

## GEMSTONES<sup>1</sup>

(Data in million dollars, unless noted)

**Domestic Production and Use:** Output of natural gemstones was primarily from Tennessee, Alabama, Arkansas, North Carolina, Oregon, and Arizona. Output of synthetic gemstones was primarily from 14 firms; 4 in Arizona, 3 in California, and 1 each in Massachusetts, Michigan, New Jersey, New Mexico, North Carolina, Ohio, and Washington. It was estimated that visitors found 185 carats of diamonds in the Crater of Diamonds State Park in Arkansas. There was considerable production of freshwater pearls in Tennessee; turquoise in Arizona and Nevada; beryl, tourmaline, and amethyst in Maine; tourmaline, beryl, kunzite, and garnet in California; and sapphire in Montana. Major uses were jewelry, carvings, and gem and mineral collections.

### **Salient Statistics—United States:**

	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995<sup>e</sup></u>
Production: Natural <sup>2</sup>	84.4	66.2	57.7	50.5	75.5
Synthetic	17.9	18.9	18.1	22.2	24.4
Imports for consumption	4,640	4,950	5,850	6,440	6,520
Exports, including reexports	1,710	1,450	1,630	2,240	2,510
Consumption, apparent	3,030	3,480	4,300	4,270	4,110
Price	Variable, depending on size, type, and quality				
Stocks, yearend <sup>3</sup>	NA	NA	NA	NA	NA
Employment, mine <sup>4</sup>	800	800	1,000	1,000	850
Net import reliance <sup>5</sup> as a percent of apparent consumption	97	98	98	98	98

**Recycling:** Insignificant.

**Import Sources (1991-94 by value):** Israel, 28%; India, 25%; Belgium, 15%; United Kingdom, 5%; and other, 27%. Diamond imports were about 90% of the total value of gem imports.

<u>Tariff:</u>	<u>Item</u>	<u>Number</u>	<u>Most favored nation (MFN)</u> <u>12/31/95</u>	<u>Non-MFN<sup>6</sup></u> <u>12/31/95</u>
	Diamonds, unworked or sawn	7102.31.0000	Free	Free.
	Diamond, less than ½ carat	7102.39.0010	Free	10% ad val.
	Diamond, cut, more than ½ carat	7102.39.0050	Free	10% ad val.
	Precious stones, unworked	7103.10.2000	Free	Free.
	Precious stones, simply sawn	7103.10.4000	21% ad val.	50% ad val.
	Rubies, cut	7103.91.0010	Free	10% ad val.
	Sapphires, cut	7103.91.0020	Free	10% ad val.
	Emeralds, cut	7103.91.0030	Free	10% ad val.
	Other precious, cut but not set	7103.99.1000	2.1% ad val.	10% ad val.
	Other precious stones, other	7103.99.5000	21% ad val.	50% ad val.
	Imitation precious stones	7018.10.2000	2.8% ad val.	20% ad val.
	Synthetic cut, but not set	7104.90.1000	3.1% ad val.	10% ad val.
	Pearls, natural	7101.10.0000	Free	10% ad val.
	Pearls, cultured	7101.21.0000	2.1% ad val.	10% ad val.
	Pearls, imitation not strung	7018.10.1000	8% ad val.	60% ad val.

**Depletion Allowance:** 14% (Domestic), 14% (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 Defense Logistics Agency is currently disposing of materials from the NDS.

## GEMSTONES

**Events, Trends, and Issues:** In the past, except for a few gem diamonds found each year in Arkansas, U.S. diamond production was insignificant. However, test mining is underway at two mines in the Colorado-Wyoming Stateline district. Domestic commercial gemstone production includes agates, beryls, freshwater pearls, garnets, jade, jasper, mother-of-pearl, opals, peridot, quartz, sapphire, tourmalines, and turquoise. Significant steps are being made in the marketing of lines of jewelry made with U.S. gemstones.

Exploration for diamonds continues in Alaska, Colorado, Michigan, Minnesota, Wisconsin, and Wyoming. The second phase of the diamond exploration project, bulk sampling, at the Crater of Diamonds State Park in Arkansas has been approved. Significant diamond exploration efforts by multiple companies continued in the Northwest Territories of Canada and in several areas in Australia.

