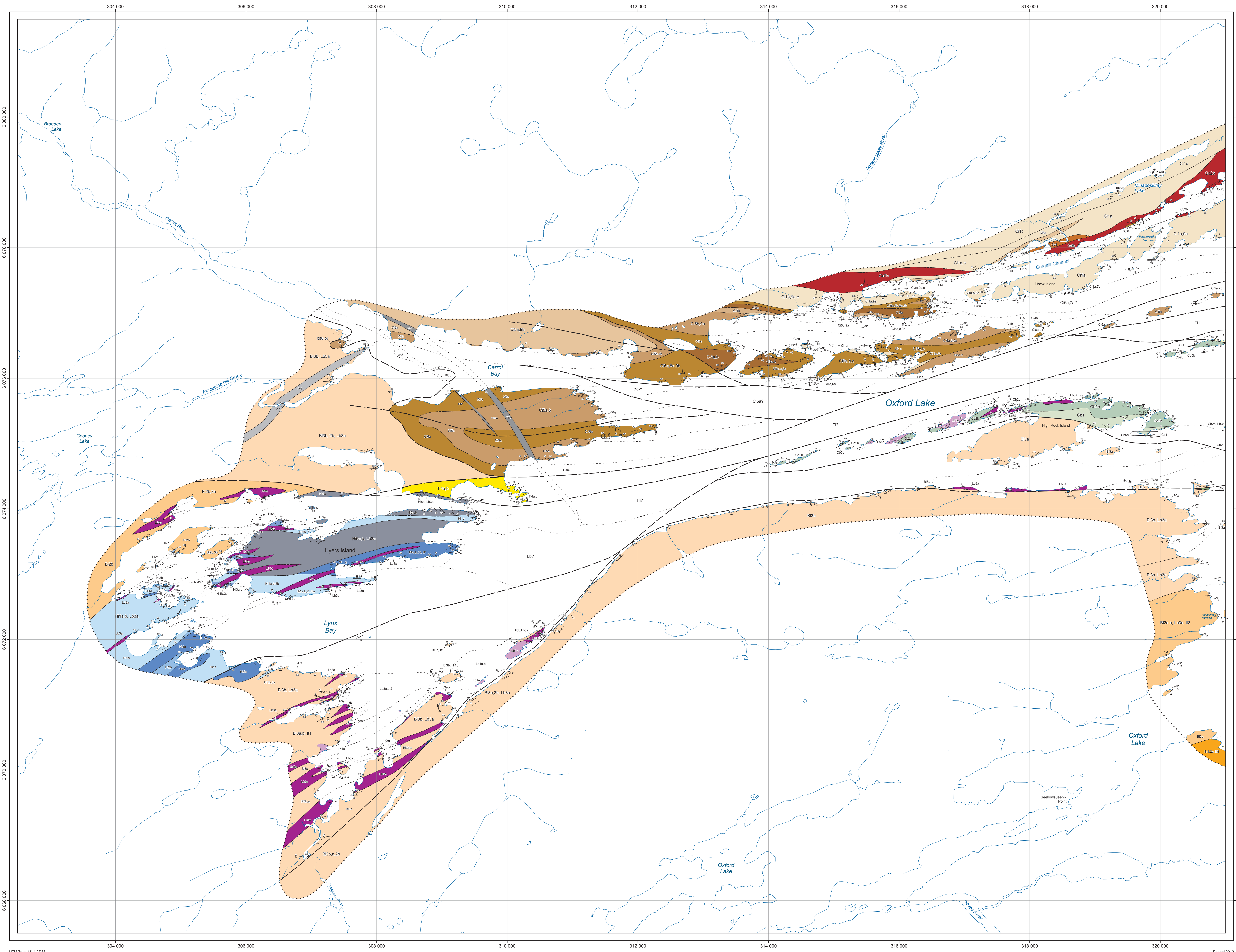




Geology and structure of southwest Oxford Lake (west part), Manitoba (parts of NTS 53L12, 13, 6319, 16)



Legend*

Post-tectonic dikes (Pt)

- Pt2 Diabase (MacKenzie swarm)
- Pt1 Diabase (Molson swarm)

Central panel

Thomsen assemblage (Ti)

- Ti4 Quartz arenite, locally trough crossbedded
 - a) Includes sericite mudstone
 - b) Includes quartz-pebble conglomerate
- Ti3 Greywacke, mudstone, feldspathic; planar bedded
 - a) Monotonous
 - b) Includes pebble conglomerate
- Ti2 Polymictic conglomerate
 - a) Intrabasinal clasts (volcanic and sedimentary)
 - b) Includes high-sphericity granitoid clasts
- Ti1 Aphyric basalt and basaltic andesite flows; pillowed

North panel

Carghill Channel layered intrusion (Cc)

- Cc2 Gabbro
 - a) Melanocratic, equigranular
 - b) Mesocratic, equigranular
 - c) Porphyritic; locally megacrystic
 - d) Includes minor pegmatite
- Cc1 Peridotite (serpentinized)

Carghill assemblage (Ci)

