

## INVENTORY OF AGGREGATE RESOURCES

by

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### INTRODUCTION

The 1980 sampling program marked the end of this reconnaissance level program which was begun in 1975. As a result of the completion of the sampling within the 6 km wide corridor study area, information on the aggregate resources is now available along all existing and proposed transportation routes in Newfoundland and Labrador (Maps 1 and 2).

The 1981 program was mainly office oriented, centered around the compilation of maps and sample data in a reproducible format, and the development of a computer package designed for easy search and retrieval of aggregate resource data. Minor field work was carried out in areas not previously sampled, and in areas where minor infilling was needed. Detailed aggregate assessments were carried out in two areas of the province where problems dealing with aggregate resources have arisen.

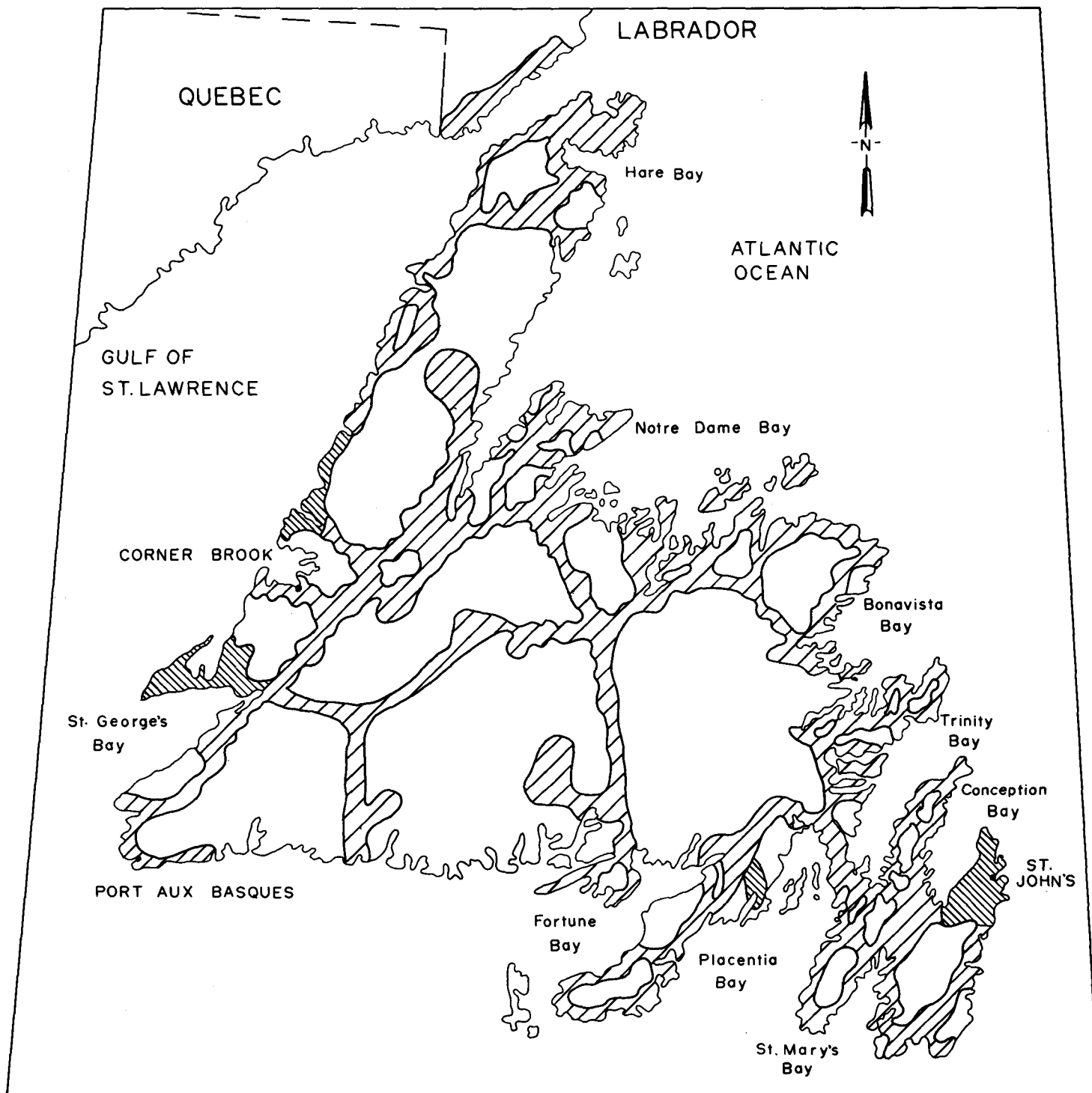
### OFFICE PROGRAM

The majority of the work carried out in 1981 dealt with the compilation of the five different map series which are to be produced, plus associated reports and data compilation. The two sets of 1:50,000 scale maps consist of approximately 180 maps each. The first series of maps depicting sample localities and zones of aggregate potential are nearing completion. It is hoped that in the future, as time permits, we will be able to add quality and quantity information for each particular deposit indicated on these maps. The second series, the landform classification series, is about 60% complete, and it is hoped to have this series completed in 1982.

