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MARGINAL NOTES

The Paleozoic rocks in Ontario are concentrated in a major area, the southern region which includes parts of the Michigan and Appalachian Basins. This region is characterized by a complex tectonic and magmatic history of orogenic belts, which includes the extension of the Appalachian orogenic belt into the province, the collision of the Laurentian craton with the Avalonia orogenic belt, and the subsequent extension of the orogenic belts into the province. The Paleozoic rocks in Ontario are concentrated in a major area, the southern region which includes parts of the Michigan and Appalachian Basins.

PHYSIOGRAPHY

The physiographic depression in which the Wabi and Blanche Rivers flow, and the surrounding hills, form a major tectonic feature of the province. The depression is bounded by the Lake Simcoe lowlands to the north, the Wabi and Blanche Rivers to the east, and the Huronian highlands to the west. The depression is characterized by a complex tectonic and magmatic history of orogenic belts, which includes the extension of the Appalachian orogenic belt into the province, the collision of the Laurentian craton with the Avalonia orogenic belt, and the subsequent extension of the orogenic belts into the province.

PREVIOUS WORK

The geological history of the Paleozoic rocks in the area to the west of the Huronian highlands has been extensively studied. The Huronian highlands are a major tectonic feature of the province, and the Paleozoic rocks in the area to the west of the Huronian highlands have been extensively studied. The Huronian highlands are a major tectonic feature of the province, and the Paleozoic rocks in the area to the west of the Huronian highlands have been extensively studied.

PALEOZOIC STRATIGRAPHY

Several revisions to previously used stratigraphic divisions and terminology have become necessary after detailed logging of LT-1 (see Figure 2) in the area of the Huronian highlands. The Huronian highlands are a major tectonic feature of the province, and the Paleozoic rocks in the area to the west of the Huronian highlands have been extensively studied.

STRUCTURAL GEOLOGY

The western edge of the Lake Simcoe basin is formed by a north-south-trending normal fault with a dip-slip overthrust of at least 200 m (Hume 1925; Lovell and Crane 1970). The faulting is interpreted as a result of extensional tectonics, and the overthrust may be due to a late compressional phase. The western edge of the Lake Simcoe basin is formed by a north-south-trending normal fault with a dip-slip overthrust of at least 200 m (Hume 1925; Lovell and Crane 1970).

ECONOMIC GEOLOGY

Numerous mineral occurrences are present within the Paleozoic carbonate rocks of the area. They have been explored for production of lime and concrete aggregate. The only quarry active at present is that of the Huronian highlands. Numerous mineral occurrences are present within the Paleozoic carbonate rocks of the area.

REFERENCES

Bobas, F. E. and Cooper, M. 1972. Stratigraphy and Geology of the Huronian Highlands. Ontario Geological Survey, Miscellaneous Paper 88, 16p.

SOURCES OF INFORMATION

Topography from Maps 31 M/5, 31 M/2, and 31 M/13 of the National Topographic Survey.

CREDITS

Geology by D.J. Russell, 1981, 1983.

