

# Stone

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**T**his 1996 review on stone has been abbreviated to mainly include statistical tables.

The volume of all types of stone shipped in Canada in 1996 was about 86 Mt based on preliminary figures, which is about 13% lower than in 1995. The reported value of total shipments in 1996 was about \$553 million, about 7% lower than the previous year. Shipments served a very wide range of end uses relating to dimension stone, chemical and metallurgical grades of stone, pulverized stone, and crushed stone.

Additional detailed statistical information, particularly on regular aggregates (including crushed stone and sand and gravel), and also on numerous light-weight aggregates, is included in a separate chapter entitled *Mineral Aggregates*.

Dimension or ornamental stone relates to a variety of rock types that can be cut, shaped or simply selected for

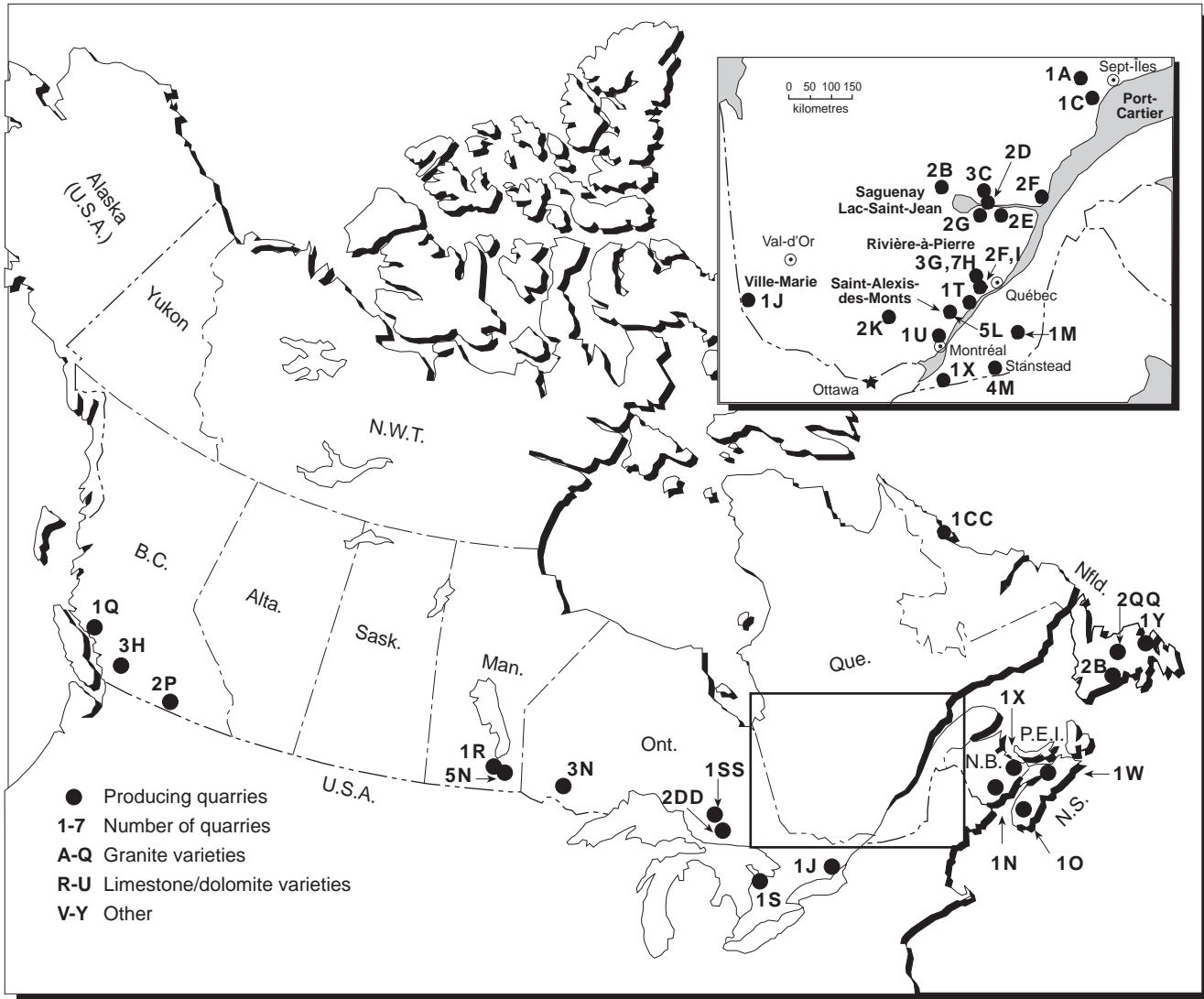
a broad range of construction/engineering, architectural or monumental requirements. The types of stone available are dependent on local geology, but mainly include granite, limestone, marble, sandstone and slate, as summarized in Tables 3 to 8 inclusive. The term "granite," as commercially applied, includes true granite, granodiorite, gneiss, and other medium- to coarse-grained igneous rocks. However, "black granite" includes anorthosite and other dark-coloured igneous rocks. Limestone and marble are often confused, marble being the metamorphosed equivalent of the former and usually including both dolomitic and calcitic varieties. As an industrial term, "marble" is used for recrystallized calcareous rock capable of taking a polish.

Slate is becoming more important in world markets for its natural unpolished appearance, its non-slippery and multi-coloured durable surfaces, and its relatively low price.

*Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 70. (2) Information in this review was current as of February 1, 1997.*

Figure 1

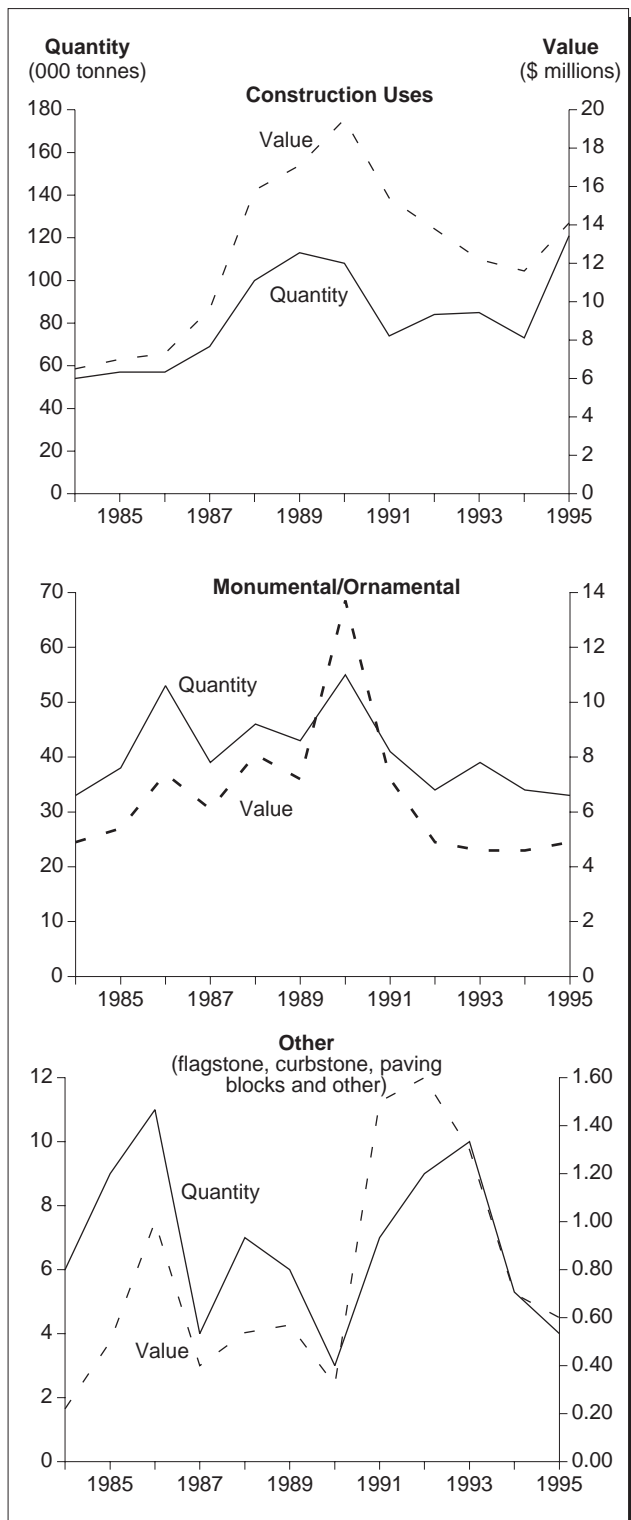
Canada, Architectural and Monumental/Ornamental Stone-Producing Centres, 1995



- |    |  |    |   |
|----|--|----|---|
| A  | Fine-grained pinkish-grey banded gneiss        | P  | Coarse coral pink granite   |
| B  | Medium-grained pink granite                    | Q  | Medium-grained blue-grey granite  |
| C  | Coarse-grained black anorthosite               | QQ | Medium-grained gabbro   |
| CC | Medium-grained "Reflect blue" anorthosite      | R  | Light-coloured mottled dolomitic limestone (Tyndall)                    |
| D  | Medium-grained black gabbroic anorthosite      | S  | Fine-medium crystalline blue-grey to buff marble/dolostone (Arriscraft) |
| DD | Blue-grey, and black and white anorthosite     | SS | Fine-grained, multicoloured pre-Cambrian marble                         |
| E  | Medium-grained pinkish-grey quartz monzonite   | T  | Medium-grained light brownish-grey limestone (Deschambault)             |
| F  | Fine-grained pink granitic gneiss              | U  | Medium-grained blue-grey limestone (Chazy)                              |
| G  | Coarse-grained green charnockite               | V  | Medium-grained olive sandstone  |
| H  | Coarse-grained pink-grey or brown-grey granite | W  | Fine-medium-grained olive-brown and blue-grey sandstone                 |
| I  | Medium-grained grey dioritic gneiss            | X  | Fine-medium-grained white to buff sandstone (Potsdam)                   |
| J  | Medium-grained red granite                     | Y  | Very fine-grained varicoloured slate                                    |
| K  | Fine-grained pink aplite                       |    |   |
| L  | Coarse-grained brown or red quartz monzonite   |    |   |
| M  | Medium-grained grey granite                    |    |   |
| N  | Medium-grained pink, brown or gold granites    |    |   |
| O  | Fine-grained blue-grey granite                 |    |   |

