

Stone

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The volume of all types of stone shipped in Canada in 2002 was approximately 119 Mt based on preliminary figures. This amount is about 5% less than in 2001. However, the reported value of total shipments of all stone in 2002 was approximately \$972 million, about 1.5% higher than the previous year. Shipments served a very wide range of uses related to dimension stone for construction and monuments; crushed stone for construction, chemical, metallurgical and miscellaneous uses; and pulverized stone for mineral fillers, agricultural uses and miscellaneous other uses (see Table 3).

Shipments of crushed stone (mainly chemical-grade limestone) for producing cement, as well as lime, are essentially accounted for in separate chapters entitled "Cement" and "Lime." Additional detailed information on regular aggregates (including crushed stone and sand and gravel), as well as on lightweight aggregates, is included in a separate chapter entitled "Mineral Aggregates." The lightweight aggregates included are: expanded shales/clays, perlite, vermiculite, pumice, and expanded ferrous slags or granules.

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 9 inclusive. The term "granite," as commercially applied, includes true granite, granodiorite, gneiss, and other medium- to coarse-grained igneous rocks. However, "black granite" may include anorthosite and other dark-coloured igneous rocks. Limestone and marble are often confused, marble being the metamorphosed equivalent of the former rock, and usually includes both dolomitic and calcitic varieties. As an industrial term,

"marble" refers to recrystallized calcareous rock capable of taking a polish.

Developments in the dimension stone industry have continued to expand in Quebec, which accounts for about 75% of Canada's production of rough granite used for construction (Figure 3). However, new quarries have also been developed during recent years in other provinces, along with additional fabricating capacity to produce finished products for both domestic and export markets. In both British Columbia and Newfoundland and Labrador, there has been increased output of rough granite, finished granite, and rough and finished slate products; in Ontario, there has been increased output of a broad range of rough finished stone products. Some details by province on the types of dimension stone produced are included in catalogue no. 26-226-XIB, *Non-Metallic Mineral Mining and Quarrying* (see Table 10), which is available on the Internet at www.statcan.ca/english/freepub/26-226-XIB/free.htm.

Major trends in exports of rough dimension stone and relatively high value-added finished stone products from both domestic rough stone blocks and imported blocks, during the period 1998-2002, are summarized as follows: 1) in Quebec, there has been a combined increase of 38% in the value of exports of rough granite and worked granite, along with finished slate, to about \$105 million in 2002; 2) in Ontario, there has been a 60% increase in the combined value of exports of rough and finished products mainly relating to granite, slate, marble and other calcareous stone to about \$20 million; and 3) in British Columbia there has been a doubling in the value of exports of rough and finished dimension stone products to about \$17 million. Total exports of all rough stone and finished stone products (excluding crushed stone products) amounted to about \$190 million in 2002 (Table 1).

It is expected that growth in the use of dimension stone in Canada will be maintained in 2003 based mainly on continued strength in commercial construction, including office buildings. Similarly, exports of rough stone and fabricated stone products are expected to remain firm despite growing weakness during early 2003 in public construction in the United States. Good-quality rough slate and worked slate products continue to be of growing importance in world markets.

Additional information on the Canadian stone industry can be found at provincial government web sites relating to natural resources (links to these are available on Natural Resources Canada's web site at www.nrcan.gc.ca/mms/lien/ptd_e.htm).

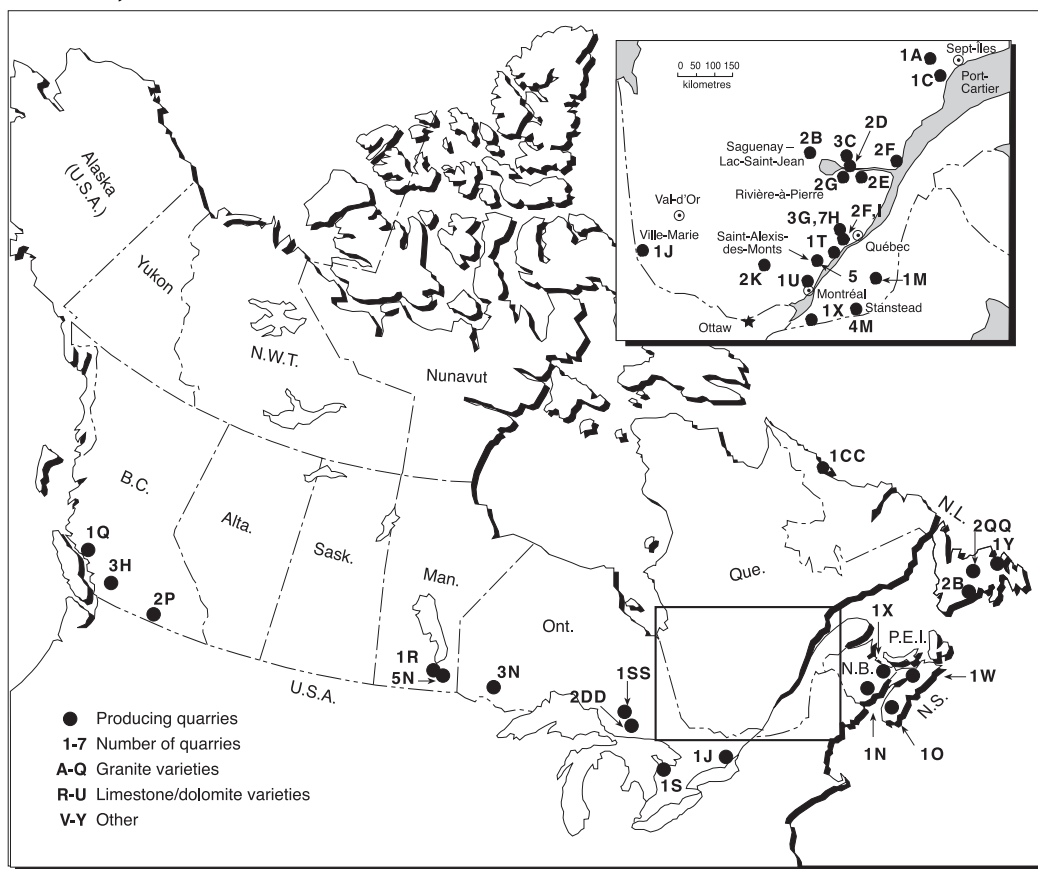
In addition, commercial names relating to many rough and finished stone products can be found at the Canadian Stone Association's (CSA) web site at www.stone.ca.

