



GRANULAR-AGGREGATE RESOURCES OF THE BISCAY BAY RIVER MAP SHEET (NTS 1K/14)

OPEN FILE 001K/14/0046
MAP 2008 - 04

LEGEND

- Sample types (based on laboratory sieve analysis - see Table 1)
- Sample Symbol**
- Commonly gravel or sand, having silt-clay content < 5 percent. Deposits are commonly graded and stratified. Example: 781206 - Location of sample 1206 taken in 1978, containing 2.3 percent silt-clay.
 - Commonly silt, 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). Example: 781208 - Location of sample 1208 taken in 1978, containing 11.6 percent silt-clay.
 - Commonly silty silt, silt or clay samples, having silt-clay content > 15 percent. Example: 781082 - Location of sample 1082 taken in 1978, containing 25.3 percent silt-clay.
- Multiple samples taken from the same site at 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 aggregate resource maps. All aggregate zones 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 analysis. Areas outside the numbered zones have no known potential for granular materials, however silty silt, 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**
- Contains granular materials; probability of locating economic deposits is moderate to high
 - 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
 - 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 tills and colluvium) that generally contains up to 8 percent silt-clay content, 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
 - Eskers: sinuous ridges of granular materials; moderate to high potential for economic exploitation

In addition to this map data an aggregate database is accessible in the Geoscience Resource Atlas of Newfoundland and Labrador (<http://geoplace.gov.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 blue-line maps from airphoto interpretation and field work. Environmental Geology Section, 1983. In some map areas additional sample data was 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, P.O. Box 8700, St. John's, Newfoundland, 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.

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This map supersedes Map 82-075, Open File NFDL/1300.

PUBLISHED 2008

REFERENCES

- Environmental Geology Section
1983: 1:50 000 scale aggregate resource maps outlining zones of aggregate potential within a 6-km-wide corridor in Newfoundland. Newfoundland Department of Mines and Energy, Mineral Development Division, Open File NFDL/1300.
- 1985: 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.

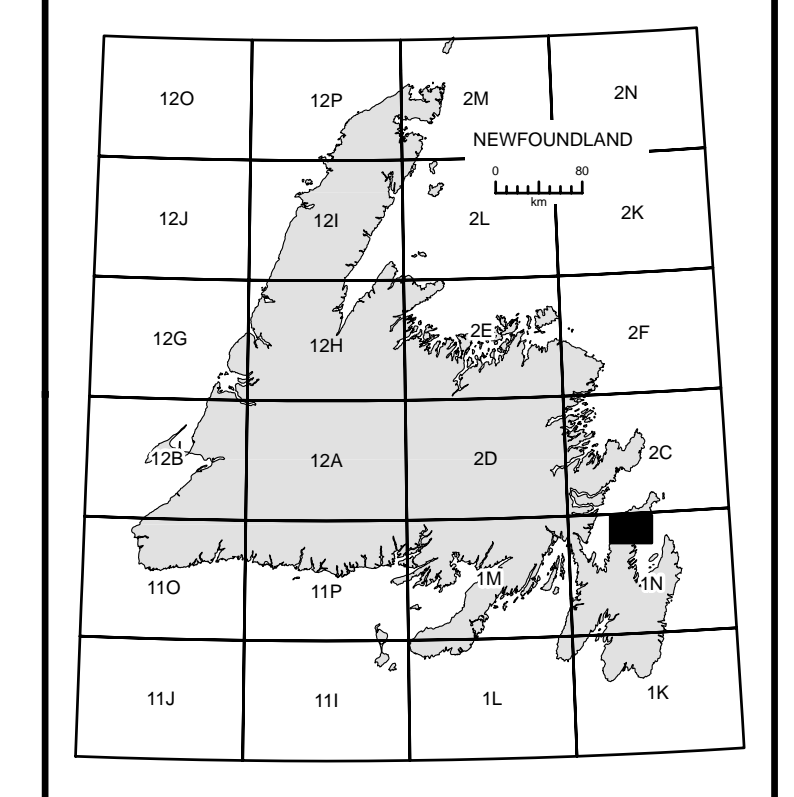
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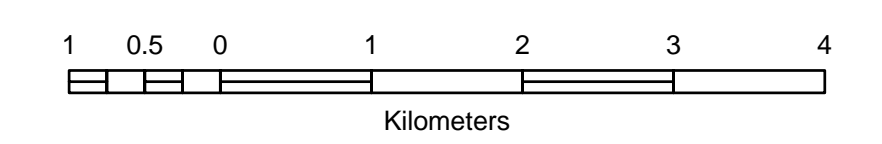
Ricketts, M.J.
2008: Granular aggregate resources of the Biscay Bay River map sheet (NTS 01K/14), Government of Newfoundland and Labrador, Department of Natural Resources, Geological Survey, Map 2008-04, Open File 001K/14/0046.

