



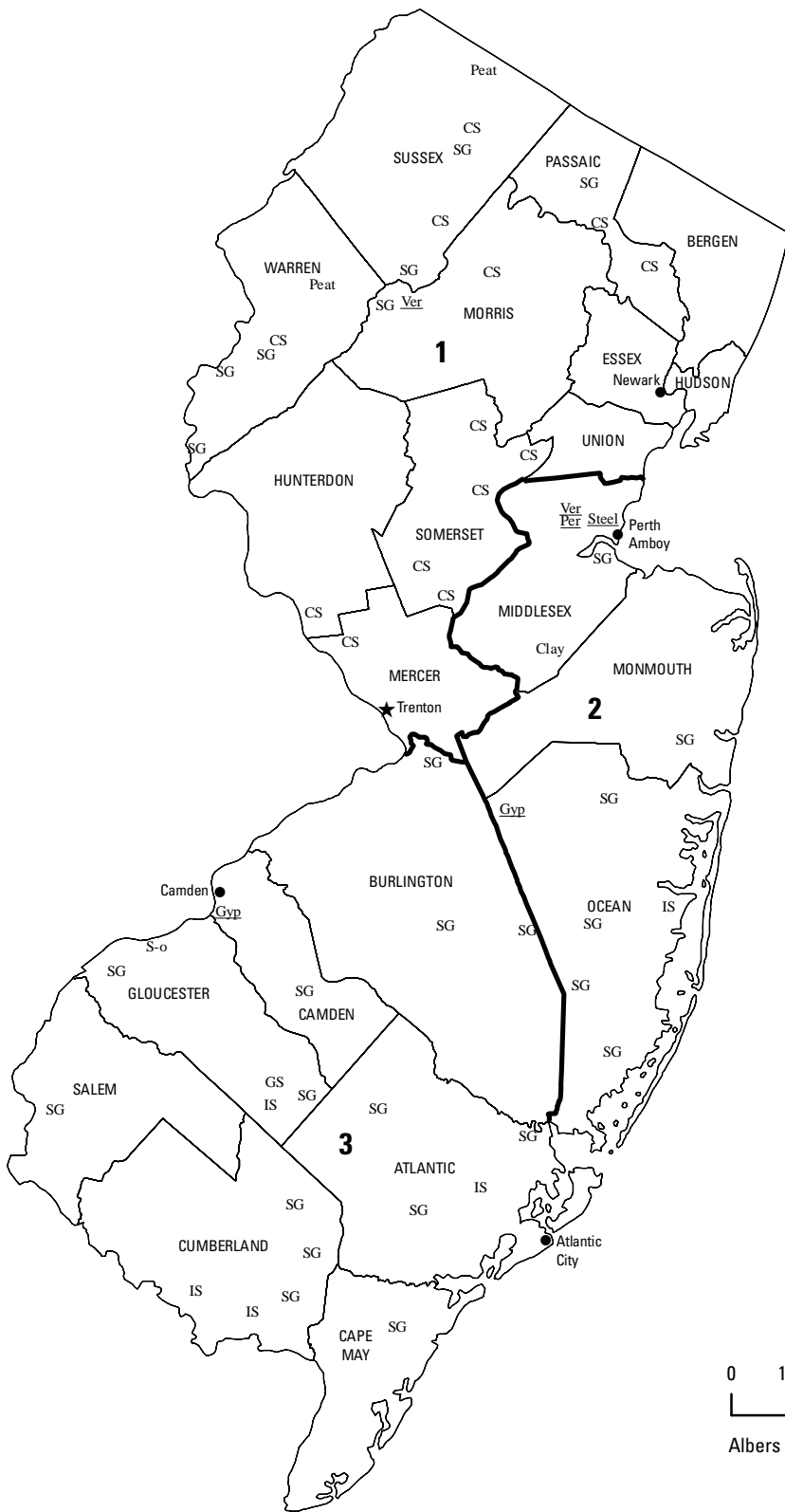
# 2006 Minerals Yearbook

---

NEW JERSEY

---

# NEW JERSEY

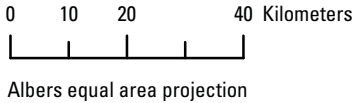


**LEGEND**

- County boundary
- ★ Capital
- City
- 1** — Crushed stone/sand and gravel district boundary