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

	Mine production		Reserves and reserve base <sup>8</sup>
	<u>1994</u>	<u>1995<sup>e</sup></u>	
United States	—	—	World reserves and reserve base of gem diamond are substantial. No reserves or reserve base data are available for other gemstones.
Angola	270	300	
Australia	19,500	20,000	
Botswana	11,000	11,000	
Brazil	600	600	
Central African Republic	370	400	
China	230	250	
Ghana	580	600	
Namibia	1,280	1,300	
Russia	8,500	8,500	
Sierra Leone	155	200	
South Africa	5,000	5,000	
Venezuela	220	200	
Zaire	4,000	4,000	
Other countries	<u>5,230</u>	<u>5,300</u>	
World total (rounded)	<u>56,900</u>	<u>57,700</u>	

**World Resources:** Most of the world gem diamond reserves are in southern Africa, Russia, and Western Australia. Estimation of a reserve base is now difficult to determine because of the changing economic evaluation of near-gem materials and new discoveries in Australia, Canada, and Russia.

**Substitutes:** Plastics, glass, metals, wood, paper, and other materials are substituted for gemstones. Synthetic materials that have the same appearance and chemical and physical properties are substituted for natural gemstones. Simulants are materials of similar appearance, but with different chemical and physical properties, that are substituted for natural gemstones.

<sup>e</sup>Estimated. NA Not available.

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

<sup>2</sup>Natural includes production of freshwater pearls, natural and cultured.

<sup>3</sup>Stocks data are not available and are assumed to be zero for apparent consumption and net import reliance calculation.

<sup>4</sup>Estimate includes operators of fee site deposits.

<sup>5</sup>Defined as imports - exports + adjustments for Government and industry stock changes.

<sup>6</sup>See Appendix B.

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

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

## GEMSTONES<sup>1</sup>

(Data in million dollars, unless otherwise noted)

**Domestic Production and Use:** Domestic commercial gemstone production includes amber, agates, beryls, coral, freshwater pearls, garnets, jade, jasper, mother-of-pearl, opals, quartz, sapphire, topaz, turquoise, and many other gem materials. Output of natural gemstones was primarily from Tennessee, Alabama, Arkansas, Oregon, North Carolina, and Arizona. Reported output of synthetic gemstones was from nine firms in California, New York, Michigan, Arizona, and New Jersey. There was considerable production of freshwater pearls in Tennessee; turquoise in Arizona and Nevada; beryl, tourmaline, and amethyst in Maine; tourmaline, beryl, kunzite, and garnet in California; and sapphire in Montana. Major uses were jewelry, carvings, and gem and mineral collections.

<b>Salient Statistics—United States:</b>	<b>1992</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996<sup>e</sup></b>
Production: <sup>2</sup> Natural <sup>3</sup>	66.2	57.7	50.5	60.0	62.0
Synthetic	18.9	18.1	22.2	26.0	26.0
Imports for consumption	4,950	5,850	6,440	6,540	7,140
Exports, including reexports	1,450	1,630	2,240	2,520	2,660
Consumption, apparent	3,480	4,300	4,270	4,110	4,570
Price	Variable, depending on size, type, and quality				
Stocks, yearend <sup>4</sup>	NA	NA	NA	NA	NA
Employment, mine, <sup>5</sup> number	800	1,000	1,000	850	850
Net import reliance <sup>6</sup> as a percent of apparent consumption	98	98	98	98	98

**Recycling:** Insignificant.

**Import Sources (1992-95 by value):** Israel, 30%; Belgium, 22%; India, 21%; United Kingdom, 4%; and other, 23%. Diamond imports were about 90% of the total value of gem imports.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Most favored nation (MFN)</b>	<b>Non-MFN<sup>7</sup></b>
			<b>12/31/96</b>	<b>12/31/96</b>
	Diamonds, unworked or sawn	7102.31.0000	Free	Free.
	Diamond, ½ carat or less	7102.39.0010	Free	10% ad val.
	Diamond, cut, more than ½ carat	7102.39.0050	Free	10% ad val.
	Precious stones, unworked	7103.10.2000	Free	Free.
	Precious stones, simply sawn	7103.10.4000	16.8% ad val.	50% ad val.
	Rubies, cut	7103.91.0010	Free	10% ad val.
	Sapphires, cut	7103.91.0020	Free	10% ad val.
	Emeralds, cut	7103.91.0030	Free	10% ad val.
	Other precious, cut but not set	7103.99.1000	1.3% ad val.	10% ad val.
	Other precious stones, other	7103.99.5000	16.8% ad val.	50% ad val.
	Imitation precious stones	7018.10.2000	1.7% ad val.	20% ad val.
	Synthetic cut, but not set	7104.90.1000	1.9% ad val.	10% ad val.
	Pearls, natural	7101.10.0000	Free	10% ad val.
	Pearls, cultured	7101.21.0000	1.3% ad val.	10% ad val.
	Pearls, imitation not strung	7018.10.1000	6.4% ad val	60% ad val.