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MAP 2008-04
BISCAY BAY RIVER
NEWFOUNDLAND & LABRADOR



GRAIN-SIZE ANALYSES

Grain-size results from the 63, 30, 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 material (air-dried) was retained for laboratory sieve analysis. Laboratory sieve analysis included the use of seven sieves with mesh openings of 4, 2, 1, 0.5, 0.25, 0.125, 0.062 and <0.062 mm. Samples were wet and/or dry sieved (Kirk et al., 1983) depending on silt-clay content and consolidation of particles.

Table 1: Exposure thickness (Exp), estimated deposit thickness (Dep), petrographic numbers (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 on NTS area 1K/14.

Sample	Exp	Dep	PN	MM3	MM2	MM1	MM	MM2	MM1	MM2	MM1	MM16	MM16	MM16	MM16	Grv	Sand	SL-CL	
781076	2.0	120	23.8	16.2	17.3	16.2	4.1	4.3	3.2	2.6	2.3	2.4	1.5	6.2	7.6	16.9	6.6		
781077	1.0	110	16.6	21.7	12.8	14.1	3.0	4.5	4.1	3.7	3.8	3.5	2.6	9.6	6.7	22.4	10.2		
781078	3.0	137	0.0	9.7	11.9	19.2	7.7	10.9	12.4	10.9	7.6	4.6	2.6	5.9	4.5	49.6	6.5		
781079	1.0	100	0.0	18.9	16.0	14.5	4.5	6.1	7.0	6.5	6.2	5.6	3.5	11.2	5.2	35.2	12.1		
781081	1.0	130	0.0	26.4	15.4	12.1	7.6	3.8	5.1	4.6	4.9	4.6	2.9	10.0	9.9	28.6	10.7		
781082	4.0	0	0.0	0.0	0.0	0.0	16.9	12.4	10.7	10.1	9.6	9.6	7.2	23.5	12.0	62.0	29.3		
781083	100	15.8	11.3	11.3	20.3	2.9	5.6	7.3	7.7	5.5	4.0	2.4	5.9	6.0	32.7	6.5			
781084	5.0	325	0.0	7.0	10.0	4.3	8.1	11.3	12.0	9.3	7.4	5.1	16.5	28	54.1	17.6			
781085	0	0	0.0	0.0	0.0	0.0	7.5	8.8	7.1	7.0	8.5	11.2	8.4	41.4	5.8	50.3	43.5		
781086	8.0	100	21.4	17.8	14.3	13.1	5.5	7.1	5.4	4.0	3.3	2.6	1.6	3.9	7.0	25.0	4.3		
781206	5.0	130	17.5	23.3	14.0	15.2	9.5	6.1	4.1	3.4	2.7	1.3	0.6	2.2	7.7	20.5	2.3		
781207	1.0	135	16.7	17.7	17.7	13.7	5.4	6.1	6.3	5.7	4.2	2.8	1.1	2.6	6.9	27.3	2.9		
781208	2.0	139	5.5	21.1	14.4	16.6	7.1	5.8	4.0	4.4	3.6	3.1	2.3	11.0	6.3	25.4	11.6		
