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 39th among the 50 States in total nonfuel mineral value[1] in 1994, moving up 1 place from its 1993 standing of 40th, according to the U.S. Bureau of Mines. The estimated value for 1994 was more than $176 million, a significant 18% increase compared with that of 1993. This increase followed an even more notable 34% increase from 1992 to 1993. The State accounted for about 0.5% of the U.S. total. The increased percentages of the past 2 years were mostly the result of the increased value of crushed stone, further supported by a substantial rise in crushed stone production in 1994. Other mineral commodities with increasing values were salt and portland cement, both of which had a particularly strong impact in 1993, but were more moderate in growth in 1994. In contrast, the value of construction sand and gravel, masonry cement, and common clays decreased in 1994.

In estimated mineral production in 1994, West Virginia was among the top 10 States in salt; the State's mines also produced significant quantities of crushed stone, its leading nonfuel mineral commodity. Additionally, mines and manufacturers in the State provided notable quantities of both construction and industrial sand and gravel and portland cement. The State's mines exclusively produced industrial minerals and coal; no metals were mined in the State. Primary aluminum and raw steel were made in West Virginia, but both were processed from materials received from foreign and other domestic sources. Based on preliminary figures for primary aluminum production, the State rose in rank to 8th in the Nation in 1994 from 10th in 1993.

[1]The term value means the total monetary value as represented by either mine shipments, mineral commodity sales, or marketable production as is applicable to the individual mineral commodities.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN WEST VIRGINIA[1]

Mineral		1992		1993		1994[p]	
		Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
Clays	thousand metric tons	80	$221	115	$334	126	$326
Gemstones		NA	1	NA	1	NA	—
Sand and gravel (construction)	thousand metric tons	1,256	5,730	[e]1,400	[e]6,700	1,300	6,200
Stone (crushed)	do.	[e]10,342	[e]57,800	[2]10,313	79,661	[e]16,400	[e]103,000
Combined value of cement, lime, peat, salt, and sand and gravel (industrial)		XX	47,846	XX	62,756	XX	66,300
Total		XX	111,598	XX	149,452	XX	[3]176,000

[e]Estimated. [p]Preliminary. NA Not available. XX Not applicable.
[1]Production as measured by mine shipments, or marketable production (including comsumption by producers).
[2]Excludes certain stones; kind and value included with "Combined value" data.
[3]Data do not add to total shown because of independent rounding.

TABLE 2

WEST VIRGINIA: CRUSHED STONE[1] SOLD OR USED BY PRODUCERS IN 1993, BY USE

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Coarse aggregate (+1 1/2 inch):			
Macadam	W	W	$5.62
Riprap and jetty stone	205	$1,175	5.73
Filter stone	107	557	5.21
Other coarse aggregate	240	1,403	5.85
Coarse aggregate, graded:			
Concrete aggregate, coarse	548	3,135	5.72
Bituminous aggregate, coarse	523	2,608	4.99
Bituminous surface-treatment aggregate	162	794	4.90
Railroad ballast	84	2,409	28.68
Other graded coarse aggregate	1,788	5,523	3.09
Fine aggregate (-3/8 inch):			
Stone sand, concrete	191	1,324	6.93
Stone sand, bituminous mix or seal	405	1,915	4.73
Screening, undesignated	26	150	5.77
Other fine aggregate	81	2,114	26.10
Coarse and fine aggregates:			
Graded road base or subbase	901	4,814	5.34
Unpaved road surfacing	172	918	5.34
Terrazzo and exposed aggregate	11	348	31.64
Crusher run or fill or waste	729	3,403	4.67
Other coarse and fine aggregates	W	W	4.90
Other construction materials	406	10,164	25.03
Agricultural:			
Agricultural limestone	([2])	([2])	8.89
Poultry grit and mineral food	([2])	([2])	28.80
Other agricultural uses	([2])	([2])	11.02
Chemical and metallurgical:			
Cement manufacture	([2])	([2])	5.47
Sulfur oxide removal	([2])	([2])	5.35
Special:			
Mine dusting or acid water treatment	59	([2])	W
Other fillers or extenders	7	([2])	W
Unspecified:[3]			
Actual	3,510	25,612	7.30
Estimated	275	1,647	5.99
Total[4]	10,313	79,661	7.72
Total[5 6]	11,368	79,661	7.01

