2009 Minerals Yearbook

MAINE [ADVANCE RELEASE]

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U.S. Geological Survey

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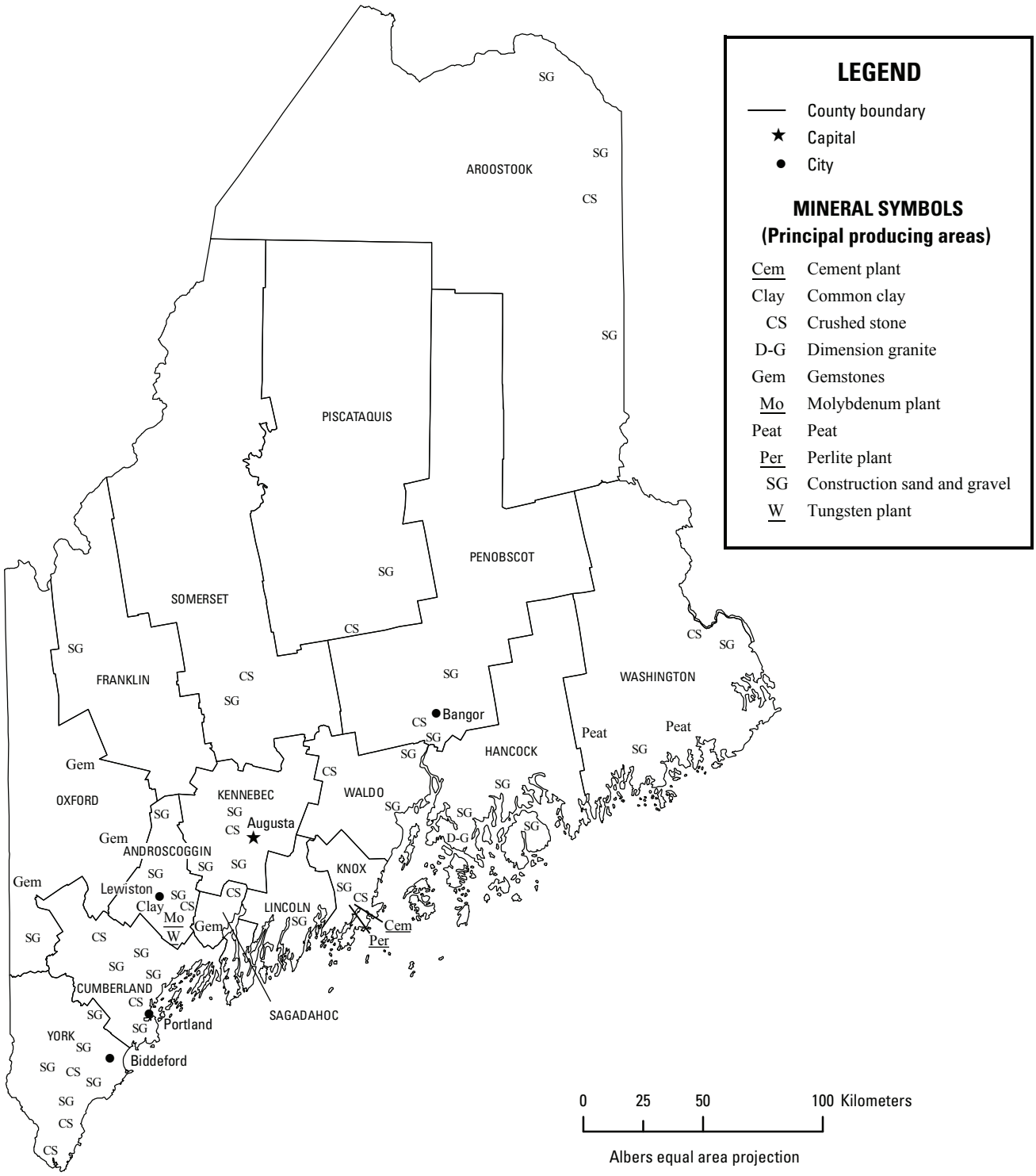
MAINE



Source: Maine Geological Survey/U.S. Geological Survey (2009).

The Mineral Industry of Maine

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

In 2009, Maine's nonfuel raw mineral production[1] was valued at $125 million, based upon annual U.S. Geological Survey data. This was a $36 million, or 22%, decrease from the State's total production value in 2008, $161 million, which was down $18 million, or 10%, from a total of $179 million in 2007. The State remained 44th in rank among the 50 States for total nonfuel mineral production value and accounted for less than one-quarter of 1% of the U.S. total.

The majority of the State's nonfuel mineral production resulted from the mining and production of construction minerals and materials—construction sand and gravel, crushed stone, portland cement, and dimension stone, in descending order of total production value. Construction sand and gravel and crushed stone accounted for almost 73% of Maine's total nonfuel raw mineral production value in 2009, up from 64% in 2008, which in turn was down from 69% in 2007. Both mineral commodities saw decreases in quantities produced and total production value. Combined, production decreased by 1.47 million metric tons (Mt) in 2009 compared with that of 2008 and with a decrease in production value of $12 million. In 2008, production of both of these mineral commodities had decreased by almost 1.8 Mt compared with that of 2007, with a decrease in value of $20.6 million. In 2009, construction sand and gravel saw a greater decline in production value, 14%, than crushed stone, down almost 7%. The production value of dimension stone produced was down 24% from that of 2008 (table 1).

In 2009, Maine remained fourth in the quantity of peat produced. One company in Lewiston, in southern Maine, continued to produce molybdenum and tungsten products from raw materials originating from outside of the State. The Maine Geological Survey[2] provided the narrative information that follows.

