

THE MINERAL INDUSTRY OF WEST VIRGINIA

This chapter has been prepared under a Memorandum of Understanding between the U.S. Bureau of Mines, U.S. Department of the Interior, and the West Virginia Geological and Economic Survey for collecting information on all nonfuel minerals.

West Virginia ranked 40th among the 50 States in total nonfuel mineral production value² in 1995, according to the U.S. Geological Survey (USGS). The estimated value for 1995 was \$194 million, a 20% increase from that of 1994, following a 10.8% increase in 1994 (based on final data). The State accounted for about 0.5% of the U.S. total nonfuel mineral production value. The increased values of the past 2 years mostly resulted from increases in crushed stone and portland cement, the State's leading nonfuel mineral commodities. In 1995, other commodities with increased values were salt, lime, and common clays; decreases occurred in construction sand and gravel and masonry cement.

Based on USGS estimates of quantities produced in the 50 States in 1995, West Virginia was 10th in salt. Additionally, the State's mines and manufacturing plants produced significant quantities of crushed stone, construction and industrial sand and gravel, and portland

cement. West Virginia mines produced only industrial minerals and coal; no metals were mined in the State. Primary aluminum and raw steel were produced, but both metals were processed from materials acquired from other domestic and foreign sources. West Virginia remained eighth in the Nation in primary aluminum production in 1995.

¹An additional contact is Mr. Larry D. Woodfork, State Geologist, same address and fax number as Ms Simard.

²The 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 1995 USGS mineral production data published in this chapter are estimated as of Dec. 1995. Estimates for some commodities, e.g., construction sand and gravel, crushed stone, and portland cement, are periodically updated. 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 No. 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.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN WEST VIRGINIA^{1 2}

Mineral	1993		1994		1995 ^p	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Clays thousand metric tons	115	\$334	138	\$291	152	\$335
Gemstones	NA	1	NA	1	NA	1
Sand and gravel (construction) thousand metric tons	^e 1,400	^e 6,700	1,380	5,970	1,300	5,700
Stone (crushed) do.	³ 10,300	79,700	³ 12,300	99,300	³ 13,100	107,000
Combined value of cement, lime, peat, sand and gravel (industrial), and stone [crushed dolomite, dimension (1994)]	XX	62,800	XX	75,500	XX	80,100
Total	XX	149,000	XX	181,000	XX	194,000

^eEstimated. ^pPreliminary. NA Not available. XX Not applicable.

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

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

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

TABLE 2
WEST VIRGINIA: CRUSHED STONE¹ SOLD OR USED BY PRODUCERS IN 1994, BY USE²

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch):			
Riprap and jetty stone	222	\$1,220	\$5.50
Filter stone	224	1,260	5.63
Other coarse aggregate	175	1,260	7.20
Coarse aggregate, graded:			
Concrete aggregate, coarse	611	3,340	5.47
Bituminous aggregate, coarse	416	2,180	5.24
Bituminous surface-treatment aggregate	298	1,650	5.54
Railroad ballast	34	1,400	41.20
Other graded coarse aggregate	187	8,170	43.70
Fine aggregate (-3/8 inch):			
Stone sand, concrete	88	571	6.49
Stone sand, bituminous mix or seal	454	2,480	5.46
Screening, undesignated	277	1,820	6.57
Other fine aggregate	50	1,950	39.00
Coarse and fine aggregates:			
Graded road base or subbase	621	3,320	5.35
Unpaved road surfacing	105	663	6.31
Crusher run or fill or waste	1,180	6,520	5.53
Other coarse and fine aggregates	684	13,600	19.90
Other construction materials	36	250	6.94
Agricultural:			
Agricultural limestone	W	W	9.91
Poultry grit and mineral food	W	W	11.00
Chemical and metallurgical:			
Cement manufacture	W	W	5.77
Lime manufacture	W	W	9.92
Mine dusting or acid water treatment	W	W	17.60
Special: Other specified uses not listed	1,970	13,100	6.65
Unspecified:³			
Actual	4,210	31,600	7.51
Estimated	420	2,820	6.71
Total	12,300	99,300	8.07

W Withheld to avoid disclosing company proprietary data; included with "Other specified uses not listed."

¹Includes dolomite, limestone, and sandstone; excludes dolomite quantity from State total to avoid disclosing proprietary data.

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

³Includes production reported without a breakdown by end use and estimates for nonrespondents.

TABLE 3
WEST VIRGINIA: CRUSHED STONE SOLD OR USED, BY KIND¹

Kind	1993				1994			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	29	9,350	\$57,600	\$6.15	28	10,200	\$66,000	\$6.48
Dolomite	1	(²)	16,700	(²)	1	(²)	19,200	(²)
Sandstone	11	960	5,350	5.57	13	2,070	14,100	6.79
Total	XX	10,300	79,700	7.72	XX	12,300	99,300	8.07

XX Not applicable.

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

²Excludes dolomite quantity only.

TABLE 4
WEST VIRGINIA: CRUSHED STONE¹ SOLD OR USED BY PRODUCERS IN 1994, BY USE AND DISTRICT²

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction aggregates:						
Coarse aggregate (+1 1/2 inch) ³	190	1,120	122	874	308	1,750
Coarse aggregate, graded ⁴	386	2,170	367	10,300	793	4,260
Fine aggregate (-3/8 inch) ⁵	70	465	266	3,330	532	3,020
Coarse and fine aggregate ⁶	399	2,240	728	13,800	1,460	8,060
Other construction materials	—	—	18	105	18	145
Agricultural ⁷	(⁸)	(⁸)	(⁸)	(⁸)	—	—
Chemical and metallurgical ⁹	(⁸)	(⁸)	(⁸)	(⁸)	—	—
Special ¹⁰	—	—	(⁸)	(⁸)	—	—
Other miscellaneous uses ¹¹	—	—	—	—	(⁸)	(⁸)
Unspecified: ¹²						
Actual	3,960	30,400	(⁸)	(⁸)	(⁸)	(⁸)
Estimated	153	1,240	62	373	206	1,210
Total	5,680	43,300	3,020	36,400	3,570	19,600

¹Excludes dolomite quantity from State total to avoid disclosing company proprietary data.

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

³Includes filter stone, riprap and jetty stone, and other coarse aggregate.

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

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

⁶Includes graded road base or subbase, unpaved road surfacing, crusher run (select material or fill), and other coarse and fine aggregates.

⁷Includes agricultural limestone and poultry grit and mineral food.

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

⁹Includes cement manufacture and lime manufacture.

¹⁰Includes mine dusting or acid water treatment.

¹¹Includes other specified uses not listed.

¹²Includes production reported without a breakdown by end use and estimates for nonrespondents.

TABLE 5
WEST VIRGINIA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1994, BY MAJOR USE CATEGORY¹

Use	Quantity (thousand metric tons)	Value (thousands)	Value per ton
Concrete aggregate (including concrete sand)	826	\$3,590	\$4.35
Concrete products (blocks, brick, pipe, decorative, etc.)	177	719	4.06
Asphaltic concrete aggregates and other bituminous mixtures	92	251	2.73
Fill	156	418	2.68
Snow and ice control	W	W	3.00
Unspecified: ² Actual	W	W	7.85
Total or average	1,380	5,970	4.33

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

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

²Includes production reported without a breakdown by end use and estimates for nonrespondents.



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