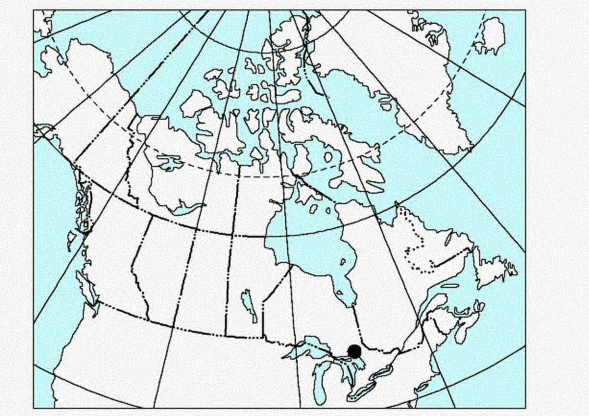


| | | |
|--|--|---|
| PHANEROZOIC | | |
| PALEOZOIC | | |
| MIDDLE ORDOVICIAN | | AC-L LORRAIN FORMATION |
| OBR BLACK RIVER GROUP | | AC-G GOWANDA FORMATION |
| PROTEROZOIC | | |
| PALEO- AND/OR NEOLITHICAN (relative ages uncertain) | | AQL QUIRKE LAKE GROUP |
| Hyun gneissic nepheline syenite | | AHL BRUCE, ESPANOLA, AND SERPENT FORMATIONS |
| Hgn gneissic biotite granite, leucogranite | | AHL HOUGH LAKE GROUP |
| Hgdn gneissic hornblende-biotite and biotite granodiorite with K-feldspar megacrysts and auger; partly migmatitic | | AHL RAMSAY LAKE, PECORS, AND MISSISSAGI FORMATIONS |
| Hqm garnet-bearing quartz monzonite; locally with augite | | AEL ELLIOT LAKE GROUP |
| Hdn gneissic hornblende diorite | | AEL MATIENDA AND MAXIM FORMATIONS |
| Hbn gneissic metagabbro, minor clinite, anorthositic phases | | Avs mafic and felsic volcanic rocks, wackes of the GIBSON, SAUMY LAKE, ELISE MOUNTAIN, STOBIE, AND COPPER CLIFF FORMATIONS |
| PALEOHELICIAN | | PALEOAPHEBIAN |
| pHkg KILLARNEY SUITE granite, granodiorite | | Aa gabbro, anorthosite |
| pHqp foliated, locally sillicified quartz-feldspar pegmatite associated with KILLARNEY SUITE | | Aan gneissic anorthosite, minor gabbro and ultramafic phases |
| pHqd iron-bearing quartz diorite | | PALEOAPHEBIAN (?) |
| Pgn migmatitic granodiorite orthogneiss; may include equivalents of pHkg | | q quartzite (HURON SUPERGROUP ?) |
| Pb gabbro, metagabbro | | ARCHEAN AND/OR APHEBIAN AND/OR HELICIAN (relative ages uncertain) |
| Pan anorthositic gneiss | | n quartzite; mafic and amphibolite gneiss, migmatite in part; probable supracrustal rocks, locally with attenuated metagabbroic rocks |
| APHEBIAN AND/OR HELICIAN | | ARCHEAN (relative ages uncertain) |
| Aub ultramafic and mafic intrusions | | Ag granite, pegmatite, minor quartz syenite monzonite, granodiorite |
| Agc SUDBURY IGNEOUS COMPLEX (As, Abh, Aqj) granophyre | | Aqd tonalite, iron-bearing quartz diorite |
| Abh norite, gabbro, quartz gabbro | | Agx xenolithic and agmatitic granitic rocks; variable mixtures of Ag and Aqd with Avs, Avt, Arim |
| Asb sublayer gabbro | | Aqdn tonalite, granodiorite and quartz diorite orthogneiss, commonly with xenoliths, chiefly Arim, and intrusions of Ag |
| nAca alkalic rock, carbonatite of the SPANISH RIVER COMPLEX | | Ang xenolithic and layered granodiorite to diorite orthogneiss and associated migmatitic rocks |
| MESOAPHEBIAN | | Angh granulite facies xenolithic and layered granodiorite to diorite orthogneiss |
| AW-C CHELMSFORD FORMATION | | Anm diorite, gabbro and amphibolite orthogneiss and associated migmatitic rocks |
| AW-O ONWATIN FORMATION | | Aif iron-formation, mainly oxide facies with lesser sulphide with carbonate facies |
| AW-obz ONAPING FORMATION | | An-b biotitic gneiss, partly migmatitic, locally enclosing amphibolite lenses and blocks; probable protolith; AW |
| PALEOAPHEBIAN | | Aw turbidite wackes, siltstone, pelite, conglomerate; intercalated with volcanic rocks |
| Ab tholeiitic pyroxene gabbro, metagabbro of the NIPISSING GABBRO | | Avs felsic, intermediate volcanic rocks; tholeiitic, calc-alkalic flows, pyroclastics, subvolcanic intrusions with intercalated volcanogenic sediments |
| Aqjm granite, quartz monzonite of the CREIGHTON AND MURRAY PLUTONS | | Avb mafic, intermediate volcanic rocks; tholeiitic, calc-alkalic flows, pyroclastics, subvolcanic intrusions with intercalated volcanogenic sediments |
| HURON SUPERGROUP | | Geological boundary (defined, assumed) |
| COBALT GROUP | | Foliation trend |
| AC-GB GORDON LAKE AND BAR RIVER FORMATIONS | | Fault, displacement unknown (defined, assumed) |
| | | Normal fault, solid circle on hanging wall (defined) |
| | | Strike-slip fault (defined, assumed) |
| | | Thrust fault, teeth on hanging wall (assumed) |