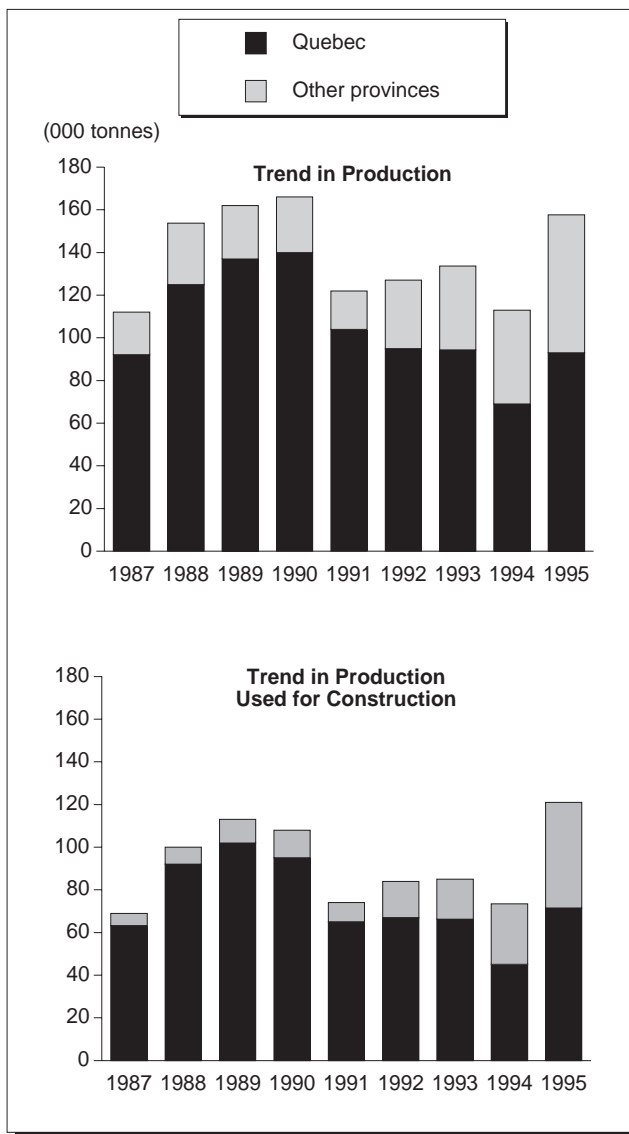
Source: Mainly provincial departments of Mines and Energy.

**Figure 2**  
**Canada, Production of Rough Granite**  
**(Sold and Used by Producers), 1984-95**



Sources: Natural Resources Canada; Statistics Canada.

**Figure 3**  
**Canada, Trends in Production of Rough Granite,**  
**1987-95**



Sources: Natural Resources Canada; Quebec Ministry of Natural Resources.

## TARIFFS

Item No.	Description	Canada			United States
		MFN	GPT	USA	Canada
2514.00	Slate, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape				
2514.00.10	Crude or roughly trimmed	Free	Free	Free	Free
2514.00.20	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	4.4%	1%	Free	Free
2514.00.90	Other, including powder and waste	1.4%	Free	Free	Free
25.15	Marble, travertine, ecaussine and other calcareous monumental or building stone of an apparent specific gravity of 2.5 or more, and alabaster, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape				
2515.11.00	Marble and travertine: Crude or roughly trimmed	Free	Free	Free	Free
2515.12.00	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	1%	Free	Free	Free
2515.20	Ecaussine and other calcareous monumental or building stone; alabaster				
2515.20.10	Crude or roughly trimmed	Free	Free	Free	Free
2515.20.20	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	4.4%	1%	Free	Free
25.16	Granite, porphyry, basalt, sandstone and other monumental or building stone, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape				
2516.11.00	Granite: Crude or roughly trimmed	Free	Free	Free	Free
2516.12	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	Free-4.4%	Free	Free	Free
2516.21.00	Sandstone: Crude or roughly trimmed	Free	Free	Free	Free
2516.22.00	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	4.4%	1%	Free	Free
2516.90	Other monumental or building stone				
2516.90.10	Crude or roughly trimmed	Free	Free	Free	Free
2516.90.20	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	4.4%	1%	Free	Free
25.17	Pebbles, gravel, broken or crushed stone, of a kind commonly used for concrete aggregates, for road metalling or for railway or other ballast, shingle and flint, whether or not heat-treated; macadam of slag, dross or similar industrial waste, whether or not incorporating the materials cited in the first part of the heading; tarred macadam, granules, chippings and powder, of stones of heading nos. 25.15 or 25.16, whether or not heat-treated				
2517.10.00	Pebbles, gravel, broken or crushed stone, of a kind commonly used for concrete aggregates for road metalling or for railway or other ballast, shingle and flint, whether or not heat-treated	Free	Free	Free	Free
2517.20.00	Macadam of slag, dross or similar industrial waste, whether or not incorporating the materials cited in subheading no. 2517.10	Free	Free	Free	Free