Notes: (1) For definitions and valuation of mineral production, shipments and trade, please refer to Chapter 64. (2) Information in this review was current as of February 1, 2003. (3) This and other reviews, including previous editions, are available on the Internet at www.nrcan.gc.ca/mms/cmty/com_e.html.

NOTE TO READERS

The intent of this document is to provide general information and to elicit discussion. It is not intended as a reference, guide or suggestion to be used in trading, investment, or other commercial activities. The author and Natural Resources Canada make no warranty of any kind with respect to the content and accept no liability, either incidental, consequential, financial or otherwise, arising from the use of this document.

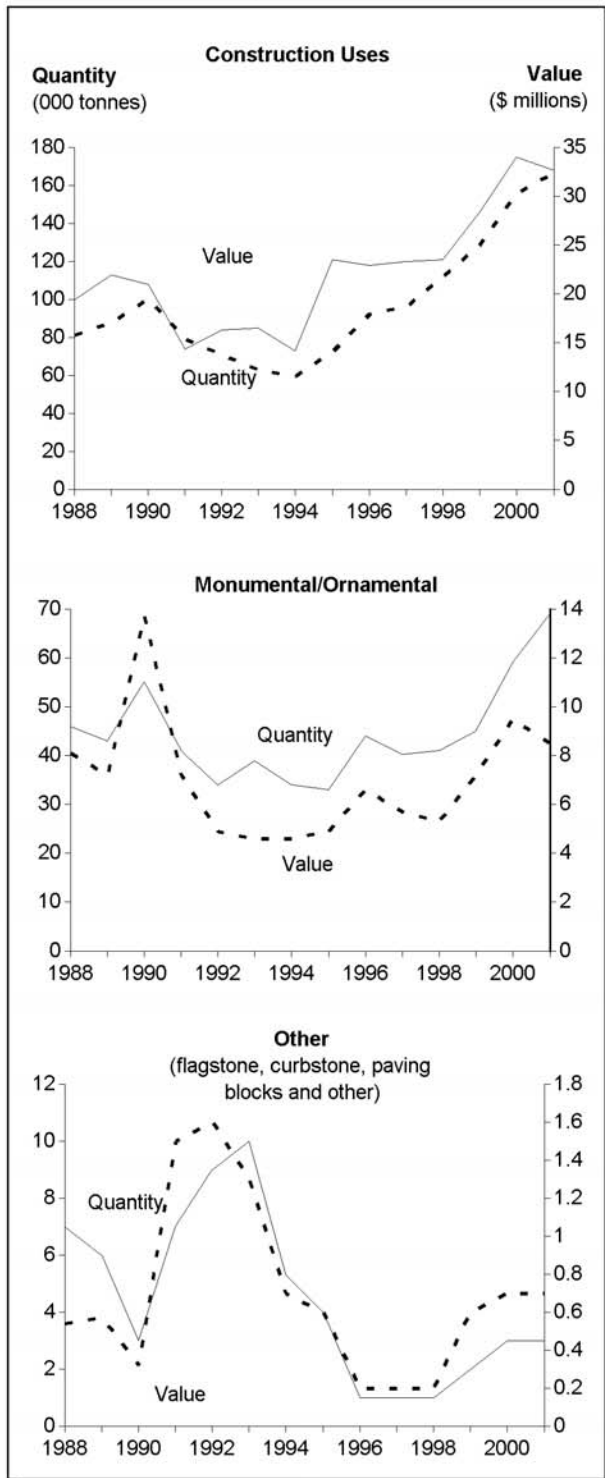
Figure 1
Canada, Architectural and Monumental/Ornamental Stone-Producing
Centres, 2001



