2012–2013 Minerals Yearbook

GEORGIA [ADVANCE RELEASE]

U.S. Department of the Interior
U.S. Geological Survey

July 2016

GEORGIA

LEGEND

County boundary	
★	Capital
●	City
1 ——	Crushed stone/sand gravel district

MINERAL SYMBOLS
(Principal producing areas)

Ba	Barite
Bx	Bauxite
Cem	Cement plant
Clay	Common clay
CS	Crushed stone
D-Gr	Dimension granite
D-M	Dimension marble
Fel	Feldspar
FePig	Iron oxide pigments
Ful	Fuller's earth
Gyp-s	Synthetic gypsum
IS	Industrial sand
Ka	Kaolin
Mica	Mica
Mul	Synthetic mullite plant
Per	Perlite plant
SG	Construction sand and gravel
Steel	Steel plant
(dashed oval)	Concentration of mineral operations

Source: Georgia Department of Natural Resources, Environmental Protection Division/U.S. Geological Survey (2012–13).

The Mineral Industry of Georgia

In 2013, the value of the nonfuel mineral production[1] in the State of Georgia increased to $1.53 billion, 2.0% of the total U.S. nonfuel mineral production value, ranking it 16th in the Nation. In 2012, the corresponding value was $1.49 billion, 2.0 % of the U.S. total nonfuel mineral production, ranking it 14th among the 50 States. In 2013, on a per capita basis, nonfuel mineral production in Georgia had a value of $153 compared with the national average of $238. In 2012, the per capita value was $150 compared with the national average of $241.

The value of nonfuel mineral production in Georgia for the years 2006 through 2013 was as follows (in billions of dollars): $2.07 (2006), $2.06 (2007), $1.79 (2008), $1.40 (2009), $1.46 (2010), $1.48 (2011), $1.49 (2012), and $1.53 (2013).

In 2013, there were 1,220 employees in nonfuel mineral mines in Georgia and 3,140 in mills and preparation plants. In 2012, the corresponding numbers were 1,298 in nonfuel mineral mines and 2,991 in mills and preparation plants (U.S. Mine Safety and Health Administration, 2013, p. 8; 2014, p. 8). In 2013, the average annual wage in Georgia for all mining was $58,991 compared with $47,515 for all industries. In 2012, the corresponding figures were $56,347 and $47,003, respectively (National Mining Association, unpub. data, February 4, 2016).

In 2012–13, on the basis of production quantity, Georgia was the leading producer of kaolin clay and iron oxide pigments out of nine and three producing States, respectively. With attapulgite production and montmorillonite production combined, Georgia was the leading producer of fuller's earth. It was second in the production of barite, attapulgite (fuller's earth), and montmorillonite (fuller's earth) out of 2, 3, and 10 producing States, respectively. It was fifth in the production of dimension stone and feldspar out of 33 and 7 producing States, respectively. In 2013 and 2012, Georgia also produced common clay, construction sand and gravel, crude mica, crushed stone, industrial sand and gravel, lime, masonry and portland cements, and natural gemstones (table 1). Mullite was produced in Sumter County and refractory grade bauxite was mined in Sumter and Macon Counties, but the value was not significant to be included in table 1.

There were several mineral industry news items during 2012–13. On July 23, 2013, the Color Pigments and Services business of Rockwood Holdings Inc. started building an advanced technology production facility near Augusta, Georgia, for the production of synthetic iron oxide pigments at an investment of $115 million. This was the first new iron oxide pigment production plant in the United States in nearly 35 years (Martin, 2013). On September 17, 2013, Huntsman Corp. announced that it would purchase Rockwood Pigments NA's color pigments plants and three other businesses from Rockwood Holdings, Inc. The deal was projected to close in June 2014 (Reuters, 2013). At auction in 2012, JSC Ado Georgia Mining, a Turkish company, acquired a 30-year license to mine barite at the Chordi deposit in northern Georgia. On August 22, 2013, it announced that it would build a beneficiation plant in Chordi for the production of barite concentrate with a capacity of up to 60,000 metric tons per year (Interfax, 2013).

[1]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 USGS mineral production data published in this chapter are those available as of February 2016. Data in this report are rounded to three significant digits and percentages are calculated from unrounded data. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at http://minerals.usgs.gov/minerals.

References Cited

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Martin, Jenna, 2013, Work started on Rockwood's Augusta pigment plant: The Augusta [GA] Chronicle, July 23. (Accessed April 7, 2016, at http://chronicle.augusta.com/news/business/local-business/2013-07-23/work-started-rockwoods-augusta-pigment-plant.)

Reuters, 2013, Huntsman buying Rockwood's pigments unit for $1.1 billion, plans IPO: Reuters, September 17. (Accessed April 6, 2016, at http://www.reuters.com/article/us-rockwood-paintpigments-idUSBRE98G0FN20130917.)

U.S. Mine Safety and Health Administration, [2013], Mine injury and worktime, quarterly, January–December 2012, Final, closeout edition, 33 p. (Accessed February 4, 2016, at http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20125.pdf.)

