

MANITOBA MINERAL DEPOSIT SERIES

The Mineral Deposit Series is designed to provide the explorationist with an up-to-date reference and accurate geographic locations for known mineralization within the province. A descriptive classification of the mineralization into deposit types will assist mineral explorationists in the formulation of exploration strategies.

Mineral occurrences with known tonnage and metal grades are designated as deposits and are highlighted with bold deposit-type symbols. Where more than one deposit type is known to occur at a locality, the deposit type with the greatest economic potential is indicated. For example, a 30 cm thick sulphide layer of the massive sulphide deposit type is indicated instead of a 2 m thick graphic sulphide layer of the chemical sediment deposit type at the same locality. Mineral occurrence data not displayed on the map are referenced in a companion report to enable the explorationist to modify the classification in keeping with new developments or concepts.

The basic publication unit for the Mineral Deposit Series will be the 1:50 000 NTS sheet, on which deposits and occurrences are indexed consecutively. Where the density of data warrants the publication of a 1:20 000 map sheet (e.g. 63K/13SE), location numbers may not be consecutive and intervening numbers will be found on the remaining portions of that NTS map sheet (e.g. 63K/13SW).

The accompanying report contains a synthesis of known information for each locality on Exploration History, Geological Setting, Mineralization, Deposit Type and References. The reports contain detailed maps that include precise locations, drill hole and trench locations and wherever possible detailed geological maps of the property. The database used to derive the reports will reside in active mineral deposit files in the possession of the mineral deposit geologists at the Manitoba Geological Survey.

The Mineral Deposit Series will be updated periodically as new information becomes available. Consequently, any errors, omissions or suggestions for improvement should be brought to the attention of the Director, Manitoba Geological Survey.