- | | |
|--|---|
| <ul style="list-style-type: none"> A Fine-grained pinkish-grey banded gneiss B Medium-grained pink granite C Coarse-grained black anorthosite CC Medium-grained "Reflect blue" anorthosite D Medium-grained black gabbroic anorthosite DD Blue-grey, and black and white anorthosite E Medium-grained pinkish-grey quartz monzonite F Fine-grained pink granitic gneiss G Coarse-grained green charnockite H Coarse-grained pink-grey or brown-grey granite I Medium-grained grey dioritic gneiss J Medium-grained red granite 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 | <ul style="list-style-type: none"> O Fine-grained blue-grey granite P Coarse coral pink granite Q Medium-grained blue-grey granite QQ Medium-grained gabbro R Light-coloured mottled dolomitic limestone (Tyndall) S Fine-medium crystalline blue-grey to buff marble/dolostone (Arriscraft) SS Fine-grained, multicoloured pre-Cambrian marble T Medium-grained light brownish-grey limestone (Deschambault) U Medium-grained blue-grey limestone (Chazy) V Medium-grained olive sandstone W Fine-medium-grained olive-brown and blue-grey sandstone X Fine-medium-grained white to buff sandstone (Potsdam) Y Very fine-grained varicoloured slate |
|--|---|

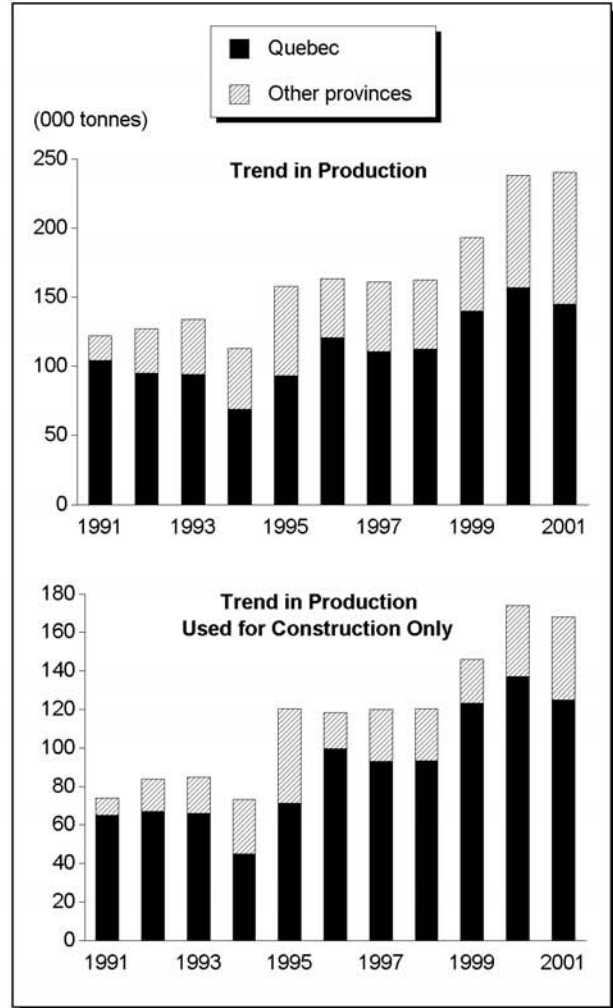
Source: Mainly provincial departments of Mines and Energy.

Figure 2
Canada, Production of Rough Granite
(Sold and Used by Producers), 1988-2001



Sources: Natural Resources Canada; Statistics Canada.

Figure 3
Canada, Trends in Production of Rough
Dimensional Granite for Construction,
Monumental/Ornamental and Other Uses,
1991-2001



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	Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	3.5%	Free	Free	Free
2514.00.90	Other	Free	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				
	Marble and travertine:				
2515.11.00	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	Free	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	3.5%	Free	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				
	Granite:				
2516.11.00	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-3.5%	Free	Free	Free
	Sandstone:				
2516.21.00	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	3.5%	Free	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	3.5%	Free	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

TARIFFS (cont'd)

Item No.	Description	Canada			United States
		MFN	GPT	USA	Canada
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
2517.30.00	Tarred macadam Granules, chippings and powder, of stones of heading nos. 25.15 or 25.16, whether or not heat-treated:	6.5%	Free	Free	Free
2517.41.00	Of marble	Free	Free	Free	Free
2517.49	Other				
2517.49.10	Limestone, roofing granules	Free	Free	Free	Free
2517.49.90	Other	Free	Free	Free	Free
6801.00	Setts, curbstones and flagstones of natural stone (except slate)	3.5%	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 the side of which is less than 7 cm; artificially coloured granules, chippings and powder				
6802.10.10	Artificially coloured roofing granules	Free	Free	Free	Free
6802.10.90	Other Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface:	8%	5%	Free	Free
6802.21.00	Marble, travertine and alabaster	3.5%	Free	Free	Free
6802.22.00	Other calcareous stone	5%	Free	Free	Free
6802.23.00	Granite	3.5%	Free	Free	Free
6802.29.00	Other stone Other:	5%	Free	Free	Free
6802.91.00	Marble, travertine and alabaster	6%	Free	Free	Free
6802.92.00	Other calcareous stone	6.5%	3%	Free	Free
6802.93.00	Granite	6.5%	6.5%	Free	Free
6802.99.00	Other stone	6.5%	6.5%	Free	Free
6803.00	Worked slate and articles of slate or of agglomerated slate				
6803.00.10	Roofing slate; slate for use in the manufacture of billiard tables	Free	Free	Free	Free
6803.00.90	Other	6.5%	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				
6804.10.00	Millstones and grindstones for milling, grinding or pulping	6.5%	Free	Free	Free
6804.23.00	Of natural stone	6.5%	Free	Free	Free

Sources: Canadian *Customs Tariff*, effective January 2003, Canada Customs and Revenue Agency; *Harmonized Tariff Schedule of the United States*, 2003.

