

2007 Minerals Yearbook

MARYLAND [ADVANCE RELEASE]

WICOMICO SOMERSET SAROLINE SG SGDORCHESTER OUEEN ANNE'S CECIL TALBOT 50 Kilometers CS BALTIMORE SGAlbers equal area projection PRINCE GEORGE'S **MARYLAND** CHARLES SG SG SG DS SG HOWARD CARROLL 25 CS CS Rockville MONTGOMERY DS CS • Frederick FREDERICK WASHINGTON Titanium dioxide pigment plant Construction sand and gravel (Major producing areas) Crushed stone/sand and MINERAL SYMBOLS gravel district boundary LEGEND County boundary Dimension stone Crushed stone Gypsum plant Common clay Cement plant Steel plant CS ALLEGANY Capital Cem DS Gyp SG Clay Steel TiPig CS GARRETT

Source: Maryland Department of the Environment/U.S. Geological Survey (2007).

THE MINERAL INDUSTRY OF MARYLAND

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Maryland Department of the Environment, Minerals, Oil, and Gas Division, for collecting information on all nonfuel minerals.

In 2007, Maryland's nonfuel raw mineral production¹ was valued at \$673 million, based upon annual U.S. Geological Survey (USGS) data (table 1). This was an increase of \$10 million, or 1.5%, increase from the State's total nonfuel mineral value for 2006, which followed an \$83 million, or more than 14%, increase from 2005 to 2006. The State, for the third consecutive year, ranked 33d among the 50 States in total nonfuel raw mineral production value and accounted for nearly 1% of the U.S. total value.

Crushed stone, portland cement, construction sand and gravel, and masonry cement, based upon value, were Maryland's leading nonfuel raw mineral commodities, the first three of which accounted for approximately 99% of the State's reportable total nonfuel mineral value. In 2007, increases in the values of portland cement and construction sand and gravel led in the State's increase in nonfuel mineral production value. The value of portland cement production rose by \$28 million, or by nearly 12%, and the quantity of construction sand and gravel produced in 2007 held steady with that of 2006, but its value of production increased by nearly \$21 million. A smaller yet significant increase of \$1.8 million took place in the value of dimension stone, the result of an 86% increase in production, this more than reversing the decreases that took place in 2006 from that of 2005. These increases were offset by decreases in the production and values of crushed stone and masonry cement; also, the value of common clay decreased by more than 50%, resulting from a 40% drop in production (table 1).

All nonfuel minerals mined in Maryland were industrial minerals. In 2007, the State rose to 10th from 14th in State ranking of the quantities of portland cement that were produced, in part the result of a 13% increase in production. Additionally, the State produced significant quantities of crushed stone, construction sand and gravel, and dimension stone (descending order of value), as compared with that of other producing States. All metal production, especially that of raw steel, consisted of

the processing and refining of materials received from other domestic and foreign sources.

The narrative information that follows was provided by the Maryland Department of the Environment's (MDE) Mining Program². In 2007, Maryland's mining operations continued to be very active with the production of aggregate related materials continuing at a brisk pace, overall following the same level of production of the past several years.

Commodity Review

Industrial Minerals

Maryland continued to produce aggregate-based material in 2007 for the general construction and cement industries. Although there were few quarry expansions or new openings, several new sites were worthy of mention.

Sand and Gravel, Construction, and Stone, Crushed.—Rockhill Sand and Gravel Co. continued to be a major supplier of sand and gravel to the suburban Washington, DC, market by opening a new 46-hectare (ha) (114-acre) sand and gravel site known as the Holsinger pit. It was located at the Charles County and Prince George's County border and was planned to supply the company's Brandywine, MD, plant for raw sand and gravel.

Two other sites continued a recent trend of moving on to Maryland's eastern shore in search of good sand material. Roland-Clayton Company LLC opened a 26-ha site in Kent County, and Richfield Farms Sand and Gravel Co. opened a 26-ha site in northern Dorchester County to serve future needs to supply sand to the lower eastern shore areas of Maryland and Delaware.

Two other significant applications are still active but were held in abeyance owing to the slowing economy and, in one of the cases, to county zoning issues. York Building Products Co. applied for a 59-ha granite quarry in Cecil County and also a 65-ha surface mine for sand and gravel in Queen Anne's County. Neither of those applications moved further forward by yearend.

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the 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 2007 USGS mineral production data published in this chapter are those available as of June 2009. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

²C. Edmon Larrimore, Program Manager of the Mining Program of the MDE, authored the text of the State mineral industry information provided by that agency.

 $\label{eq:table 1} \text{NONFUEL RAW MINERAL PRODUCTION IN MARYLAND}^{1,\,2}$

	200	2005		2006		2007	
Mineral	Quantity	Value	Quantity	Value	Quantity	Value	
Cement:							
Masonry	W	W	W	W	W	W	
Portland	2,550	210,000 e	2,650	237,000 ^e	3,000	265,000 e	
Clays, common	317	686	286	851	173	412	
Gemstones, natural	NA	1	NA	1	NA	1	
Lime	W	W	W	W	W	W	
Sand and gravel:							
Construction	12,300	89,500	11,900	96,700	11,900	117,000	
Industrial	W	W	W	W	W	W	
Stone:							
Crushed	33,500	277,000	33,100 ^r	326,000 r	31,500	287,000	
Dimension	26	3,010	14	1,750	26	3,560	
Total	XX	580,000	XX	663,000 r	XX	673,000	

^eEstimated. ^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

 $\label{eq:table 2} {\sf MARYLAND: CRUSHED STONE SOLD OR USED, BY TYPE}^1$

		2006			2007			
	Number	Quantity		Number	Quantity			
	of	(thousand	Value	of	(thousand	Value		
Туре	quarries	metric tons)	(thousands)	quarries	metric tons)	(thousands)		
Limestone ²	21 ^r	21,600 ^r	\$221,000 r	20	20,100	\$161,000		
Granite	4	5,960	54,400	4	6,340	62,500		
Traprock	2	4,740	44,000	2	3,910	45,300		
Miscellaneous stone	3	827	6,980	4	1,090	18,000		
Total	XX	33,100 ^r	326,000 r	XX	31,500	287,000		

^rRevised. XX Not applicable.