## TARIFFS (cont'd)

Item No.	Description	Canada			United States
		MFN	GPT	USA	Canada
2517.30.00	Tarred macadam Granules, chippings and powder, of stones of heading nos. 25.15 or 25.16, whether or not heat-treated:	8.1%	4%	Free	Free
2517.41.00	Of marble	Free	Free	Free	Free
2517.49	Other	Free	Free	Free	Free
2517.49.10	Limestone roofing granules	Free	Free	Free	Free
2517.49.90	Other	Free	Free	Free	Free
6801.00.00	Setts, curbstones and flagstones of natural stone (except slate)	4.4%	Free	Free	Free
68.02	Worked monumental or building stone (except slate) and articles thereof, other than goods of heading no. 68.01; mosaic cubes and the like, of natural stone (including slate), whether or not on a backing; artificially coloured granules, chippings and powder, of natural stone (including slate)				
6802.10	Tiles, cubes and similar articles, whether or not rectangular (including square), the largest surface area of which is capable of being enclosed in a square which is less than 7 cm; artificially coloured granules, chippings and powder				
6802.10.10	Roofing granules, artificially coloured	Free	Free	Free	Free
6802.10.90	Other	9.9%	6%	Free	Free
	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface:				
6802.21.00	Marble, travertine and alabaster	4.6%	1%	Free	Free
6802.22.00	Other calcareous stone	6.4%	3%	Free	Free
6802.23.00	Granite	4.4%	Free	Free	Free
6802.29.00	Other stone	6.4%	3%	Free	Free
	Other:				
6802.91.00	Marble, travertine and alabaster	7.2%	Free	Free	Free
6802.92.00	Other calcareous stone	7.9%	4%	Free	Free
6802.93.00	Granite	8.1%	6.5%	Free	Free
6802.99.00	Other stone	8.1%	6.5%	Free	Free
6803.00	Worked slate and articles of slate or of agglomerated slate				
6803.00.10	Roofing slate	Free	Free	Free	Free
6803.00.90	Other	8.1%	6.5%	Free	Free
68.04	Millstones, grindstones, grinding wheels and the like, without frameworks, for grinding, sharpening, polishing, trueing or cutting, hand sharpening or polishing stones, and parts thereof, of natural stone, of agglomerated natural or artificial abrasives, or of ceramics, with or without parts of other materials				
6804.10.00	Millstones and grindstones for milling, grinding or pulping	8.1%	Free	1%	Free
6804.23.00	Of natural stone	8.1%	Free	1%	Free

Sources: Customs Tariff, effective January 1997, Revenue Canada; Harmonized Tariff Schedule of the United States, 1997.

**TABLE 1. CANADA, STONE EXPORTS AND IMPORTS, 1995-96**

Item No.		1995		1996p	
		(tonnes)	(\$000)	(tonnes)	(\$000)
<b>EXPORTS</b>					
2514.00	Slate, whether or not roughly trimmed or merely cut, etc.	112	124	145	143
2515.11	Marble and travertine, crude or roughly trimmed	134	61	635	332
2515.12	Marble and travertine, merely cut, by sawing or otherwise, into blocks, etc.	74	40	51	34
		<b>(cubic metres)</b>		<b>(cubic metres)</b>	
2516.11	Granite, crude or roughly trimmed	33 199 <sup>r</sup>	16 683 <sup>r</sup>	35 086	18 898
		<b>(tonnes)</b>		<b>(tonnes)</b>	
2516.12	Granite, merely cut, by sawing or otherwise, into blocks, etc.	4 563	1 259	3 765	1 321
		<b>(cubic metres)</b>		<b>(cubic metres)</b>	
2516.21	Sandstone, crude or roughly trimmed	237	123	10	3
		<b>(tonnes)</b>		<b>(tonnes)</b>	
2516.22	Sandstone, merely cut, by sawing or otherwise, into blocks, etc.	4	15	7	19
2516.90	Monumental or building stone, n.e.s.	2 508	336	7 640	1 386
2517.10	Pebbles, gravel, broken or crushed stone used for aggregates, etc.	2 615 724 <sup>r</sup>	21 180 <sup>r</sup>	2 745 623	20 079
2517.41	Marble granules, chipping and powder of 25.15 or 25.16, heat-treated or not	80 406	8 824	31 778	3 556
2517.49	Granules, chippings and powder, n.e.s. of 25.15 or 25.16, heat-treated or not	180 397	655	113 179	697
6801.00	Setts, curbstones and flagstones of natural stone (except slate)	..	101 <sup>r</sup>	..	289
6802.10	Tiles, etc., rectangular or square not more than 7 cm, etc., artificially coloured granules, chippings and powder	..	275	..	1 687
6802.21	Monumental or building stone, cut or sawn, flat or even, marble, travertine and alabaster	..	60 <sup>r</sup>	..	17
6802.22	Monumental or building stone, cut or sawn, flat or even, other calcareous stone	..	28	..	318
6802.23	Monumental or building stone, cut or sawn, flat or even, granite	..	3 007 <sup>r</sup>	..	2 354
6802.29	Monumental or building stone, cut or sawn, flat or even, n.e.s.	..	292	..	374
6802.91	Worked monumental or building stone, n.e.s., marble, travertine or alabaster	..	2 521	..	1 403
6802.92	Worked monumental or building stone, n.e.s., calcareous stone, n.e.s.	..	145 <sup>r</sup>	..	263
6802.93	Worked monumental or building stone, n.e.s., granite	..	28 075 <sup>r</sup>	..	35 796
6802.99	Worked monumental or building stone, n.e.s.	..	8 221 <sup>r</sup>	..	11 266
6803.00	Worked slate and articles of slate or agglomerated slate	..	3 765 <sup>r</sup>	..	4 131
6804.10	Millstones and grindstones for milling, grinding or pulping	..	5 513	..	5 741
6804.23	Millstones, grindstones, etc., of natural stone	..	2 786 <sup>r</sup>	..	1 147
<b>IMPORTS</b>					
2514.00	Slate, whether or not roughly trimmed or merely cut, etc.	3 713	851	3 852	839
2515.11	Marble and travertine, crude or roughly trimmed	1 863	623	2 464	606