**Depletion Allowance:** 14% (Domestic), 14% (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 Defense Logistics Agency is currently disposing of materials from the NDS.

## GEMSTONES

**Events, Trends, and Issues:** A notable change in U.S. gem diamond production may be developing. Except for a few gem diamonds found each year in Arkansas, U.S. diamond output has been negligible. However, test mining for diamonds has been conducted near the Colorado-Wyoming border, and a plant with the capacity to produce 100,000 carats per year was completed in the area during 1996. Exploration for diamonds also has been underway in other States (e.g., Alaska, Arkansas, Michigan, Minnesota, and Wisconsin).

Demand for gemstones, including synthetics and simulants, is expected to increase in the United States and other industrialized nations as personal disposable income rises. A survey conducted by a domestic jewelry retailers association indicates that (in decreasing order of preference) diamonds, emeralds, sapphires, and rubies were the favorite gemstone jewelry of U.S. consumers.

### **World Mine Production,<sup>8</sup> Reserves, and Reserve Base:**

	Mine production		Reserves and reserve base <sup>9</sup>
	1995	1996 <sup>e</sup>	
United States	—	—	World reserves and reserve base of gem diamond are substantial. No reserves or reserve base data are available for other gemstones.
Angola	450	650	
Australia	18,300	20,000	
Botswana	11,500	11,500	
Brazil	600	600	
Central African Republic	400	400	
China	230	250	
Ghana	580	600	
Namibia	1,380	1,300	
Russia	9,000	9,000	
Sierra Leone	113	200	
South Africa	4,300	4,500	
Venezuela	229	200	
Zaire	4,000	4,000	
Other countries	820	800	
World total (may be rounded)	51,900	54,000	

**World Resources:** Most of the world gem diamond reserves are in southern Africa, Russia, and Western Australia. Estimation of a reserve base is difficult to determine because of the changing economic evaluation of near-gem materials and new discoveries in Australia, Canada, and Russia.

**Substitutes:** Plastics, glass, metals, wood, paper, and other materials are substituted for gemstones. Synthetic materials that have the same appearance and chemical and physical properties are substituted for natural gemstones. Simulants, materials with a similar appearance but with different chemical and physical properties, also are substituted for natural gemstones.

<sup>e</sup>Estimated. NA Not available.

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

<sup>2</sup>Reported and estimated minimum production only.

<sup>3</sup>Natural includes production of freshwater pearls, natural and cultured.

<sup>4</sup>Stock data are not available and are assumed to be zero for apparent consumption and net import reliance calculation.

<sup>5</sup>Estimate includes operators of fee site deposits.

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

<sup>7</sup>See Appendix B.

<sup>8</sup>Data in thousands of carats of gem diamond.

<sup>9</sup>See Appendix C for definitions.

## GEMSTONES<sup>1</sup>

(Data in million dollars, unless otherwise noted)

**Domestic Production and Use:** Domestic commercial gemstone production includes amber, agates, beryls, coral, freshwater shell, garnet, jade, jasper, mother-of-pearl, opal, quartz, sapphire, topaz, turquoise, and many other gem materials. Output of natural gemstones was primarily from Alabama, Arizona, Arkansas, Kentucky, North Carolina, Oregon, and Tennessee. Reported output of synthetic gemstones was from five firms in Arizona, California, Michigan, and New York. There was notable production of turquoise in Arizona; beryl in Maine; sapphire in Montana; opal in Nevada; ruby in North Carolina; and freshwater shell and pearl in Tennessee. Major uses were jewelry, carvings, and gem and mineral collections.