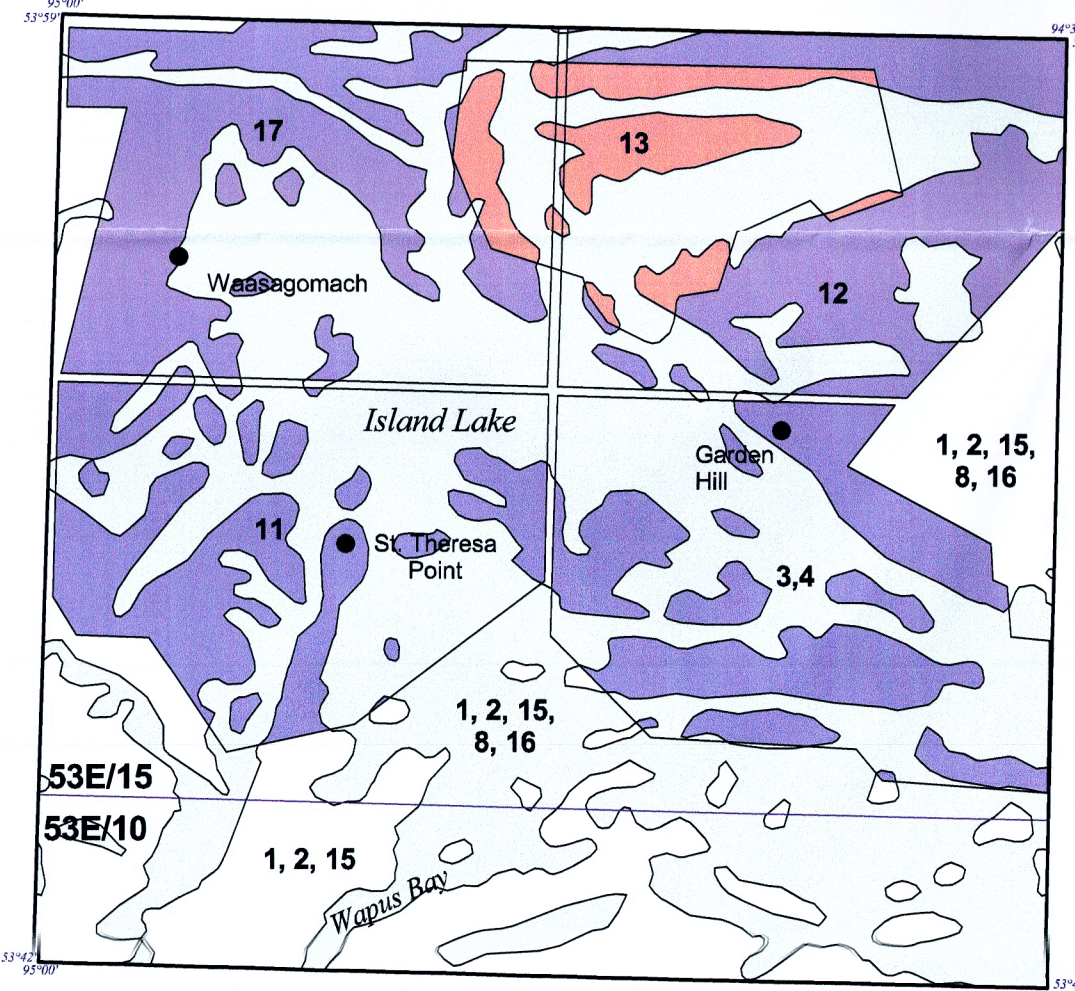
GEOLOGICAL LEGEND

- | | |
|----|---|
| 12 | Tonalite, quartz diorite, granodiorite, granite, feldspar-quartz porphyry, related orthogneiss (intruded by Moleson diabase dykes and late diorite-syenite plugs) |
| 11 | Greywacke, siltstone, argillite |
| 10 | Polymictic conglomerate; arkosic and feldspathic wackes, siltstone |
| 9 | Felsic volcanic and related sedimentary rocks |
| 8 | Quartz-feldspar porphyry |
| 7 | Mafic intrusive rocks |
| 6 | Ultramafic intrusive rocks; related subvolcanic or extrusive rocks |
| 5 | Tonalite, granodiorite; minor diorite and felsic porphyry; related migmatite |
| 4 | Polymictic conglomerate |
| 3 | Greywacke, siltstone, argillite, minor conglomerate, carbonate, chert, iron formation; related schist |
| 2 | Felsic to intermediate volcanic flows and fragmental rocks; related intrusive rocks |
| 1 | Mafic volcanic flows and fragmental rocks; related intrusive rocks |

SYMBOLS

- | | | | |
|-------|--------------------------------------|---|----------------------------|
| — | Defined contact | — | Fold Axes |
| - - - | Shear, fault | — | Anticline |
| — | EM conductors | — | Overturned anticline |
| — | NTS sheet boundary | — | Syncline |
| — | Outline of explored area lease EAL13 | — | Overturned syncline |
| — | | — | Boundary of Indian Reserve |

GEOLOGICAL MAP SOURCE



Island Lake Project, 1981-85

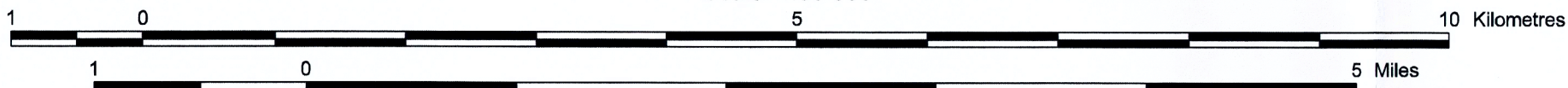
- | | |
|---|--|
| 1) Curtis, K.L. 1984: Island Lake Manitoba-Ontario; Geological Survey of Canada, Geological Compilation Map, Open File 1120, 1:250 000. | 12) Neale, K.L., Weber, W. and McGregor, C.R. 1982: Garden Hill, Manitoba Energy and Mines, Preliminary Map 1982-1, 1:20 000. |
| 2) Esmatovics, I.F., Hird, R.K. and Curtis, K.L. 1987: Geology, Island Lake, Manitoba-Ontario (53E), Geological Survey of Canada, Map 1464A, 1:250 000. | 13) Neale, K.L. and Weber, W. 1981: Island Lake - Cochrane Bay, Manitoba Energy and Mines, Preliminary Map 1981-1, 1:20 000. |
| 3) Gilbert, I.P., Neale, K.L., Weber, W., Corkey, M.T. and McGregor, C.R. 1982: Island Lake, Manitoba Energy and Mines, Preliminary Map 1982-1, 1:20 000. | 15) Quinn, H.A. 1960: Geology, Island Lake, Manitoba and Ontario; Geological Survey of Canada, Preliminary Series Map 26-1960, 1:251 440. |
| 4) Gilbert, I.P., Neale, K.L., Weber, W., Corkey, M.T. and McGregor, C.R. 1983: Island Lake, Manitoba Energy and Mines, Preliminary Map 1983-1, 1:20 000. | 16) Thayer, P. 1980: Compilation of the geology and exploration work in the Island Lake area; Manitoba Energy and Mines, Map ER79-2-5, 1:25 000. |
| 5) Godard, J.D. 1963: Island Lake, Manitoba; Mines and Natural Resources, Mines Branch, Map 59-3A, 1:63 360. | 17) Weber, W., McGregor, C.R. and Neale, K.L. 1982: Waasagomach, Manitoba Energy and Mines, Preliminary Map 1982-1, 1:20 000. |
| 11) McGregor, C.R. and Weber, W. 1982: St. Theresa Point, Manitoba Energy and Mines, Preliminary Map 1982-3, 1:20 000. | |

