

Deposit Number	Material Description	Reserves (1000 m³)		Additional Comments	Texture (%)			Overburden Thickness (m)	Deposit Thickness (m)	Deposit Area (ha)	Deposit Genesis	Additional Comments
		Gravel	Sand		Gravel	Sand	Fines					
1	Gravel to sand	3144	4672	Gravel, 0-90%, mainly coarse, some fine; sand, fine to coarse, clean to silty.	38.3	58.4	2.3	0.0	1.8 to 4.0	400	Glaciofluvial - delta	Discontinuous overburden of silt and clay.
2	Sandy gravel	344	147	Gravel, 55-85%, fine and coarse; sand, fine and coarse, silty to clean.	68.8	29.4	1.8	0.0 to 1.0	3.0 to 6.0	15	Glaciofluvial - terraces	Discontinuous overburden of clay.
3	Sandy gravel	29	19	Gravel, 55-70%, fine and coarse; sand, fine to coarse, silty.	69.0	37.9	3.1	0.0	3.5 to 6.0	1	Fluvial terrace	
4	Sandy gravel	27	12	Gravel, 60-75%, fine and coarse; sand, fine to coarse, clean.	67.0	31.0	2.0	0.0 to 1.5	1.5 to 3.0	3	Fluvial - terraces	Discontinuous overburden of silt.
5	Sandy gravel	173	126	Gravel, 50-75%, fine and coarse; sand, medium and coarse, clean.	57.8	42.0	0.2	0.0	3.0	10	Glaciofluvial - delta	
6	Sandy gravel	46	33	Gravel, 50-60%, fine and coarse; sand, fine to coarse, clean.	57.3	14.4	1.6	0.0	2.0	4	Glaciofluvial - terrace	
7	Gravelly sand to sand	39	104	Gravel 0-50%, fine, some coarse; sand, fine to coarse, clean to silty.	26.0	69.7	4.3	0.0	2.0	7	Glaciofluvial - terrace	
8	Sandy gravel to gravelly sand	99	99	Gravel, 50%, fine, some coarse; sand, medium and coarse, clean.	49.7	49.6	0.7	0.0	4.0	5	Fluvial terrace	
9	Gravel to sandy gravel	-	-	Deposit identified on aerial photos.	-	-	-	-	-	-	Glaciofluvial channel	
10	Gravel to sandy gravel	-	-	Deposit identified on aerial photos.	-	-	-	-	-	-	Fluvial - alluvial	
11	Gravel to gravelly sand	-	-	Deposit identified on aerial photos.	-	-	-	-	-	-	Glaciofluvial - deltaic	

Deposit Number — Granular deposits shown on this map may have commercial possibilities. This assumption followed from two criteria used in the mapping process: study of the area considered only granular deposits greater than one metre thick, and covering an area more than one hectare; and it only considered deposits where the mineral-aggregate thickness was greater than the overburden thickness. Although the scale of mapping did not permit investigation of all small deposits, many small deposits containing existing pits are indicated.

Material Description — Sand and gravel has a variety of applications, such as concrete for construction, asphalt concrete, subbase and base course aggregate for roads, gravel and sand for road surfaces, and pit run for fill. Gradation, rock hardness, and binding characteristics, are some of the specific qualities that are considered in aggregate towards determining its end use. This map indicates these, and other, geological qualities of the sand and gravel within each deposit, but does not indicate their potential uses. The terms used in the table are defined in the figure below.

Reserves — The method of calculating in cubic metres the aggregate reserves of deposits took four basic steps. First, the area, in hectares, of each deposit was determined using aerial photographs. Second, geological interpretation, sometimes supported by subsurface information, was assumed in determining the geometry of each deposit, to estimate an overall, average deposit thickness in metres. Third, geological study and limited sample analysis determined the texture (gradation) of sediments in the deposit, and an overall average percentage of gravel and sand. Finally, the volume was calculated as follows: reserve gravel (m³) = area (ha) × thickness (m) × 10,000 × % gravel; the same formula was used for sand.

