



THE MINERAL VEIN

Official Newsletter of

THE MINERAL SOCIETY OF MANITOBA

JUNE 2017

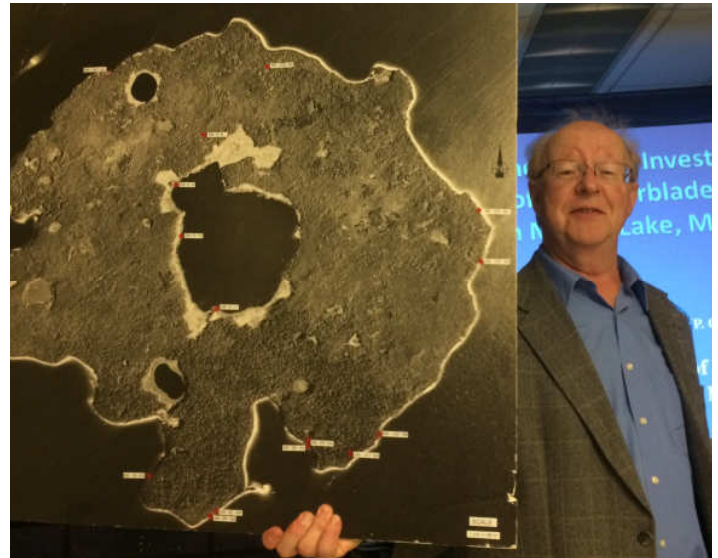
MAY PRESENTATION SUMMARY

By Marjorie Turton

On May 3, 2017, the Mineral Society of Manitoba had the pleasure of listening to one of our favourite presenters. **J.D Bamburak** (P. Geol., retired) gave us a presentation on Shoulderblade Island.

This island is a doughnut shaped island within South Moose Lake. For those who wish to visit it, this island is at Sec. 34, Twp. 55, Rge. 18. It is about 80 Km east of the Pas and northeast of the community of Moose Lake. It got its name when McCabe (1988) used the term "Shoulderblade island structure" to define the roughly circular island. This island has a lake which is clear and deep and is 0.6 Km. in diameter. The island is itself about 2 Km in diameter. It is an island that has a lake in its centre and is itself within a lake. Water level in both lakes is at the same level. It is an island dominated by carbonate breccia. The dolomite is thinly bedded mudstone and wackestone with minor clay and sand beds. Bedding planes strike parallel to the shoreline and beds dip 8 degrees toward the central lake.

Braille and Stern (1956) noted that dolomite mega to microbreccia of the East Arm Formation of the Interlake Group rims the shoreline of Shoulderblade Island. According to Bezys and Bamburak (19194), the breccia usually consists of predominately monomict fine to medium grained dolomite clasts, cemented within a dolomite matrix. The dolomite cast, range in size from 30 - 20 m blocks down to 0.25 - 0.5 cm fragments. Many of the large blocks are actually comprised of breccia fragments.



Jim Bamburak showing a map of Shoulderblade Island

McCabe (1988) suggests that the structure may be a diatreme or impact crater, but he felt that the lack of any igneous admixture favoured the latter. However casts are present in two outcrops in the northern part of the island. The granitoid lithic fragments (1-2% abundance) consist of altered plagioclase grains, sericite and biotite (margarite/phlogopite). These are not normally found in dolomite.

It is undetermined as to whether this island gains its appearance to an impact crater or an ancient volcano. If its appearance is a volcanic activity then perhaps diamond bearing kimberlites are there.

According to Bezys and Bamburak Although an association with mantle-derived magmatism has not been established at Shoulderblade island, isolated centres of phreatomagmatic eruption may nonetheless indicate deep-seated structures necessary for kimberlite ascent.

(Continued on page 3)

THE MINERAL SOCIETY OF MANITOBA

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The Mineral Vein is published monthly from September to June.

Meetings are held on the first Wednesday of each month from September to May inclusive at the Manitoba Museum in room P47 on the Planetarium level. They begin at 7:30 PM and feature announcements, an invited speaker and a raffle. Members are encouraged to bring along any new, interesting specimens, or specimens appropriate to the speaker's topic.

Field Trips take place from May to September to interesting sites in Manitoba or neighbouring provinces and states.

