



MAP 2011-34
MAKKOVIK
NEWFOUNDLAND & LABRADOR
1 0.5 0 1 2 3 4
Kilometres



GRANULAR-AGGREGATE RESOURCES OF THE MAKKOVIK MAP AREA (NTS 130/03)

MAP 2011-34

LEGEND

- Sample types (Based on laboratory sieve analysis - see Table 1)
- Symbol** **Definition**
- Commonly gravel or sand, having silt-clay content < 5 percent. Deposits are commonly graded and stratified.
 - Commonly silty, poorly graded and of variable grain size, having a silt-clay content > 5 and < 15 percent and stone size exceeding allowable limits for most geotechnical purposes (except subgrade uses) without processing (i.e., washing, screening or crushing).
 - Commonly silty silt or clay samples, having silt-clay content > 15 percent.
 - Observation site, no sample collected.
- Multiple samples taken from the same site on different dates are listed in order from oldest to youngest. Multiple samples taken at the same site in the same year are listed in order, from the top of the exposure to bottom.

Note
This is a composite legend for all granular-aggregate resource maps. All aggregate zones, study areas, and sample types shown in the legend may not appear on this map. Aggregate zone classification is based on aerial interpretation, field investigation and sieve analysis. Areas outside the colored zones have no known potential for granular materials, however, they may, rock rubble suitable for fill, and surface suitable for aggregate may be present. Location of these areas on the map do not constitute current or conflicting land uses, nor do they guarantee either access to, or the quality of, the material located within these zones.

ZONES OF AGGREGATE POTENTIAL

- Contains granular materials; probability of locating economic deposits is moderate to high.
- Contains fine to medium grained granular materials; also includes areas where extent of thicker deposits could not be determined by field investigation; probability of locating economic deposits is moderate to low.
- May contain granular materials but deposits are not substantiated by field investigation; probability of locating economic deposits is moderate to low.
- Material of granular composition (e.g., sandy silt and siltstone) that generally contains up to 8 percent silt-clay, but could be improved for higher grade uses by washing or screening.
- Contains sand-size granular materials; high potential for economic exploitation of sand; low to moderate potential for coarser granular materials.
- Extends sinuous ridges of granular materials; moderate to high potential for economic exploitation.
- Study area within the dashed outline.

In addition to this map, data on granular-aggregate distribution is available in the Geoscience Atlas of Newfoundland and Labrador (http://www.gov.nl.ca/nl/geoscience/). This database provides aggregate maps and sample data. The database provides information on more than 13,000 samples collected from 220,000 contour map areas in Newfoundland and Labrador.

This map was originally produced as a series of baseline maps from airphoto interpretation and field work (Environmental Geology Section, 1983).

The location of roads added to topographic map bases are approximate.

Elevation in feet above mean sea level. Contour interval 50 feet.

Digital cartography by T.J. Sakers, Geological Survey, Department of Natural Resources, Government of Newfoundland and Labrador.

Copies of this map may be obtained from the Geoscience Publication and Information Section, Geological Survey, Department of Natural Resources, Government of Newfoundland and Labrador, P.O. Box 8700, St. John's, NL, Canada, A1B 4X6.

This map is subject to review and revision. Comments to the author concerning errors or omissions are invited.

Base from maps published by Surveys and Mapping Branch, Department of Natural Resources, Ottawa, Canada.

OPEN FILE 130G03/03
This map includes Map 89-242 and Map 88-243, Open File LAB907
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Department <http://www.nrc.gov.nl.ca/nl/>
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REFERENCES
Environmental Geology Section
1983. 1:50,000 scale aggregate resource maps outlining zones of aggregate potential within a four-mile corridor in Labrador. Newfoundland Department of Mines and Energy, Mineral Development Division, Map 88-242 and Map 89-243. Open File LAB907.
Kilby, F.T., Suckale, R.J., and Vandeweyer, D.G.
1983. Inventory of aggregate resources in Newfoundland and Labrador: information report and index maps. Newfoundland Department of Mines and Energy, Mineral Development Division, Report 83-2, 36 pages.

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GRAIN-SIZE ANALYSES

Grain-size results from the 0.3, 0.2, 0.15 and 0.1 mm mesh sieves were obtained at the sample site location by sieving between 10 and 15 kg of material. A 500 to 1000 gm subsample of the < 0.1 mm material (sand-silt-clay) was retained for laboratory sieve analysis. Laboratory sieve analyses included the use of screen sieves with mesh openings of 4, 2, 1, 0.75, 0.25, 0.150, 0.075 and the 0.075 mm pan fraction. Samples were wet and/or dry sieved (Kilby et al., 1983) depending on silt-clay content and consolidation of particles.

Table 1: Exposure thickness (E_{ex}), estimated deposit thickness (D_{est}), poroglyphic number (PN), grain-size percentages (based on percent retained on the 0.3 mm sieve to the 0.063 mm mesh sieves) and gravel (G_v), sand and silt-clay (S_v, C_v) content of sample material collected in NTS area 130/03

Sample	Exp. Thick (m)	PN	E _{ex}	D _{est}	Percent retained through sieve opening (mm)							G _v	S _v	C _v			
					4	2	1	0.75	0.25	0.150	0.075						
803112	8.0	8.0	0.0	0.0	25.8	21.7	13.0	11.7	9.4	8.9	8.0	3.2	2.2	2.1	58.9	3.0	
803113	14.0	30.0	30.7	18.3	14.2	21.3	24.4	8.0	4.9	1.5	0.6	1.1	0.7	0.4	0.6	86.0	0.3
803114	20.0	30.0	0.0	0.0	0.0	1.1	8.0	43.0	39.4	4.2	1.2	0.7	0.4	0.8	98.8	0.6	
803115	5.0	5.0	0.0	0.0	0.0	0.0	0.2	0.8	30.9	36.9	7.9	1.3	0.9	96.7	3.3		
803116	8.0	8.0	0.0	0.0	0.0	0.8	0.6	0.6	0.7	7.2	0.7	21.1	9.1	0.6	63.5	15.9	
803144	4.0	4.0	0.0	0.0	0.0	12.8	0.0	0.0	19.0	25.6	20.1	18.0	3.8	0.8	12.8	84.4	1.7

