

MANITOBA MINERAL DEPOSIT SERIES

The Mineral Deposit Series is designed to provide the explorationist with an up-to-date reference with accurate geographic locations of 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 solid 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 classifications in keeping with new developments or concepts.

The basic publication unit for the Mineral Deposit Series is 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/155), location numbers may not be consecutive and intervening numbers will be found on the remaining portions of that NTS map sheet (e.g. 63K/156).

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 data base used to derive the reports resides in active mineral deposit files in the possession of the mineral deposit geologists at the Geological Services Branch.

This 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, Geological Services Branch.

GEOLOGICAL LEGEND

PRECAMBRIAN (APHEBIAN)

INTRUSIVE ROCKS

Post-Sickle and similar rocks of unknown age

22a quartz porphyry, quartz-feldspar porphyry, 22b diabase

21a aplite, apilitic granite, 21b pegmatite, graphic granite

Granite, granodiorite

19a hornblende-biotite granodiorite, 19b tonalite

18a gabbro, minor ultramafic rock, 18b diabase, 18c diorite, 18d plutonic breccia

Pre-Sickle and similar rocks of unknown age

17a granite, granodiorite, 17b pegmatite, apelite, 17c syenite, 17d apilitic granite

16a diorite, quartz diorite, 16b hornblende-biotite tonalite, quartz diorite, 16c granodiorite, tonalite

Gabbro, norite, diorite, ultramafic rock

Hornblende diorite, quartz diorite

Gabbro, diabase

SICKLE GROUP (11a, 12a) and SICKLE METAMORPHIC SUITE (11, 12b-12g)

12 Sandstone, derived schist and gneiss: 12a arkosic sandstone, pebbly sandstone, 12b muscovite-bearing arkose, pebbly arkose, 12c greywacke, 12d hornblende-bearing psammite, gneiss, calcareous sandstone, 12e biotite-bearing psammite, gneiss, 12f quartz-feldspar-muscovite schist, arkosic sandstone, 12g sillimanite-bearing arkosic gneiss

11 Conglomerate with quartz-feldspar porphyry, sedimentary, volcanic and granitoid clasts: 11a conglomerate, arkose matrix, 11b conglomerate, greywacke matrix ± hornblende

SICKLE OR WASEKWAN GROUP

10 Conglomerate with sedimentary, volcanic and granitoid clasts, greywacke, 10a conglomerate, hornblende greywacke matrix, 10b conglomerate, biotite greywacke matrix, 10c staurolite schist, greywacke, 10d biotite greywacke, sillstone, minor argillite

WASEKWAN GROUP

9 Sedimentary rocks, coarse- to fine-grained, paragneiss: 9a pebbly greywacke, paraconglomerate, 9b hornblende greywacke, sillstone, 9c biotite greywacke, sillstone, mudstone, 9d quartz-rich greywacke, 9e sillstone and mafic mudstone, 9f mafic mudstone, tuff, greywacke, 9g argillite, 9h chert, 9i porphyroblastic schist, 9j iron formation

8 Conglomerate: 8a quartz-pebble conglomerate, 8b conglomerate with volcanic and sedimentary clasts, 8c pebbly mudstone, 8d polymictic volcanic breccia, conglomerate

7 Rhyolite, felsic gneiss: 7a massive aphyric rhyolite, 7b massive porphyritic rhyolite, 7c porphyritic breccia, 7d hyaloclastite, 7e tuff

6 Dacite: 6a massive aphyric dacite, 6b massive porphyritic dacite, 6c breccia, 6d tuff, 6e altered dacite, schist

5a, d Intermediate and felsic volcanic rocks: 5a andesite, 5b porphyritic dacite, 5c intermediate tuff, lapilli tuff, 5d pyroclastic breccia

4a Mafic and intermediate volcanic rocks, amphibolite: 4a massive porphyritic and aphyric basalt and andesite, 4b pillowed basalt and andesite, 4c autoclastic breccia, 4d polymictic breccia, 4e mafic tuff, 4f intermediate tuff, 4g garnetiferous amphibolite, 4h andesite

