

A GEOCHEMICAL RECONNAISSANCE SURVEY
OF THE CODROY-BAY ST. GEORGE CARBONIFEROUS BASIN*

J.G. McArthur and P.H. Davenport

Both stream and lake sediment samples were collected to evaluate the mineral potential of the Carboniferous rocks between St. George's and Codroy in southwestern Newfoundland. Figure 1 shows the location of the Codroy-Bay St. George Basin. The area shown on Figure 2 (with the exception of the Stephenville-Port au Port Peninsula area which was sampled in 1973) was sampled and includes all or parts of the following N.T.S. sheets: 12B/1-Little Friars Cove, 12B/2-St. Fintan's, 12B/3-Dashwoods Pond, 12B/7-Flat Bay, 12B/8-Main Gut, 110/11-Port aux Basques, 110/14-Codroy, and 110/15-Grandy's Lake.

Lake Sediments

The distribution of lakes in this basin is very patchy such that the desired sampling density of one sample per square mile could not be achieved in many parts of the area. Despite the poor distribution of lakes, approximately 350 lakes were sampled. The samples were collected from the central basins of lakes where the sediment is organic-rich. The samples were dried, sieved to minus 80 mesh ($<177\mu$) and are being analyzed for Cu, Pb, Zn, Fe, Mn, Ba, Sr and U. The organic content was estimated from the loss on ignition.

* Project 6-5, Canada-Newfoundland Mineral Exploration and Evaluation Program.

