



## GRANULAR-AGGREGATE RESOURCES OF THE MOKAMI HILL MAP SHEET (NTS 13F/16)

OPEN FILE 13F/16/0076  
MAP 2010-39

### LEGEND

Sample types (based on laboratory sieve analysis - see Table 1)

| Sample Symbol | Definition   |
|---------------|--|
| ○             | Commonly gravel or sand, having silt-clay content < 5 percent. Deposits are commonly graded and stratified   |
| ○             | Commonly till, 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 till, silt or clay samples, having silt-clay content > 15 percent   |

Multiple samples taken from the same site in different years 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 airphoto interpretation, field investigation and sieve analyses. Areas outside the colored zones have no known potential for granular materials; however silty tills, rock rubble suitable for fill, and bedrock suitable for aggregate may be present. Classification criteria used on this map do not consider 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

|   |  |
|---|--|
| <span style="display:inline-block; width:15px; height:10px; background-color:yellow;"></span>         | Contains granular materials; probability of locating economic deposits is moderate to high   |
| <span style="display:inline-block; width:15px; height:10px; background-color:orange;"></span>         | Contains thin (less than 2 m) or discontinuous 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 |
| <span style="display:inline-block; width:15px; height:10px; background-color:lightgreen;"></span>     | May contain granular materials but deposits are not substantiated by field investigation; probability of locating economic deposits is moderate to low   |
| <span style="display:inline-block; width:15px; height:10px; background-color:lightblue;"></span>      | Material of granular composition (e.g., sandy tills and colluvium) that generally contains up to 8 percent silt-clay, but could be improved for higher grade uses by washing or screening  |
| <span style="display:inline-block; width:15px; height:10px; background-color:lightyellow;"></span>    | Contains sand-size granular materials; high potential for economic exploitation of sand; low to moderate potential for coarse granular materials   |
| <span style="display:inline-block; width:15px; height:10px; border-bottom: 1px dashed black;"></span> | Eskers: sinuous ridges of granular materials; moderate to high potential for economic exploitation   |
| <span style="display:inline-block; width:15px; height:10px; border: 1px dashed black;"></span>        | Study area within the dashed outline   |

In addition to this map data, a granular-aggregate database is accessible in the Geoscience Atlas of Newfoundland and Labrador (<http://gis.geosour.gov.nl.ca>) for all granular-aggregate maps and sample data. The database provides information on more than 13 000 samples collected from 230, 1:50 000-scale map areas in Newfoundland and Labrador.

This map was originally produced in a series of baseline maps from airphoto interpretation and field work (Environmental Geology Section, 1983). In some map areas additional sample data were collected after the publication date.

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

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

Digital cartography by T.J. Sears, 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 4J6.

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 13F/16/0076  
This map supersedes Map 82-232 Open File LAB/0607.

PUBLISHED 2010

**Correspondence**  
Mr. M.J. Ricketts, Geological Survey, Department of Natural Resources, Government of Newfoundland and Labrador, P.O. Box 8700, St. John's, NL, A1B 4J6  
Department: <http://www.nr.gov.nl.ca/nr/>  
Geological Survey: <http://www.nr.gov.nl.ca/nr/mines/geoscience/>

**REFERENCES**  
Environmental Geology Section.  
1983: 1:50 000 scale aggregate resource maps outlining zones of aggregate potential within a 6-km-wide corridor in Labrador. Newfoundland Department of Mines and Energy, Mineral Development Division, Map 82-232, Open File LAB/0607.  
Kirby, F.T., Ricketts, R.J. and Vanderveer, 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.

**Recommended citation**  
Ricketts, M.J.  
2010: Granular-aggregate resources of the Mokami Hill map sheet (NTS 13F/16). Geological Survey, Department of Natural Resources, Government of Newfoundland and Labrador, Map 2010-39, Open File 13F/16/0076.