3 Porphyritic basalt: 3a massive basalt, 3b pillowed basalt, 3c autoclastic breccia, 3d porphyritic and aphyric basalt, 3e tuff, 3f banded amphibolite, breccia, 3g mafic porphyry

2 Aphyric basalt: 2a massive basalt, 2b pillowed basalt, 2c pillow breccia, hyaloclastite, 2d tuff, 2e plagioclase-aphyric basalt, 2f high-magnesian basalt, tuff, ultra-mafic rock, amphibolite

1 Greywacke, siltstone, mudstone, minor volcanic rocks

W Wasekwau Group undivided

ROCKS OF PROBABLE WASEKWAN AGE:

Burntwood River Metamorphic Suite, Zed Lake Greywacke

1A biotite ± garnet-bearing metagreywacke, migmatite, 1B biotite-sillimanite-garnet-bearing metagreywacke-metamudstone, migmatite, 1C layered and massive amphibolite, 1D quartzite, 1E marble

UTM COORDINATES FOR MINERAL DEPOSITS/OCCURRENCES

MINERAL OCCURRENCE NUMBER	U.T.M. NORTHING (METRES)	U.T.M. EASTING (METRES)
1	6282164	387431
2	6273870	392429
3	6290839	379246
4	6292359	381462
5	6279715	385133
6	6294839	387205
7	6283865	400889
8	6280111	401894
9	6277242	402069
10	6290385	395401
11	6265640	399839
12	6262857	401758
13	6287081	384827

Electromagnetic anomaly

Magnetic anomaly

Geological contact (approximate, assumed, gradational, underwater)

Geological contact inferred from aeromagnetic trends, signature, and nearest measured structural attitude

Limit of drift-covered area

Fault (defined, approximate, inferred, dip)

Axial trace of anticline (approximate; upright, overturned)

Axial trace of syncline (approximate; upright, overturned)

Minor fold axis (horizontal, inclined, vertical)

Minor fold, e.g., asymmetric S-fold with axis plunging 45 degrees and axial plane dipping 60 degrees

Bedding tops known (inclined, vertical, overturned)

SYMBOLS

Bedding tops unknown (inclined, vertical, dip unknown)

Igneous layering, tops unknown (inclined, vertical, dip unknown)

Pillows, tops known (inclined, overturned, dip unknown)

Foliation (inclined, vential, dip unknown)

Second generation foliation (inclined, vertical, dip unknown)

Foliation and parallel layering (inclined, vertical, dip unknown)

Fracture cleavage (inclined, vertical, dip unknown)

Mineral lineation (inclined, vertical)

Microcrenulation (inclined, vertical)

Deformed clasts (inclined, vertical)

Eskers, direction of flow unknown

Drumlinoid ridge

Scale 1:50 000
KILOMETRES 0 1 2 3 4 5 KILOMETRES

Mineral Deposits interpretation and compilation by K.J. Ferreira
Cartography by J.C. Morales and L. Chackowsky

MINERAL DEPOSITS

DEPOSIT #	NAME	TONNES/GRADE	STATUS
1	Lasthoie	541 000/8.23 gr/g Au	Exploration

M.D.S. MAP NO. 23 (1993)

MINERAL DEPOSITS AND OCCURRENCES
IN THE SICKLE LAKE AREA
(NTS 64C/10), MANITOBA

To Accompany Report No. 23 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) Poiform

DEPOSITS WITH PORPHYRY AFFINITIES

PEGMATITE TYPE DEPOSITS

CLASTIC SEDIMENT TYPE DEPOSITS

REPLACEMENT TYPE DEPOSITS

DISSEMINATED MINERALIZATION — NOT CLASSIFIED

IMMEDIATE HOST ROCK* TO MINERALIZATION

(Appendage in the 9 o'clock position)

