

## **Report of Activities 2003**

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### **ERRATA:**

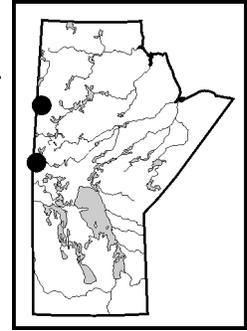
The publisher/department name in the bibliographic reference cited immediately below the title of each GS report should read

**Manitoba Industry, Economic Development and Mines** instead of **Manitoba Industry, Trade and Mines**.

## GS-32 Manitoba's Precambrian Drillcore Libraries Program

by D.E. Prouse

Prouse, D.E. 2003: Manitoba's Precambrian Drillcore Libraries Program; *in* Report of Activities 2003, Manitoba Industry, Trade and Mines, Manitoba Geological Survey, p. 247–249.



### Summary

Manitoba's Mineral Resources Division has been storing Precambrian drillcore, obtained primarily from exploration drilling, since the early 1970s. Since that time, the Manitoba government has created a substantial repository of drillcore at five locations throughout the province. Throughout most of the 1990s, the core libraries were run on a care-and-maintenance basis. Beginning in 2001, funding became available to organize drillcore additions from recent years, update core library inventories and conduct some core retrieval projects.

In 2003, work continued on updating drillcore inventories at all the northern facilities, especially for the Centennial site near Flin Flon. The retrieval of surface-exploration drillholes for the Fox mine deposit was completed.

### Introduction

The Manitoba Mineral Resources Division considers the archiving of exploration drillcore to be a valuable data source for use by mineral exploration companies and for research. For this reason, the province has retrieved and stored Precambrian drillcore since the early 1970s. The construction of core-storage facilities at The Pas (1972), Thompson (1973) and Lynn Lake (1974) provided space that enabled a concerted effort toward the establishment of a comprehensive drillcore collection. The acquisition of storage space in Winnipeg in 1980 for drillcore from southeastern Manitoba meant that there was a storage facility for drillcore collected and/or donated from all of Manitoba's major mining districts.

The Canada-Manitoba Mineral Development Agreement (MDA), which ran from 1984 to 1989, provided funding for activities that were key to strengthening Manitoba's mineral industry, including Manitoba's Drillcore Libraries Program. During the term of the agreement, \$630,000 were spent on capital and operating costs, allowing for expansion of all northern core-storage facilities and proper documentation and organization of inventories. Once the expansion projects were completed, the four libraries had a combined storage capacity of approximately 330 000 m of core. Nearly 80 000 m of core were collected and added to the libraries, and about 58 000 m were discarded during the period of the MDA. The libraries contained nearly 180 000 m of core, representing 54% of total capacity, at the end of MDA in 1989 (Prouse, 1989).

In 1993, the establishment of a Manitoba Geological Survey (formerly Manitoba Geological Services) expediting base at the former Centennial minesite near Flin Flon provided secure outside storage for drillcore from the Flin Flon area. Since that time, thousands of metres of drillcore have been donated for storage by various companies. In 2001, the drillcore holdings at the Centennial site were reorganized and inventory work commenced. This inventory work is still in progress.

In July 2002, it was estimated that the Department of Industry, Trade and Mines (ITM) Precambrian drillcore libraries contained approximately 252 000 m of core. This figure included about 20 000 m of Precambrian core stored at the department's Midland rock lab in Winnipeg. This figure does not include the substantial holdings at the Centennial site or recent additions to the Thompson and Lynn Lake libraries.

### 2003 field season

At the Centennial storage site near Flin Flon, drillcore inventory organization and updating work continued. All necessary box relabelling was also completed. Compiling of drill logs and location maps for the core stored at Centennial was initiated, but a considerable amount of information remains to be collected. The drillhole that intersected kimberlite at the south end of Wekusko Lake, during a 1983 drill program by Falconbridge, was finally located and retrieved for safe storage.