<b>Salient Statistics—United States:</b>	<b>1993</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997<sup>e</sup></b>
Production: <sup>2</sup> Natural <sup>3</sup>	57.7	50.5	48.7	43.6	40.0
Synthetic	18.1	22.2	26.0	26.0	27.0
Imports for consumption	5,850	6,440	6,540	7,240	8,000
Exports, including reexports	1,630	2,240	2,520	2,660	2,700
Consumption, apparent	4,300	4,270	4,100	4,570	5,370
Price	Variable, depending on size, type, and quality				
Stocks, yearend <sup>4</sup>	NA	NA	NA	NA	NA
Employment, mine, number <sup>e</sup>	1,000	1,000	850	800	800
Net import reliance <sup>5</sup> as a percent of apparent consumption	98	98	98	98	99

**Recycling:** Insignificant.

**Import Sources (1993-96 by value):** Israel, 30%; Belgium, 22%; India, 21%; and other, 27%. Diamond imports were about 90% of the total value of gem imports.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Most favored nation (MFN)</b>	<b>Non-MFN<sup>6</sup></b>
			<u>12/31/97</u>	<u>12/31/97</u>
	Diamonds, unworked or sawn	7102.31.0000	Free	Free.
	Diamond, ½ carat or less	7102.39.0010	Free	10% ad val.
	Diamond, cut, more than ½ carat	7102.39.0050	Free	10% ad val.
	Precious stones, unworked	7103.10.2000	Free	Free.
	Precious stones, simply sawn	7103.10.4000	14.7% ad val.	50% ad val.
	Rubies, cut	7103.91.0010	Free	10% ad val.
	Sapphires, cut	7103.91.0020	Free	10% ad val.
	Emeralds, cut	7103.91.0030	Free	10% ad val.
	Other precious, cut but not set	7103.99.1000	0.8% ad val.	10% ad val.
	Other precious stones, other	7103.99.5000	14.7% ad val.	50% ad val.
	Imitation precious stones	7018.10.2000	1.1% ad val.	20% ad val.
	Synthetic cut, but not set	7104.90.1000	1.2% ad val.	10% ad val.
	Pearls, natural	7101.10.0000	Free	10% ad val.
	Pearls, cultured	7101.21.0000	0.8% ad val.	10% ad val.
	Pearls, imitation not strung	7018.10.1000	5.6% ad val	60% ad val.

**Depletion Allowance:** 14% (Domestic), 14% (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 Department of Defense is currently disposing of some NDS materials that may be gem quality.

## GEMSTONES

**Events, Trends, and Issues:** Progress toward full-scale operations continued at a new Colorado diamond mine, the first commercial diamond mining operation in North America in almost a century. In addition, Federal permits were granted for further evaluations of diamond-bearing deposits at a State park in Arkansas.

Demand for gemstones, including synthetics and simulants, may increase in the United States and other industrialized nations as personal disposable income rises. A survey conducted by a domestic jewelry retailers association indicates that (in decreasing order of preference) diamonds, emeralds, sapphires, and rubies were the favorite gemstone jewelry of U.S. consumers.

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

	<b>Mine production</b>		<b>Reserves and reserve base<sup>8</sup></b>
	<b>1996</b>	<b>1997<sup>9</sup></b>	
United States	(9)	(9)	World reserves and reserve base of gem diamond are substantial. No reserves or reserve base data are available for other gemstones.
Angola	3,600	4,000	
Australia	18,900	19,000	
Botswana	11,000	11,000	
Brazil	700	700	
Central African Republic	350	400	
China	230	250	
Congo (Kinshasa)	3,000	3,000	
Namibia	1,300	1,300	
Russia	9,300	9,500	
South Africa	5,400	5,500	
Venezuela	230	250	
Other countries	<u>1,400</u>	<u>1,100</u>	
World total (may be rounded)	55,400	56,000	

**World Resources:** Most of the world gem diamond reserves are in southern Africa, 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 gemstones. Synthetic materials that have the same appearance and chemical and physical properties are substituted for natural gemstones. Simulants, materials with a similar appearance but with different chemical and physical properties, also are substituted for natural gemstones.

<sup>9</sup>Estimated. NA Not available.

<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>Stock data are not available and are assumed to be zero for apparent consumption and net import reliance calculation.

<sup>5</sup>Defined as imports - exports + adjustments for Government and industry stock changes.

<sup>6</sup>See Appendix B.

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

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

<sup>9</sup>Less than 1/2 unit.

