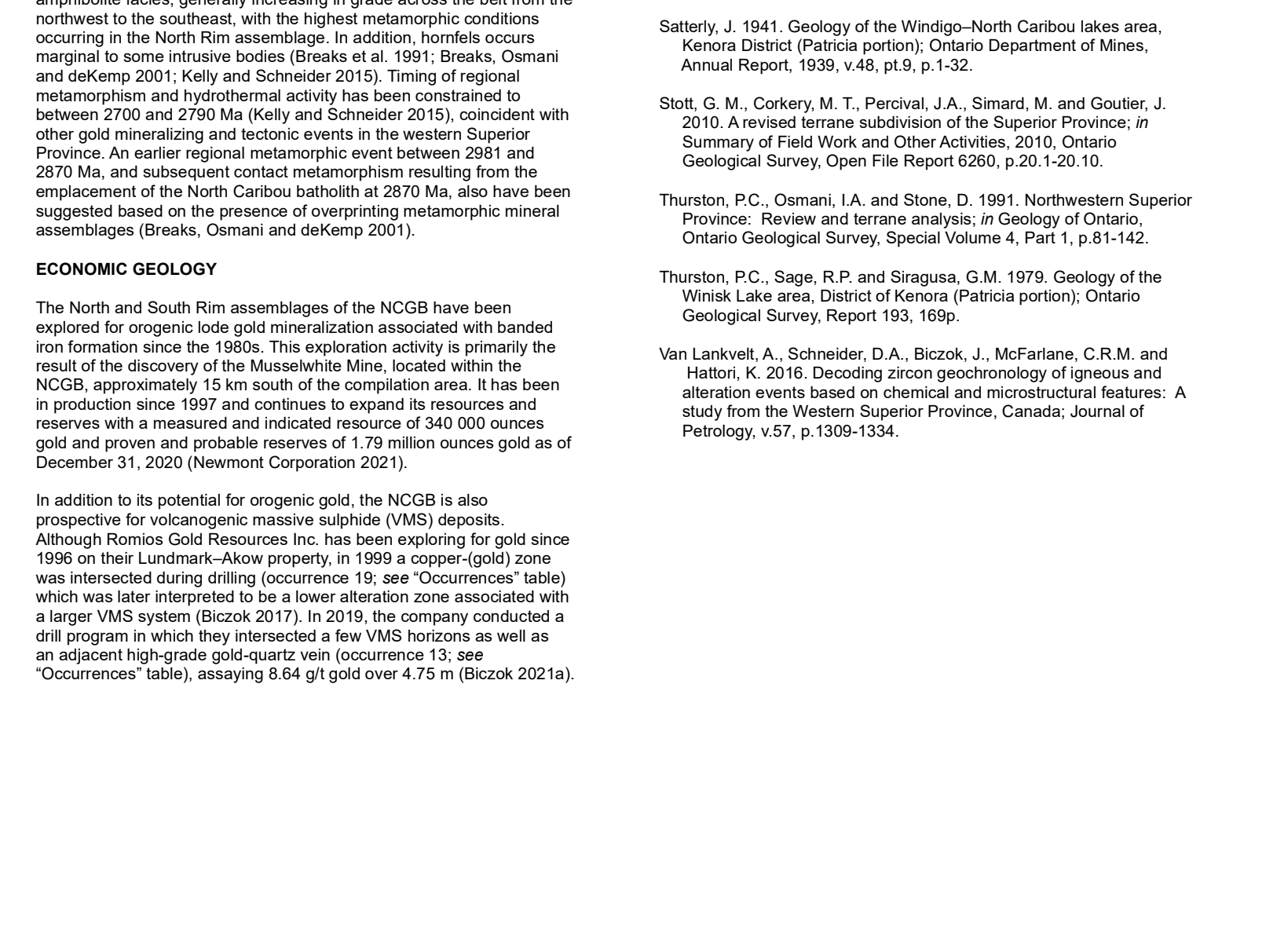


Figure 1. Map of the North Caribou-Wachukus lakes study area showing the distribution of major stratigraphic units and all published zircon uranium-lead ages, scale 1:250,000. See Table 1.

Figure 2. Map of the North Caribou-Wachukus lakes study area showing the total magnetic intensity, scale 1:250,000. High-resolution data from Ontario Geological Survey (2002a and 2002b).

Figure 3. Map of the North Caribou-Wachukus lakes study area showing the calculated total vertical derivative of the residual magnetic field, scale 1:250,000. High-resolution data from Ontario Geological Survey (2002a and 2002b).