Membership: A single membership is \$15 while a family membership is \$20. Memberships run from October to October.

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UPCOMING EVENTS

Sunday June 4, 2017 : Annual MSM Picnic. Join us for our annual picnic. Hamburgers, hotdogs, pizza and soft drinks will be provided. Please bring a salad or dessert to share. The BBQ will be held at the Quarry Park in Stonewall from 2 to 6 p.m. Meet at the picnic shelter located near the baseball diamond, down the hill from the parking lot. The Interpretive Centre will be open until 5 p.m. and admission to the exhibits is free on Sunday. Please confirm with Jacques via email or by phone if you are planning to attend (204) 467-3282 or j_bourgeois@ducks.ca

September 6, 2017: MSM regular monthly meeting begins at 7:30 p.m. at the Manitoba Museum. Our guest speaker this month will be TBA

October 4, 2017: MSM regular monthly meeting and AGM begins at 7:30 p.m. at the Manitoba Museum. This is our **Annual General Meeting** and is followed by a **Show and Tell**. Please make sure to bring some of the great specimens collected this summer.



Founded in 1971, the Mineral Society of Manitoba is dedicated to promoting the study of minerals, rocks and fossils for their scientific and recreational value.

The Mineral Society of Manitoba hosts monthly meetings covering a variety of mineral related topics. In addition, the Mineral Society organizes summer field trips to collecting localities, and hosts educational exhibits about minerals and fossils.

MAY PRESENTATION SUMMARY (CONT.)

These carbonatite intrusions are not known to be related to kimberlites. However, because they indicate crustal-scale ascent of small volumes of mantle-derived magma, the carbonatite occurrences may be spatially associated with kimberlite.

Among the indicator minerals are garnets of G10 composition (low Ca, high Cr; potentially derived from diamond-forming mantle regions). Unusual in dolomite Jasper was found at site 3-9 on northwest shore of the central lake.

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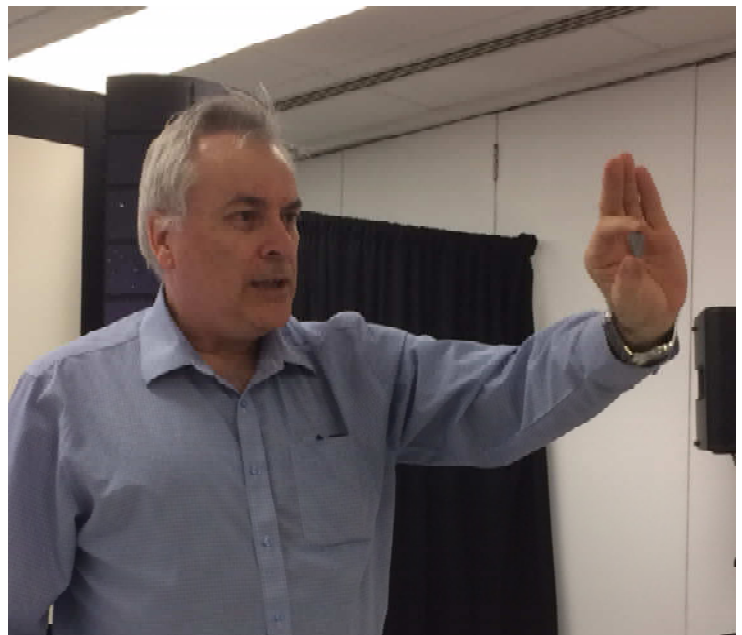
Sampling of surficial sediments in parts of Manitoba has revealed a wide range of Kimberlite indicator minerals suites, with promising results in the Hudson Bay Lowlands and the northern Superior province. The crusted architecture of Manitoba is fundamentally similar to diamond bearing regions throughout Canada, west, east and north of Manitoba. Among the indicator minerals are garnets of G10 composition (low Ca, high Cr; potentially derived from diamond-forming mantle regions). KIM sampling programs are currently underway in several parts of the province. Some of these garnets were found in Shoulderblade Islands. Further lab preparation of thin sections by Rock Lab Staff in 1994 by Joanne Schwetz showed presence of anomalous mica. These appeared to have been melted instead of having flat structures.

