

## GEMSTONES<sup>1</sup>

(Data in million dollars, unless otherwise noted)

**Domestic Production and Use:** Total U.S. gemstone output has decreased in recent years owing to a decline in foreign demand for freshwater shell, a major component of the domestic industry. Domestic gemstone production also included amber, agates, beryl, coral, garnet, jade, jasper, pearl, opal, quartz, sapphire, topaz, turquoise, and many other gem materials. Output of natural gemstones was primarily from Tennessee, Arizona, North Carolina, Arkansas, California, and Utah, in decreasing order. Reported output of synthetic gemstones was from five firms in North Carolina, New York, California, and Arizona, in decreasing order. There was notable production of freshwater pearl in Tennessee, turquoise in Arizona, and beryl in North Carolina and Utah. Major uses were jewelry, carvings, and gem and mineral collections.

<b>Salient Statistics—United States:</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999<sup>e</sup></b>
Production: <sup>2</sup> Natural <sup>3</sup>	48.7	43.6	25.0	14.3	13.5
Synthetic	26.0	24.0	21.6	24.2	49.1
Imports for consumption	6,540	7,240	8,380	9,250	10,200
Exports, including reexports <sup>4</sup>	2,520	2,660	2,760	2,980	3,380
Consumption, apparent <sup>5</sup>	4,100	4,650	5,670	6,310	6,880
Price	Variable, depending on size, type, and quality				
Employment, mine, number <sup>e</sup>	1,200	1,200	1,200	1,200	1,200
Net import reliance <sup>6</sup> as a percent of apparent consumption	98	98	99	99	99

**Recycling:** Insignificant.

**Import Sources (1995-98 by value):** Israel, 36%; Belgium, 21%; India, 21%; and other, 22%. Diamond imports accounted for 92% of the total value of gem imports.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Normal Trade Relations 12/31/99</b>
	Diamonds, unworked or sawn	7102.31.0000	Free.
	Diamond, ½ carat or less	7102.39.0010	Free.
	Diamond, cut, more than ½ carat	7102.39.0050	Free.
	Precious stones, unworked	7103.10.2000	Free.
	Precious stones, simply sawn	7103.10.4000	10.5% ad val.
	Rubies, cut	7103.91.0010	Free.
	Sapphires, cut	7103.91.0020	Free.
	Emeralds, cut	7103.91.0030	Free.
	Other precious, cut but not set	7103.99.1000	Free.
	Other precious stones, other	7103.99.5000	10.5% ad val.
	Imitation precious stones	7018.10.2000	Free.
	Synthetic cut, but not set	7104.90.1000	Free.
	Pearls, natural	7101.10.0000	Free.
	Pearls, cultured	7101.21.0000	Free.
	Pearls, imitation, not strung	7018.10.1000	4.0% ad val.

**Depletion Allowance:** 15% (Domestic and foreign).

**Government Stockpile:** The National Defense Stockpile (NDS) does not contain an inventory of gemstones per se. However, portions of the industrial diamond inventory are of near-gem or gem quality. Additionally, the beryl and quartz inventories contain some gem-quality materials, and the inventory of synthetic ruby and sapphire could be used by the gem industry. The U.S. Department of Defense is currently selling some NDS materials that may be gemstone quality.

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**Events, Trends, and Issues:** Canada's first commercial diamond mine opened during the fourth quarter of 1998 with expectations that it would make Canada a major diamond producer. The new mine is expected to account for about 6% of world diamond output value when it reaches full production levels. Additional Canadian mines scheduled to open in the next few years may double Canada's share of world production.

In 1999, the U.S. gemstone market exceeded an estimated \$9 billion, accounting for at least one-third of world demand. The United States is expected to dominate global gemstone consumption well into the next century. Synthetic gemstones will gain a larger share of domestic jewelry sales. China may emerge as a major new gem market in the next decade.

### **World Mine Production,<sup>7</sup> Reserves, and Reserve Base:**

	Mine production		Reserves and reserve base <sup>8</sup>
	1998	1999 <sup>e</sup>	
United States	( <sup>9</sup> )	( <sup>9</sup> )	World reserves and reserve base of gem diamond are substantial. No reserves or reserve base data are available for other gemstones.
Angola	2,400	2,400	
Australia	18,400	18,500	
Botswana	13,500	13,500	
Brazil	300	300	
Canada	278	300	
Central African Republic	330	350	
China	230	230	
Congo (Kinshasa) <sup>10</sup>	2,000	2,500	
Ghana	640	650	
Namibia	1,600	1,600	
Russia	10,500	10,500	
South Africa	4,100	4,500	
Venezuela	100	120	
Other countries	<u>622</u>	<u>750</u>	
World total	55,000	56,200	

**World Resources:** Natural gem-quality diamonds are among the world's rarest mineral materials. Most diamond-bearing ore bodies have a diamond content that ranges from less than 1 carat per ton to only about 6 carats per ton. The major gem diamond reserves are in southern Africa, Canada, Russia, and Western Australia. Estimation of a reserve base is difficult to determine because of the changing economic evaluation of near-gem materials and recent discoveries in Australia, Canada, and Russia.

**Substitutes:** Plastics, glass, and other materials are substituted for natural gemstones. Synthetic gemstones (manufactured materials that have the same chemical and physical properties as gemstones) are common substitutes. Simulants (materials that appear to be gems, but differ in chemical and physical characteristics) also are frequently substituted for natural gemstones.

<sup>e</sup>Estimated.

<sup>1</sup>Excludes industrial diamond and garnet. See Diamond (Industrial) and Garnet (Industrial).

<sup>2</sup>Estimated minimum production.

<sup>3</sup>Includes production of freshwater shell.

<sup>4</sup>Reexports account for more than 90% of the totals.

<sup>5</sup>If reexports are not considered, apparent consumption would be significantly greater.

<sup>6</sup>Defined as imports - exports and reexports + adjustments for Government and industry stock changes.

<sup>7</sup>Data in thousands of carats of gem diamond.

<sup>8</sup>See Appendix C for definitions.

<sup>9</sup>Less than ½ unit.

<sup>10</sup>Formerly Zaire.