UTM COORDINATES FOR MINERAL DEPOSITS/OCCURRENCES

MINERAL OCCURRENCE NUMBER	UTM NORTHING (METRES)	UTM EASTING (METRES)
NTS 53E/15		
1	5977894	383737
2	5978398	380393
3	5968232	385030
4	5964773	388146
5	5966890	389737
6	5969650	390246
7	5957565	391156
8	5973759	396433
9	5972940	395406
10	5961253	392234
11	5961400	395433
12	5964475	392798
13	5958330	400455
NTS 53E/10		
1	5952188	381548
2	5952848	382091
3	5953563	383695
4	5955649	393620

Information on this map is portrayed in Universal Transverse Mercator projection, Zone 18, North American Datum 1983. The magnetic declination in the centre of the map in year 2000 is: 2°10' east decreasing by 5.6" annually

Scale 1:50 000



Manitoba
Industry, Trade
and Mines
Geological Survey



MDS MAP NO. 32-1

MINERAL DEPOSITS AND OCCURRENCES
IN THE ISLAND LAKE AREA
(parts of 53E/10,15)

To accompany report No. 32 of the Mineral Deposit Series

MINERAL DEPOSIT TYPE

- | | |
|----|---|
| □ | STRATABOUND MASSIVE SULPHIDE-TYPE DEPOSITS |
| a) | Volcanic rock associated |
| b) | Sedimentary rock associated |
| c) | Alteration zone associated with a or b |
| ○ | CHEMICAL SEDIMENT-TYPE DEPOSITS |
| a) | Sulphide facies iron formation |
| b) | Oxide facies iron formation |
| c) | Carbonate facies iron formation |
| d) | Silicate facies iron formation |
| e) | Other chemical sediments |
| ⬡ | VEIN-TYPE DEPOSITS |
| a) | Single vein |
| b) | Multiple veins or lenses |
| c) | Stockwork |
| ⬠ | MAGMATOGENIC-TYPE DEPOSITS ASSOCIATED WITH MAFIC/ULTRAMAFIC ROCKS |
| a) | Disseminated |
| b) | Layered |
| c) | Not textured |
| d) | Podiform |
| □ | DEPOSITS WITH PORPHYRY AFFINITIES |
| □ | PEGMATITE-TYPE DEPOSITS |
| ▽ | CLASTIC SEDIMENT-TYPE DEPOSITS |
| ○ | REPLACEMENT-TYPE DEPOSIT |
| △ | DISSEMINATED MINERALIZATION (NOT CLASSIFIED) |

IMMEDIATE HOST ROCK* TO MINERALIZATION

(Appendage in the 9 o'clock position)

- | | | | |
|---|-----------------------------|---|---|
| △ | Rhyolitic volcanic rocks | □ | Greywacke |
| △ | Dacitic volcanic rocks | □ | Quartzite |
| △ | Intermediate volcanic rocks | □ | Calc-silicate-rich rocks (limonite, dolomite) |
| △ | Basaltic volcanic rocks | □ | Chemical sediments |
| △ | Ultramafic volcanic rocks | □ | Brocks |
| △ | Chert, cherty rocks | □ | Conglomerate |
| △ | Sericitic schist | □ | Felsic intrusive rocks |
| △ | Chloritic schist | □ | Intermediate intrusive rocks |
| △ | Shale, slate, phyllite | □ | Mafic intrusive rocks |
| △ | Sandstone, argillite | □ | Ultramafic intrusive rocks |