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

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

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Includes limestone-dolomite reported with no distinction between the two.

 ${\it TABLE~3}$ MARYLAND: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2007, BY USE 1

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Riprap and jetty stone	173	1,240
Filter stone	W	W
Other coarse aggregate	850	11,900
Coarse aggregate, graded:		
Concrete aggregate, coarse	5,720	37,100
Bituminous aggregate, coarse	W	W
Bituminous surface-treatment aggregate	W	W
Railroad ballast	W	W
Other graded coarse aggregate	2,910	33,000
Fine aggregate (-3/8 inch):		
Stone sand, concrete	W	W
Stone sand, bituminous mix or seal	W	W
Screening, undesignated	W	W
Other fine aggregate	1,480	11,500
Coarse and fine aggregates:		
Graded road base or subbase	1,810	14,300
Unpaved road surfacing	W	W
Crusher run or fill or waste	1,300	8,950
Other coarse and fine aggregates	4,850	41,300
Agricultural, limestone	W	W
Chemical and metallurgical:		
Cement manufacture	W	W
Lime manufacture	W	W
Sulfur oxide removal	W	W
Special, asphalt fillers or extenders	W	W
Other miscellaneous uses and specified uses not listed	W	W
Unspecified: ²		
Reported	3,560	47,900
Estimated	5,500	49,000
Total	31,500	287,000

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

 $^{^{1}\}mbox{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Reported and estimated production without a breakdown by end use.

TABLE 4 MARYLAND: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2007, BY USE AND DISTRICT $^{\rm l}$

	Distri	District 1		District 2		District 3	
Use	Quantity	Value	Quantity	Value	Quantity	Value	
Construction:							
Coarse aggregate (+1½ inch) ²	W	W	844	11,200	W	W	
Coarse aggregate, graded ³	W	W	8,160	61,000	W	W	
Fine aggregate (-3/8 inch) ⁴	W	W	1,740	15,500	W	W	
Coarse and fine aggregate ⁵	W	W	4,220	34,500	W	W	
Agricultural ⁶			W	W			
Chemical and metallurgical ⁷	W	W	W	W			
Special ⁸					W	W	
Other miscellaneous uses			W	W			
Unspecified: ⁹							
Reported	867	9,250	2,470	36,700	228	1,970	
Estimated	652	5,800	4,800	43,000			
Total	3,710	29,500	23,000	212,000	4,800	45,400	

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

TABLE 5 $\label{eq:maryland:construction} \text{ MARYLAND: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2007, } \\ \text{BY MAJOR USE CATEGORY}^{\text{I}}$

	Quantity		
	(thousand	Value	Unit
Use	metric tons)	(thousands)	value
Concrete aggregate and concrete products	3,410	\$36,900	\$10.82
Plaster and gunite sands	44	452	10.16
Asphaltic concrete aggregates and road base materials ²	216	1,250	5.80
Fill	384	1,060	2.76
Other miscellaneous uses ³	21	235	11.45
Unspecified: ⁴			
Reported	2,150	27,800	12.92
Estimated	5,720	49,100	8.58
Total or average	11,900	117,000	9.78

¹Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes filter stone, riprap and jetty stone, and other coarse aggregate.

³Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and other graded coarse aggregate.

⁴Includes screening (undesignated), stone sand (bituminous mix or seal), stone sand (concrete), and other fine aggregate.

⁵Includes crusher run or fill or waste, graded road base or subbase, unpaved road surfacing, and other coarse and fine aggregates.

⁶Includes agricultural limestone.

⁷Includes cement and lime manufacture and sulfur oxide removal.

⁸Includes asphalt fillers or extenders.

⁹Reported and estimated production without a breakdown by end use.

²Includes road and other stabilization (cement and lime).

³Includes golf course and snow and ice control.

⁴Reported and estimated production without a breakdown by end use.

 ${\it TABLE~6}$ MARYLAND: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2007, BY USE AND DISTRICT 1,2

	Districts	Districts 1 and 2		District 3	
Use	Quantity	Value	Quantity	Value	
Concrete aggregate and concrete products ³	2,660	29,800	801	7,570	
Asphaltic concrete aggregates and road base materials ⁴	W	W	W	W	
Fill	319	769	65	289	
Other miscellaneous uses ⁵	228	1,460	8	28	
Unspecified: ⁶					
Reported	2,130	27,500	22	254	
Estimated	1,840	18,300	3,880	30,700	
Total	7,170	77,900	4,780	38,900	

W Withheld to avoid disclosing company proprietary data; included in "Other miscellaneous uses."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

 $^{^2\}mbox{Districts}\ 1$ and 2 are combined to avoid disclosing company proprietary data.

³Includes plaster and gunite sands.

⁴Includes road and other stabilization (lime)

⁵Includes golf course and snow and ice control.

⁶Reported and estimated production without a breakdown by end use.