Table 1 (cont'd)

Item No.		1995		1996 <sup>p</sup>	
		(tonnes)	(\$000)	(tonnes)	(\$000)
2515.12	Marble and travertine, merely cut, by sawing or otherwise, into blocks, etc.	1 345	1 255	1 022	506
2516.11	Granite, crude or roughly trimmed	38 228	9 491	46 627	12 889
2516.12	Granite, merely cut, by sawing or otherwise, into blocks, etc.	2 871	1 893	6 909	2 489
2516.21	Sandstone, crude or roughly trimmed	2 467	473	6 414	946
2516.22	Sandstone, merely cut, by sawing or otherwise, into blocks, etc.	4 990	1 158	5 125	1 180
2516.90	Monumental or building stone, n.e.s.	6 627	1 279	9 034	1 608
2517.10	Pebbles, gravel, broken or crushed stone used for aggregates, etc.	1 217 168	10 994	3 325 862	16 615
2517.41	Marble granules, chipping and powder of 25.15 or 25.16, heat-treated or not	77 847	10 513	68 470	9 729
2517.49	Granules, chippings and powder, n.e.s. of 25.15 or 25.16, heat-treated or not	266 064	3 533	215 304	2 952
6801.00	Setts, curbstones and flagstones of natural stone (except slate)	..	484	..	472
6802.10	Tiles, etc., rectangular or square not more than 7 cm, etc., artificially coloured granules, chippings and powder	..	4 540	..	319
6802.21	Monumental or building stone, cut or sawn, flat or even, marble, travertine and alabaster	..	5 718	..	6 323
6802.22	Monumental or building stone, cut or sawn, flat or even, other calcareous stone	..	272	..	354
6802.23	Monumental or building stone, cut or sawn, flat or even, granite	9 128	8 882	7 612	8 706
6802.29	Monumental or building stone, cut or sawn, flat or even, n.e.s.	..	358	..	312
6802.91	Worked monumental or building stone, n.e.s., marble, travertine or alabaster	..	13 916	..	14 322
6802.92	Worked monumental or building stone, n.e.s., calcareous stone, n.e.s.	..	302	..	582
6802.93	Worked monumental or building stone, n.e.s., granite	11 574	12 218	7 602	10 948
6802.99	Worked monumental or building stone, n.e.s.	..	889	..	1 519
6803.00	Worked slate and articles of slate or agglomerated slate	..	6 019	..	4 764
6804.10	Millstones and grindstones for milling, grinding or pulping	..	1 718	..	1 976
6804.23	Millstones, grindstones, etc., of natural stone	..	12 947	..	1 689

Source: Statistics Canada.

– Nil; .. Not available or not applicable; n.e.s. Not elsewhere specified; <sup>p</sup> Preliminary; <sup>r</sup> Revised.

TABLE 2. CANADA, TOTAL PRODUCTION OF STONE, 1994-96

	1994		1995		1996P	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
<b>BY PROVINCE<sup>1</sup></b>						
Newfoundland	1 416	11 924	1 097	9 812	1 094	11 361
Nova Scotia	5 454	29 271	7 233	39 255	6 086	36 154
New Brunswick	3 057	19 195	3 892	22 153	3 596	20 034
Quebec	34 069	208 128	32 803	197 725	28 510	172 092
Ontario	39 445	236 483	41 683	252 409	35 517	241 707
Manitoba	2 861	12 032	3 551	15 020	2 952	11 939
Alberta	382	3 996	466	4 494	371	4 898
British Columbia	4 904	35 530	7 204	45 942	7 281	50 019
Northwest Territories and Yukon	913	3 332	649	4 447	651	4 438
Total	92 502	559 890	98 578	591 255	86 057	552 644
<b>BY USE<sup>2</sup></b>						
Dimensional stone						
Rough	169	21 256	238	26 042	..	..
Monumental and ornamental stone (n.f.)	45	4 900	43	5 147	..	..
Other (flagstone, curbstone, paving blocks, etc.)	69	3 699	40	2 810	..	..
Lining open-hearth furnaces	-	-	-	-	..	..
Chemical and metallurgical						
Cement plants, Canada	13 321	42 044	14 953	49 880	..	..
Cement plants, foreign	1 654	7 274	1 648	7 386	..	..
Flux in iron and steel furnaces	190	1 359	307	2 380	..	..
Flux in nonferrous smelters	154	956	181	1 501	..	..
Glass factories	158	3 158	146	2 860	..	..
Lime plants, Canada	2 367	20 565	3 473	25 222	..	..
Lime plants, foreign	1 124	4 541	347	2 216	..	..
Pulp and paper mills	234	1 900	130	1 449	..	..
Sugar refineries	16	75	20	284	..	..
Other chemical uses	1 400	8 290	1 028	6 318	..	..
Pulverized stone						
Whiting	41	3 122	37	2 920	..	..
Asphalt filler	124	464	190	630	..	..
Dusting coal mines	6	320	5	291	..	..
Agricultural purposes and fertilizer plants	1 053	15 012	1 109	16 272	..	..
Other uses	1 125	21 888	739	23 362	..	..
Miscellaneous stone						
Manufacture of artificial stone	21	184	29	224	..	..
Roofing granules	450	11 169	473	13 616	..	..
Poultry grit	57	1 163	55	1 210	..	..
Stucco dash	24	1 475	18	2 015	..	..
Terrazzo chips	3	279	4	404	..	..
Rock wool	13	125	1	25	..	..
Rubble and riprap	957	5 805	1 259	6 417	..	..
Other uses	1 247	8 934	1 519	9 748	..	..
Crushed stone for						
Concrete aggregate	9 592	55 842	9 345	50 782	..	..
Asphalt aggregate	8 025	47 200	11 589	67 055	..	..
Road metal	33 874	170 880	39 731	196 619	..	..
Railroad ballast (includes traprock)	2 390	20 209	1 478	12 515	..	..
Other uses	29 101	141 668	27 459	130 944	..	..
Total	109 004	625 756	117 595	668 546	..	..