The 1:250,000 map series consists of three sets of approximately 30 maps each. The first series depicts sample locations. On this map series a summary of the sample locations are plotted by sample type. The second series is the zones of aggregate potential. These maps give a summary of the zones of aggregate potential as depicted on the 1:50,000 aggregate zones potential maps. The two 1:250,000 map series are presently being combined, and will be released as coloured maps plus report. These maps and reports will be released periodically as completed during 1982. The third 1:250,000 map series is the Geology series which gives a summary of the bedrock geology and will include marginal notes emphasizing the geotechnical properties of the rock type and their quarriability. It is hoped to release this map series by early 1982. A more detailed description of the different map series is being produced; the Information Report - Aggregate Resource Inventory of Newfoundland and Labrador will be released in early 1982.

Another major component in the office program has been the development and implementation of a computer package to handle the data that has been generated over the term of the project. The basis for the system is the SIR (Scientific Information and Retrieval) package. When the system is fully implemented, it will allow the easy search and retrieval of data on file, and to report this data in a format that is easily understood by the user. A more detailed description of the computer package will be included in the Information Report. The system is now undergoing final testing and implementation.




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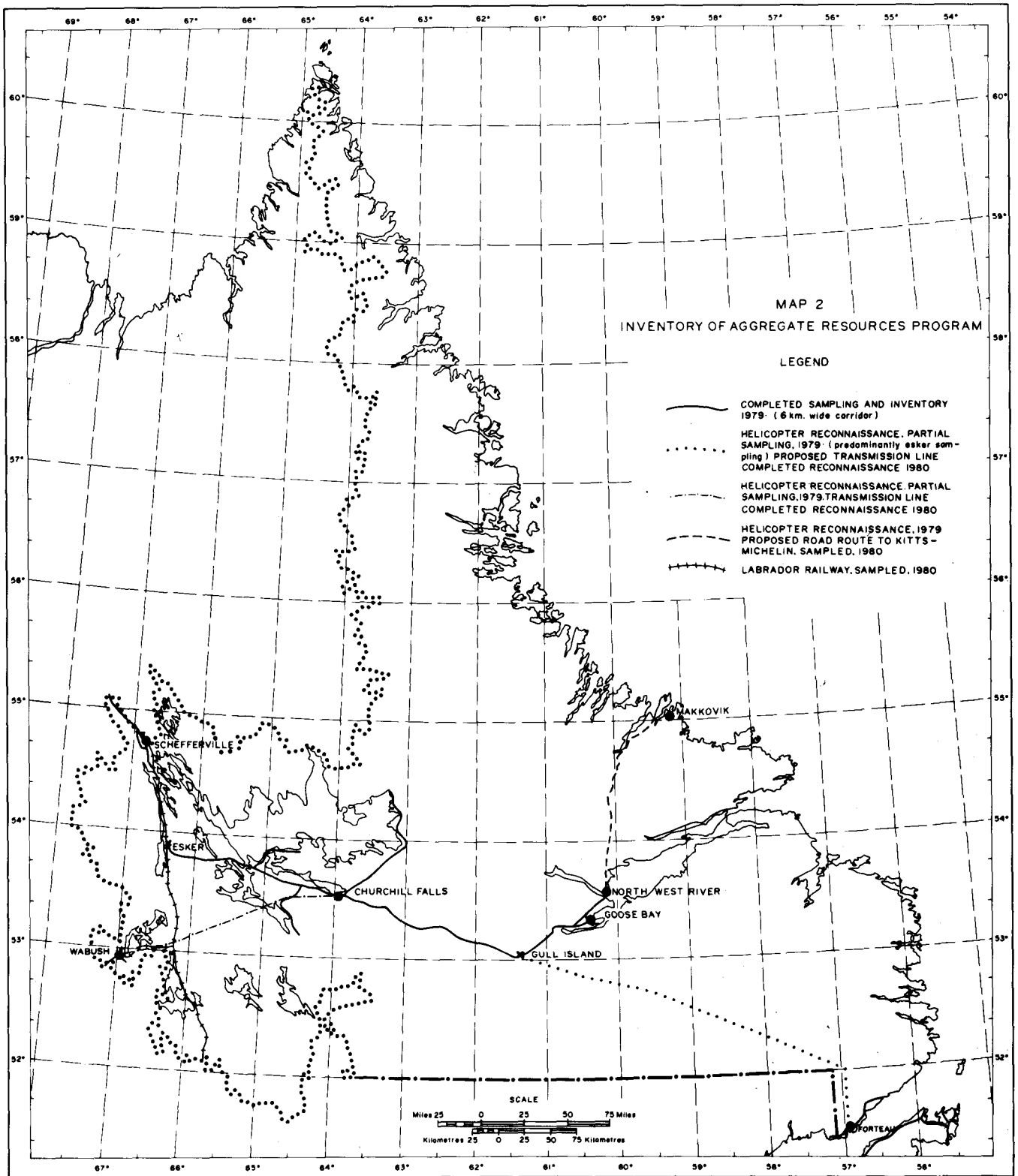