U.S. Mine Safety and Health Administration, [2014], Mine injury and worktime, quarterly, January–December 2013, Final, closeout edition, 34 p. (Accessed February 4, 2016, at http://arlweb.msha.gov/Stats/Part50/WQ/MasterFiles/MIWQ%20Master_20135.pdf.)

TABLE 1
NONFUEL MINERAL PRODUCTION IN GEORGIA[1, 2]

(Thousand metric tons and thousand dollars)

Mineral	2011		2012		2013	
	Quantity	Value	Quantity	Value	Quantity	Value
Barite	7	1,350	7	1,350	7	1,350
Clays:						
Common	644	6,880	687	3,770	W	W
Kaolin	5,480 r	814,000 r	5,410	844,000	5,450	836,000
Gemstones, natural	NA	103	NA	103	NA	103
Sand and gravel:						
Construction	5,150 r	30,300 r	5,410	33,800	4,260	28,500
Industrial	655	19,600	585	16,500	596	15,800
Stone:						
Crushed	41,400 r	478,000 r	37,700	451,000	40,300	493,000
Dimension	141	20,300	142	16,800	145	17,200
Combined values of bauxite, cement, clays (fuller's earth), feldspar, iron oxide pigments (crude), lime, mica (crude), and value indicated by symbol W	XX	114,000	XX	119,000	XX	137,000
Total	XX	1,480,000 r	XX	1,490,000	XX	1,530,000

[r]Revised. NA Not available. XX Not applicable.
[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).
[2]Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 2
GEORGIA: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE[1]

Type	2012				2013			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone[2]	12	4,580	$55,700	$12.16	11	4,680	$58,900	$12.58
Marble	3	1,540	32,200	20.94	3	1,750	31,000	17.74
Granite	67	31,000	356,000	11.49	67	33,100	395,000	11.92
Sandstone and quartzite[3]	2	597	6,570	11.01	2	720	7,930	11.02
Slate	1	15	403	27.26	1	20	575	29.35
Miscellaneous stone	--	--	--	--	--	--	--	--
Total or average	XX	37,700	451,000	11.96	XX	40,300	493,000	12.24

XX Not applicable. -- Zero.
[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes limestone-dolomite reported with no distinction between the two kinds of stone.
[3]Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

TABLE 3
GEORGIA: CRUSHED STONE SOLD OR USED BY PRODUCERS BY USE[1]

Use	2012 Quantity (thousand metric tons)	2012 Value (thousands)	2012 Unit value	2013 Quantity (thousand metric tons)	2013 Value (thousands)	2013 Unit value
Construction:						
Coarse aggregate (+1½ inch):						
Riprap and jetty stone	42	$527	$12.55	42	$524	$12.58
Filter stone	W	W	W	246	3,060	12.40
Unspecified coarse aggregate	W	W	W	W	W	W
Coarse aggregate, graded:						
Concrete aggregate, coarse	W	W	W	W	W	W
Bituminous aggregate, coarse	--	--	--	W	W	W
Bituminous surface-treatment aggregate	W	W	W	--	--	--
Railroad ballast	W	W	W	--	--	--
Unspecified graded coarse aggregate	W	W	W	W	W	W
Fine aggregate (-⅜ inch):						
Stone sand, concrete	W	W	W	W	W	W
Stone sand, bituminous mix or seal	--	--	--	W	W	W
Screening, undesignated	93	865	9.30	108	588	5.46
Unspecified fine aggregate	W	W	W	W	W	W
Coarse and fine aggregates:						
Graded road base or subbase	489	4,950	10.12	256	1,930	7.51
Unpaved road surface	W	W	W	4	20	5.51
Terrazzo and exposed aggregate	--	--	--	W	W	W
Crusher run or fill or waste	W	W	W	8	45	5.46
Roofing granules	W	W	W	--	--	--
Unspecified coarse and fine aggregates	W	W	W	W	W	W
Unspecified and other construction materials	15	403	26.87	20	578	28.95
Agricultural:						
Agricultural Limestone	W	W	W	--	--	--
Chemical and metallurgical:						
Cement manufacture	--	--	--	W	W	W
Special:						
Mining dusting or acid water treatment	W	W	W	W	W	W
Other fillers or extenders	W	W	W	W	W	W
Other miscellaneous uses and specified uses not listed				181	5,805	32.11
Unspecified:[2]						
Reported	13,400	155,000	11.56	13,200	157,000	11.90
Estimated	9,010	103,000	11.41	11,100	135,000	12.13
Total or average	37,700	451,000	11.96	40,300	493,000	12.24

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.
[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Reported and estimated production without a breakdown by end use.

