

# Mineral Industry Surveys

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## For information, contact:

Earle B. Amey, Gold Commodity Specialist  
Henry E. Hilliard, Silver and Platinum-Group Metals  
Commodity Specialist  
U.S. Geological Survey  
989 National Center  
Reston, VA 20192  
Telephone: (703) 648-4969 (Gold),  
(703) 648-4970 (Silver and PGM)  
Fax: (703) 648-7757  
E-mail: eamey@usgs.gov and hhiliard@usgs.gov

Mahbood Mahdavi (Data)  
Telephone: (703) 648-7778  
Fax: (703) 648-7975

Shonta E. Osborne (Data)  
Telephone: (703) 648-7971  
Fax: (703) 648-7975

**Internet:** <http://minerals.usgs.gov/minerals>

## PRECIOUS METALS IN OCTOBER 2002

U.S. mines produced 24,100 kilograms (kg) of gold and 127,000 kg of silver in October 2002. Compared with September 2002, production of gold was down 22% in California, and production of silver was up 27% in Nevada. Table 8 lists the top 30 gold-producing mines in the United States for the first 9 months of 2002.

### Gold

**Domestic.**—Apollo Gold Corp. laid off 37 employees temporarily at its Florida Canyon gold mine (NV). The layoffs left about 150 employees at the mine. The Florida Canyon Mine has an expected life span of 6 to 8 years (Platts Metals Week, 2002a).

Barrick Gold Corp. experienced operational problems at its Meikle gold mine during the third quarter of 2002. At Meikle, production was affected by ore grades and throughput, which were lower than expected. Gold production for the year is forecasted at 20,000 kg (650,000 troy ounces), down by more than 4%. Cash operating costs have increased from \$186 per ounce to \$198 per ounce (Mining Journal, 2002a).

AngloGold Ltd. has completed an expansion of its Cresson gold mine (CO). The expansion is expected to raise annual gold output to about 11,200 kg (360,000 ounces) and extend the mine's life until 2012 (Mining Journal, 2000b).

**International.**—The volume of gold exported from Russia by its commercial banks may amount to as much as 150,000 kg (5 million ounces) in 2002. Russia's commercial banks dominated business with gold producers in 2002, while the state stockpile agency, Gokhran, remained out of the market and did not purchase any gold. The quantity exported was about 15% more than the commercial banks exported in 2001, and represented more than 80% of the projected gold output in 2002 (Platts Metals Week, 2002c).

Directors at AurionGold Ltd. agreed to the company's

acquisition by Placer Dome Inc. The \$740 million takeover was originally bid by Placer on May 27, 2002. Placer Dome had extended its offer many times while AurionGold searched unsuccessfully for a rival suitor. The takeover made Placer Dome the world's fifth largest gold mining company (American Metal Market, 2002a).

The final draft of South Africa's new mining charter is less restrictive than the draft legislation presented to the news media earlier in 2002. The charter provides for black ownership of at least 26% of mineral assets within 10 years, which is a significant change from the 51% black empowerment control proposed in July. An initial target has been set for 15% black ownership within the next 5 years, when a stakeholder review of the whole process will be conducted (American Metal Market, 2002b).

The Shanghai Gold Exchange (SGE) opened trading activities and thereby ended more than a half century of central bank dominance over China's gold industry. Initially, trade will be limited to physical gold. China designated 42 warehouses across the country for gold deliveries with the exchange charging a small fee equal to 0.06% of the transaction value. SGE has 108 founding members, which include 13 commercial banks, 24 gold firms and mines, 61 gold end users, 8 refineries, and 2 coin mints (American Metal Market, 2002c).

### Silver

Hecla Mining Company, Coeur d'Alene, ID, and Great Basin Gold Ltd., Vancouver, British Columbia, have entered into an exploration and development agreement on Great Basin's Ivanhoe high-grade gold and silver property on the Carlin Trend of Nevada, which is one of the world's premier gold mining districts. The Ivanhoe property, situated between Newmont Mining's Midas underground mine to the north and Barrick Gold's Meikle underground and open pit operations to the south,

ranks among the largest contiguous mineral properties on the Carlin Trend. Reportedly, 31,100 high-grade, gold-equivalent kg have already been outlined at Ivanhoe by Great Basin with an inferred mineral resource of 719,000 metric tons (t) grading 40 grams per metric (g/t) ton gold and 218 g/t silver. The known mineralization was delineated at the relatively shallow depth of 15 to 45 meters and this mineralization is open to depth. Commercial production at Ivanhoe was projected to be about 28,600 kg of silver and 5,600 kg of gold annually, at a cash cost of \$114 per ounce of gold equivalent. Based on the performance of its overall operations in the first 9 months of 2002, Hecla increased 2002 production estimates for silver to 255,000 kg at an average total cash cost of less than \$2.30 per ounce. Hecla produced 199,000 kg of silver in the first 9 months of 2002, at an average total cash cost of \$2.22 per ounce (Hecla Mining Company, 2002; Skillings Mining Review, 2002a).