TABLE 1. CANADA, STONE EXPORTS AND IMPORTS, 2000-02

Item No.		2000		2001		2002 (p)	
		(t)	(\$000)	(t)	(\$000)	(t)	(\$000)
EXPORTS							
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	271	137	357	252	299	138
2515.11	Marble and travertine: Crude or roughly trimmed; other calcareous stone	4	4	5	14	30	60
2515.12	Marble and travertine: Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape; other calcareous stone	633	440	604	358	191	142
		(cubic metres)		(cubic metres)		(cubic metres)	
2516.11	Granite: Crude or roughly trimmed	28 260	13 163	31 569	13 195	41 229	11 168
		(tonnes)		(tonnes)		(tonnes)	
2516.12	Granite: Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	19 379	6 248	25 592	6 832	15 164	5 414
		(cubic metres)		(cubic metres)		(cubic metres)	
2516.21	Sandstone: Crude or roughly trimmed	15	13	45	91	47	80
		(tonnes)		(tonnes)		(tonnes)	
2516.22	Sandstone: Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	118	56	338	194	36	70
2516.90	Other monumental or building stone	3 151	806	3 176	1067	7 258	2 993
2517.10	Pebbles and gravel 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	3 778 004	35 450	4 911 787	49 130	5 099 794	62 766
2517.41	Granules, chippings and powder, of stones of heading No. 25.15 or 25.16, whether or not heat-treated: Of marble	347 873	56 015	49 078	8 983	32 365	6 864
2517.49	Granules, chippings and powder, of stones of heading No. 25.15 or 25.16, whether or not heat-treated: Other	100 853	6 103	35 520	1 269	4 722	446
6801.00	Setts, curbstones and flagstones, of natural stone (except slate)	..	1 631	..	2 496	..	3 543
6802.10	Tiles, cubes and similar articles, whether or not rectangular	..	35 739	..	41 932	..	19 930
6802.21	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface: Marble, travertine and alabaster	..	39	..	687	..	636
6802.22	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface: Other calcareous stone	..	73	..	647	..	3310
6802.23	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface: Granite	..	1 862	..	4 145	..	2 145
6802.29	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface: Other stone	..	941	..	1169	..	958
6802.91	Other: Marble, travertine and alabaster	..	1 403	..	2 051	..	3 137
6802.92	Other: Other calcareous stone	..	4 196	..	8 948	..	7 735
6802.93.10	Other: Granite. Monuments, bases and markers, finished	14 269	26 407	10 303	20 573	12 938	21 800
6802.93.90	Other: Granite. Other	25 605	38 713	44 950	43 650	28 590	49 048
6802.99	Other: Other stone	..	31 596	..	40 087	..	40 887
6803.00	Worked slate and articles of slate or of agglomerated slate	..	11 148	..	6 371	..	15 808

TABLE 1 (cont'd)

Item No.		2000		2001		2002 (p)	
		(t)	(\$000)	(t)	(\$000)	(t)	(\$000)
EXPORTS (cont'd)							
6804.10	Millstones and grindstones for milling, grinding or pulping	..	4 521	..	5 233	..	5 154
6804.23	Other millstones, grindstones, grinding wheels and the like: Of natural stone	..	538	..	438	..	140
	Total exports	..	277 242	..	259 812	..	264 372
IMPORTS							
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	4 147	1 973	6 371	3 399	8 645	4 532
2515.11	Marble and travertine: Crude or roughly trimmed; other calcareous stone	1 628	810	2 157	927	2 585	1494
2515.12	Marble and travertine: Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	1 433	979	1 278	1060	2 664	2 860
2516.11	Granite: Crude or roughly trimmed.	62 059	18 351	81 433	24 144	79 639	25 231
2516.12	Granite: Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	3 982	3 510	4 034	3 719	4 557	3 770
2516.21	Sandstone: Crude or roughly trimmed	6 002	625	11 847	1573	13 263	1 604
2516.22	Sandstone: Merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape	5 268	1 749	5 010	1 758	4 998	1 743
2516.90	Other monumental or building stone	9 909	3 118	8 539	3 520	9 365	3 775
2517.10	Pebbles and gravel 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	3 127 278	17 314	3 219 677	17 304	3 372 987	19 911
2517.41	Granules, chippings and powder, of stones of heading No. 25.15 or 25.16, whether or not heat-treated: Of marble	59 201	10 435	73 417	15 562	82 869	16 962
2517.49	Granules, chippings and powder, of stones of heading No. 25.15 or 25.16, whether or not heat-treated: Other	30 058	1 730	27 859	1 691	27 342	2 340
6801.00	Setts, curbstones and flagstones, of natural stone (except slate)	..	438	..	713	..	903
6802.10	Tiles, cubes and similar articles, whether or not rectangular	..	795	..	554	..	714
6802.21	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface: Marble, travertine and alabaster	..	11 136	..	11 889	..	12 700
6802.22	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface: Other calcareous stone	..	248	..	637	..	413
6802.23.00.10	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface: Granite. Building stone	5 550	6 692	5 692	7 082	5 843	7 879
6802.23.00.20	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface: Granite. Monumental	643	772	695	759	1470	1525
6802.23.00.90	Other monumental or building stone and articles thereof, simply cut or sawn, with a flat or even surface: Granite. Monumental	10 493	14 698	11 089	16 559	15 751	22 483
6802.29	Other stone	..	2 381	..	2 651	..	2 430
6802.91	Other: Marble, travertine and alabaster	..	20 531	..	25 936	..	29 949
6802.92	Other: Other calcareous stone	..	3 024	..	5 347	..	2 263
6802.93.00.10	Other: Granite. Monumental or building stone	1 336	2 004	1 388	2 409	1 751	3 047
6802.93.00.20	Other: Granite. Monuments, bases and markers, finished	2 282	3 622	3 606	5 509	3 562	4 684
6802.93.00.90	Other: Granite. Other	5 191	7 982	6 238	9 613	7 263	9 724
6802.99	Other: Other stone	..	3 130	..	3 123	..	3 269