Exploration

Metals

During 2009, a private party from Toronto, Ontario, Canada, continued its lease of a claim staked in 2006 from the State for mineral rights beneath Alder Pond in Somerset County, in west-central Maine. In 2006, following more than 7 years of exploration work, International Paper Co. had allowed its claim on the 42-hectare (105-acre) Alder Pond prospect in Somerset County, northwestern Maine, to lapse. Discovered in 1985, the Alder Pond copper-lead-zinc-silver sulfide deposit extends beneath the property and was estimated to hold about 3.1 Mt of resources.

Following an airborne geophysical survey and extensive drilling in 2007, Golden Hope Mines Ltd. (Toronto, Ontario, Canada) sold its interest in 2009 in the Big Hill deposit, in Pembroke, in the eastern portion of the State. The company cited insufficient mineralization for the deposit to be economic. The Big Hill deposit had been known since the 1960s and 1970s when a drilling program identified several high-grade silver intercepts. The copper-lead-zinc-silver mineralization was hosted in the mixed volcanic rocks of the Silurian Leighton Formation, which included rhyolitic and dacitic lapilli tuffs and basalt flows.

Golden Hope relinquished a lease in 2009 for a public lot in township T12 R8, Aroostook County, after surface exploration revealed little in terms of targets for further exploration. This is the same township that hosts the Bald Mountain copper-zinc-gold-silver massive sulfide deposit in Ordovician volcanic rocks.

Commodity Review

Industrial Mineral

Gemstones.—During 2009, Coromoto Minerals continued mining at the Mount Mica Mine, which in total amounted to hundreds of meters of underground workings. Numerous gem pockets were opened during this effort, yielding many gem-quality tourmaline specimens, including many deep-green specimens with ruby-red terminations. This famous pegmatite deposit was discovered in 1820 and has been worked intermittently ever since. Other pegmatite minerals are also recovered during the mining operation, such as quartz crystals, lapidary-grade masses of purple lepidolite mica, and occasionally beryl crystals.

Other pegmatite deposits worked for gemstock and mineral specimens in 2009 included the Colton Hill amethyst mine in Stow, the Russell Brothers quarry in Topsham, which was worked for beryl, and the Newry Mines in Newry, which included the first pockets of blue gem-like tourmaline. Production from these and other Maine pegmatites was generally small and sporadic, primarily for mineral collectors and lapidaries.

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[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 2009 USGS mineral production data published in this chapter are those available as of September 2011. 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.

[2] Robert G. Marvinney, State Geologist and Director, authored the text of the information submitted by the Maine Geological Survey.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN MAINE[1, 2]

(Thousand metric tons and thousand dollars)

Mineral	2007		2008		2009	
	Quantity	Value	Quantity	Value	Quantity	Value
Gemstones, natural	NA	277	NA	282	NA	352
Sand and gravel, construction	11,300 r	85,900 r	10,200 r	69,100 r	9,090	59,300
Stone:						
Crushed	4,680	37,700	4,020 r	33,900 r	3,600	31,600
Dimension	6	1,580	7	1,720	6	1,300
Combined values of cement, clays (common), peat	XX	53,900	XX	56,000	XX	32,600
Total	XX	179,000 r	XX	161,000 r	XX	125,000

[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
MAINE: CRUSHED STONE SOLD OR USED, BY TYPE[1]

Type	2008			2009		
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Number of quarries	Quantity (thousand metric tons)	Value (thousands)
Limestone	6 r	1,610 r	$11,400 r	6	1,540	$12,200
Granite	7	1,630	15,800	6	1,260	12,000
Sandstone and quartzite	3	427	3,750	3	404	3,610
Miscellaneous stone	6 r	348 r	2,890 r	8	392	3,800
Total	XX	4,020 r	33,900 r	XX	3,600	31,600

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

TABLE 3
MAINE: CRUSHED STONE SOLD OR USED BY PRODUCERS IN
2009, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Riprap and jetty stone	25	319
Filter stone	28	382
Other coarse aggregate	100	924
Coarse aggregate, graded:		
Concrete aggregate, coarse	W	W
Other graded coarse aggregate	44	358
Fine aggregate (-⅜ inch):		
Stone sand, concrete	W	W
Screening, undesignated	W	W
Other fine aggregate	19	241
Coarse and fine aggregates:		
Graded road base or subbase	W	W
Crusher run or fill or waste	W	W
Other coarse and fine aggregates	55	828
Chemical and metallurgical, cement manufacture	W	W
Unspecified:[2]		
Reported	1,610	15,300
Estimated	1,130	9,750
Total	3,600	31,600

W Withheld to avoid disclosing company proprietary data; included in "Total."
[1]Data are rounded to no more than three significant digits.
[2]Estimated production without a breakdown by end use.

TABLE 4
MAINE: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2009,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	434	$2,320	$5.34
Plaster and gunite sands	60	365	6.08
Concrete products (blocks, bricks, pipe, decorative, etc.)	4	35	8.75
Asphaltic concrete aggregates and other bituminous mixtures	235	1,460	6.21
Road base and coverings	1,230	7,710	6.25
Fill	575	2,140	3.73
Snow and ice control	102	563	5.52
Railroad ballast	10	150	15.00
Other miscellaneous uses[2]	34	503	14.79
Unspecified:[3]			
Reported	471	4,230	8.99
Estimated	5,930	39,800	6.71
Total or average	9,090	59,300	6.52

[1]Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.
[2]Includes filtration.
[3]Reported and estimated production without a breakdown by end use.