**MINERAL SYMBOLS  
(Major producing areas)**

- Clay Common clay
- CS Crushed stone
- GS Greensand
- Gyp Gypsum plant
- IS Industrial sand
- Peat Peat
- Per Perlite plant
- S-o Sulfur (oil)
- SG Construction sand and gravel
- Steel Steel plant
- Ver Vermiculite plant



Source: New Jersey Geological Survey/U.S. Geological Survey (2006).

# THE MINERAL INDUSTRY OF NEW JERSEY

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

In 2006, New Jersey's nonfuel raw mineral production<sup>1</sup> was valued at \$401 million, based upon annual U.S. Geological Survey (USGS) data. This was a \$45 million, or 12.6%, increase compared with that of 2005, which was up 4.4% from 2004 to 2005. Construction sand and gravel and crushed stone, by value, were New Jersey's leading nonfuel mineral commodities, followed by industrial sand and gravel and greensand marl.

In 2006, the largest increases in value took place in construction sand and gravel and industrial sand and gravel. Because of a significant increase in the unit value of construction sand and gravel, the mineral commodity's value rose by \$47 million, despite a small decrease in production. Similarly, a 16% decrease in industrial sand and gravel production resulted in a \$6.5 million, or 19%, increase in its value in 2006. Additionally, a significant increase took place in the unit value of common clays. The largest decrease in value took place in crushed stone, down by \$3 million, mostly the result of a somewhat small decrease in production. Relatively small decreases also took place in the production and value of greensand marl (table 1).

New Jersey continued to be the only State to produce greensand marl and it decreased to eighth from fifth in the quantity of industrial sand produced. Greensand marl was used directly as an organic conditioner and fertilizer for soils and as a water filtration medium to remove soluble iron and manganese from well water. Additionally, the State's aggregate operations produced significant quantities of construction sand and gravel and crushed stone as compared with other producing States.

The following narrative information was provided by the New Jersey Geological Survey<sup>2</sup> (NJGS).

## Mine Employment

Sand and gravel and aggregate mining continued to be a significant industry in the State during 2006. During the first 6 months of the year, employment in the natural resources and mining supersector declined by 100 positions to a level of 1,800, according to the New Jersey Department of Labor and Workforce Development (NJDLWD) statistics (New Jersey Department of Labor and Workforce Development, 2006). The natural resources and mining supersector rebounded slightly in the second half of 2006, adding a total of 100 employees by

---

<sup>1</sup>The 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 2006 USGS mineral production data published in this chapter are those available as of March 2008. 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>.

<sup>2</sup>Andrea L. Friedman, Principal Geologist, authored the text of the State mineral industry information provided by the New Jersey Geological Survey.

yearend compared with yearend 2005 (New Jersey Department of Labor and Workforce Development, 2007).

## Commodity Review

### *Industrial Minerals*

**Sand and Gravel, Construction and Stone, Crushed.**—Mining of sand and gravel was carried out in two new pits in 2006. Crown Aggregates LLC opened an additional sand and gravel pit at its operation in Montague, and Braen Aggregates LLC reopened a previously operated limestone pit within the Franklin Marble in Ogdensburg. Surface mining operations, including sand and gravel pits, and aggregate quarries, which remained active during the year were essentially equivalent to those of 2005. No underground mining activity took place during the year. Mine registration certificates administered by the Office of Mine Safety & Compliance, NJDLWD decreased by about 4% from the period March 2005–March 2006 to the period March 2006–March 2007. Certificates are required for all quarries, underground mines, sand and gravel, and borrow pit operations, as well as portable crushers that are active in the State, and may include offsite material processing operations. There continued to be a lack of development of new mining properties within the State, a pattern which has existed during the past 20 years. However, some quarrying of short-term duration and limited scope did take place at various construction sites around the State during the year.