TABLE 1 (cont'd)

Item No.		2000		2001		2002 (p)	
		(t)	(\$000)	(t)	(\$000)	(t)	(\$000)
IMPORTS (cont'd)							
6803.00	Worked slate and articles of slate or of agglomerated slate	..	8 010	..	8 165	..	7 930
6804.10	Millstones and grindstones for milling, grinding or pulping	..	2 494	..	2 607	..	3 023
6804.23	Other millstones, grindstones, grinding wheels and the like: Of natural stone	..	842	..	1106	..	1 157
	Total imports	..	(r) 149 393	..	179 316	..	198 315

Source: Statistics Canada.

.. Not available or not applicable; n.e.s. Not elsewhere specified; (p) Preliminary; (r) Revised.

TABLE 2. CANADA, STONE PRODUCTION BY TYPE, ⁽¹⁾ 1985, 1990 AND 2000-02

	1985		1990		2000		2001		2002 (p)	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
Granite	17 219	95 424	19 524	147 048	22 054	204 794	27 005	233 463	25 002	223 874
Limestone	77 874	317 862	86 519	470 649	88 941	534 596	89 845	578 246	86 739	597 050
Marble	571	13 966	771	19 555	1 370	93 217	1 284	93 764	1 325	100 911
Sandstone	3 011	15 310	2 975	20 534	4 910	34 150	4 649	33 984	4 247	31 537
Shale (2)	1 561	3 059	1 566	5 169	948	14 504	1 976	17 590	1 800	18 451
Total	100 236	445 622	111 355	663 254	118 222	881 260	124 758	957 048	119 113	971 822

Source: Natural Resources Canada.

(p) Preliminary.

(1) Data exclude stone used in the Canadian cement, lime and clay industries. (2) May include slate.

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

TABLE 3. CANADA, STONE PRODUCTION, 2000-02

Item No.	2000		2001		2002 (p)	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE/TERRITORY (1)						
Newfoundland and Labrador	4 505	27 859	4 390	31 522	4 625	35 788
Nova Scotia	8 379	51 246	8 749	59 028	8 246	55 570
New Brunswick	3 294	19 429	4 204	20 073	3 178	19 074
Quebec	31 550	229 984	36 436	266 536	35 363	256 549
Ontario	58 704	474 155	57 969	501 956	55 633	514 805
Manitoba	4 007	19 688	3 744	17 837	3 744	18 558
Saskatchewan	x	x	x	x	x	x
Alberta	x	x	478	5 599	335	4 445
British Columbia	6 636	49 172	7 212	51 412	7 171	60 179
Northwest Territories	186	2 952	1 577	3 085	818	6 854
Total	118 222	881 260	124 758	957 048	119 113	971 822
BY USE (2)						
Stone (Dimension)						
Dimension stone						
Rough	360	50 388	363	53 760	..	..
Monumental and ornamental stone (n.f.)	111	10 598	106	9 323	..	..
Other (flagstone, curbstone, paving blocks, etc.)	105	16 311	110	16 136	..	..
Total dimension stone	576	77 297	579	79 219	..	..
Stone (Crushed)						
Crushed stone for						
Concrete aggregate	21 830	131 073	21 502	148 723	..	..
Asphalt aggregate	11 509	72 753	12 152	79 648	..	..
Road metal	36 478	192 907	37 792	203 984	..	..
Railroad ballast (includes traprock)	1 681	14 375	1 475	12 824	..	..
Other uses	36 061	201 603	41 693	236 138	..	..
Chemical and metallurgical						
Cement plants, Canada	14 776	44 570	15 548	50 300	..	..
Cement plants, foreign	539	2 273	454	2 051	..	..
Flux in iron and steel furnaces	680	6 279	477	3 275	..	..
Flux in nonferrous smelters	100	1 519	145	1 969	..	..
Glass factories	51	738	44	591	..	..
Lime plants, Canada	3 184	19 513	2 970	17 279	..	..
Lime plants, foreign	1 437	8 586	1 825	13 328	..	..
Pulp and paper mills	118	1 271	69	642	..	..
Sugar refineries	-	-	-	-	..	..
Other chemical uses	1 763	12 777	1 767	10 657	..	..
Miscellaneous stone						
Manufacture of artificial stone	2	68	2	60	..	..
Roofing granules	873	37 348	854	40 426	..	..
Poultry grit	173	1 427	232	2 520	..	..
Stucco dash	23	3 985	20	4 452	..	..
Terrazzo chips	9	666	6	586	..	..
Rock wool	25	431	30	430	..	..
Rubble and riprap	1 257	4 476	867	3 650	..	..
Other uses	1 562	8 245	1 591	10 313	..	..
Pulverized stone						
Whiting	44	3 971	37	3 258	..	..
Asphalt filler	200	363	126	125	..	..
Dusting coal mines	1	51	1	89	..	..
Agricultural purposes and fertilizer plants	1 113	18 500	847	13 170	..	..
Other uses	1 064	82 428	1 259	88 782	..	..
Total crushed stone	136 554	872 196	143 783	949 271	..	..
Total all stone	137 130	949 493	144 362	1 028 490	..	..

