

# THE MINERAL INDUSTRY OF MARYLAND

**This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Maryland Geological Survey for collecting information on all nonfuel minerals.**

In 1997, Maryland climbed in rank to 33d from 36th among the 50 States in total nonfuel mineral production value,<sup>1</sup> according to the U.S. Geological Survey (USGS). The estimated value for 1997 was \$401 million, a nearly 21% increase from the \$332 million of 1996. The State accounted for 1% of the U.S. total nonfuel mineral production value.

Crushed stone remained Maryland's leading nonfuel mineral commodity. Based on the State's 1997 total value shown in table 1, crushed stone accounted for 49% of it, followed by portland cement, 26%, and construction sand and gravel, 18%. Whereas nearly all nonfuel minerals increased in value in 1997 (industrial sand and gravel remained the same), crushed stone with a gain of \$53 million, or 37%, and construction sand and gravel up \$11.3 million, or 18%, led the State's increase in total nonfuel mineral

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<sup>1</sup>The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending on the minerals or mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 1997 USGS mineral production data published in this chapter are estimates as of January 1998. For some commodities (for example, construction sand and gravel, crushed stone, and portland cement), estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Call MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset, and request Document # 1000 for a telephone listing of all mineral commodity specialists, or call USGS information at (703) 648-4000 for the specialist's name and number. This telephone listing may also be retrieved over the Internet at <http://minerals.er.usgs.gov/minerals/contacts/comdir.html>. All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved by way of MINES FaxBack or over the Internet at <http://minerals.er.usgs.gov/minerals/>.

production value.

All nonfuel minerals mined in Maryland were industrial minerals; all metals production, in particular primary aluminum and raw steel, was processed from materials received from foreign and other domestic sources. Based on preliminary figures, Maryland was ninth in the Nation in the production of primary aluminum.

The following narrative information was provided by the Maryland Department of the Environment<sup>2</sup> (MDE). The MDE received an application from The Arundel Corp. for a new limestone quarry in Carroll County. The company applied for a new 51.4-hectare quarry that will produce limestone for construction aggregate. Arundel also had been involved in a very contentious permit expansion for their Havre de Grace Quarry in Harford County. That request to add an additional 40.5 hectares at Havre de Grace was withdrawn.

A mineral deposit was discovered in Blue Mount Quarry, in north central Baltimore County. The quarry has operated for several decades as a dimension and limited crushed stone operation. During reserve estimating activities, a previously defined "soft rock" was confirmed to be high chemical quality talc. This deposit does not contain asbestos, as do other talc deposits that have been discovered in the region. The permittee, now evaluating the prospect, has a preliminary reserve estimate of more than 900,000 metric tons of talc.

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<sup>2</sup>C. Edmon Larrimore, Chief of the Minerals, Oil and Gas Division, Maryland Department of the Environment authored the text of information submitted by that agency.

TABLE 1  
NONFUEL RAW MINERAL PRODUCTION IN MARYLAND 1/ 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

Mineral	1995		1996		1997 p/	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement, portland	1,670	101,000	1,610	99,400 e/	1,640	103,000 e/
Clays, common	278	943	304	874	293	920
Gemstones	NA	1	NA	1	NA	1
Sand and gravel, construction	9,700	61,700	9,700	61,400	11,200	72,700
Stone:						
Crushed	24,200	158,000	22,400 3/	142,000 3/	25,000 3/	195,000 3/
Dimension metric tons	20,700	2,260	19,800	2,210	19,900	2,220
Combined value of other industrial minerals	XX	(4/)	XX	26,000	XX	26,400
Total	XX	324,000 5/	XX	332,000	XX	401,000

e/ Estimated. p/ Preliminary. NA Not available. XX Not applicable.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Excludes certain stones; kind and value included with "Combined value" data.

4/ Value excluded to avoid disclosing company proprietary data.

5/ Partial total, excludes values that must be concealed to avoid disclosing company proprietary data.

TABLE 2  
MARYLAND: CRUSHED STONE SOLD OR USED, BY KIND 1/

Kind	1995				1996			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	19	15,500	\$105,000	\$6.79	21	17,400	\$111,000	\$6.42
Granite	4	4,960	29,400	5.93	3	4,880	29,500	6.04
Traprock	2	W	W	6.31	(2/)	(2/)	(2/)	(2/)
Marble	2	W	W	6.21	(2/)	(2/)	(2/)	(2/)
Sandstone	3	191	1,430	7.46	3	196	1,110	5.64
Total	XX	24,200	158,000	6.54	XX	22,400	142,000	6.33

W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Excludes marble and traprock from State total to avoid disclosing company proprietary data.