781223	6.1	115	8.7	12.7	17.5	14.3	6.9	7.3	5.4	5.0	4.6	4.3	3.3	10.0	5.8	30.9	10.8		
781224	8.5	157	6.5	14.1	19.5	15.2	6.5	8.1	5.7	8.7	8.7	3.5	1.6	1.0	38.4	1.4			
063100	4.0	5.0	100	3.4	17.9	11.0	12.4	6.6	6.7	8.1	6.6	5.8	5.2	3.7	12.6	49	36.7	13.5	
063101	1.0	5.0	110	11.3	14.6	14.6	11.4	11.0	9.3	7.2	5.1	4.4	3.4	2.2	6.1	32.8	6.1		
063102	1.0	2.0	110	12.2	18.6	18.6	17.3	12.0	8.8	5.7	2.8	1.8	1.0	0.6	0.7	23.5	0.8		
063105	1.0	3.0	107	9.0	34.3	16.3	10.3	6.3	4.9	2.8	1.4	0.4	0.3	0.2	0.1	18.5	0.2		
063106	1.1	12.0	102	4.5	31.6	20.6	18.1	8.1	9.9	4.8	1.4	0.4	0.2	0.2	0.0	19.0	0.1		
063107	1.4	6.0	100	4.1	18.5	23.3	19.2	11.7	7.1	6.1	5.8	2.6	1.0	0.4	0.2	7.3	29.9	0.3	
063108	1.0	15.0	110	24.4	18.1	22.2	18.6	12.7	12.7	7.7	2.4	0.8	0.8	0.2	0.2	27.1	0.1		
063109	2.0	7.0	104	15.3	15.9	15.3	6.5	6.8	7.1	7.1	5.2	4.4	4.0	3.0	9.5	5.6	31.7	10.2	
063110	1.2	8.0	110	7.2	13.8	14.4	14.9	8.3	10.2	8.7	5.9	4.7	3.7	2.4	5.9	37.0	6.5		
063111	1.3	4.0	100	0.0	22.1	23.0	9.2	9.2	6.1	3.4	2.5	1.6	1.4	0.4	3.2	25.2	3.5		
063112	6.0	10.0	140	0.0	14.6	13.4	6.4	6.8	7.4	8.2	7.7	7.3	5.7	4.9	17.5	39	41.7	18.8	
063113	1.3	10.0	100	24.3	12.5	11.8	11.2	6.8	6.7	6.1	6.8	6.0	3.5	1.8	2.5	65.2	32.1	2.9	
063114	10.0	10.0	100	0.0	14.6	13.4	6.4	6.8	7.4	8.2	7.7	7.3	5.7	4.9	17.5	39	41.7	18.8	
063115	10.0	5.0	100	22.5	15.4	14.2	18.5	7.4	7.9	7.2	3.7	1.8	0.7	0.6	0.3	7.6	23.5	0.4	
063116	1.3	3.0	108	12.1	20.2	12.9	11.3	13.6	11.0	7.6	5.8	3.7	1.2	0.5	0.2	6.8	33.0	0.3	
063117	1.6	4.0	118	0.0	9.9	23.3	12.1	11.4	9.3	7.2	6.2	4.6	3.0	1.3	0.6	5.1	21.0	0.1	
063118	1.6	4.0	118	0.0	9.9	23.3	12.1	11.4	9.3	7.2	6.2	4.6	3.0	1.3	0.6	5.1	21.0	0.1	
063119	0.9	4.0	100	20.9	14.0	12.8	12.4	11.8	10.9	8.3	5.9	2.3	0.4	0.1	0.6	31.0	0.1		
063120	1.3	4.0	111	14.5	18.7	10.8	12.7	11.4	15.2	10.8	4.2	1.2	0.4	0.1	0.0	65.3	4.7	0.1	
063121	1.2	8.0	105	0.0	16.6	25.9	26.4	15.7	10.5	4.1	0.6	0.1	0.1	0.0	0.0	80.1	19.3	0.0	