Source: Natural Resources Canada.

- Nil; .. Not available; n.f. Not finished or dressed; (p) Preliminary; x Confidential.

(1) Data exclude stone used in the Canadian cement, lime and clay industries. (2) Data include stone used in the Canadian cement, lime and clay industries.

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

TABLE 4. CANADA, LIMESTONE PRODUCTION, 2000-02

	2000		2001		2002 (p)	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE/TERRITORY (1)						
Newfoundland and Labrador	2 259	14 580	1 726	12 880	2 435	19 307
Nova Scotia	200	x	236	x	208	x
New Brunswick	652	x	619	x	583	x
Quebec	22 886	131 367	26 541	161 053	24 567	146 326
Ontario	55 355	333 780	53 834	352 504	51 657	369 078
Manitoba	3 548	15 136	3 196	14 477	3 202	14 498
Saskatchewan	x	x	—	—	—	—
Alberta	x	x	463	3 395	320	2 158
British Columbia	3 025	25 212	3 179	24 633	3 569	33 580
Northwest Territories	69	x	50	x	198	x
Total	88 941	534 596	89 845	578 246	86 739	597 050
BY USE (2)						
Stone (Dimension)						
Dimension stone						
Rough	81	7 214	80	6 904	..	..
Monumental and ornamental stone (n.f.)	45	811	35	680	..	..
Other (flagstone, curbstone, paving blocks, etc.)	69	6 679	70	6 343	..	..
Total dimension stone	195	14 704	186	13 928	..	..
Stone (Crushed)						
Crushed stone for						
Concrete aggregate	18 569	109 303	18 162	125 135	..	..
Asphalt aggregate	6 761	39 980	6 873	42 730	..	..
Road metal	29 433	157 038	28 029	155 602	..	..
Railroad ballast (includes traprock)	86	475	79	457	..	..
Other uses	27 281	148 938	30 455	172 514	..	..
Chemical and metallurgical						
Cement plants, Canada	13 943	41 244	14 827	47 457	..	..
Cement plants, foreign	482	2 014	418	1 893	..	..
Flux in iron and steel furnaces	680	6 279	477	3 275	..	..
Flux in nonferrous smelters	39	684	94	1 642	..	..
Glass factories	51	738	44	591	..	..
Lime plants, Canada	3 184	19 513	2 970	17 279	..	..
Lime plants, foreign	1 437	8 586	1 825	13 328	..	..
Pulp and paper mills	118	1 271	69	642	..	..
Sugar refineries	—	—	—	—	..	..
Other chemical uses	928	9 710	680	6 794	..	..
Miscellaneous stone						
Manufacture of artificial stone	—	—	—	—	..	..
Roofing granules	103	623	126	982	..	..
Poultry grit	172	1 351	230	2 399	..	..
Stucco dash	22	3 822	19	4 269	..	..
Rock wool	2	11	3	17	..	..
Rubble and riprap	725	2 341	326	1 796	..	..
Other uses	752	6 013	665	8 946	..	..
Pulverized stone						
Whiting	44	3 971	37	3 258	..	..
Asphalt filler	68	299	11	61	..	..
Dusting, coal mines	1	51	1	89	..	..
Agricultural purposes and fertilizer plants	1 046	16 152	763	10 188	..	..
Other uses	78	1 477	272	7 711	..	..
Total crushed stone	106 007	581 883	107 456	629 055	..	..
Total all stone	106 202	596 587	107 642	642 982	..	..

Source: Natural Resources Canada.

— Nil; .. Not available; n.f. Not finished or dressed; (p) Preliminary; x Confidential.

(1) Data exclude stone used in the Canadian cement and lime industries. (2) Data include stone used in the Canadian cement and lime industries.

Notes: Includes dolomite/dolostone. Numbers may not add to totals due to rounding.