Work by MGS in 1950 (Baillie, 1951) and McCabe (1988) appears to have resulted in the staking of Pemmican island by W. Bruce Dunlop Limited in 1993. After sinking about \$10,000, no work was

done so the claim was cancelled. More lately, in 2009, a ground magnetic survey was carried out.

Goldak Airborne Surveys for Seagrove Capital Corporation surveyed with a fixed wing gradiometer in 2010. Being so close to the nickel belt Seagrove Capital Corp. undertook a two-hole drill program focusing on assessing the niobium potential in diatreme-type rocks, as suggested by the geophysical survey results. However the cause for the geophysical anomalies has yet to be determined.

Total expenditures for geophysical surveys and two drill holes carried out from 2009 to 2013 exceeded \$0.5 million dollars. The mining claims now have sufficient work filed by GEM Oil Inc. which will keep them in good standing until 2020.



Mike Beauregard with an impromptu talk on meteorites.

We were lucky to have another impromptu guest speaker that night as some compatibility issues delayed Jim's talk by about 20 minutes. It didn't take much to convince Mike Beauregard, visiting from Nunavut to talk about his beautiful meteorite collection. He explained the differences between the various types of meteorites, their possible origins and formation and he produced quite the display for all of us to admire. Thanks for jumping in and provide this impromptu talk! It was very educational.

OAK HAMMOK MARSH MINERALS SHOW

The annual Archaeology, Rocks and Minerals Show held at Oak Hammock Marsh on May 27 and 28 was a fun event with a good attendance on the Saturday (over 100 visitors) but somewhat low visitation on the Sunday (only 53 visitors) due to rainy and cold weather. The Mineral Society of Manitoba was involved with the Gold Panning as well as with helping with identifying rocks and looking after the Fluorescent Minerals and Copper Minerals displays. There were also displays and presentations by the Speleological Society of Manitoba, Stonewall Quarry Park and the Canadian Fossil Discovery Centre in Morden. Jerry Ross and Ken Fumerton also had their usual tables where they were selling minerals.



New this year was the inclusion of school groups on Thursday May 25 and Monday May 29 in celebration of Provincial Mining Week. During those two days, volunteers from the Mineral Society as well as from Quarry Park managed to offer their expertise to approximately 200 students with gold panning, glue cards and fossil making.

A big thanks to the volunteers (Mike Beauregard, Jack Bauer, Marion Foster, Chris Lammers, Josh Myers, Bill and Yvonne Searle and Marjorie Turton) who helped out before, during and after this event!

FIELD TRIP 2017

The executive has worked hard to come up with some exciting field trips for this summer. Here is the list and the contact information of the organisers if you would like to join.

Gillis Quarry (Tuesday, June 6)

For Ordovician fossils such as sunflower corals, brachiopods, gastropods, cephalopods and the elusive trilobites. Fossils of snails and nautiloids can sometimes reach giant proportions.

Contact: Jack Bauer (204) 632-6934

Souris Gravel Pit (Saturday, July 8)

Regarded as one of North America's largest deposits of semi-precious gems, this twelve acre glacial deposit is known for **agates**, but the site has also yielded epidote, jasper, petrified wood and other varieties of stones.

Contact: Marion Foster (204) 775-0625

Morden Miami Area (Saturday July 22)

Famous for its large Cretaceous fossils (mausosaurs, plesiosaurs, etc) and selenite crystals, the Morden and Miami area is a great trip to explore the western shore of lake Agassiz and the base of the Manitoba escarpment. This trip will include a visit to the Canadian Fossil Discovery Centre.

Contact: Jacques Bourgeois (204) 467-3282

Winnipeg Floodway (First week in August)

This signature trip will be spread out over the course of 10 days. We will be looking for Selenite rosettes. This one is still in the planning stage as it requires a lot of work. A large excavation site will offer us a chance to search the clay for these elusive crystals.

Contact: Jack Bauer (204) 632-6934

Interlake quarries tour (August 26)

This trip will take participants on a tour of the Interlake quarries (Lily Bay, The Narrows, etc.) in search of Devonian fossils. At this time, we are still awaiting confirmation from our tour leader.

Contact: Marion Foster (204) 775-0625