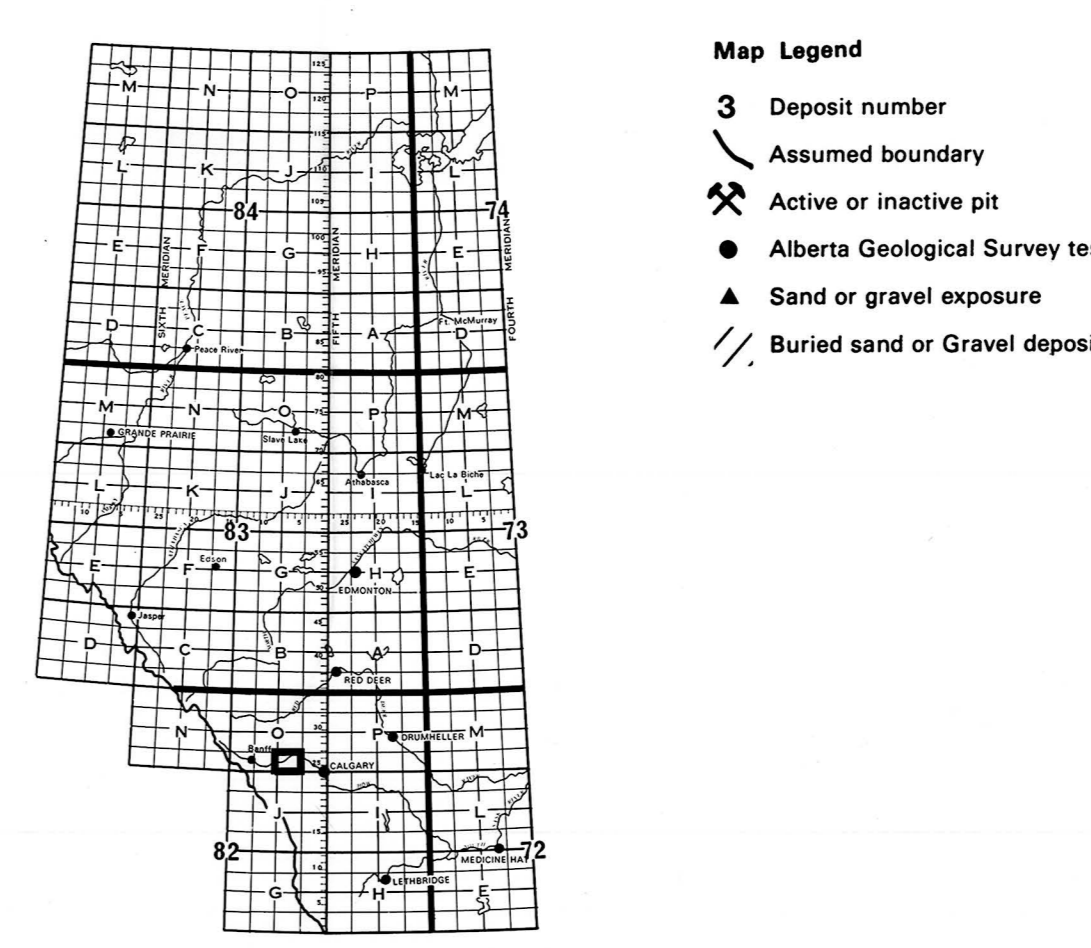
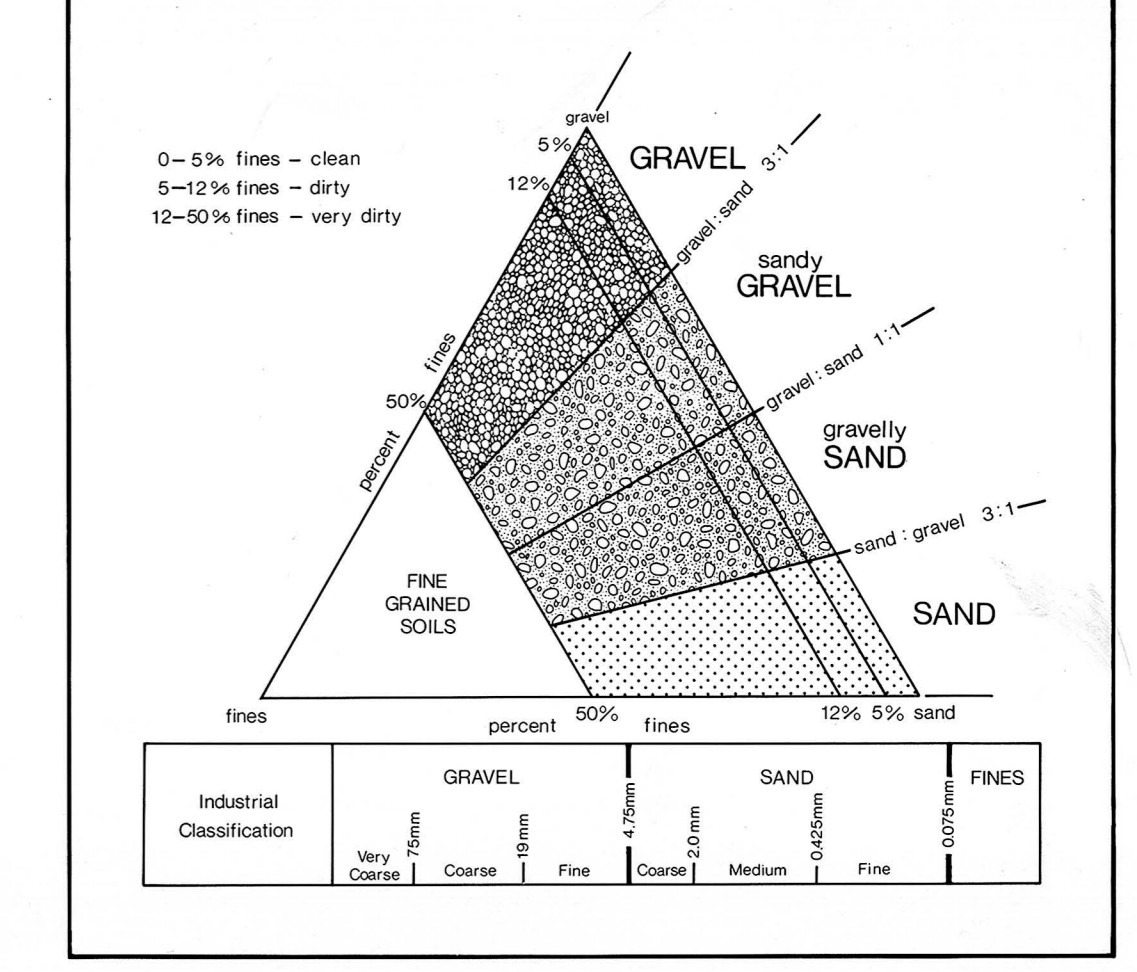
Texture — The texture of the sediment refers to the percentage of particles of various sizes. For mineral aggregate, the most important fractions are the gravel and sand. The actual dimensions of the clasts and particles in these fractions are given in the figure. The values given for a particular deposit were determined from a field estimate, or from laboratory analysis, of one or more samples from that deposit. Where more than one sample is taken the tabulated number is the mean value.