### **Platinum-Group Metals**

North American Palladium Ltd., Toronto, Ontario, reports that during the third quarter of 2002, its Lac des Isles mill processed about 1,210,000 t of ore, with a palladium head grade of 1.83 g/t producing 1,590 kg of palladium at a recovery rate of 72%. Other metal production at the mill during the third quarter of 2002 included 148 kg of platinum, 129 kg of gold, 656 t of copper, and 20 t of nickel. In the second quarter of 2002, the mill processed 1,270,000 t of ore with a palladium grade of 2 g/t, producing 1,940 kg of palladium at a recovery rate of 76%. The decrease in palladium production in the third quarter resulted from the temporary shutdown of the primary crusher at the Lac des Iles Mine in early September 2002, which affected mill feed grade and throughput. The existing ore stockpile was used as a source of mill feed that contained a lower palladium grade than the current run-of-mine ore (Skillings Mining Review, 2002b).

In 2001, General Motors Corp. (GM) reduced platinum-group metals use in catalytic converters installed in its cars and trucks by 45% from initial metal loadings, and the auto maker plans to reduce PGM use by another 17% by 2006. GM was able to

reduce its PGM consumption despite higher emission standards that were imposed on cars and trucks in 2002. GM's maximum average fleet use is now set at 1.5 grams (g) of platinum, 3 g of palladium, and 0.3 g of rhodium per vehicle.

Fuel cells, which use mainly platinum as a catalyst, have the potential to become a major sector of PGM consumption. However, before fuel cell use can become widespread, there must be a substantial improvement in various aspects of technology involving the devices, which generate electricity without polluting the environment. The main obstacles to building fuel-cell-powered automobiles are how to store hydrogen safely in cars and to make fuel cell cars that are affordable for the average buyer. Compressed gas tanks are most likely to be the first generation of portable hydrogen storage, but high compression still has safety issues that must be resolved (Platts Metals Week, 2002b).

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TABLE 1  
MINE PRODUCTION OF RECOVERABLE GOLD AND SILVER IN THE UNITED STATES, BY STATE 1/

(Kilograms)

Gold	Alaska	California	Nevada	Other States 2/	Total
2001:					
October	W	746	21,100	7,920	29,800
November	W	793	20,800	4,810	26,400
December	W	871	24,100	4,820	29,800
January-December	9,190	13,800	253,000	58,800	335,000
2002:					
January	W	954	16,400	4,270	21,600
February	W	797	16,600	3,990	21,400
March	W	1,000	18,600	4,430	24,000
April	W	893	20,800	4,150	25,900
May	W	788	18,600	3,680	23,000
June	W	907	19,600	3,510	24,000
July	W	770	18,900	3,590	23,300
August	W	656	17,400	3,140 r/	21,200 r/
September	W	620	20,700	3,790	25,100
October	W	485	19,700	3,880	24,100
January-October	W	7,870	187,000	38,400	234,000
Silver	Arizona	Idaho	Nevada	Other States 3/	Total
2001:					
October	W	W	36,500	79,200	116,000
November	W	W	45,200	74,400	120,000
December	W	W	54,400	89,100	144,000
January-December	W	40,600	555,000	1,010,000	1,600,000
2002:					
January	W	W	38,900	85,500	124,000
February	W	W	48,800	78,200	127,000
March	W	W	49,300	89,600	139,000
April	W	W	30,800	83,700	115,000
May	W	W	36,900	88,600	126,000
June	W	W	30,300	84,700	115,000
July	W	W	34,800	83,600	118,000
August	W	W	28,100	85,000 r/	113,000
September	W	W	29,800	83,300	113,000
October	W	W	37,700	88,900	127,000
January-October	W	W	365,000	851,000	1,220,000

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other States."

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

2/ Includes Arizona, Colorado, Idaho, Montana, New Mexico, South Carolina, South Dakota, Utah, Washington, and State indicated by symbol W.

3/ Includes Alaska, California, Colorado, Missouri, Montana, New Mexico, New York, South Carolina, South Dakota, Tennessee, Utah, Washington, and States indicated by symbol W.