## Government Programs and Activities

The New Jersey Department of Environmental Protection, through its "Green Acres" land preservation program, purchased 2,000 hectares (ha) of mined property or adjacent surplus land from 13 corporations. Three companies accounted for 87% of the total area purchased. The companies included U.S. Silica Company (839 ha), Egg Holding Corporation (692 ha), and Hummus Land Company (218 ha).

Further investigation of the extent of environmental contamination at the Ringwood Mines led the U.S. Environmental Protection Agency to restore the site to Superfund status. Contamination is related to refuse dumping in several of the small mines at the site. Ringwood Mines also continued to be an area of additional environmental concern associated with mine collapse and the undermining effect on a housing development.

The NJGS updated the Geographic Information System point shapefile and associated database file and metadata for "Selected Sand, Gravel and Rock Surficial Mining Operations in New Jersey" (Digital Geodata Series DGS05-1). Associated information outlines point locations, products mined, geologic formation, and other attributes of selected sand, gravel, and

rock surficial mining operations in the State. The database contains 1,031 inventoried operations with 172 being registered with the New Jersey Department of Labor, Office of Mine Safety & Compliance. Some operations have multiple permits. As a result, there are a total of 167 operational sites and 864 inactive and abandoned surficial mining operations. Inactive and abandoned operations were included because of their importance in environmental investigations, planning, zoning, and resource evaluation.

## References Cited

- New Jersey Department of Labor and Workforce Development, 2006, Midway through 2006, New Jersey remains on pace: New Jersey Department of Labor and Workforce Development press release, July 19, 2 p. (Accessed September 30, 2008, at <http://lwd.dol.state.nj.us/labor/lwdhome/press/2006/0719unemployment.html>).
- New Jersey Department of Labor and Workforce Development, 2007, New Jersey added 2,000 jobs in December; Unemployment rate dropped to 4.2 percent: New Jersey Department of Labor and Workforce Development press release, January 17, 3 p. (Accessed September 30, 2008, at <http://lwd.dol.state.nj.us/labor/lwdhome/press/2007/0117unemployment.html>).

TABLE 1  
NONFUEL RAW MINERAL PRODUCTION IN NEW JERSEY<sup>1, 2</sup>

(Thousand metric tons and thousand dollars)

Mineral	2004		2005		2006	
	Quantity	Value	Quantity	Value	Quantity	Value
Clays, common	W	122	W	W	84	216
Gemstones, natural	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	20,100	120,000	21,200	145,000	20,900	192,000
Industrial	2,020	35,800	1,820	34,100	1,520	40,600
Stone, crushed	25,400 <sup>3</sup>	185,000 <sup>3</sup>	24,500 <sup>r</sup>	172,000 <sup>r</sup>	24,100	169,000
Combined values of greensand marl, peat, stone [crushed miscellaneous (2004)], and value indicated by the symbol W	XX	4,400	XX	4,110	XX	(4)
Total	XX	345,000	XX	356,000 <sup>r</sup>	XX	401,000

<sup>r</sup>Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. Withheld values included in "Combined value" data. XX Not applicable.

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

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Excludes certain stones; kind and value included with "Combined values" data.

<sup>4</sup>Value withheld to avoid disclosing company proprietary data.

TABLE 2  
NEW JERSEY: CRUSHED STONE SOLD OR USED, BY KIND<sup>1</sup>

Kind	2005			2006		
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Number of quarries	Quantity (thousand metric tons)	Value (thousands)
Limestone	2	W	W	1	W	W
Granite	8	8,900 <sup>r</sup>	\$63,400 <sup>r</sup>	7	8,320	\$58,000
Traprock	15	15,500 <sup>r</sup>	108,000 <sup>r</sup>	15	15,800	110,000
Miscellaneous stone	(2)	W	W	(2)	W	W
Total	XX	24,500 <sup>r</sup>	172,000 <sup>r</sup>	XX	24,100	169,000

<sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

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

<sup>2</sup>Sales/distribution yards.