## 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 because of declining foreign demand for freshwater shell, a major component of the domestic industry. Domestic gemstone production also included amber, agates, beryls, coral, garnet, jade, jasper, pearl, opal, quartz, sapphire, topaz, turquoise, and many other gem materials. Output of natural gemstones was primarily from Arizona, Arkansas, California, Nevada, Oregon, and Tennessee. Reported output of synthetic gemstones was from six firms in Arizona, California, Michigan, North Carolina, and New York. There was notable production of turquoise in Arizona; beryl in Maine; sapphire in Montana; opal in Nevada; ruby in North Carolina; and freshwater pearl in Tennessee. Major uses were jewelry, carvings, and gem/mineral collections.

<b>Salient Statistics—United States:</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998<sup>e</sup></b>
Production: <sup>2</sup> Natural <sup>3</sup>	50.5	48.7	43.6	25.0	23.0
Synthetic	22.2	26.0	24.0	21.6	30.0
Imports for consumption	6,440	6,540	7,240	8,380	9,600
Exports, including reexports <sup>4</sup>	2,240	2,520	2,660	2,760	2,600
Consumption, apparent <sup>5</sup>	4,270	4,100	4,650	5,670	7,100
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	99	98	98	99	99

**Recycling:** Insignificant.

**Import Sources (1994-97 by value):** Israel, 34%; Belgium, 22%; India, 21%; and other, 23%. Diamond imports accounted for 91% of the total value of gem imports.

<b>Tariff:</b>	<b>Item</b>	<b>Number</b>	<b>Normal Trade Relations (NTR)</b> <b>12/31/98</b>	<b>Non-NTR<sup>7</sup></b> <b>12/31/98</b>
	Diamonds, unworked or sawn	7102.31.0000	Free	Free.
	Diamond, ½ carat or less	7102.39.0010	Free	10% ad val.
	Diamond, cut, more than ½ carat	7102.39.0050	Free	10% ad val.
	Precious stones, unworked	7103.10.2000	Free	Free.
	Precious stones, simply sawn	7103.10.4000	12.6% ad val.	50% ad val.
	Rubies, cut	7103.91.0010	Free	10% ad val.
	Sapphires, cut	7103.91.0020	Free	10% ad val.
	Emeralds, cut	7103.91.0030	Free	10% ad val.
	Other precious stones, cut but not set	7103.99.1000	0.4% ad val.	10% ad val.
	Other precious stones, misc.	7103.99.5000	12.6% ad val.	50% ad val.
	Imitation precious stones	7018.10.2000	0.6% ad val.	20% ad val.
	Synthetic stones, cut but not set	7104.90.1000	0.6% ad val.	10% ad val.
	Pearls, natural	7101.10.0000	Free	10% ad val.
	Pearls, cultured	7101.21.0000	0.4% ad val.	10 % ad val.
	Pearls, imitation not strung	7018.10.1000	4.8% ad val	60% ad val.

**Depletion Allowance:** 14% (Domestic), 14% (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 of gemstone quality.

## GEMSTONES

**Events, Trends, and Issues:** A Colorado diamond mine, the only commercial U.S. diamond producer in almost a century, was offered for sale in 1998. Canada's first commercial diamond mine was opened in 1998. The mine may account for about 5% of global output when fully operational. Additional Canadian mines are scheduled to open in the next few years and may increase national output to 15% of world production.

As the world's leading gem market, accounting for at least one-third of world demand and reaching sales totaling \$6 billion, the United States is expected to dominate global gemstone consumption well into the next millennium. 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>8</sup> Reserves, and Reserve Base:**

	Mine production		Reserves and reserve base <sup>9</sup>
	1997	1998 <sup>e</sup>	
United States	(10)	(10)	World reserves and reserve base of gem diamond are substantial. No reserves or reserve base data are available for other gemstones.
Angola	1,110	1,000	
Australia	18,100	18,500	
Botswana	13,000	13,000	
Brazil	300	300	
Central African Republic	400	400	
China	230	230	
Congo (Kinshasa) <sup>11</sup>	2,500	2,500	
Namibia	1,500	1,500	
Russia	9,550	10,000	
South Africa	4,380	4,500	
Venezuela	350	350	
Other countries	<u>780</u>	<u>750</u>	
World total (may be rounded)	52,200	53,000	

**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, Russia, and Western Australia; Canadian resources may prove to be significant as well. 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/reexports + adjustments for Government and industry stock changes.

<sup>7</sup>See Appendix B.

<sup>8</sup>Data in thousands of carats of gem diamond.

<sup>9</sup>See Appendix D for definitions.

<sup>10</sup>Less than ½ unit.

<sup>11</sup>Formerly Zaire.