TABLE 4

GEORGIA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2012, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch)[2]	W	W	W	W	W	W
Coarse aggregate, graded[3]	W	W	W	W	W	W
Fine aggregate (-⅜ inch)[4]	W	W	W	W	W	W
Coarse and fine aggregates[5]	W	W	W	W	W	W
Other construction materials	15	403	--	--	--	--
Agricultural	--	--	--	--	W	W
Chemical and metallurgical	--	--	--	--	--	--
Special[6]	W	W	--	--	--	--
Other miscellaneous uses and specified uses not listed	--	--	--	--	--	--
Unspecified:[7]						
Reported	4,520	51,600	3,970	46,800	4,950	56,800
Estimated	2,470	29,800	4	51	6,530	73,100
Total	11,200	147,000	12,100	141,000	14,500	162,000

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

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

[2]Includes macadam, riprap and jetty stone, filter stone, and unspecified coarse aggregate.

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

[4]Includes stone sand (concrete), screening (undesignated), and unspecified fine aggregate.

[5]Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, and unspecified coarse and fine aggregates.

[6]Includes mine dusting or acid water treatment and other fillers or extenders.

[7]Reported and estimated production without a breakdown by end use.

TABLE 5

GEORGIA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2013, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch)[2]	W	W	W	W	W	W
Coarse aggregate, graded[3]	W	W	W	W	W	W
Fine aggregate (-⅜ inch)[4]	W	W	W	W	W	W
Coarse and fine aggregates[5]	W	W	W	W	W	W
Other construction materials	20	575	W	W	--	--
Agricultural	--	--	--	--	--	--
Chemical and metallurgical[6]	--	--	--	--	W	W
Special[7]	W	W	--	--	--	--
Other miscellaneous uses and specified uses not listed[8]	181	5,810	--	--	--	--
Unspecified:[9]						
Reported	3,390	40,900	3,240	39,300	6,580	77,100
Estimated	4,720	55,700	502	6,070	5,890	72,900
Total	12,700	167,000	12,800	153,000	14,700	173,000

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

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

[2]Includes macadam, riprap and jetty stone, filter stone, and unspecified coarse aggregate.

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

[4]Includes stone sand (concrete), screening (undesignated), and unspecified fine aggregate.

[5]Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, and unspecified coarse and fine aggregates.

[6]Includes cement manufacture, lime manufacture, and sulfur oxide removal.

[7]Includes mine dusting or acid water treatment and other fillers or extenders.

[8]Includes drain fields, waste material, lightweight aggregate (slate), pipe bedding, refractory stone (including ganister), and other miscellaneous uses.

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

TABLE 6
GEORGIA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	2,000	$12,100	$6.05
Plaster and gunite sands[2]	411	2,380	5.79
Road base and coverings[3]	14	52	3.71
Fill	82	275	3.35
Unspecified:[4]			
Reported	1,130	7,700	6.81
Estimated	1,780	11,200	6.29
Total or average	5,410	33,800	6.25

[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes concrete products (blocks, bricks, pipe, decorative, and so forth).
[3]Includes road and other stabilization (lime).
[4]Reported and estimated production without a breakdown by end use.

TABLE 7
GEORGIA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	1,570	$10,700	$6.84
Plaster and gunite sands[2]	177	1,020	5.75
Road base and coverings	17	82	4.82
Fill	25	95	3.80
Other miscellaneous uses[3]	15	122	8.13
Unspecified:[4]			
Reported	354	3,100	8.75
Estimated	2,100	13,400	6.36
Total or average	4,260	28,500	6.69

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes concrete products (blocks, bricks, pipe, decorative, and so forth).
[3]Includes golf course.
[4]Reported and estimated production without a breakdown by end use.

TABLE 8
GEORGIA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2012,
BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	Districts 1 and 2		District 3	
	Quantity	Value	Quantity	Value
Concrete aggregates and concrete products[2]	149	1,230	2,260	13,300
Road base and coverings[3]	13	50	1	2
Fill	12	46	71	228
Unspecified:[4]				
Reported	811	4,920	251	2,280
Estimated	251	1,580	1,530	9,650
Total	1,240	7,820	4,110	25,500

Use	Unspecified district	
	Quantity	Value
Concrete aggregates and concrete products[2]	--	--
Road base and coverings[3]	--	--
Fill	--	--
Unspecified:[4]		
Reported	65	494
Estimated	--	--
Total	65	494

-- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes plaster and gunite sands.
[3]Includes road and other stabilization (lime).
[4]Reported and estimated production without a breakdown by end use.

TABLE 9
GEORGIA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2013,
BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	Districts 1 and 2		District 3	
	Quantity	Value	Quantity	Value
Concrete aggregates and concrete products[2]	135	1,010	1,610	10,700
Road base and coverings	15	71	2	11
Fill	24	95	2	574
Other miscellaneous uses[3]	6	38	9	83
Unspecified:[4]				
Reported	--	--	275	2,500
Estimated	236	1,570	1,870	11,200
Total	416	2,780	3,760	25,100

Use	Unspecified district	
	Quantity	Value
Concrete aggregates and concrete products[2]	--	--
Road base and coverings[3]	--	--
Fill	--	--
Other miscellaneous uses[3]	--	--
Unspecified:[4]		
Reported	80	599
Estimated	--	--
Total	80	599

-- Zero.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes plaster and gunite sands.
[3]Includes golf course.
[4]Reported and estimated production without a breakdown by end use.