In Thompson, 42 piles of drillcore boxes stored in the compound yard were inventoried and organized. The ITM expediting base and core library property was expanded this year with the acquisition of some adjoining property. A contractor was hired to clear and level the new property and the entire expanded compound area was enclosed with fencing and gates. This expanded compound area will provide increased outside core-storage capacity for drillcore from the Thompson area.

At the Lynn Lake core library, 250 boxes of surface drillholes from Fox mine exploration drilling were retrieved and stored at the Eldon Lake facility. In the fall of 2002, a contractor retrieved over 600 boxes of Fox mine surface drilling and delivered them to the core library. This past summer, work began on the necessary reboxing and labelling of the Fox mine drillcore. The Manitoba Geological Survey now has an excellent collection of drillhole data representing the Fox mine stratigraphy. Reorganizing of inside drillcore inventory was also carried out as a result of core-rack maintenance work conducted in 2002.

In The Pas, minor drillcore inventory and drillhole reduction work was completed. A local painting contractor was hired to paint all exterior roof soffits, doors and window mouldings that were in need of restoration.

### **How to use Manitoba's core libraries**

All five core libraries have lighted, heated inspection rooms with benches, and most have core splitters. **Since the core libraries are not permanently manned, all enquiries and requests for access to any of the northern libraries must be made to**

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Access to view core at the Brady Road facility in Winnipeg should be arranged with Jim Payne, Assessment Geologist  
Mines Branch  
Manitoba Industry, Trade and Mines  
1395 Ellice Avenue, Suite 360  
Winnipeg, Manitoba R3G 3P2  
Phone: (204) 945-6535  
Email: jpayne@gov.mb.ca

Once permission has been granted to view nonconfidential core in a specific library, arrangements will be made for the user to obtain keys to that facility. In the case of Thompson and Flin Flon, keys can be obtained at the local ITM offices. Keys for access to the Lynn Lake library will only be issued from the Resident Geologist in Flin Flon. For access to the core library in The Pas, keys have been made available at the local office of Manitoba Conservation. Prior arrangements must, however, be made with the Resident Geologist in Flin Flon before the Conservation Office in The Pas can release the keys to the user.

The master file for drillhole logs, collar locations and assays for nonconfidential drillcore holdings in The Pas, Lynn Lake and Flin Flon libraries is available for inspection at the ITM office in Flin Flon. The corresponding files for core stored in the Thompson and Winnipeg libraries are available for viewing at the ITM office in those locations.

### **Viewing, storage and sampling policy**

Access to confidential drillcore is allowed only with written permission from the company that holds the property. This information must be presented to the Resident Geologist in Flin Flon or the Assessment Geologist in Winnipeg prior to inspection (depending on the core library in question).

**Companies or individuals wishing to donate and place core in any one of Manitoba's northern drillcore libraries must first obtain permission from the Resident Geologist in Flin Flon.** In the case of the core library in Winnipeg, permission must be granted from the Assessment Geologist. Core boxes placed in a library will be managed by ITM personnel. Removal of core boxes from the library premises is not permitted. Users wishing to examine core must be prepared to physically handle the core boxes and return them to their original location in the storage racks. Permission is required to sample core contained in any of the province's core libraries. Assay results and pulps from these samples must be forwarded if requested. Quartering of previously sampled drillcore is not permitted.

### **Economic considerations**

Diamond drilling of a mineral prospect is the most important and costly phase in the evaluation of any mining property. The preservation of diamond-drill core can help reduce costs of re-drilling these prospects as exploration techniques and geological concepts evolve. It also serves as a valuable asset to researchers, especially in areas of extensive overburden or, as in Manitoba's case, where Paleozoic cover rocks overlie Precambrian basement rocks. For these reasons, Manitoba's Mineral Resources Division considers the archiving of exploration drillcore to be a valuable data source.

### **Acknowledgments**

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### **References**

Prouse, D.E. 1989: Manitoba's drill core libraries system; Manitoba Energy and Mines, Minerals Division, Report OF89-4, 44 p.