ACKNOWLEDGEMENTS

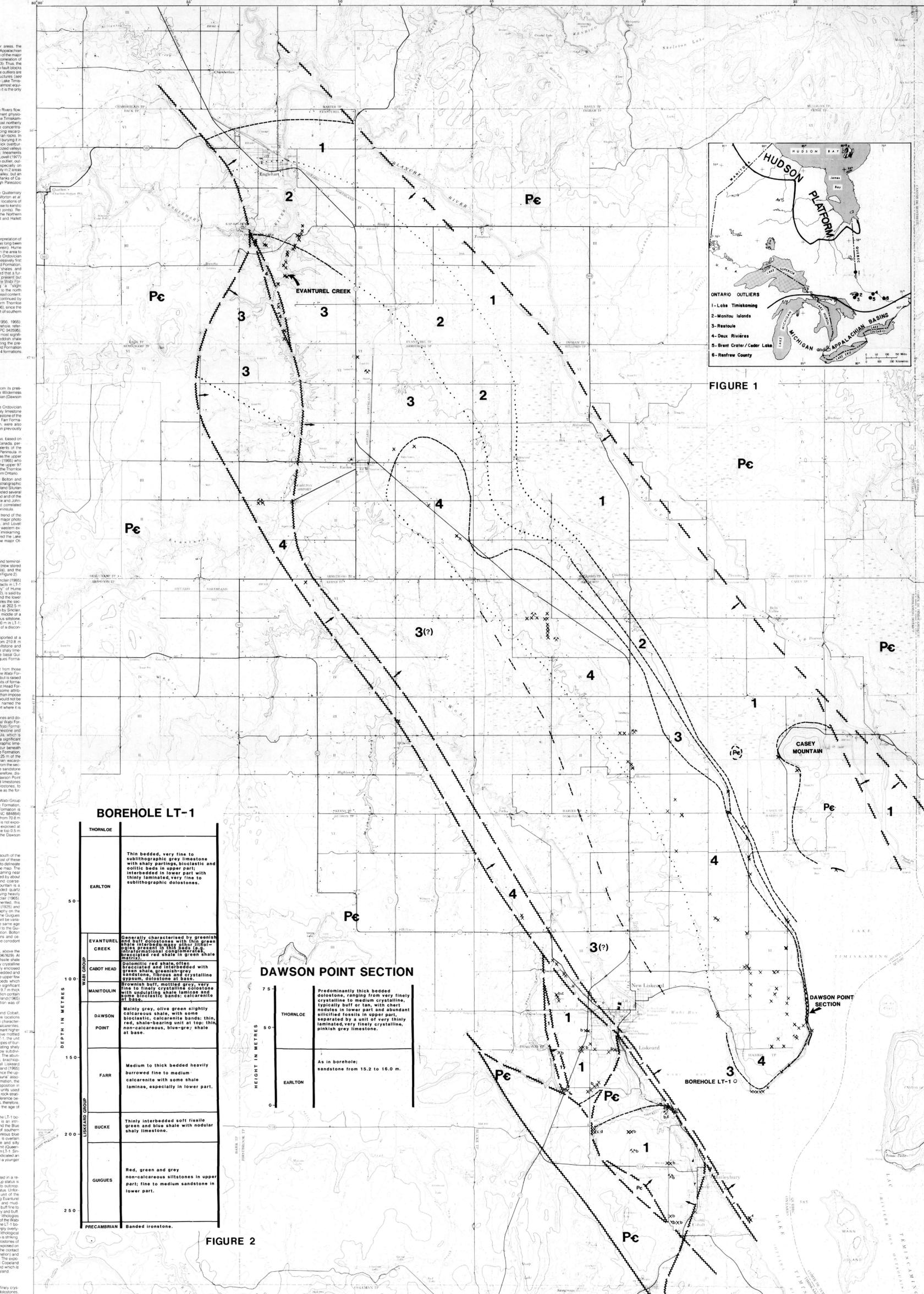
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CONCLUSIONS

The Huronian highlands are a major tectonic feature of the province, and the Paleozoic rocks in the area to the west of the Huronian highlands have been extensively studied. The Huronian highlands are a major tectonic feature of the province, and the Paleozoic rocks in the area to the west of the Huronian highlands have been extensively studied.

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Ontario Ministry of Natural Resources

Hon. Alan W. Pope
Minister
John R. Sloan
Deputy Minister

ONTARIO GEOLOGICAL SURVEY
MAP P.2700
GEOLOGICAL SERIES - PRELIMINARY MAP
PALEOZOIC GEOLOGY
LAKE TIMISKAMING AREA
TIMISKAMING DISTRICT

Scale 1:50,000

N.T.S. References: 31 M/5, 31 M/2, 31 M/13
CGM 028 (Geographic Series - Miscellaneous)
CGM 030 (Geographic Series - Miscellaneous)
CGM 031 (Geographic Series - Miscellaneous)
CGM 032 (Geographic Series - Miscellaneous)
CGM 033 (Geographic Series - Miscellaneous)
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LEGEND

PALEOZOIC

4 Huronian Formation: medium to thick bedded, fine to medium crystalline dolomite and cherty dolomite with some fine bedded limestone.