TABLE 3  
MARYLAND: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1996, BY USE 1/2/

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch), riprap and jetty stone	300	\$2,490	\$8.31
Coarse aggregate, graded:			
Concrete aggregate, coarse	856	5,910	6.90
Bituminous aggregate, coarse	543	3,490	6.42
Bituminous surface-treatment aggregate	277	2,040	7.37
Railroad ballast	W	W	6.42
Other graded coarse aggregate	W	W	6.26
Fine aggregate (-3/8 inch):			
Stone sand, concrete	40	410	10.25
Stone sand, bituminous mix or seal	W	W	5.10
Screening, undesignated	36	260	7.22
Other fine aggregate	72	400	5.56
Coarse and fine aggregates:			
Graded road base or subbase	1,270	7,980	6.31
Crusher run or fill or waste	501	2,740	5.46
Other coarse and fine aggregates 3/	2,100	8,020	3.82
Agricultural limestone	(4/)	(4/)	6.53
Chemical and metallurgical, cement manufacture	(4/)	(4/)	2.47
Special, whiting or whiting substitute	(4/)	(4/)	77.71
Unspecified: 5/			
Actual	13,500	88,400	6.54
Estimated	976	2,600	2.67
Total	22,400	142,000	6.33

W Withheld to avoid disclosing company proprietary data; included with "Other coarse and fine aggregates."

1/ Includes granite, limestone, and sandstone; excludes marble and traprock from State total to avoid disclosing proprietary data.

2/ Data are rounded to three significant digits except unit value; may not add to totals shown.

3/ Includes roofing granules and waste material.

4/ Withheld to avoid disclosing company proprietary data; included in "Total."

5/ Includes production reported without a breakdown by end use and with estimates for nonrespondents.

TABLE 4  
MARYLAND: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 1996,  
BY USE AND DISTRICT 1/2/

(Thousand metric tons and thousand dollars)

Use	District 1		District 2	
	Quantity	Value	Quantity	Value
<b>Construction aggregates:</b>				
Coarse aggregate (+1 1/2 inch) 3/	W	W	W	W
Coarse aggregate, graded 4/	W	W	W	W
Fine aggregate (-3/8 inch) 5/	W	W	W	W
Coarse and fine aggregate 6/	1,780	9,800	4,210	23,900
Agricultural 7/	(8/)	(8/)	--	--
Chemical and metallurgical 9/	--	--	(8/)	(8/)
Special 10/	--	--	(8/)	(8/)
Unspecified: 11/				
Actual	1,410	5,600	12,100	82,800
Estimated	(8/)	(8/)	--	--
Total	4,170	18,000	18,300	124,000

W Withheld to avoid disclosing company proprietary data; included with "Other coarse and fine aggregate."

1/ Production reported in District 3 was included with "District 2" to avoid disclosing company proprietary data.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Includes riprap and jetty stone.

4/ Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and other graded coarse aggregate.

5/ Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesignated), and other fine aggregate.

6/ Includes graded road base or subbase, crusher run (select material or fill), other coarse and fine aggregates, roofing granules, and waste material.

7/ Includes agricultural limestone.

8/ Withheld to avoid disclosing company proprietary data; included in "Total."

9/ Includes cement manufacture.

10/ Includes whiting or whiting substitute.

11/ Includes production reported without a breakdown by end use and with estimates for nonrespondents.

TABLE 5  
MARYLAND: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1996,  
BY MAJOR USE CATEGORY 1/ 2/

Use	Quantity (thousand metric tons)	Value (thousands)	Value per ton
Concrete aggregate and concrete products 3/	3,380	\$18,500	\$5.47
Asphaltic concrete aggregates and other bituminous mixtures	110	392	3.56
Road base and coverings 4/	511	4,010	7.85
Fill	225	418	1.86
Other miscellaneous uses 5/	48	533	11.10
Unspecified: 6/			
Actual	3,510	25,200	7.19
Estimated	1,920	12,400	6.43
Total or average	9,700	61,400	6.33

1/ To avoid disclosing company proprietary data, no district tables were produced for 1996.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Includes plaster and gunite sands.

4/ Includes road and other stabilization (cement and lime).

5/ Includes filtration, railroad ballast, and snow and ice control.

6/ Includes production reported without a breakdown by end use and with estimates for nonrespondents.