**Note**  
Open File reports and maps issued by the Geological Survey Division of the Newfoundland and Labrador Department of Natural Resources are made available for public use without being formally edited or peer reviewed. They are based upon preliminary data and evaluation.

The purchaser agrees not to provide a digital reproduction or copy of this product to a third party. Derivative products should acknowledge the source of the data.

**Disclaimer**  
The Geological Survey, a division of the Department of Natural Resources (the "authors and publishers"), retains the sole right to the original data and information found in any product produced. The authors and publishers assume no legal liability or responsibility for any alterations, changes or misrepresentations made by third parties with respect to these products or the original data. Furthermore, the Geological Survey assumes no liability with respect to digital reproductions or copies of original products or for derivative products made by third parties. Please consult with the Geological Survey in order to ensure originality and correctness of data and/or products.

**GRAIN-SIZE ANALYSES**  
Grain-size results from the 63, 32, 16 and 8-mm mesh sieves were obtained at the sample site location by sieving between 10 and 15 kg of material. A 500 to 1000 gm split of the <8 mm material (sand-silt-clay) was retained for laboratory sieve analysis. Laboratory sieves included the use of seven sieves with mesh openings of 4, 2, 1, 0.85, 0.5, 0.25, 0.062 and the <0.062 mm pan fraction. Samples were wet and dry sieved (Kirby et al., 1983) depending on silt-clay content and consolidation of particles.

**Table 1:** Exposure thickness (Exp), estimated deposit thickness (Dep), petrographic number (PN), grain-size percentages (based on percent retained on the 63 mm down to the <0.062 mm mesh sieves) and gravel (Grv), sand and silt-clay (SL-CL) content of sample material collected in NTS area 13F/16.