- Ci9 Subvolcanic intrusions; aphanitic groundmass; local amygdalites
 - a) Plagioclase-phyric basalt or andesite
 - b) Plagioclase-pyroxene-phyric basalt or andesite
 - c) Aphyric basalt or andesite
 - d) Aphyric dacite
 - e) Plagioclase-quartz-phyric rhyolite
- Ci8 Gabbro; fine to medium grained
 - a) Homogeneous
 - b) Abundant pyroxene and anorthite inclusions
- Ci7 Iron formation
 - a) Oxide facies
 - b) Silicate facies
- Ci6 Greywacke, mudstone, feldspathic
 - a) Monotonous, planar bedded
 - b) Includes sulphidic mudstone or iron formation
 - c) Includes conglomerate
- Ci5 Volcanic conglomerate
 - a) Polymictic
 - b) Mostly plagioclase-phyric andesite clasts
 - c) Mostly pyroxene-phyric andesite clasts
- Ci4 Intermediate to felsic volcaniclastic rocks
 - a) Dacitic lapilli-tuff and tuff breccia
 - b) Andesitic breccia, tuff breccia and lapilli tuff
 - c) Derived volcanic conglomerate and sandstone
- Ci3 Mafic volcaniclastic rocks
 - a) Mafic tuff-breccia, lapilli tuff
 - b) Pillow-fragment breccia; local peperite
- Ci2 Basaltic andesite and andesite flows; massive to brecciated, locally pillowed
 - a) Plagioclase-phyric
 - b) Plagioclase- and pyroxene-phyric
 - c) Pyroxene-phyric
- Ci1 Basalt and basaltic andesite flows; pillowed, locally massive or brecciated
 - a) Aphyric
 - b) Plagioclase-phyric
 - c) Garnet amphibolite; basalt precursor

South panel

Intratectonic intrusive rocks (It)

- It4 Biotite tonalite; equigranular (Cat Eye Bay pluton; intrudes Cb)
- It3 Synogranite; aplitic to pegmatitic; dikes cut B1, Lb
- It2 Biotite tonalite; plagioclase porphyritic; dikes cut Cb
- It1 Diabase; dikes cut H1, B1, Lb

Lynx Bay intrusive suite (Lb)

- Lb3 Gabbro
 - a) Equigranular
 - b) Plagioclase-porphyritic
- Lb2 Pyroxenite
- Lb1 Peridotite (serpentinized); minor serpentine veins
 - a) Cumulate texture; locally layered
 - b) Brecciated; talc-schist matrix

Bayly Lake intrusive complex (B1)

- B13 Biotite tonalite, granodiorite
 - a) Equigranular
 - b) Porphyritic (quartzplagioclase)
- B12 Biotite-hornblende tonalite
 - a) Equigranular
 - b) Porphyritic
- B11 Orthogneiss; gabbroic to tonalitic

Hyers assemblage (Hi)

- Hi5 Phyltonite; sulphidic; uncertain precursor
 - a) Sericite-chlorite
 - b) Chlorite-sericite
- Hi4 Subvolcanic porphyry intrusions
 - a) Plagioclase-quartz porphyry
 - b) Quartz porphyry
- Hi3 Volcanogenic alteration and mineralization; massive to stringer
 - a) Arkenite; local arkenite-sericite phyltonite
 - b) Pyrite-chalcocopyrite
- Hi2 Volcanic conglomerate; minor volcanic sandstone
 - a) Oligomictic; feldspar-phyric dacite clasts
 - b) Polymictic; intermediate to felsic volcanic clasts
- Hi1 Intermediate to felsic volcaniclastic rocks
 - a) Crystal tuff
 - b) Lapilli tuff, tuff breccia, breccia

Cat Eye Bay assemblage (Cb)

- Cb6 Tactonite; phyltonite; sulphidic
 - a) Amphibole-chlorite + biotite, garnet
 - b) Biotite-muscovite + garnet, cordierite; minor quartz-sericite schist
- Cb5 Iron formation
 - a) Oxide facies
 - b) Sulphide facies
- Cb4 Quartzite; fuchsite
- Cb3 Volcaniclastic rocks
 - a) Felsic tuff; lapilli tuff; locally bedded
 - b) Heterolithic tuff breccia
 - c) Mafic tuff; chert; bedded
- Cb2 Aphyric basalt; pillowed, with minor massive or brecciated flows
 - a) Garnetiferous (Fe-Mg alteration)
 - b) Non-garnetiferous
- Cb1 Komatiite; massive
 - a) Spinifex
 - b) Cumulate

* units without assigned colours do not define unique polygons on this map

Symbols

Planar structure

- Foliation: generation unknown, 1, 2
- Bedding: tops unknown, known, overturned
- Flow contact: tops unknown, known
- C-fabric (dextral sense): generation unknown, 1, 2, 3
- Pillows: tops known, overturned
- Orenulation cleavage: generation 2
- Gneissosity: generation unknown
- Fault: sense unknown, dextral
- Shear zone: sense unknown, dextral, sinistral
- Shear band (sinistral): generation 1
- Shear band (dextral): generation 3
- Shear: generation and sense unknown
- Dike
- Vein

Linear structure

- Stretching lineation: generation unknown, 1, 2
- Mineral lineation
- Fold axis (S asymmetry): generation unknown, 2
- Fold axis (Z asymmetry): generation unknown, 2, 3
- Fold axis (symmetric): generation 1
- Fold axial plane: generation unknown, 1, 2, 3

Geological contacts

- Contact: defined
- Contact: approximate
- Contact: underwater
- Fault or shear zone
- Fold axial trace
- Iron formation
- Limit of mapping

Mineral occurrences

- Cp - chalcopyrite
- Ct - chloritoid
- Gt - garnet
- Hb - hornblende
- Mt - magnetite
- Py - pyrite
- St - serpentine
- Tr - tourmaline

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This map is a provisional summary of work carried out during the summer field season and is produced directly from the geologist's manuscript. It is not to be regarded as a final interpretation of the geology of the area.

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Location map

