Ontario

Ontario Geological Survey

MAP 2643

PRECAMBRIAN GEOLOGY

STRACHAN TOWNSHIP

Scale 1:20 000

500 m 0 0.5 1 km

NTS Reference: 42 B/9

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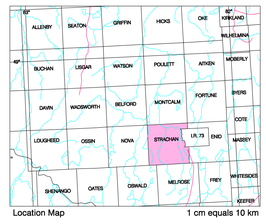

Location Map 1 cm equals 10 km

LEGEND[abcd]

PHANEROZOIC

CENOZOIC

QUATERNARY

PLEISTOCENE AND RECENT
Peat, lake and stream deposits

UNCONFORMITY

PRECAMBRIAN

PROTEROZOIC

PALEOPROTEROZOIC TO NEOARCHEAN

9 **Mafic Intrusive Rocks (Dikes)**
9a Quartz diabase (Matachewan swarm)
9b Olivine diabase

FAULT CONTACT

NEOARCHEAN TO MESOARCHEAN

7 **Intermediate to Felsic Intrusive Rocks**
7b Monzonite to quartz monzonite
7c Monzodiorite to quartz monzodiorite or monzogabbro
7d Granodiorite
7e Tonalite
7f Diorite to quartz diorite
7g Aplite
7h Pegmatite
7i Dike
7j Hybrid
7k Magma mixing zone
7l Contact breccia (heterolithic, xenolith-rich, intrusion breccia)
7n Biotite
7o Hornblende
7p Biotite > hornblende
7q Hornblende>biotite
7s Potassium feldspar phenocrysts
7t Plagioclase phenocrysts
7u Biotite phenocrysts
7w Hornblende phenocrysts
7x Foliated
7y Gneissic
7z Xenoliths [xenolith rock type]

INTRUSIVE CONTACT

6 **Mafic Intrusive Rocks**
6a Diorite
6b Gabbro
6c Leucogabbro
6d Melagabbro
6e Hornblendite
6f Cumulate layering (undifferentiated)
6g Cumulate layering (modal)
6h Load casts
6i Plagioclase phenocrysts
6m Pegmatite (pods, segregations, veins, dikes)
6n Dike
6o Ocellae
6p Foliated
6q Plagioclase-amphibole gneiss
6r Lit-par-lit migmatite
6t Xenoliths [xenolith rock type]
6u Varitextured
6v Contact zone (intrusion breccia, contact breccia)
6x Quartz gabbro
6y Biotite
6z Mylonite

INTRUSIVE CONTACT

5 **Chemical Metasedimentary Rocks**
5b Silicate-facies ironstone

4 **Clastic Metasedimentary Rocks**
4a Wacke
4e Siltstone
4h Amphibole-quartz-biotite schist
4i Quartz-biotite gneiss
4j Amphibole-quartz-biotite gneiss

3 **Intermediate to Felsic Metavolcanic Rocks**
3u Chlorite

2 **Mafic Metavolcanic Rocks**
2a Massive flow
2b Pillowed
2g Pillow breccia
2j Coarse (gabbroic) flow centre
2k Plagioclase phenocrysts
2l Amphibolite
2m Amphibole schist
2n Plagioclase-amphibole schist
2o Plagioclase-amphibole gneiss
2p Plagioclase-amphibole-quartz gneiss
2q Amphibole gneiss
2r Lit-par-lit migmatite
2s Amphibole porphyroblasts
2t Plagioclase porphyroblasts
2v Biotitic
2x Garnetiferous
2y Plagioclase-amphibole hornfels

[a]Rocks listed in this legend are subdivided lithologically, and order does not necessarily imply an age relationship.
[b]The prefix ≤D" denotes rock types compiled from diamond-drill logs from the assessment files of the Resident Geologist's office, Timmins.
[c]The prefix "G" denotes rock types interpreted from geophysical data.
[d]Parentheses denote rock types occurring in minor amounts.

SYMBOLS[a]

- Area of bedrock outcrop
- Small bedrock outcrop
- Geological boundary (observed)
- Geological boundary (assumed)
- Geological boundary (interpreted from geophysics)
- S_1 foliation (inclined, vertical, inclined--dip not measurable)
- S_2 foliation (inclined, vertical)
- S_3 foliation (inclined)
- Gneissosity (inclined)
- Bedding (inclined; inclined--dip not measurable) (symbols within areas of gabbroic rocks indicate primary magmatic layering)
- Graded bedding (overturned, top in direction of arrow)
- Fractures (vertical; inclined)
- L_1 mineral lineation with plunge
- L_2 mineral lineation with plunge
- Stretching lineation with plunge
- Axial plane (W-fold, M-fold)
- Fold hinge with plunge (U-fold, S-fold)
- S-kink band (inclined)
- Z-kink band (inclined)
- Fault (observed or assumed)
- Fault (interpreted from geophysics)
- Shear zone (unknown sense of movement)
- Shear zone (unknown sense of movement)
- Rock sample location
- Diamond-drill hole (inclined)
- Property

ABBREVIATIONS[a]

cp.....chalcopyrite
mag.....magnetite
mo.....molybenite
po.....pyrrhotite
py.....pyrite
qv.....quartz vein
serp.....serpentine
S.....sulphur

[a]Parentheses indicate minerals that occur in minor amounts.

PROPERTIES[ab]

13. Asarco Exploration Co. of Canada Ltd. [1989]
15. Burns property [1991, 1992]
15. C.C. Huston and Associates [1956]
20. Falconbridge Limited [1993]
64. Teck Exploration Ltd. [1994]
[a]Exploration work filed for assessment.
[b]Dates in brackets indicate the years exploration was in progress.

SOURCES OF INFORMATION

Digital base map derived from maps 20 17 4000 53600, 20 17 4100 53600, 20 17 4200 53600, 20 17 4000 53700, 20 17 4100 53700, 20 17 4200 53700, 20 17 4000 53800, 20 17 4100 53800 and 20 17 4200 53800 of the Ontario Basic Mapping Program, Surveys, Mapping and Remote Sensing Branch, Ontario Ministry of Natural Resources, scale 1:20 000.

Files of the Resident Geologist's office, Timmins, and files of the Assessment Files Research Office, Ontario Geological Survey, Toronto.

Ontario Department of Mines-Geological Survey of Canada 1990. Airborne electromagnetic and total intensity magnetic survey, Swayze-Montcalm area, Maps 81 362 to 81 366, scale 1:20 000.

Bennet, G. 1969. Nova and Strachan townships, Cochrane District; Ontario Geological Survey, Map 2182, scale 1:31 680.

Magnetic declination approximately 9°W in 1993.

Geology not tied to surveyed lines.

CREDITS

Geology by A.D. MacTavish, K.L. Fitzhenry, I.G. Henderson and assistants, 1993.

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Every possible effort has been made to ensure the accuracy of the information presented on this map; however, the Ontario Ministry of Northern Development and Mines does not assume any liability for errors that may occur. Users may wish to verify critical information.

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