| Sample | Exp  | Dep  | PN   | 63   | 32   | 16   | 8    | 4    | 2    | 1    | 0.85 | 0.5  | 0.25 | 0.125 | 0.062 | <0.062 | Grv  | Sand | SL-CL |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|--------|------|------|-------|
| 803003 | 1.0  | 40.0 |      |      |      |      | 2.8  | 5.8  | 4.5  | 6.9  | 11.3 | 15.1 | 17.6 | 14.2  | 21.9  | 7.1    | 67.4 | 25.4 |       |
| 803004 | 1.0  | 20.0 |      |      |      |      | 0.0  | 0.5  | 2.0  | 11.6 | 36.4 | 36.9 | 11.3 | 1.1   | 0.1   | 0.4    | 99.2 | 0.4  |       |
| 803021 | 3.0  | 5.0  |      |      |      |      | 0.0  | 0.0  | 0.2  | 0.3  | 2.3  | 37.7 | 48.2 | 8.2   | 3.1   | 0.0    | 94.8 | 5.2  |       |
| 803022 | 4.0  | 5.0  |      |      |      |      | 0.0  | 0.0  | 0.0  | 0.4  | 6.1  | 5.2  | 60.0 | 24.2  | 4.0   | 0.0    | 89.9 | 10.1 |       |
| 803023 | 4.0  | 5.0  |      |      |      |      | 0.0  | 0.4  | 0.6  | 2.5  | 23.1 | 44.5 | 22.7 | 5.5   | 0.8   | 0.3    | 97.5 | 2.2  |       |
| 803024 | 4.0  | 6.0  |      |      |      |      | 0.0  | 0.0  | 0.0  | 1.2  | 0.2  | 7.7  | 56.7 | 26.8  | 5.5   | 0.0    | 87.8 | 12.2 |       |
| 803025 | 4.0  | 6.0  |      |      |      |      | 7.6  | 5.8  | 1.9  | 6.7  | 10.2 | 39.9 | 22.9 | 3.7   | 1.8   | 12.0   | 85.3 | 2.7  |       |
| 803027 | 25.0 | 30.0 |      |      |      |      | 0.0  | 0.0  | 0.2  | 1.0  | 0.8  | 15.4 | 52.9 | 26.8  | 2.9   | 0.0    | 90.4 | 9.6  |       |
| 803028 | 2.0  | 20.0 |      |      |      |      | 0.0  | 0.1  | 0.2  | 1.1  | 4.5  | 27.7 | 48.9 | 13.5  | 4.0   | 0.1    | 92.6 | 7.3  |       |
| 803029 | 4.0  | 5.0  |      |      |      |      | 0.0  | 0.0  | 0.0  | 0.1  | 1.5  | 39.6 | 52.5 | 6.0   | 0.2   | 0.0    | 98.3 | 1.7  |       |
| 803030 | 1.0  | 10.0 |      |      |      |      | 7.6  | 3.3  | 4.7  | 11.0 | 27.7 | 13.5 | 4.0  | 1.2   | 10.0  | 87.8   | 2.2  |      |       |
| 803031 | 3.0  | 5.0  |      |      |      |      | 0.0  | 0.0  | 0.1  | 0.3  | 5.7  | 36.3 | 42.3 | 13.6  | 1.8   | 0.0    | 94.8 | 5.2  |       |
| 803032 | 3.0  | 5.0  |      |      |      |      | 0.0  | 0.0  | 0.0  | 0.1  | 1.5  | 39.6 | 52.5 | 6.0   | 0.2   | 0.0    | 98.3 | 1.7  |       |
| 803033 | 4.0  | 20.0 |      |      |      |      | 0.0  | 0.5  | 1.8  | 4.0  | 14.4 | 32.9 | 25.8 | 13.5  | 7.1   | 0.4    | 89.1 | 10.5 |       |
| 803034 | 3.0  | 20.0 |      |      |      |      | 0.0  | 0.0  | 0.5  | 5.0  | 21.0 | 36.4 | 23.6 | 9.7   | 3.7   | 0.0    | 93.6 | 6.2  |       |
| 803035 | 5.0  | 8.0  | 25.8 | 16.7 | 13.3 | 23.3 | 20.0 | 5.6  | 2.6  | 2.4  | 4.4  | 4.2  | 3.5  | 1.3   | 0.5   | 77.7   | 21.5 | 0.8  |       |
| 803036 | 6.0  | 20.0 |      |      |      |      | 0.0  | 0.0  | 0.0  | 0.2  | 0.4  | 2.6  | 42.5 | 41.3  | 13.0  | 0.0    | 76.7 | 23.3 |       |
| 803037 | 4.0  | 8.0  | 30.6 | 8.0  | 12.4 | 10.6 | 14.2 | 7.1  | 7.9  | 8.8  | 10.4 | 9.8  | 6.2  | 3.1   | 1.7   | 50.4   | 47.1 | 2.4  |       |