Sources: Natural Resources Canada; Statistics Canada.

.. Not available; n.f. Not finished or dressed; P Preliminary.

<sup>1</sup> Data exclude stone used in the Canadian cement and lime industries. <sup>2</sup> Data include stone used in the Canadian cement and lime industries.

Note: Numbers may not add to totals due to rounding.



**TABLE 3. CANADA, PRODUCTION OF LIMESTONE, 1994-96**

	1994		1995		1996p	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
<b>BY PROVINCE<sup>1</sup></b>						
Newfoundland	1 184	6 618	753	4 027	902	4 961
Nova Scotia	215	3 829	160	2 887	181	3 804
New Brunswick	564	7 018	538	6 878	445	6 164
Quebec	24 832	133 401	22 849	119 819	20 361	105 497
Ontario	37 521	198 032	39 965	212 111	33 270	184 124
Manitoba	2 556	10 170	3 188	13 058	2 524	9 635
Alberta	317	3 309	397	3 696	328	4 139
British Columbia	3 015	20 038	3 464	22 009	2 007	16 405
Northwest Territories and Yukon	102	447	61	301	78	335
Total	70 305	382 861	71 376	384 785	60 096	335 064
<b>BY USE<sup>2</sup></b>						
Dimensional stone						
Rough	33	1 634	55	3 416	..	..
Monumental and ornamental stone (n.f.)	8	231	8	212	..	..
Other (flagstone, curbstone, paving blocks, etc.)	51	2 379	24	1 637	..	..
Lining, open-hearth furnaces	-	-	-	-	..	..
Chemical and metallurgical						
Cement plants, Canada	13 039	41 080	14 625	48 963	..	..
Cement plants, foreign	1 654	7 274	1 648	7 386	..	..
Flux in iron and steel furnaces	190	1 359	307	2 380	..	..
Flux in nonferrous smelters	154	956	181	1 501	..	..
Glass factories	146	2 870	146	2 860	..	..
Lime plants, Canada	2 367	20 565	3 473	25 222	..	..
Lime plants, foreign	1 124	4 541	347	2 216	..	..
Pulp and paper mills	234	1 900	130	1 449	..	..
Sugar refineries	16	75	20	284	..	..
Other chemical uses	587	5 033	436	4 130	..	..
Pulverized stone						
Whiting	41	3 122	37	2 920	..	..
Asphalt filler	84	356	130	581	..	..
Dusting, coal mines	6	320	5	291	..	..
Agricultural purposes and fertilizer plants	1 014	14 542	1 097	16 117	..	..
Other uses	739	4 617	130	2 412	..	..
Miscellaneous stone						
Manufacture of artificial stone	19	168	3	32	..	..
Roofing granules	145	1 434	120	1 388	..	..
Poultry grit	56	1 031	54	1 105	..	..
Stucco dash	22	1 135	18	1 981	..	..
Rock wool	4	10	1	25	..	..
Rubble and riprap	629	5 230	927	4 902	..	..
Other uses	631	6 782	1 016	7 487	..	..
Crushed stone for						
Concrete aggregate	7 276	42 031	6 666	36 924	..	..
Asphalt aggregate	5 453	29 876	6 483	36 533	..	..
Road metal	28 293	140 396	30 736	150 706	..	..
Railroad ballast	730	3 408	127	643	..	..
Other uses	20 966	100 152	20 524	93 268	..	..
Total	85 711	444 506	89 474	458 971	..	..

Sources: Natural Resources Canada; Statistics Canada.

- Nil; . . Not available; n.f. Not finished or dressed; p Preliminary.

<sup>1</sup> Data exclude stone used in Canadian cement and lime industries. <sup>2</sup> Data include stone used in the Canadian cement and lime industries.

Note: Numbers may not add to totals due to rounding.

**TABLE 4. CANADA, PRODUCTION OF MARBLE,<sup>1</sup> 1994-96**

	1994		1995		1996P	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
<b>BY PROVINCE</b>						
Quebec	467	9 397	602	9 250	387	8 861
Ontario	340	13 402	388	16 427	449	20 377
British Columbia	—	—	...	19	2	125
Total	808	22 799	990	25 697	838	29 363
<b>BY USE</b>						
Dimensional stone						
Rough	9	499	6	483	..	..
Monumental and ornamental stone (n.f.)	—	—	—	—	..	..
Other (flagstone, curbstone, paving, blocks, etc.)	—	—	—	—	..	..
Chemical process stone						
Glass factories	12	288	—	—	..	..
Pulverized stone						
Agricultural purposes and fertilizer plants	39	468	12	156	..	..
Other uses	387	17 259	452	20 014	..	..
Miscellaneous stone						
Roofing granules	...	15	—	—	..	..
Poultry grit	...	9	...	5	..	..
Stucco dash	2	295	—	—	..	..
Terrazzo chips	3	279	4	404	..	..
Rubble and riprap	...	15	...	9	..	..
Other uses	2	33	10	592	..	..
Crushed stone for						
Concrete aggregate	159	1 969	20	178	..	..
Asphalt aggregate	1	7	72	384	..	..
Road metal	13	59	196	951	..	..
Other uses	182	1 603	216	2 521	..	..
Total	808	22 799	990	25 697	..	..