W Withheld to avoid disclosing company proprietary data; included with "Other construction materials," where applicable.
[1]Includes dolomite, granite, limestone, and sand stone; excludes dolomite quantity from State total to avoid disclosing company proprietary data.
[2]Withheld to avoid disclosing company proprietary data; included with "Total."
[3]Includes production reported without a breakdown by use and estimates for nonrespondents.
[4]Data may not add to totals shown because of independent rounding.
[5]One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.
[6]Total shown in thousand short tons and thousand dollars.

TABLE 3

WEST VIRGINIA: CRUSHED STONE SOLD OR USED, BY KIND

Kind	1991				1993			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone	r30	r6,699	r$37,511	r$5.59	29	9,352	$57,567	$6.15
Dolomite	2	W	W	4.57	1	(1)	16,745	(1)
Granite	1	W	W	6.00	—	—	—	—
Sandstone	13	886	5,163	5.82	11	960	5,349	5.57
Total[2]	XX	r9,354	r50,768	r5.43	XX	10,313	79,661	7.72
Total[3 4]	XX	r10,311	r50,768	4.92	XX	11,368	79,661	7.01

rRevised. W Withheld to avoid disclosing company proprietary data; included with "Total." XX Not applicable.
[1]Excludes dolomite quantity only.
[2]Data may not add to totals shown because of independent rounding.
[3]One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.
[4]Total shown in thousand short tons and thousand dollars.

TABLE 4

WEST VIRGINIA: CRUSHED STONE[1] SOLD OR USED BY PRODUCERS IN 1993, BY USE AND DISTRICT

(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)[2]	86	464	60	400	408	2,282
Coarse aggregate, graded[3]	(4)	2,121	(4)	8,463	824	3,884
Fine aggregate (-3/8 inch)[5]	(4)	1,261	(4)	2,352	386	1,890
Coarse and fine aggregate[6]	(4)	2,778	(4)	10,890	1,208	5,682
Other construction materials	19	103	6	31	43	151
Agricultural[7]	(4)	(4)	(4)	(4)	—	—
Chemical and metallurgical[8]	(4)	(4)	(4)	(4)	—	—
Special[9]	66	(4)	—	—	—	—
Unspecified:[10]						
Actual	2,817	20,294	692	5,318	—	—
Estimated	107	708	30	166	138	772
Total[11]	4,623	34,016	2,683	30,984	3,007	14,661
Total[12 13]	5,096	34,016	2,958	30,984	3,315	14,661

[1]Excludes dolomite quantity from State total to avoid disclosing company proprietary data.
[2]Includes filter stone, macadam, riprap and jetty stone, and other coarse aggregate.
[3]Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and other coarse aggregate.
[4]Withheld to avoid disclosing company proprietary data; included with "Total."
[5]Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesignated), and other fine aggregate.
[6]Includes graded road base or subbase, terrazzo and exposed aggregate, unpaved road surfacing, crusher run (select material or fill), and other coarse and fine aggregate.
[7]Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.
[8]Includes cement manufacture and sulfur oxide removal.
[9]Includes mine dusting or acid water treatment and other fillers or extenders.
[10]Includes production reported without a breakdown by use and estimates for nonrespondents.
[11]Data may not add to totals shown because of independent rounding.
[12]One short ton is equal to 907 kilograms or 2,000 pounds. To convert metric tons to short tons, divide metric tons by 0.907185.
[13]Total shown in thousand short tons and thousand dollars.