3 Earlon Formation: thin bedded, very finely crystalline to subholographically crystalline with colour-terminated dolomite in lower part.

LOWER MIDDLE SILURIAN

2 Evanturel Creek Formation: green to grey mudstone and shale with grey and blue mudstone to medium crystalline dolomite.

2' Case Head Formation: red and green mudstone with fibrous gypsum.

2' Manitoulin Formation: dark grey and buff, very fine to fine crystalline dolomite and limestone with shaly partings.

DISCONFORMITY

1' Dawson Point Formation: blue grey, olive green, and red calcareous and non-calcareous limestone.

1' Buckle Formation: medium to thick bedded, brown to reddish calcareous and dolomitic limestone.

1' Guagues Formation: poorly sorted red sandstone and conglomerate.

UNCONFORMITY

PRECAMBRIAN

* Undifferentiated igneous and metamorphic rocks

SYMBOLS

X Borehole
O Quary
Geological boundary, position observed

--- Geological boundary, position assumed

--- Fault position

--- Fault position (indicated by downward arrow)

--- Linear scarps

○ Location of diastroph
○ Location

STRUCTURAL GEOLOGY

The western edge of the Lake Timiskaming outlier is formed by a north-south-trending normal fault with a dip-slip overthrust of at least 200 m (Hume 1925; Lovell and Crane 1970). In most faulting outcrop in Precambrian rocks, then the overthrust may be due to a late compressional phase. The eastern edge of the outlier is poorly defined, but a fault zone follows the Blanche River which was postulated by Lovell and Crane (1971) and Lovell and Crane (1972). This fault zone is bounded to the west by the Huronian highlands and to the east by the Huronian highlands. The fault zone is bounded to the west by the Huronian highlands and to the east by the Huronian highlands. The fault zone is bounded to the west by the Huronian highlands and to the east by the Huronian highlands. The fault zone is bounded to the west by the Huronian highlands and to the east by the Huronian highlands.

BOREHOLE LT-1

DEPTH IN METRES	THORLOOE	DESCRIPTION	HEIGHT IN METRES
30	THORLOOE	Thin bedded, very fine to subholographically crystalline gray limestone with shaly partings, bioclastic and stromatolitic beds in upper part, interbedded in lower part with finely laminated, very fine to subholographically crystalline dolostones.	1
100	EARLTON	Generally characterized by greenish and buff dolostones with thin green shale. Interbedded with shaly limestone, bioclastic and stromatolitic beds in upper part, interbedded in lower part with finely laminated, very fine to subholographically crystalline dolostones.	3(?)
150	EVANTUREL CREEK	Medium to thick bedded heavily burrowed fine to medium calcareous to some shale laminae, especially in lower part.	4
200	BUCKLE	Thinly interbedded soft fissile green and blue shale with nodular shaly limestone.	2
250	GUAGES	Red, green and grey non-calcareous silty mudstones in upper part, fine to medium sandstone in lower part.	1
	PRECAMBRIAN	Banded ironstone.	

DAWSON POINT SECTION

DEPTH IN METRES	DESCRIPTION	HEIGHT IN METRES
7.5	Predominantly thick bedded dolostone, ranging from very finely crystalline to medium crystalline, typically buff or tan, with chert nodules in lower part and abundant silicified fossils in upper part, separated by a unit of very thin laminated, very finely crystalline, pinkish grey limestone.	1
15.2 to 16.0	As in borehole; sandstone from 15.2 to 16.0 m.	3

FIGURE 2