TABLE 2  
SELECTED PRECIOUS METAL PRICES

(Dollars per troy ounce)

	Gold	Silver	Platinum	Palladium
<b>Engelhard Industries:</b>				
<b>2001:</b>				
Low/date	257.04 April 2	4.05 November 26	419.00 November 7	319.00 November 13
High/date	294.40 September 17	4.87 January 30	645.00 January 10 and 15	1,100.00 January 26
Average	272.22	4.39	533.31	610.61
<b>2002:</b>				
<b>August:</b>				
Low/date	303.41/1	4.43/23	527.00/1	320.00/1 and 2
High/date	317.89/12	4.69/7	574.00/28	349.00/27
Average	311.36	4.55	548.91	327.55
<b>September:</b>				
Low/date	314.18/4	4.50/4	542.00/4	318.00/27
High/date	327.50/24	4.69/24	577.00/24	338.00/13 and 16
Average	320.69	4.60	558.75	330.50
<b>October:</b>				
Low/date	311.93/17	4.32/10	559.00/7	311.00/24
High/date	323.40/2	4.53/30 and 31	596.00/29	325.00/9 and 10
Average	317.74	4.42	583.00	319.09
<b>Year to date:</b>				
Low/date	278.62 January 29	4.26 January 31	454.00 February 1	311.00 October 24
High/date	330.66 June 4	5.15 June 4 and July 15	596.00 October 29	439.00 January 3
Average	308.10	4.63	532.17	354.18
<b>Handy and Harman:</b>				
<b>2001, Average</b>				
	271.06	4.39	XX	XX
<b>2002:</b>				
August	310.18	4.56	XX	XX
September	319.49	4.59	XX	XX
October	316.56	4.40	XX	XX
Average year to date	306.92	4.63	XX	XX
<b>London Final: 1/</b>				
<b>2001, Average</b>				
	270.99	4.37	XX	XX
<b>2002:</b>				
August	310.25	4.55	XX	XX
September	319.14	4.55	XX	XX
October	316.56	4.40	XX	XX
Average year to date	306.87	4.61	XX	XX

XX Not applicable.

1/ Silver price reported as "London Spot/US Equiv."

Source: Platts Metals Week.

TABLE 3  
U.S. IMPORTS AND EXPORTS OF GOLD 1/

(Kilograms of gold content, unless otherwise specified)

Period and country	Ores and concentrates 2/	Doré and precipitates	Refined bullion 3/	Ash and residues	Total 4/	Waste and scrap (gross weight)	Metal powder (gross weight)	Gold compounds (gross weight)
Imports for consumption:								
2001	1,260	31,100	161,000	193	194,000	26,400	9,450	1,960
2002:								
July	1	2,480	14,700	--	17,200	902	852	1,960
August	281	2,730	16,100	--	19,100	769	1,190	3,670
September:								
Aruba	--	--	161	--	161	--	--	--
Brazil	--	--	670	--	670	--	--	--
Canada	302	--	9,210	--	9,520	152	45	--
Chile	--	--	425	--	425	--	--	--
Colombia	--	2,690	215	--	2,910	--	2	--
Dominican Republic	--	--	6	--	6	827	14	--
Honduras	--	384	--	--	384	--	362	--
Japan	--	--	--	--	--	--	--	993 5/
Mexico	--	37	753	--	790	117 5/	--	--
Nicaragua	--	193	--	--	193	--	--	--
Peru	--	1,430	--	--	1,430	--	--	--
Other	1	29	181	--	211	211 5/	9 5/	--
Total	303	4,760	11,600	--	16,700	1,310	432	993
Year to date	1,390	23,800	134,000	--	159,000	8,680	9,650	13,500
Exports:								
2001	361	93,900	395,000	--	489,000	40,100	11,600	492,000
2002:								
July	32	7,520	17,800	--	25,400	8,170	1,140	42,200
August	44	6,580	15,500	--	22,100	9,600	155	30,700
September:								
Armenia	--	--	--	--	--	--	68	--
Australia	--	--	--	--	--	--	--	188 5/
Brazil	--	--	--	--	--	--	--	262 5/
Cambodia	--	--	--	--	--	--	--	1,100 5/
Canada	--	76	43	--	119	3,660	--	23,200 5/
Dominican Republic	11	--	--	--	11	17	--	3,250 5/
France	--	--	--	--	--	--	--	556 5/
Germany	--	--	(6)	--	(6)	621	1	--
Guatemala	--	--	--	--	--	226	--	--
Hong Kong	--	--	2	--	2	--	--	581 5/
Indonesia	--	--	--	--	--	--	--	160 5/
Israel	--	--	(6)	--	(6)	--	--	227 5/
Japan	(6)	--	--	--	(6)	6	2	--
Malaysia	--	--	49	--	49	--	--	890 5/
Mexico	--	--	387	--	387	--	1	304 5/
Netherlands	(6)	--	--	--	(6)	--	--	9,500 5/
Peru	--	--	196	--	196	1	67	--
Switzerland	--	4,980	10,800	--	15,800	--	--	--
Taiwan	--	--	6	--	6	--	4	570 5/
Thailand	--	--	--	--	--	--	--	309 5/
United Kingdom	--	--	6,650	--	6,650	5,480	11	224 5/
Other	--	2	77	--	79	80	--	90
Total	11	5,060	18,300	--	23,300	10,100	155	41,400
Year to date	387	49,000	133,000	--	182,000	51,200	10,200	304,000

-- Zero.