Copies of this map may be obtained from the Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8



Geology from Card, K.D., Sanford B.V., Davidson A., in press: Geology, Lake Superior-Sudbury, Ontario: Geological Survey of Canada, Geological Atlas, Map ML-1871-G, Sheet 1 of 4, scale 1:1 000 000 with revisions by K.D. Card, 1992.

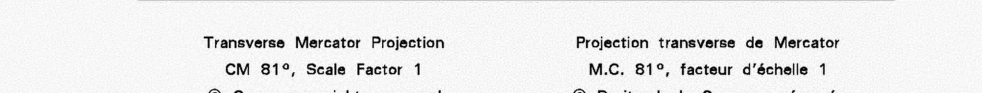
Source of airborne synthetic aperture radar (SAR) from Canada Centre for Remote Sensing (CCRS)

Geological digital cartography by the Geological Survey of Canada

OPEN FILE 2762
AIRBORNE SYNTHETIC APERTURE RADAR (SAR) / GEOLOGY

SUDBURY
ONTARIO

Scale 1:250 000 - Échelle 1/250 000



Transverse Mercator Projection / Projection transverse de Mercator

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Any revisions or additional geological information known to the user would be welcomed by the Geological Survey of Canada

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Copies of the topographical edition of this map may be obtained from the Canada Map Office, Department of Energy, Mines and Resources, Ottawa, Ontario, K1A 0E9

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| 410 | 41P | 3M |
| 41J | 41I | 91L |
| 41Q | 41H | 91E |

NATIONAL TOPOGRAPHIC SYSTEM REFERENCE

Demonstration map in combining geology maps with terrain relief data

The topographical relief of a region is of direct interest to the field geologist. The manner in which structural features such as folds, faults, foliations, lineations and joints are expressed via topographical relief, has a bearing on the way a geologist will map an area or interpret an existing geological map. The Non-Renewable Resource Group of the Geological Survey of Canada and Inera Information Technologies have collaborated on producing experimental geological maps which combine topographic relief with existing 1:250 000 scale geological maps using a combination of Image Analysis and Computer-Assisted Cartographic techniques. The source of relief information is Airborne Synthetic Aperture Radar (SAR) data. The algorithm used to combine the two data types is based upon an Intensity-Hue-Saturation (IHS) colour transform. Final products are optimized for both hardcopy and digital output products.