TABLE 5. CANADA, MARBLE PRODUCTION,⁽¹⁾ 2000-02

	2000		2001		2002 (p)	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE						
Quebec	612	x	549	x	581	x
Ontario	757	x	734	x	744	x
British Columbia	1	x	-	-	-	-
Total	1 370	93 217	1 284	93 764	1 325	100 911
BY USE						
Stone (Dimension)						
Dimension stone						
Rough	19	1 071	22	1 107	..	..
Monumental and ornamental stone (n.f.)	1	104	-	-	..	..
Other (flagstone, curbstone, paving, blocks, etc.)	11	1 738	11	2 119	..	..
Total dimension stone	31	2 913	33	3 226	..	..
Stone (Crushed)						
Crushed stone for						
Concrete aggregate	202	2 134	167	1 851	..	..
Asphalt aggregate	3	18	8	46	..	..
Road metal	62	295	18	84	..	..
Other uses	124	3 112	125	3 154	..	..
Chemical process stone						
Flux in nonferrous smelters	4	131	...	10	..	..
Glass factories	-	-	-	-	..	..
Miscellaneous stone						
Manufacture of artificial stone	2	60	2	60	..	..
Roofing granules	28	756	46	1 527	..	..
Poultry grit	...	3	1	22	..	..
Stucco dash	1	23	1	150	..	..
Terrazzo chips	7	303	6	586	..	..
Rock wool	-	-	-	-	..	..
Rubble and riprap	-	-	-	-	..	..
Other uses	11	717	4	323	..	..
Pulverized stone						
Agricultural purposes and fertilizer plants	67	2 349	84	2 982	..	..
Other uses	802	79 742	791	79 744	..	..
Total crushed stone	1 317	90 113	1 251	90 538	..	..
Total all stone	1 348	93 026	1 284	93 764	..	..

Source: Natural Resources Canada.

- Nil; .. Not available; ... Amount too small to be expressed; n.f. Not finished or dressed; (p) Preliminary; x Confidential.

(1) 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 6. CANADA, GRANITE PRODUCTION, 2000-02

	2000		2001		2002 (p)	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE/TERRITORY						
Newfoundland and Labrador	1 053	8 753	1 431	12 301	1 322	10 611
Nova Scotia	6 736	40 356	7 040	46 803	6 572	43 087
New Brunswick	2 279	9 967	3 404	13 602	2 329	11 941
Quebec	5 486	57 404	6 030	61 641	7 078	64 725
Ontario	2 546	x	3 304	x	3 158	x
Manitoba	326	x	308	x	388	x
British Columbia	3 544	x	3 984	x	3 548	x
Northwest Territories	84	x	1 504	x	607	x
Total	22 054	204 794	27 005	233 463	25 002	223 874
BY USE						
Stone (Dimension)						
Dimension stone						
Rough	175	30 252	168	32 378	..	..
Monumental and ornamental stone (n.f.)	59	9 509	69	8 543	..	..
Other (flagstone, curbstone, paving blocks, etc.)	3	721	3	665	..	..
Total dimension stone	238	40 481	240	41 585	..	..
Stone (Crushed)						
Crushed stone for						
Concrete aggregate	2 818	18 245	2 950	20 434	..	..
Asphalt aggregate	4 310	29 692	4 681	33 053	..	..
Road metal	5 190	28 091	6 913	37 458	..	..
Railroad ballast (includes traprock)	1 510	13 582	1 354	12 090	..	..
Other uses	6 093	35 456	8 933	48 507	..	..
Chemical process stone						
Cements plants, Canada	30	210	31	217	..	..
Miscellaneous stone						
Manufacture of artificial stone	-	-	-	-	..	..
Roofing granules	730	35 803	671	37 798	..	..
Poultry grit	1	75	1	100	..	..
Stucco dash	..	63	..	33	..	..
Rock wool	23	421	27	413	..	..
Rubble and riprap	288	1 533	304	1 200	..	..
Other uses	703	1 236	794	609	..	..
Pulverized stone						
Asphalt filler	132	64	115	64	..	..
Other uses	18	90	22	119	..	..
Total crushed stone	21 846	164 562	26 796	192 095	..	..
Total all stone	22 084	205 043	27 036	233 680	..	..

Source: Natural Resources Canada.

- Nil; .. Not available; ... Amount too small to be expressed; n.f. Not finished or dressed; (p) Preliminary; x Confidential.

Notes: Numbers may not add to totals due to rounding. Data include shipments by producers regardless of industrial classification. Granite may include other igneous rocks (e.g., basaltic roofing granules).

TABLE 7. CANADA, SANDSTONE PRODUCTION, 2000-02

	2000		2001		2002 (p)	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE (1)						
Newfoundland and Labrador	1 035	4 036	992	3 344	690	2 976
Nova Scotia	1 418	7 732	1 448	8 446	1 440	8 375
New Brunswick	68	x	64	x	60	x
Quebec	2 351	18 860	2 052	19 417	1 988	17 506
Ontario	18	2 451	87	2 575	67	2 411
Manitoba	1	x	—	—	—	—
Alberta	—	—	1	x	1	x
British Columbia	18	x	4	x	..	x
Total	4 910	34 150	4 649	33 984	4 247	31 537
BY USE (2)						
Stone (Dimension)						
Dimension stone						
Rough	58	8 535	69	9 968	..	..
Monumental and ornamental stone (n.f.)	6	174	1	86	..	..
Other (flagstone, curbstone, paving blocks, etc.)	7	532	8	614	..	..
Total dimension stone	72	9 241	77	10 667	..	..
Stone (Crushed)						
Crushed stone for						
Concrete aggregate	241	1 391	224	1 302	..	..
Asphalt aggregate	425	3 043	585	3 798	..	..
Road metal	1 486	6 647	1 329	5 208	..	..
Railroad ballast (includes traprock)	85	318	30	213	..	..
Other uses	2 073	10 717	1 891	10 276	..	..
Chemical process stone						
Cement plants, Canada	141	816	177	892	..	..
Cement plants, foreign	18	98	4	23	..	..
Flux in nonferrous smelters	56	704	50	317	..	..
Other chemical uses	—	—	—	—	..	..
Miscellaneous stone						
Manufacture of artificial stone	—	—	—	—	..	..
Roofing granules	10	118	10	119	..	..
Rubble and riprap	242	600	235	649	..	..
Other uses	36	154	37	203	..	..
Pulverized stone						
Whiting	—	—	—	—	..	..
Other uses	165	1 119	174	1 209	..	..
Total crushed stone	4 979	25 725	4 749	24 209	..	..
Total all stone	5 051	34 965	4 826	34 876	..	..

