(Major producing areas) 20 Kilometers MINERAL SYMBOLS Dimension sandstone Dimension quartzite Construction sand and gravel Dimension granite County boundary Crushed stone Common clay LEGEND Capital City Clay SS o o D-Sd D D SG D-Q SS Norwich SG WINDHAM **NEW LONDON** SG Willimantic SG SG New London CONNECTICUT SG <u>0</u>-0 TOLLAND o o • Lolland o o SG SG MIDDLESEX SG D-Q SG Middletown SG ps-d Clay SG HARTFORD Clay SG Hartford * CS SG SS SS SG SS **NEW HAVEN** SS New Haven SG SG D-G SG CS Litchfield SS SG Bridgeport LITCHFIELD FAIRFIELD SG SG SG CS

Source: Connecticut Geological and Natural History Survey/U.S. Geological Survey (2004)

THE MINERAL INDUSTRY OF CONNECTICUT

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

In 2004, Connecticut's nonfuel raw mineral production was valued at about \$131 million, based upon annual U.S. Geological Survey (USGS) data. This was a 1.5% decrease compared with that of 2003 and followed a 6.4% increase from 2002 to 2003. Because data for dimension stone (quartzite) were withheld to protect company proprietary data, the actual total values for 2002-04 are higher than those reported in table 1.

Crushed stone and construction sand and gravel, the leading nonfuel mineral commodities by value, accounted for nearly all the State's total nonfuel mineral production and value. In 2004, Connecticut's decrease in nonfuel mineral value resulted from a \$6 million drop in the value of crushed stone, which was partly offset by a more than \$4 million rise in the value of construction sand and gravel. The value of common clay also was up. In 2003, the State's increase in value resulted from increases in the values of both of its major nonfuel mineral commodities (table 1). From 2002-04, the values of dimension stone and gemstones remained virtually unchanged.

The Connecticut Geological Survey³ provided the narrative information that follows. Fairfield Resources Inc. of Brookfield, Fairfield County, was forced to close its crushed stone quarry in western Connecticut when its land was taken by eminent domain for the building of a State highway bypass.

In a public-private cooperative project, a proposed plan was moving forward to use a water-filled abandoned brownstone quarry operation that is located in the south-central portion of the State near the Connecticut River as a history and recreation center. The largest quarry, the Brazos Quarry, has been closed since the mid-1930s following a flood; the former operation is now owned by the town of Portland. A private company was investigating a possible business venture involving the leasing of the quarries for canoeing, kayaking, swimming, and scuba diving and as an historical exhibit of brownstone and brownstone quarrying. The quarries are deep, with vertical walls on some sides, where rock climbing could also be done.

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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 2004 USGS mineral production data published in this chapter are those available as of December 2005. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—also can be retrieved over the Internet at URL http://minerals.usgs.gov/minerals.

²Values, percentage calculations, and rankings for 2003 may differ from the Minerals Yearbook, Area Reports: Domestic 2003, Volume II, owing to the revision of preliminary 2003 to final 2003 data. Data and rankings for 2004 are considered to be final and are not likely to change significantly.

³Nancy W. McHone, an Environmental Analyst with the Connecticut Geological Survey, authored the text of the State mineral industry information provided by that agency.

TABLE 1 NONFUEL RAW MINERAL PRODUCTION IN CONNECTICUT $^{\!1,\,2}$

(Thousand metric tons and thousand dollars)

	200	2002		2003		4
Mineral	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	55	183	52	143	87	(3)
Gemstones	NA	6	NA	6	NA	6
Sand and gravel, construction	8,140	48,800	8,150	51,200	8,330	55,600
Stone:						
Crushed	10,200	76,500 ^r	10,400	81,800	10,000	75,700
Dimension	W	(3)	W	(3)	W	(3)
Total	XX	125,000 ^r	XX	133,000	XX	131,000

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

¹Production as measured by mine shipments, sales, or marketable production (including consumption by producers). ²Data are rounded to no more than three significant digits; may not add to totals shown.

³Value excluded to avoid disclosing company proprietary data.

 ${\bf TABLE~2} \\ {\bf CONNECTICUT:~CRUSHED~STONE~SOLD~OR~USED, BY~KIND}^1 \\$

		200)2		2003			2004				
	Number	Quantity			Number	Quantity			Number	Quantity		
	of	(thousand	Value	Unit	of	(thousand	Value	Unit	of	(thousand	Value	Unit
Kind	quarries	metric tons)	(thousands)	value	quarries	metric tons)	(thousands)	value	quarries	metric tons)	(thousands)	value
Limestone ²	5	1,020	\$8,680	\$8.50	5	1,130	\$9,410	\$8.31	4	1,100	\$8,760	\$7.98
Dolomite	1	W	W	7.72 ^r	1	W	W	7.72	1	W	W	8.63
Granite	5	316	2,480	7.85	5	314	2,520	8.02	5	277	2,230	8.03
Traprock	9	8,340	61,700	7.39	9	8,420	65,900	7.83	9	8,080	59,600	7.37
Miscellaneous stone	1	W	W	3.75	1	W	W	3.75	1	W	W	3.75
Total or average	XX	10,200	76,500 ^r	7.53 ^r	XX	10,400	81,800	7.88	XX	10,000	75,700	7.53

