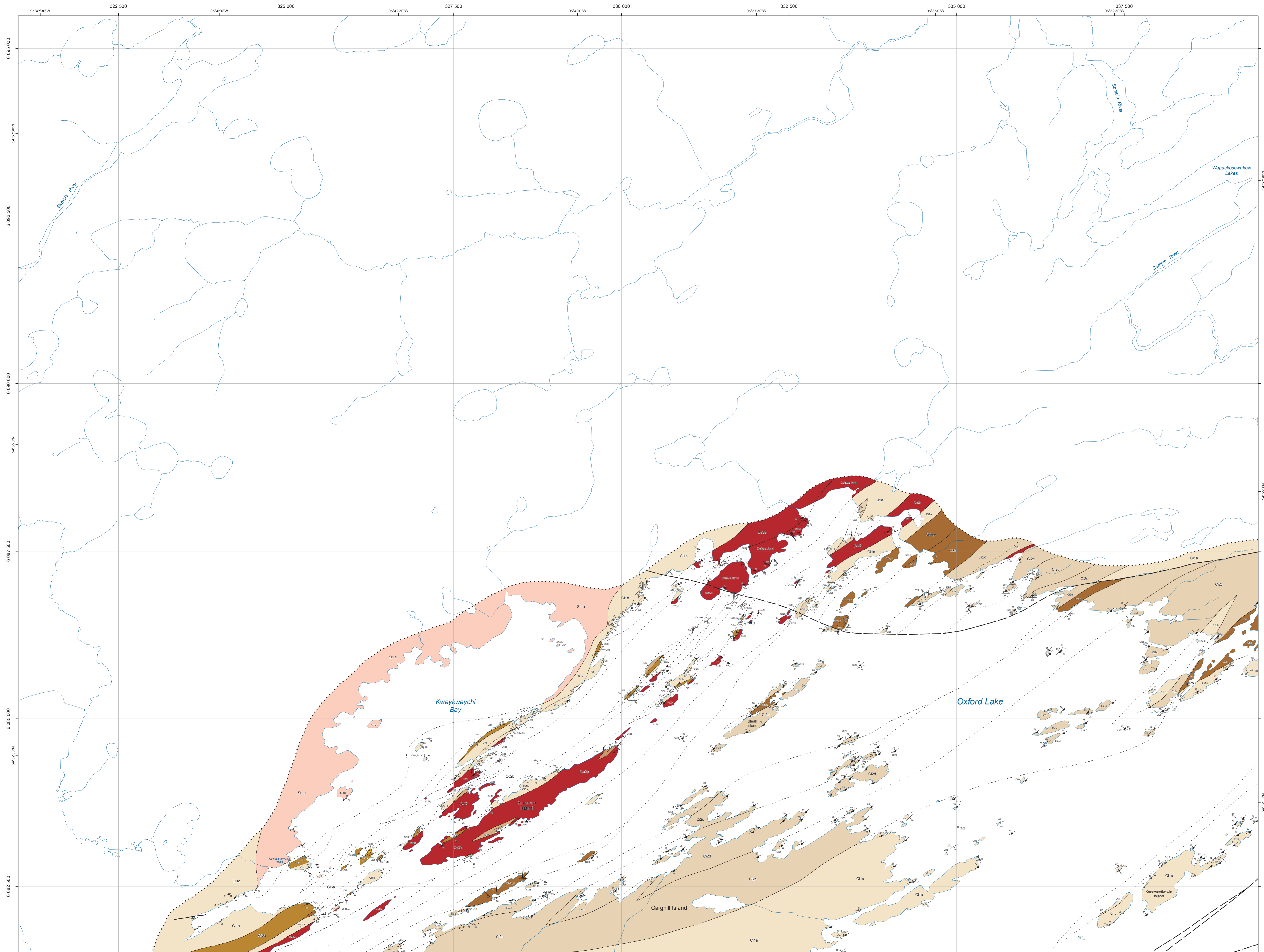


Geology and structure of northeastern Oxford Lake, Manitoba (parts of NTS 53L13, 14): sheet 1