Sources: Natural Resources Canada; Statistics Canada.

— Nil; .. Not available; ... Amount too small to be expressed; n.f. Not finished or dressed; P Preliminary.

<sup>1</sup> Marble refers to a commercial definition that may also include limestone, travertine and greenstone (serpentinite or amphibole).

Note: Numbers may not add to totals due to rounding.

**TABLE 5. CANADA, PRODUCTION OF GRANITE, 1994-96**

	1994		1995		1996p	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
<b>BY PROVINCE<sup>1</sup></b>						
Newfoundland	104	1 339	239	1 807	53	1 844
Nova Scotia	3 867	19 766	6 043	30 826	4 933	26 360
New Brunswick	2 313	11 539	3 255	14 808	3 074	13 524
Quebec	6 182	49 548	7 109	52 971	5 805	44 721
Ontario	1 574	23 661	1 308	22 301	1 787	35 712
Manitoba	157	1 775	179	1 851	270	2 197
British Columbia	1 865	15 252	2 283	16 913	2 755	20 330
Northwest Territories and Yukon	263	2 372	568	4 102	545	4 041
Total	16 325	125 252	20 982	145 580	19 223	148 729
<b>BY USE<sup>2</sup></b>						
Dimensional stone						
Rough	73	11 596	121	14 100	..	..
Monumental and ornamental stone (n.f.)	34	4 622	33	4 900	..	..
Other (flagstone, curbstone, paving blocks, etc.)	5	688	4	597	..	..
Chemical and metallurgical						
Cement plants, Canadian	–	–	5	30	..	..
Pulverized stone						
Asphalt filler	39	108	60	49	..	..
Agricultural purposes and fertilizer plants	...	2	–	–	..	..
Other	...	12	10	51	..	..
Miscellaneous stone						
Artificial stone	2	16	26	192	..	..
Roofing granules	305	9 718	349	12 132	..	..
Poultry grit	1	123	1	101	..	..
Stucco dash	...	45	...	34	..	..
Terrazzo chips	–	–	–	–	..	..
Rock wool	9	100	–	–	..	..
Rubble and riprap	68	350	267	1 251	..	..
Other uses	356	1 848	294	1 479	..	..
Crushed stone for						
Concrete aggregate	1 750	9 834	1 755	8 881	..	..
Asphalt aggregate	2 232	14 975	4 622	26 964	..	..
Road metal	4 703	26 288	7 277	37 294	..	..
Railroad ballast (includes traprock)	1 590	16 380	1 331	11 811	..	..
Other uses	5 157	28 546	4 832	25 764	..	..
Total	16 325	125 252	20 987	145 610	..	..

Sources: Natural Resources Canada; Statistics Canada.

– Nil; .. Not available; ... Amount too small to be expressed; n.f. Not finished or dressed; P Preliminary.

<sup>1</sup> Data excludes stone used in the Canadian cement and lime industries. <sup>2</sup> Data includes stone used in the Canadian cement and lime industries.

Notes: Numbers may not add to totals due to rounding. Data includes shipments by producers regardless of industrial classification. Granite includes all igneous rock.

**TABLE 6. CANADA, PRODUCTION OF SANDSTONE, 1994-96**

	1994		1995		1996p	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
<b>BY PROVINCE<sup>1</sup></b>						
Newfoundland	124	566	102	478	135	556
Nova Scotia	1 340	5 547	997	5 412	946	5 903
New Brunswick	101	243	15	46	23	79
Quebec	1 782	12 654	1 675	13 454	1 767	11 284
Ontario	11	1 388	22	1 569	11	1 494
Alberta	6	587	10	697	5	695
Total	3 363	20 986	2 821	21 657	2 888	20 010
<b>BY USE<sup>2</sup></b>						
Dimensional stone						
Rough	50	4 126	53	4 566	..	..
Monumental and ornamental stone (n.f.)	3	47	3	33	..	..
Other (flagstone, curbstone, paving blocks, etc.)	12	632	11	576	..	..
Chemical process stone						
Cement plants, Canadian	49	231	22	90	..	..
Pulverized stone						
Other	—	—	147	885	..	..
Miscellaneous stone						
Roofing granules	—	—	5	94	..	..
Rubble and riprap	258	217	44	211	..	..
Other	95	143	9	45	..	..
Crushed stone for						
Concrete aggregate	407	2 009	196	1 440	..	..
Asphalt aggregate	309	2 191	412	3 175	..	..
Road metal	713	3 499	1 217	6 395	..	..
Railroad ballast	21	178	20	62	..	..
Other uses	1 494	7 945	706	4 177	..	..
Total	3 412	21 217	2 843	21 748	..	..

Sources: Natural Resources Canada; Statistics Canada.

— Nil; .. Not available; n.f. Not finished or dressed; p Preliminary.

<sup>1</sup> Data exclude stone used in Canadian cement and lime industries. <sup>2</sup> Data include stone used in Canadian cement and lime industries.

Note: Numbers may not add to totals due to rounding.

