#### **GS-25** Manitoba's Precambrian Drillcore Libraries Program

by D.E. Prouse

Prouse, D.E. 2006: Manitoba's Precambrian Drillcore Libraries Program; in Report of Activities 2006, Manitoba Science, Technology, Energy and Mines, Manitoba Geological Survey, p. 253-254.

# **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. Funding to help build a significant inventory of drillcore to represent crucial stratigraphy within Manitoba's principal mining districts has been sporadic since the collection was started. Since 2001, funding has been made available to organize drillcore additions from recent years, update core library inventories and conduct some core-retrieval projects.

### 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 researchers. For this reason, the province has retrieved and stored Precambrian drillcore since the early 1970s. The construction of core-storage facilities at The Pas, Thompson and Lynn Lake in the early 1970s provided the necessary space required for the establishment of a comprehensive drillcore collection. A storage facility was acquired in Winnipeg in 1980 to store drillcore from southeastern Manitoba. This acquisition meant that there was now a storage facility for drillcore collected from all of Manitoba's major mining districts.

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 the Drillcore Libraries Program. During the term of the agreement, significant capital and operating funds allowed 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. The libraries contained nearly 180 000 m of core at the end of the MDA in 1989 (Prouse, 1989).

In 1993, the Manitoba Geological Survey established an expediting base at the former Centennial minesite near Flin Flon. The site also provides secure outside storage for drillcore obtained from company exploration programs conducted in the Flin Flon area. The Centennial storage-compound holdings were reorganized and inventoried in 2001.

It is estimated that the Manitoba Geological Survey's Precambrian drillcore libraries currently contain approximately 260 000 m of core. This figure includes about 20 000 m of Precambrian core stored at the department's

Midland rock lab in Winnipeg. The estimate does not include

core stored at the Centennial site or recent additions to Thompson and Lynn Lake.



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

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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. Keys for access to the Centennial compound near Flin Flon can be obtained from the local Manitoba Geological Survey office. Access to the Lynn Lake, Thompson and The Pas libraries must be arranged with the Resident Geologist in Flin Flon.

Companies or individuals wishing to donate and place core in any 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 Manitoba Science, Technology, Energy and Mines 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 storage location. 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 except in rare circumstances.

## **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 redrilling 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.

## References

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