Legend*

- Post-tectonic dikes (Pt)**
- Pt4 Lamprophyre (?)
 - Pt3 Gabbro (unknown swarm)
 - Pt2 Diabase (MacKenzie swarm)
 - Pt1 Diabase (Molson swarm)

- Semple River pluton (Sr)**
- Sr1 Granodiorite, granite
 - a) Homogeneous
 - b) Quartz-phryic
 - c) Feldspar-phryic
 - d) Associated porphyry dikes

- Central panel**
- Thomsen assemblage (Ti)**
- Ti4 Quartz arenite; locally trough crossbedded
 - a) Includes sericitic mudstone
 - b) Includes quartz-pebble conglomerate
 - Ti3 Greywacke, mudstone, feldspathic; planar bedded
 - a) Monotonous
 - b) Includes pebble conglomerate
 - c) Includes minor sulphidic mudstone or iron formation
 - Ti2 Polymictic conglomerate
 - a) Intra-basinal clasts (volcanic and sedimentary)
 - b) Includes high-sphericity granitoid clasts
 - c) Includes interbeds of greywacke and mudstone
 - Ti1 Aphyric basalt and basaltic andesite flows; pillowed

- North panel**
- Carghill Channel layered intrusion (Cc)**
- Cc1 Peridotite (serpentinized)

- Carghill assemblage (Ci)**
- Ci8 Subvolcanic intrusions; aphanitic groundmass; local amygdules
 - a) Plagioclase-phryic basalt or andesite
 - b) Plagioclase-pyroxene-phryic basalt or andesite
 - c) Aphyric basalt or andesite
 - d) Aphyric to sparsely plagioclase-phryic dacite
 - e) Plagioclase-quartz-phryic rhyolite
 - Ci7 Gabbro; fine to medium grained
 - a) Homogeneous
 - b) Abundant perovskite and anorthosite inclusions
 - c) Leucogabbro to quartz diorite
 - d) Layered leucogabbro; local spinifex and amygdules
 - e) Pyroxenite

- Iron formation**
- Ci6 Volcanic conglomerate
 - a) Polymictic
 - b) Mostly plagioclase-phryic andesite clasts
 - c) Mostly pyroxene-phryic andesite clasts
 - Ci4 Intermediate to felsic volcanoclastic rocks
 - a) Dacitic or rhyolitic; lapilli tuff, tuff breccia; may include coherent flows
 - b) Andesitic; breccia, tuff breccia, lapilli tuff
 - c) Derived volcanic conglomerate and sandstone

- Mafic volcanoclastic rocks**
- Ci3 Mafic tuff breccia, lapilli tuff
 - 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- and pyroxene-phryic
 - b) Pyroxene-phryic
 - c) Aphyric
 - d) Volcanic
 - e) Plagioclase-phryic
 - f) Densely plagioclase-phryic shoshonite flows (>50% phenocrysts)

- Basalt and basaltic andesite flows; pillowed, locally massive or brecciated**
- Ci1
 - a) Aphyric
 - b) Plagioclase-phryic
 - c) Garnet amphibolite; basalt precursor

Symbols

- Planar structure**
- Foliation: generation unknown, 1, 2
 - Bedding: tops unknown, known, overturned
 - Flow contact: tops unknown, known, overturned
 - Igneous layering: tops unknown, known, overturned
 - Pillows: tops unknown, known, overturned
 - Crenulation cleavage: generation unknown, 2
 - Spaced cleavage: generation unknown
 - Gneissosity: generation unknown, 1
 - Fault: sense unknown, dextral, sinistral
 - Shear zone: sense unknown, dextral, sinistral
 - Shear band (sinistral): generation unknown
 - Shear band (dextral): generation 3