TABLE 3  
NEW JERSEY: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2006, BY USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
<b>Construction:</b>		
Coarse aggregate (+1½ inch):		
Riprap and jetty stone	W	W
Filter stone	W	W
Other coarse aggregate	W	W
Coarse aggregate, graded:		
Concrete aggregate, coarse	W	W
Bituminous aggregate coarse	W	W
Railroad ballast	W	W
Other graded coarse aggregate	W	W
Fine aggregate (-¾ inch):		
Stone sand, concrete	W	W
Screening, undesignated	W	W
Other fine aggregate	W	W
Coarse and fine aggregates:		
Graded road base or subbase	W	W
Crusher run or fill or waste	W	W
Other coarse and fine aggregates	W	W
Unspecified: <sup>2</sup>		
Reported	15,100	102,000
Estimated	4,700	32,000
Total	19,700	133,000
Grand total	24,100	169,000

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

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

<sup>2</sup>Reported and estimated production without a breakdown by end use.

TABLE 4  
NEW JERSEY: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2006, BY USE AND DISTRICT<sup>1,2</sup>

(Thousand metric tons and thousand dollars)

Use	District 1		District 3	
	Quantity	Value	Quantity	Value
Construction:				
Coarse aggregate (+1½ inch) <sup>3</sup>	W	W	--	--
Coarse aggregate, graded <sup>4</sup>	W	W	--	--
Fine aggregate (-¾ inch) <sup>5</sup>	W	W	--	--
Coarse and fine aggregate <sup>6</sup>	W	W	--	--
Unspecified: <sup>7</sup>				
Reported	15,000	102,000	30	233
Estimated	4,700	32,000	--	--
Total	24,100	168,000	30	233

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

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

<sup>2</sup>No production for District 2.

<sup>3</sup>Includes filter stone, riprap and jetty stone, and other coarse aggregate.

<sup>4</sup>Includes bituminous aggregate (coarse), concrete aggregate (coarse), railroad ballast, and other graded coarse aggregate.

<sup>5</sup>Includes screening (undesignated), stone sand (concrete), and other fine aggregate.

<sup>6</sup>Includes crusher run or fill or waste, graded road base or subbase, and other coarse and fine aggregates.

<sup>7</sup>Reported and estimated production without a breakdown by end use.

TABLE 5  
NEW JERSEY: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2006,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	4,840	\$45,100	\$9.32
Plaster and gunite sands	270	2,860	10.60
Concrete products (blocks, bricks, pipe, decorative, etc.)	282	3,820	13.55
Asphaltic concrete aggregates and other bituminous mixtures	3,040	30,200	9.92
Road base and coverings	830	6,330	7.63
Fill	1,320	7,680	5.82
Snow and ice control	69	553	8.01
Other miscellaneous uses <sup>2</sup>	470	5,300	11.27
Unspecified: <sup>3</sup>			
Reported	1,380	11,900	8.61
Estimated	8,410	78,000	9.27
Total or average	20,900	192,000	9.17

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

<sup>2</sup>Includes filtration.

<sup>3</sup>Reported and estimated production without a breakdown by end use.

TABLE 6  
NEW JERSEY: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2006, BY USE AND DISTRICT<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products <sup>2</sup>	1,610	18,800	1,340	13,000	2,440	19,900
Asphaltic concrete aggregates and road base materials	303	2,500	2,950	29,400	615	4,610
Fill	619	4,270	195	1,230	505	2,170
Other miscellaneous uses <sup>3</sup>	285	3,780	13	50	241	2,020
Unspecified: <sup>4</sup>						
Reported	28	361	--	--	1,350	11,500
Estimated	519	4,920	3,190	29,000	4,700	44,100
Total	3,360	34,700	7,690	72,700	9,850	84,300

-- Zero.

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

<sup>2</sup>Includes plaster and gunite sands.

<sup>3</sup>Includes filtration and snow and ice control.

<sup>4</sup>Reported and estimated production without a breakdown by end use.