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

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

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

 ${\it TABLE~3a}$ Connecticut: Crushed stone sold or used by producers in 2003, by ${\it use}^1$

	Quantity		
	(thousand	Value	Unit
Use	metric tons)	(thousands)	value
Construction:			
Coarse aggregate (+1½ inch):			
Riprap and jetty stone	12	\$82	\$7.07
Filter stone	W	W	13.23
Other coarse aggregates	50	587	11.74
Total or average	62	669	10.79
Coarse aggregate, graded:			
Concrete aggregate, coarse	(2)	(2)	5.51
Bituminous aggregate, coarse	(2)	(2)	5.51
Bituminous surface-treatment aggregate	(2)	(2)	5.51
Other graded coarse aggregates	729	6,930	9.50
Total or average	729	6,930	9.50
Fine aggregate (-3/8 inch):			
Stone sand, bituminous mix or seal	(3)	(3)	5.51
Screening, undesignated	(3)	(3)	5.51
Other fine aggregates	92	891	9.68
Total or average	92	891	9.68
Coarse and fine aggregates:			
Graded road base or subbase	341	2,130	6.25
Unpaved road surfacing	(4)	(4)	6.61
Crusher run or fill or waste	(4)	(4)	6.61
Other coarse and fine aggregates	172	1,240	7.20
Total or average	513	3,370	6.57
Other construction materials	25	199	7.96
Unspecified: ⁵			
Reported	8,030	62,500	7.78
Estimated	929	7,230	7.78
Total or average	8,960	69,700	7.78
Grand total or average	10,400	81,800	7.88

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

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

²Withheld to avoid disclosing company proprietary data; included with "Other graded coarse aggregates."

³Withheld to avoid disclosing company proprietary data; included with "Other fine aggregates."

⁴Withheld to avoid disclosing company proprietary data; included with "Other coarse and fine aggregates.

⁵Reported and estimated production without a breakdown by end use.

TABLE 3b CONNECTICUT: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2004, BY ${\sf USE}^1$

	Quantity		
	(thousand	Value	Unit
Use	metric tons)	(thousands)	value
Construction:			
Coarse aggregate (+1½ inch):			
Riprap and jetty stone	W	W	\$6.39
Other coarse aggregates	36	\$417	13.99
Total or average	36	417	13.99
Coarse aggregate, graded:			
Concrete aggregate, coarse	(2)	(2)	5.51
Bituminous aggregate, coarse	(2)	(2)	5.51
Bituminous surface-treatment aggregate	(2)	(2)	5.51
Other graded coarse aggregates	802	3,700	4.61
Total or average	802	3,700	4.61
Fine aggregate (-3/8 inch):			
Stone sand, bituminous mix or seal	(3)	(3)	5.51
Other fine aggregates	70	845	12.07
Total or average	70	845	12.07
Coarse and fine aggregates:			
Graded road base or subbase	(4)	(4)	6.32
Other coarse and fine aggregates	299	1,900	6.35
Total or average	299	1,900	6.35
Other construction materials	10	84	8.40
Special, other fillers or extenders	(5)	(5)	7.72
Unspecified: ⁶			
Reported	8,430	65,600	7.78
Estimated	410	3,200	7.80
Total or average	8,830	68,700	7.78
Grand total or average	10,000	75,700	7.53

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

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

²Withheld to avoid disclosing company proprietary data; included with "Other graded coarse aggregates."

³Withheld to avoid disclosing company proprietary data; included with "Other fine aggregates."

⁴Withheld to avoid disclosing company proprietary data; included with "Other coarse and fine aggregates."

⁵Withheld to avoid disclosing company proprietary data; included in "Unspecified: Reported."

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

TABLE 4a CONNECTICUT: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2003, BY MAJOR USE CATEGORY $^{\rm I}$

	Quantity		
	(thousand	Value	Unit
Use	metric tons)	(thousands)	value
Concrete aggregate (including concrete sand)	727	\$6,430	\$8.85
Concrete products (blocks, bricks, pipe, decorative, etc.) ²	354	2,900	8.18
Asphaltic concrete aggregates and other bituminous mixtures	263	1,900	7.23
Road base and coverings	374	2,790	7.47
Fill	333	1,270	3.82
Snow and ice control	169	1,590	9.41
Other miscellaneous uses ³	41	361	8.82
Unspecified: ⁴			
Reported	2,860	15,500	5.44
Estimated	3,000	18,000	6.07
Total or average	8,150	51,200	6.28

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

²Includes plaster and gunite sands.

³Includes filtration.

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

TABLE 4b CONNECTICUT: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2004, BY MAJOR USE CATEGORY¹

	Quantity		
	(thousand	Value	Unit
Use	metric tons)	(thousands)	value
Concrete aggregate and concrete products ²	800	\$6,820	\$8.52
Asphaltic concrete aggregates and other bituminous mixtures	159	1,250	7.87
Road base and coverings	242	1,900	7.88
Fill	343	1,590	4.63
Snow and ice control	223	2,140	9.59
Other miscellaneous uses ³	60	561	9.37
Unspecified: ⁴			
Reported	2,760	16,300	5.90
Estimated	3,700	25,000	6.69
Total or average	8,330	55,600	6.67

¹Data are rounded to no more than three significant digits; may not add to totals shown.
²Includes plaster and gunite sands.
³Includes filtration.

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