063122	1.5	6.0	107	12.1	18.1	17.2	8.4	8.7	3.8	2.1	1.3	0.5	0.2	0.1	0.1	81.1	18.6	0.1	
063123	1.0	8.0	113	14.0	25.6	37.8	15.7	4.6	1.7	0.3	0.2	0.1	0.0	0.1	0.1	96.3	3.5	0.1	
073100	1.0	6.0	106	7.1	15.9	10.6	11.8	10.3	8.1	8.3	6.4	5.5	4.4	3.4	7.3	53	38.9	8.2	
073101	1.0	6.0	110	34.1	8.0	8.6	10.9	5.5	6.4	6.2	4.7	4.1	3.0	2.4	16.0	55	27.6	16.6	
073102	2.5	5.0	127	6.4	17.1	16.6	21.9	14.2	12.0	8.3	2.4	0.8	0.2	0.1	0.0	72.7	27.3	0.1	
073103	2.0	5.0	105	21.4	23.8	15.7	12.9	9.2	6.5	5.2	3.2	1.3	0.4	0.2	0.1	80.1	19.1	0.2	
073104	2.0	5.0	122	18.6	10.5	16.9	15.6	6.7	8.4	8.3	3.8	1.2	0.6	0.2	0.6	66	31.1	0.3	
073105	1.2	5.0	108	14.6	27.8	14.6	16.6	12.8	6.9	3.3	1.9	1.2	0.4	0.1	0.0	83	16.9	0.0	
073107	0.8	3.5	117	18.1	21.5	11.4	14.8	12.4	10.0	7.1	3.1	1.2	0.3	0.1	0.0	75	24.8	0.1	
073108	0.7	5.0	117	10.3	16.6	11.9	11.6	11.0	8.8	8.6	6.4	17.4	25	8.6	17.4	25	8.6	19.0	
073109	0.9	3.0	107	15.0	36.1	26.6	12.2	5.6	2.4	0.8	0.5	0.7	0.4	0.2	0.7	42	57.0	0.8	
073110	1.1	10.0	113	0.0	27.4	20.2	15.7	8.3	9.2	7.7	7.3	2.7	0.8	0.5	0.9	69	29.8	0.6	
073111	0.9	10.0	110	10.3	17.9	14.7	10.9	4.5	5.2	4.5	4.9	4.5	4.0	3.7	14.8	57.7	27.0	18.8	
073112	1.3	4.0	107	6.2	15.1	17.8	14.4	9.0	8.4	5.6	3.5	2.4	1.8	0.6	0.3	60	61.5	8.4	
073113	2.0	6.0	189	0.0	6.8	12.2	23.0	14.3	11.8	9.9	6.2	4.3	3.0	1.7	7.0	52	39.9	7.5	
073114	2.0	6.0	106	12.7	22.8	9.5	13.2	6.6	6.2	5.6	5.0	3.9	2.7	6.0	63.3	29.9	6.9		
073115	0.9	2.0	105	3.0	25.0	17.9	14.3	9.2	13.4	10.1	3.8	1.3	0.4	0.9	0.7	32.1	0.9		
073116	1.0	3.0	102	24.8	19.8	21.8	19.0	9.5	5.7	7.9	8.6	4.8	2.0	0.4	0.1	0.3	74	25.5	0.1
073117	0.7	1.5	104	0.0	13.1	25.5	24.2	13.9	10.8	7.1	2.8	1.6	0.5	0.2	0.5	73	26.4	0.5	
073118	1.0	4.5	107	4.6	24.1	18.5	14.9	7.8	9.0	9.4	7.1	3.5	0.7	0.2	0.2	67	31.8	0.3	
073119	0.9	12.0	111	13.4	23.6	15.0	11.7	9.0	5.7	3.8	2.5	1.6	1.5	2.4	8.9	70	19.1	10.5	
073120	3.0	8.0	101																