Wear — The resistance of gravel-size clasts to wear or abrasion can be measured in a laboratory test (ASTM-C131, Los Angeles Abrasion Testing). The amount of material that breaks down into smaller sizes is measured and related to the original sample weight in terms of percent wear. The higher the percentage wear the more susceptible the gravel is to breakdown under stress. Gravel with a percentage wear of less than 40 is considered very resistant.

Overburden Thickness — The thickness of non-economic material, or overburden, covering a deposit, sometimes is a limiting factor in the exploitation of an aggregate deposit. The tabulated values given are approximate overburden thicknesses as determined from geological investigations and subsurface testing.

Deposit Area — Deposits in this study were delineated by interpretation of aerial photographs and the contacts should be considered approximate. Information is precise only where test holes, or geological sections, are indicated.

Deposit Genesis — The genesis, or formation, of deposits is vital to the understanding of the gradational nature, extent and geometry of the deposit. This understanding forms the basis for extrapolation from a limited number of known points (test holes, pits, sections) and permits an overall assessment of the deposit.



Aggregate Resources

82/O/2 Jumpingpound Creek

I. Shetton
Geology 1981

This is a sand and gravel resource map prepared by the Alberta Geological Survey as part of a series at a scale of 1:50,000. The series represents an ongoing aggregate inventory of Alberta which provides data for general land-use planning, land management or aggregate exploration. Please note that the delineation of deposits and calculation of reserves are approximations only. Alberta Energy and Natural Resources provides financial support for the Aggregate Inventory.

Natural Resources Division
Alberta Geological Survey

Produced 1971 by the SURVEYS AND MAPPING BRANCH, GEOLOGICAL SURVEY OF CANADA. All rights reserved. Reproduction of this map is prohibited without the written permission of the Director, Geological Survey of Canada.

Cartes produites en 1971 par le BUREAU DES CARTES DU CANADA, BRANCHES GÉOLOGIQUE ET GÉOLOGIQUE. Tous droits réservés. Toute réimpression de cette carte est interdite sans la permission écrite du directeur, Service géologique du Canada.

Scale 1:50,000 Échelle

WEST OF FIFTH MERIDIAN - OUEST DU CINQUIÈME MÉRIDIEN

Scale 1:50,000 Échelle

Metres 1000 2000 3000 4000 Mètres

Yards 1000 2000 3000 4000 Verges

CONTOUR INTERVAL, 50 FEET
Épaisseur de la ligne des hauteurs, 15 mètres

Échelle de la carte: 1:50,000
Projections: Système de coordonnées géographiques universelles, 1973
Projection: Système de Mercator

JUMPINGPOUND CREEK ALBERTA

Scale 1:50,000 Échelle

WEST OF FIFTH MERIDIAN - OUEST DU CINQUIÈME MÉRIDIEN

Scale 1:50,000 Échelle

Metres 1000 2000 3000 4000 Mètres

Yards 1000 2000 3000 4000 Verges

Produced 1971 by the SURVEYS AND MAPPING BRANCH, GEOLOGICAL SURVEY OF CANADA. All rights reserved. Reproduction of this map is prohibited without the written permission of the Director, Geological Survey of Canada.

Cartes produites en 1971 par le BUREAU DES CARTES DU CANADA, BRANCHES GÉOLOGIQUE ET GÉOLOGIQUE. Tous droits réservés. Toute réimpression de cette carte est interdite sans la permission écrite du directeur, Service géologique du Canada.

Scale 1:50,000 Échelle

WEST OF FIFTH MERIDIAN - OUEST DU CINQUIÈME MÉRIDIEN

Scale 1:50,000 Échelle

Metres 1000 2000 3000 4000 Mètres

Yards 1000 2000 3000 4000 Verges

CONTOUR INTERVAL, 50 FEET
Épaisseur de la ligne des hauteurs, 15 mètres

Échelle de la carte: 1:50,000
Projections: Système de coordonnées géographiques universelles, 1973
Projection: Système de Mercator