**TABLE 7. CANADA, PRODUCTION OF SHALE,<sup>1</sup> 1994-96**

	1994		1995		1996 <sup>p</sup>	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
<b>BY PROVINCE<sup>2</sup></b>						
Newfoundland	4	3 400	4	3 500	4	4 000
Nova Scotia	32	129	32	130	25	88
New Brunswick	79	395	84	420	54	268
Quebec	806	3 129	569	2 230	190	1 729
Manitoba	148	87	184	111	158	108
Alberta	59	100	59	100	38	64
British Columbia	24	240	1 456	7 001	2 517	13 159
Northwest Territories and Yukon	549	513	21	44	28	62
Total	1 701	7 993	2 409	13 536	3 014	19 478
<b>BY USE<sup>3</sup></b>						
Dimensional stone	4	3 400	4	3 500	..	..
Chemical and metallurgical						
Cement plants, Canadian	234	733	301	797	..	..
Clay plants, Canadian	813	3 257	-	-	..	..
Other chemical uses	-	-	592	2 188	..	..
Miscellaneous stone						
Roofing granules	-	-	...	1	..	..
Rubble and riprap	2	9	21	44	..	..
Other uses	163	130	191	145	..	..
Crushed stone for						
Asphalt aggregate	30	152	-	-	..	..
Concrete aggregate	-	-	708	3 359	..	..
Road metal	152	638	304	1 274	..	..
Railway ballast	49	244	-	-	..	..
Other uses	1 302	3 420	1 181	5 214	..	..
Total	2 748	11 983	3 301	16 521	..	..

Sources: Natural Resources Canada; Statistics Canada.

- Nil; . . Not available; . . . Amount too small to be expressed; <sup>p</sup> Preliminary.<sup>1</sup> May include slate. <sup>2</sup> Data exclude stone used in the Canadian cement and lime industries. <sup>3</sup> Data include stone used in the Canadian cement and lime industries.

Note: Numbers may not add to totals due to rounding.

**TABLE 8. CANADA, PRODUCTION OF STONE BY TYPES,<sup>1</sup> 1980, 1985 AND 1994-96**

	1980		1985		1994		1995		1996 <sup>p</sup>	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
Granite	39 983	140 914	17 219	95 424	16 325	125 252	20 982	145 580	19 223	148 729
Limestone	58 191	185 085	77 874	317 862	70 305	382 861	71 376	384 785	60 096	335 064
Marble	316	1 807	571	13 966	808	22 799	990	25 697	838	29 363
Sandstone	3 064	11 540	3 011	15 310	3 363	20 986	2 821	21 657	2 888	20 010
Shale <sup>2</sup>	1 812	1 810	1 561	3 059	1 701	7 993	2 409	13 536	3 014	19 478
Total	103 366	341 156	100 236	445 622	92 502	559 890	98 578	591 255	86 057	552 644

Sources: Natural Resources Canada; Statistics Canada.

<sup>p</sup> Preliminary.<sup>1</sup> Data exclude stone used in the Canadian cement and lime industries. <sup>2</sup> May include slate.

Note: Numbers may not add to totals due to rounding.

**TABLE 9. CANADA, ROUGH GRANITE, SUMMARY OF PRODUCTION AND TRADE, 1980 AND 1985-96**

	Quantity Value	Production <sup>1</sup>	Imports <sup>2</sup>	Exports <sup>2</sup>
1980	t	81 000	24 130	5 019 <sup>a</sup>
	\$ millions	5.6	1.9	0.7
1985	t	104 000	34 468	12 511 <sup>a</sup>
	\$ millions	12.8	6.2	1.7
1986	t	121 000	33 994	18 450 <sup>a</sup>
	\$ millions	15.7	6.6	2.7
1987	t	112 000	46 370	37 450 <sup>a</sup>
	\$ millions	16.1	7.9	6.0
1988	t	153 000	46 282	86 940
	\$ millions	24.4	11.2	16.2 <sup>r</sup>
1989	t	162 000	52 337	107 105
	\$ millions	24.8	11.7	17.3
1990	t	166 000	46 149	79 640 <sup>r</sup>
	\$ millions	33.6	11.2	19.8 <sup>r</sup>
1991	t	122 000	35 038	91 630 <sup>r</sup>
	\$ millions	24.0	8.5	22.6
1992	t	127 000	44 951	94 530 <sup>r</sup>
	\$ millions	20.3	10.5	21.4
1993	t	134 000	41 484	136 840 <sup>r</sup>
	\$ millions	18.1	10.8	20.3
1994	t	112 000	35 619	116 100 <sup>r</sup>
	\$ millions	16.9	10.1	20.0
1995	t	158 000	41 099	94 200 <sup>r</sup>
	\$ millions	19.6	11.4	17.9
1996	t	160 000 <sup>e</sup>	53 543	98 500 <sup>r</sup>
	\$ millions	20.0 <sup>e</sup>	15.4	20.2

Sources: Natural Resources Canada; Statistics Canada.

<sup>e</sup> Estimated; <sup>r</sup> Assumes a factor of 2.7 for converting cubic metres to tonnes.

<sup>a</sup> Coded as building stone, rough (90% is considered to be granite).

<sup>1</sup> Includes rough stone for construction, monumental/ornamental and other uses.

<sup>2</sup> Includes codes 2516.11 (roughly trimmed block) and 2516.12 (cut block by sawing or otherwise). Some re-exports to the United States may also be involved.