- Geological contacts**
- Contact: defined
 - Contact: approximate
 - Contact: underwater
 - Fault or shear zone
 - Iron formation
 - Limit of mapping

- South panel**
- Intra-tectonic intrusive rocks (It)**
- It4 Biotite tonalite; equigranular (Cat Eye Bay pluton; intrudes Cb)
 - It3 Syenogranite; aplitic to pegmatitic; dikes cut BI, Lb
 - It2 Biotite tonalite; plagioclase-porphyratic; dikes cut Cb
 - It1 Diabase; dikes cut HI, BI, Lb

- Lynx Bay intrusive suite (Lb)**
- Lb3 Gabbro
 - a) Equigranular
 - b) Plagioclase-porphyratic
 - Lb2 Pyroxenite
 - Lb1 Peridotite (serpentinized); minor serpentine veins
 - a) Cumulate texture; locally layered
 - b) Brecciated; talo-schist matrix

- Bayly Lake intrusive complex (BI)**
- BI3 Biotite tonalite, granodiorite
 - a) Equigranular
 - b) Porphyritic (quartz-plagioclase)
 - BI2 Biotite-hornblende tonalite
 - a) Equigranular
 - b) Porphyritic
 - BI1 Orthogneiss; gabbroic to tonalitic

- Hyers assemblage (Hi)**
- Hi5 Phyllonite; 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) Ankerite; local ankerite-sericite phyllonite
 - b) Pyrite-schalcocopyrite
 - Hi2 Volcanic conglomerate; minor volcanic sandstone
 - a) Oligomictic; feldspar-phryic dacite clasts
 - b) Polymictic; intermediate to felsic volcanic clasts
 - Hi1 Intermediate to felsic volcanoclastic rocks
 - a) Crystal tuff
 - b) Lapilli tuff, tuff breccia, breccia

- Cat Eye Bay assemblage (Cb)**
- Cb6 Iron formation
 - a) Amphibole-chlorite-biotite, garnet
 - b) Biotite-muscovite-garnet, cordierite, minor quartz-sericite schist
 - Cb5 Oxide facies
 - a) Oxide facies
 - b) Sulphide facies
 - Cb4 Quartzite; fuchsitic
 - Cb3 Volcanoclastic rocks
 - a) Felsic tuff; lapilli tuff; locally bedded
 - b) Heterolithic tuff breccia
 - c) Mafic tuff; chert; bedded

- Aphyric basalt; pillowed, with minor massive or brecciated flows**
- Cb2
 - a) Garnetiferous (Fe-Mg alteration)
 - b) Non-garnetiferous
 - Cb1 Komatiite; massive
 - a) Spinifex
 - b) Cumulate

*This legend is revised and expanded from PMAP2012-1 and PMAP2012-2, and is applicable to all Preliminary Maps listed below. Uncoloured units in this legend do not define unique polygons on the 2013 map set.

PMAP2012-1: Geology and structure of southwest Oxford Lake (west part), Manitoba (parts of NTS 53L12, 13, 639, 16)

PMAP2012-2: Geology and structure of southwest Oxford Lake (east part), Manitoba (parts of NTS 53L12, 13)

PMAP2013-1: Geology and structure of northeastern Oxford Lake, Manitoba (parts of 53L13, 14): sheet 1

PMAP2013-2: Geology and structure of northeastern Oxford Lake, Manitoba (parts of 53L13, 14): sheet 2

PMAP2013-3: Geology and structure of northeastern Oxford Lake, Manitoba (parts of 53L13, 14): sheet 3

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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.

SUGGESTED REFERENCE:
Anderson, S.D., Kremer, P.D. and Martins, T. 2013. Geology and structure of northeastern Oxford Lake, Manitoba (parts of NTS 53L13, 14): sheet 1; Manitoba Mineral Resources, Manitoba Geological Survey, Preliminary Map PMAP2013-1, scale 1:20 000.

Location map