MAP 1

Inventory of Aggregate Resources Program  
 Island of Newfoundland  
 CANADA/NEWFOUNDLAND MINERAL DEVELOPMENT SUBSIDIARY AGREEMENT  
 SUBPROJECT 2.2

Legend

-  Completed 6 km wide corridor sampling parallel to existing roads and highways, and selected development areas.
-  1981 fieldwork including detailed assessments in previously sampled areas.
-  Unsurveyed areas, including Terra Nova National Park.



### FIELD PROGRAM

The 1981 field program was limited to infilling areas not previously mapped and rechecking some problem areas. Complete sampling was carried out in the Monkstown area of the Burin Peninsula and some infilling was carried out in the Stephenville - Port au Port area. Due to aggregate resource related problems, a detailed aggregate resource assessment was carried out within the Gros Morne National Park and a similar program is underway for the St. John's Urban Region plan area.

### LABORATORY PROGRAM

The main thrust of the Laboratory program is the completion of analyses of all samples from previous years and to analyse the approximately 350 samples collected during the 1981 field season. In addition, pipette analyses are being conducted as time permits on all silt/clay samples collected during the past five years. Petrographic analysis on all pebble samples collected during the 1981 field season were completed. For a complete description of the analytical techniques used to analyse the aggregate samples in the field, in the laboratory and how the petrographic analysis was conducted, refer to Report 81-1 (Ricketts, *et al.*, 1981).

### FUTURE PLANS

It is expected that in areas of high demand and/or low supply, a more intense investigation and detailed sampling program (Detailed Aggregate Assessment) will be undertaken. In areas where no additional sources of granular materials are located, a closer look

will have to be taken at tills and other nongranular materials to see if they can be beneficiated to an acceptable level for aggregate usage. In the future, a more intensive monitoring program will have to be undertaken to monitor existing and potential land use conflicts to ensure that aggregate materials do not become sterilized, and that they remain available to supply domestic and industrial constructional needs.

### ACKNOWLEDGEMENTS

We wish to thank Martin Ricketts (geologist) Dan Bragg (lithological investigator), Bev Wareham (laboratory technician), Maurice Shephard (systems and procedures analyst), Tod Martin (field assistant) and all the other people who contributed to the project over the past five years.

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