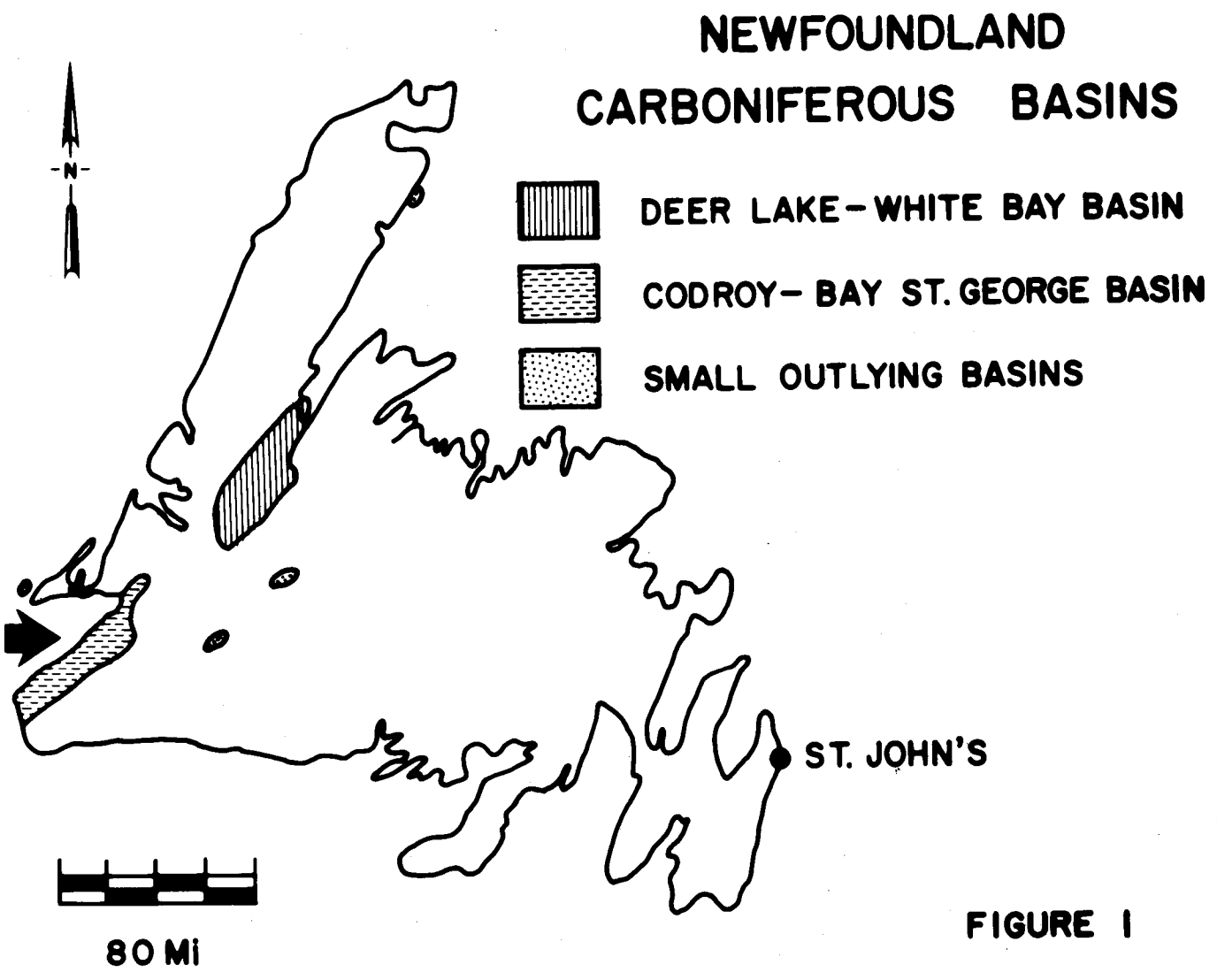
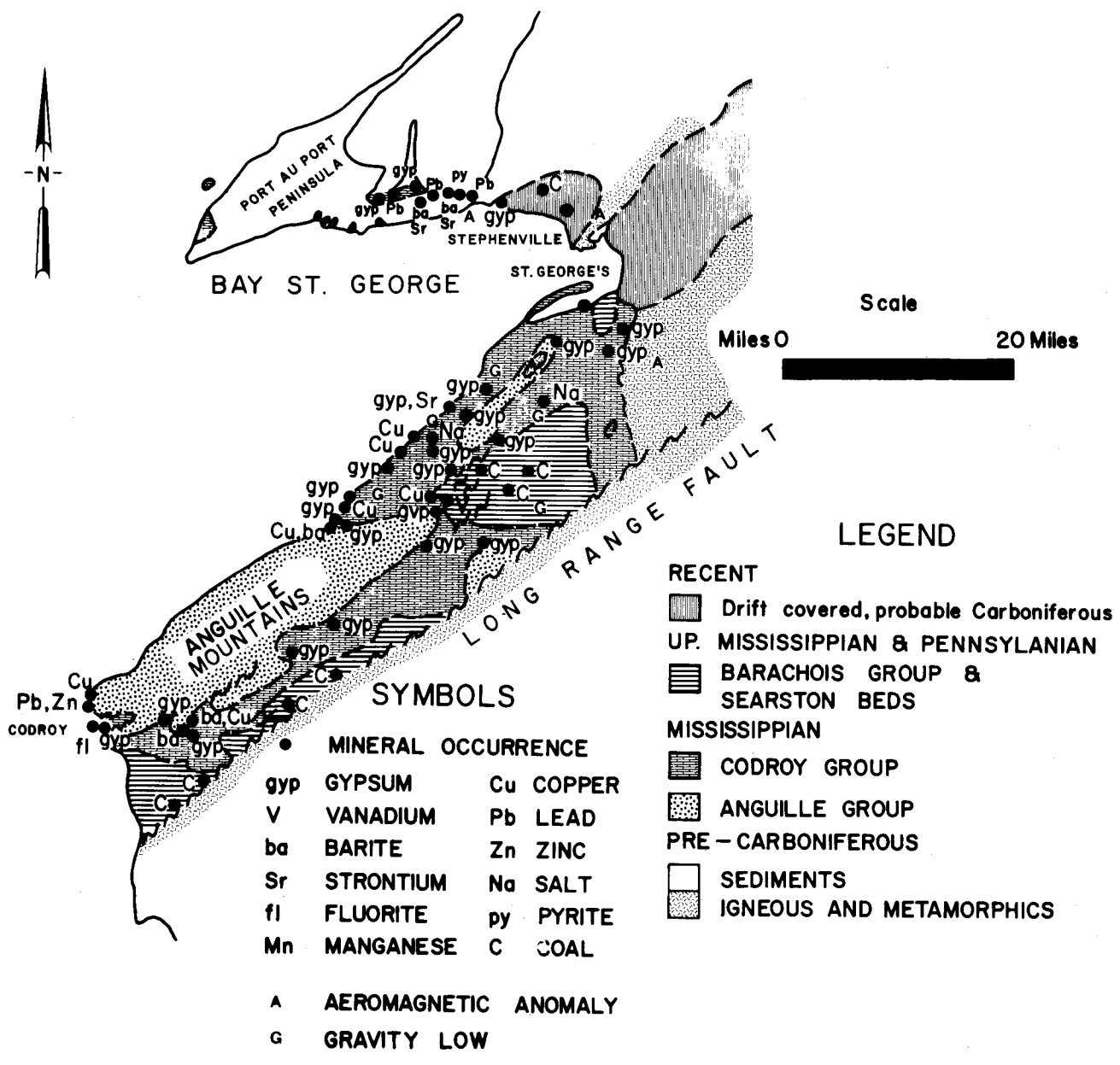


FIGURE 1



MINERAL OCCURRENCES OF CODROY-BAY ST. GEORGE CARBONIFEROUS BASIN
 FIGURE 2

Stream Sediments

To obtain a more uniform sample distribution, 2410 stream sediment samples were collected at 1000 foot intervals along the streams and rivers. The samples were collected from the actively flowing parts of the streams and organic-rich samples were avoided. The samples were dried and sieved in the same manner as the lake sediments. The streams over all of the Mississippian Codroy Group and parts of the Anguille Group were sampled and are being analyzed for Cu, Pb, Zn, Fe, Mn, Ba, Sr and loss on ignition. Also, the drainage over the coal-bearing Barachois Group (Pennsylvanian) in the western part of the St. George's Coalfield was sampled and is being analyzed for Cu, Pb, Zn, Fe, Mn, U and loss on ignition.

Molybdenite Float

A small piece of molybdenite-rich schistose float was found by one of the stream sampling crews on the Little Codroy River about 4000 feet downstream from Little Codroy Pond (U.T.M. coordinates 340600 east, 5299950 north). One assay from a portion of the sample graded 1.00% Mo. No attempt has been made to locate the source of the float; however, the schistose host rock suggests the Long Range Mountains as the source area.

An open file release of the preliminary results will be made early in 1975. This will be followed by a published report of the results and interpretation later in the year.