* or metamorphic equivalent

TYPE OF MINERALIZATION

(Appendage in the 9 o'clock position)

- | | | | |
|---|-------------------|---|-------------------------------------|
| ○ | Trace (<1%) | □ | Near solid (50-75%) to solid (>75%) |
| ● | Minor (1-10%) | □ | Near solid to solid stratified |
| △ | Moderate (10-50%) | □ | Near solid to solid zoned |

* by volume

EXPLANATION OF MINERAL DEPOSIT AND OCCURRENCE SYMBOLS

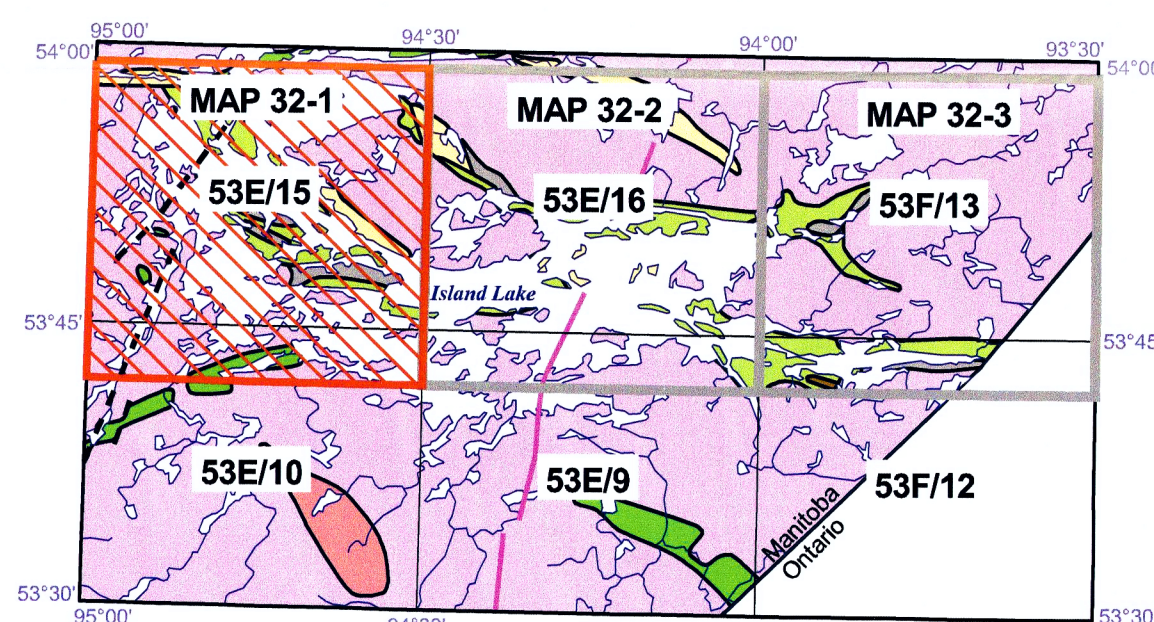
- | | | | |
|----|---|---|--------|
| △ | AuAgZn | △ | AuCuZn |
| □ | •1 | □ | •1 |
| •1 | Occurrence location* and reference number | | |
| □ | Mineral deposit | | |
| □ | Mineral occurrence | | |
| △ | Immediate host rock to mineralization | | |
| □ | Type of mineralization | | |

AuAgZn Elements present (in order of increasing abundance)

*Exact locations indicated by a dot or outline of mineralization in solid black

Approximate locations indicated by an x

INDEX TO MAP SHEETS



Mineral deposit interpretation and compilation by P. Thayer

Geological compilation by H.P. Gilbert and P. Thayer

Digital cartography by B. Lenton and P. Lenton

Suggested reference:
Thayer, P. 2000: Mineral deposits and occurrences in the Island Lake area, NTS 53E/15, 16, 53F/13 and parts of 53E/9, 10 and 53F/12; Manitoba Industry, Trade and Mines, Geological Survey, Mineral Deposit Series Report No. 32, 198 p.

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