Figure 4. Map of the North Caribou-Wachukus lakes study area showing the calculated total vertical magnetic intensity, scale 1:250,000. High-resolution data from Ontario Geological Survey (2002a and 2002b).

Table 1. Published zircon U-Pb ages in the North Caribou-Wachukus lakes area, see Figure 1 for location.

Number	Age (Ma)	Method	Location	Sample	Rock Type and Stratigraphic Unit	Interpretation	Source
1	2761 ± 13	SM-SM	Alou Lake	SM1983	Andalusite-bearing amphibolite	metamorphism	5
2	2896 ± 6	LA-CR-ME	Alou Lake	SM1983	Not specified, Schuch Lake gneiss complex	emplacement	3
3	2762 ± 17	LA-CR-ME	Alou Lake	SM1983	Highly oxidized gneiss, Schuch Lake gneiss complex	emplacment	3
4	2844 ± 15	LA-CR-ME	Alou Lake	SM1983	Not specified, Schuch Lake gneiss complex	emplacment	3
5	2876 ± 2	LA-CR-ME	Alou Lake	SM1983	Rhyolite, North Caribou	age of eruption	1
6	<2929 ± 8	LA-CR-ME	Alou Lake	SM1983	Conglomerate, Epimania	maximum age of deposition	2
7	3876 ± 2	LA-CR-ME	Alou Lake	SM1983	Tonalite, North Caribou batholith	emplacment	4
8	2896 ± 1.8	LA-CR-ME	Alou Lake	SM1983	Tonalite, Schuch Lake gneiss complex	emplacment	2
9	2762 ± 17	LA-CR-ME	Alou Lake	SM1983	Not specified, Schuch Lake gneiss complex	emplacment	3
10	2754 ± 18	SM-SM	Alou Lake	SM1983	Garnet schist, North Caribou	metamorphism	5

Table 2. Occurrences in the study area, based on data from Ontario Aqueous Inventory (OAI) (Ontario Geological Survey 2002a).

Number	OGS Number	Name	Deposited Type	Commodity	Easting (m)	Northing (m)
1	M100000002647	Skawton Lake	Occurrence	Gold	68711	581361
2	M100000002667	Cassidy Lake	Occurrence	Gold	63678	581666
3	M100000002689	Stony Lake	Occurrence	Gold	64015	581777
4	M100000002720	Geeves Lake NE	Occurrence	Gold	64017	582412
5	M100000002787	Stony Lake NE	Occurrence	Gold	64347	581812
6	M100000002899	McNee Lake South	Occurrence	Gold	64988	581729
7	M100000002907	Alou Lake NE	Occurrence	Gold, silver	64919	582843
8	M100000002787	Robba Showng	Occurrence	Gold	64962	581383
9	M100000002914	Epimania Lake NE	Occurrence	Gold	64998	584866
10	M100000002901	North Caribou Lake NE	Occurrence	Gold	65183	581872
11	M100000002901	North Caribou Lake NE	Occurrence	Zinc, copper	65230	582020
12	M100000002899	High Lake	Occurrence	Gold	66234	584923
13	M100000002899	Rhine Quarry-Plymouth Vain	Occurrence	Gold, copper	66621	582827
14	M100000002854	Four Square	Occurrence	Gold	66810	585470
15	M100000002899	Alou Lake NW	Occurrence	Copper, gold, silver	66934	582173
16	M100000002929	Spence Showng	Occurrence	Gold	66969	582026
17	M100000002929	Balaba Showng	Occurrence	Gold, copper	66930	584550
18	M100000002929	High Lake NE	Occurrence	Gold, copper	66963	584860
19	M100000002929	Rhine Quarry	Proposed	Copper, silver, gold	67150	584900

Users of OGS products should be aware that Indigenous communities have a history of using their own maps to describe their territory. Users should verify critical information.

Ontario Geological Survey
MAP P 3463
PRECAMBRIAN GEOLOGY
NORTH CARIBOU-
WACHUKUS LAKES AREA,
NORTH CARIBOU
GREENSTONE BELT
NORTHWESTERN ONTARIO
Scale 1:50,000
Location Map

SOURCES OF INFORMATION
Digital base map information derived from the Land Information Ontario Data Warehouse...
Compiled geology, geochronology and geochemical interpretation derived from...
2002a, Ontario geological geochronology, metamorphism and structural geology of the North Caribou-Wachukus Lakes Area, Ontario Geological Survey, Preliminary Map P 3463, scale 1:50,000.