- ▲ Rhyolitic volcanic rocks
- ▲ Dacitic volcanic rocks
- ▲ Intermediate volcanic rocks
- ▲ Basaltic volcanic rocks
- ▲ Ultramafic volcanic rocks
- ▲ Chert, cherty rocks
- ▲ Sericitic schist
- ▲ Chloritic schist
- ▲ Shale, slate, phyllite
- ▲ Sandstone, arkose
- Greywacke
- Quartzite
- Calc-silicate-rich rocks (limestone, dolomite)
- Chemical sediments
- Breccia
- Conglomerate
- Felsic intrusive rocks
- Intermediate intrusive rocks
- Mafic intrusive rocks
- Ultramafic intrusive rocks

*or metamorphic equivalent

TYPE OF MINERALIZATION

(Appendage in the 6 o'clock position)

- Trace (<1%)
- Minor (1-10%)
- ▲ Moderate (10 - 50%)
- Near solid (50-75%) to solid (>75%)
- Near solid to solid stratified
- Near solid to solid zoned

*by volume

EXPLANATION OF MINERAL DEPOSIT
AND OCCURRENCE SYMBOLS

AuCuZn 1
AuCuZn 1

1 Occurrence location* and reference number

Mineral deposit

Mineral occurrence

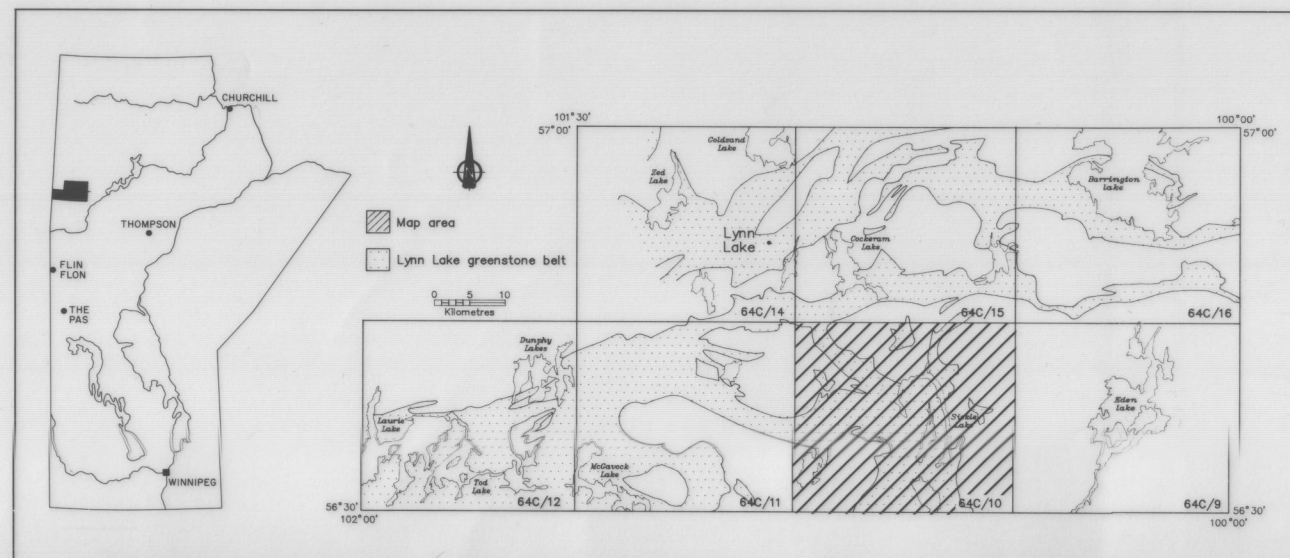
Immediate host rock to mineralization

Type of mineralization

AuCuZn 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.

MINERAL DEPOSIT SERIES



GEOLOGICAL MAP SOURCE

Geological base map derived or modified from:
1. Gilbert, H.P., Syme, E.C. and Zwanig, H.V.
1980: Geology of the metavolcanic and volcanoclastic metasedimentary rocks in the Lynn Lake area; Manitoba Energy and Mines, Mineral Resources Division, Geological Paper GP80-1, 118 p.