Source: Natural Resources Canada.

— Nil; .. Not available; n.f. Not finished or dressed; (p) Preliminary; x Confidential.

(1) Data exclude stone used in the Canadian cement industry. (2) Data include stone used in the Canadian cement industry.

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

TABLE 8. CANADA, SHALE PRODUCTION, ⁽¹⁾ 2000-02

	2000		2001		2002 (p)	
	(000 t)	(\$000)	(000 t)	(\$000)	(000 t)	(\$000)
BY PROVINCE/TERRITORY (2)						
Newfoundland and Labrador	158	490	240	2 998	178	2 894
Nova Scotia	24	x	24	x	25	x
New Brunswick	295	x	116	x	205	x
Quebec	214	x	1 262	x	1 149	x
Ontario	28	1 279	10	1 244	7	728
Manitoba	132	79	240	x	154	x
Alberta	15	x	14	x	14	x
British Columbia	48	313	45	x	54	x
Northwest Territories	33	x	23	x	13	x
Total	948	14 504	1 976	17 590	1 800	18 451
BY USE (3)						
Stone (Dimension)						
Dimension stone						
Rough	26	3 317	24	3 403	..	..
Monumental and ornamental stone (n.f.)	–	–	1	14		
Other (flagstone, curbstone, paving blocks, etc.)	15	6 641	17	6 396	..	..
Total dimension stone	41	9 958	43	9 812	..	..
Stone (Crushed)						
Crushed stone for						
Concrete aggregate	–	–	–	–	..	..
Asphalt aggregate	10	20	4	21	..	..
Road metal	308	836	1 503	5 633	..	..
Railroad ballast (includes traprock)	–	–	12	65		
Other uses	490	3 381	289	1 687	..	..
Chemical process stone						
Cement plants, Canada	662	2 301	513	1 734	..	..
Cement plants, foreign	38	160	32	135		
Other chemical uses	835	3 067	1 086	3 863	..	..
Miscellaneous stone						
Rubble and riprap	1	1	2	5	..	..
Other uses	60	148	90	233	..	..
Total crushed stone	2 404	9 914	3 532	13 375	..	..
Total all stone	2 445	19 872	3 575	23 188	..	..

Source: Natural Resources Canada.

– Nil; .. Not available; (p) Preliminary; x Confidential.

(1) May include slate. (2) Data exclude stone used in the Canadian cement and clay industries. (3) Data include stone used in the Canadian cement and clay industries.

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

TABLE 9. CANADA, ROUGH GRANITE, SUMMARY OF PRODUCTION AND TRADE, 1986-2002

	Quantity		Production (1)	Imports (2)	Exports (2)
	Value				
1986	t		121 000	33 994	(a) 18 450
	\$ millions		15.7	6.6	2.7
1987	t		112 000	46 370	(a) 37 450
	\$ millions		16.1	7.9	6.0
1988	t		153 000	46 282	86 940
	\$ millions		24.4	11.2	(r) 16.2
1989	t		162 000	52 337	107 105
	\$ millions		24.8	11.7	17.3
1990	t		166 000	46 149	(r) 79 640
	\$ millions		33.6	11.2	(r) 19.8
1991	t		122 000	35 038	(r) 91 630
	\$ millions		24.0	8.5	22.6
1992	t		127 000	44 951	(r) 94 530
	\$ millions		20.3	10.5	21.4
1993	t		134 000	41 484	(r) 88 830
	\$ millions		18.1	10.8	20.3
1994	t		112 000	35 619	(r) 95 000
	\$ millions		16.9	10.1	20.0
1995	t		158 000	41 099	(r) 94 200
	\$ millions		19.6	11.4	17.9
1996	t		163 000	53 543	(r) 97 700
	\$ millions		24.6	15.4	20.9
1997	t		161 000	54 639	(r) 80 194
	\$ millions		24.5	16.0	16.4
1998	t		163 000	75 186	(r) 69 937
	\$ millions		27.3	23.0	15.1
1999	t		193 000	68 770	(r) 73 687
	\$ millions		32.8	23.2	16.5
2000	t		238 000	(r) 66 041	(r) 95 680
	\$ millions		40.5	(r) 21.9	19.4
2001	t		240 000	85 467	(r) 110 828
	\$ millions		41.6	27.9	20.0
2002	t		(e) 255 000	84 196	126 482
	\$ millions		40.0	29.0	16.6

Sources: Natural Resources Canada; Statistics Canada.

(e) Estimated; (r) Assumes a factor of 2.7 for converting cubic metres to tonnes.

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

(1) Includes rough granite for construction, monumental/ornamental and other uses, as per Table 6. (2) 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.