| 803038 | 1.5  | 30.0 |      |      |      |      | 0.0  | 0.6  | 0.5  | 1.1  | 1.2  | 12.0 | 56.4 | 25.1  | 3.1   | 0.4    | 90.2 | 9.3  |       |
| 803039 | 3.0  | 30.0 |      |      |      |      | 0.0  | 0.0  | 0.0  | 0.5  | 1.0  | 16.0 | 60.2 | 20.2  | 2.1   | 0.0    | 82.9 | 7.1  |       |
| 803040 | 3.0  | 30.0 |      |      |      |      | 0.0  | 0.0  | 0.3  | 0.1  | 0.3  | 6.4  | 52.3 | 33.3  | 7.2   | 0.0    | 84.4 | 15.6 |       |
| 803041 | 15.0 | 20.0 |      |      |      |      | 25.5 | 18.5 | 7.6  | 9.2  | 23.7 | 11.2 | 2.9  | 0.9   | 0.4   | 39.4   | 60.0 | 0.6  |       |
| 803042 | 15.0 | 20.0 |      |      |      |      | 0.0  | 0.2  | 0.1  | 0.0  | 0.1  | 0.9  | 27.2 | 45.4  | 26.0  | 0.2    | 62.5 | 37.3 |       |
| 803043 | 2.0  | 15.0 |      |      |      |      | 0.0  | 0.0  | 0.3  | 1.6  | 8.7  | 24.9 | 37.9 | 19.0  | 7.6   | 0.0    | 87.7 | 12.3 |       |
| 803044 | 15.0 | 15.0 |      |      |      |      | 0.0  | 0.2  | 0.1  | 0.1  | 0.2  | 2.9  | 45.9 | 39.7  | 10.7  | 0.2    | 79.2 | 20.7 |       |
| 803045 | 15.0 | 20.0 | 300  | 14.4 | 19.2 | 17.4 | 9.6  | 5.8  | 4.7  | 6.6  | 11.0 | 8.3  | 2.2  | 0.6   | 0.4   | 64.8   | 34.7 | 0.5  |       |
| 803046 | 8.0  | 15.0 |      |      |      |      | 3.0  | 3.0  | 3.1  | 3.9  | 4.9  | 5.8  | 5.7  | 3.5   | 6.1   | 66.3   | 26.8 | 6.9  |       |
| 803047 | 2.0  | 20.0 |      |      |      |      | 10.9 | 6.6  | 13.4 | 17.7 | 29.6 | 16.7 | 4.3  | 0.7   | 0.2   | 15.8   | 83.8 | 0.4  |       |
| 803048 | 20.0 | 20.0 |      |      |      |      | 0.0  | 0.0  | 0.1  | 0.4  | 1.7  | 13.3 | 35.1 | 28.6  | 20.8  | 0.0    | 72.0 | 28.0 |       |
| 803049 | 1.0  | 6.0  |      |      |      |      | 35.8 | 11.8 | 9.2  | 11.0 | 15.2 | 8.8  | 3.9  | 1.9   | 2.4   | 44.7   | 52.4 | 2.8  |       |
| 803050 | 1.0  | 6.0  |      |      |      |      | 0.0  | 0.8  | 2.2  | 11.1 | 51.4 | 29.6 | 4.2  | 0.5   | 0.2   | 0.6    | 99.0 | 0.3  |       |
| 803051 | 1.5  | 10.0 |      |      |      |      | 0.0  | 0.0  | 0.0  | 0.0  | 1.7  | 22.2 | 52.5 | 20.3  | 3.4   | 0.0    | 91.8 | 8.4  |       |
| 803052 | 2.0  | 10.0 |      |      |      |      | 0.0  | 4.9  | 5.0  | 4.5  | 7.3  | 14.9 | 31.7 | 19.5  | 12.3  | 3.7    | 79.2 | 17.1 |       |
| 803053 | 1.5  | 8.0  |      |      |      |      | 0.0  | 10.7 | 4.9  | 5.8  | 9.5  | 13.7 | 17.7 | 16.1  | 21.5  | 8.0    | 66.4 | 25.6 |       |
| 803073 | 20.0 | 8.0  |      |      |      |      | 0.0  | 0.0  | 1.9  | 3.9  | 3.9  | 5.7  | 25.3 | 38.2  | 11.1  | 0.0    | 79.4 | 20.6 |       |
| 803074 | 20.0 | 15.0 |      |      |      |      | 7.6  | 7.2  | 4.1  | 6.0  | 11.2 | 19.7 | 18.5 | 10.3  | 15.5  | 13.0   | 69.0 | 18.1 |       |
| 803075 | 9.0  | 4.0  | 205  | 19.6 | 8.7  | 17.4 | 10.9 | 7.7  | 7.7  | 9.0  | 8.0  | 5.8  | 2.8  | 1.1   | 0.4   | 62.3   | 37.0 | 0.7  |       |
| 803077 | 3.0  | 5.0  |      |      |      |      | 0.0  | 0.0  | 0.0  | 0.2  | 2.1  | 27.6 | 52.8 | 15.0  | 2.2   | 0.0    | 94.0 | 6.0  |       |