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

2/ Includes gold content of base metal ores, concentrates, and matte imported for refining.

3/ Bullion also moves in both directions between U.S. markets and foreign stocks on deposit in the Federal Reserve Bank. Monetary gold excluded.

4/ "Waste and scrap," "Metal powder," and "Gold compounds" not included in "Total."

5/ All or part of these data have been referred to the U.S. Census Bureau for verification.

6/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF SILVER 1/

(Kilograms of silver content, unless otherwise specified)

Period and country	Bullion	Doré	Ores and concentrates 2/	Ash and residues	Total	Other unwrought silver (gross weight)	Metal powder (gross weight)	Silver nitrate (gross weight)	Semimanufactured form 3/ (gross weight)	Waste and scrap (gross weight)
2001	2,940,000	151,000	7,550	38,000	3,130,000	249,000	24,200	26,000	153,000	1,110,000
2002:										
July	285,000	764	247	2,960	289,000	24,600	454	--	29,700	55,200
August	311,000	698	435	6,760	319,000	45,800	1,150	--	29,800	55,100
September:										
Australia	--	--	--	306	306	--	--	--	--	39
Brazil	--	--	--	--	--	--	--	--	29,500	--
Canada	131,000	218	--	1,780	133,000	552	--	--	642 4/	129,000
Chile	6,000	--	--	--	6,000	--	--	--	--	--
China	18,000	--	--	--	18,000	--	--	--	(5/) 4/	--
Colombia	556	--	--	--	556	--	--	--	--	--
Costa Rica	--	--	--	--	--	--	--	--	--	2,790
Dominican Republic	--	--	--	--	--	--	--	--	--	184
France	--	--	--	--	--	1,020	--	--	555	--
Germany	--	--	--	--	--	--	624	--	3,930 4/	11,600
India	--	--	--	--	--	--	13	--	941 4/	--
Israel	--	--	--	--	--	--	--	--	2 4/	6,730
Italy	--	--	--	--	--	--	--	--	67 4/	5
Japan	--	--	--	--	--	--	834 4/	--	1,050 4/	37,900
Korea, Republic of	--	--	--	--	--	--	--	--	601	18
Mexico	193,000	915 4/	--	875	194,000	33,100	--	--	73 4/	7,410
Peru	15,800	--	--	--	15,800	166 4/	--	--	--	15
Philippines	--	--	--	--	--	--	--	--	--	2,520
Poland	--	--	--	--	--	--	--	--	1,220	--
Singapore	--	--	--	--	--	--	--	--	--	8,070
United Kingdom	--	--	--	1,020	1,020 4/	--	--	--	67 4/	915
Other	--	--	--	--	--	11 4/	--	--	17 4/	139
Total	364,000	1,130	--	3,980	369,000	34,800	1,470	--	38,600	207,000
Year to date	3,050,000	4,270	3,350	49,400	3,110,000	186,000	7,600	532	211,000	628,000

-- Zero.

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

2/ Includes silver content of base metal ores and concentrates.

3/ Containing 99.5% or more by weight of silver.

4 All or part of these data have been referred to the U.S. Census Bureau for verification.

5/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 5  
U.S. EXPORTS OF SILVER 1/

(Kilograms of silver content, unless otherwise specified)

Period and country	Bullion	Doré	Ores and concentrates 2/	Total	Other unwrought silver (gross weight)	Metal powder (gross weight)	Silver nitrate (gross weight)	Semimanufactured form 3/ (gross weight)	Waste and scrap (gross weight)
2001	707,000	18,200	239,000	963,000	48,800	187,000	143,000	203,000	1,810,000
2002:									
July	17,100	2,470	20,300	39,800	671	32,200	9,270	34,300	153,000
August	110,000	1,720	120	111,000	2,670	39,100	10,800	23,600	192,000
September:									
Australia	--	--	--	--	--	--	126	--	(4/)
Belgium	--	--	--	--	--	15,100	--	255	8,520
Brazil	--	--	--	--	--	--	--	198	--
Canada	1,160	39	--	1,200	2,780	724	5,080	3,340	24,600
China	--	--	--	--	--	--	--	200	20,100
Dominican Republic	--	--	--	--	76	--	--	159	--
Finland	--	--	--	--	--	226	--	--	--
France	--	--	--	--	--	1,380	--	105	--
Germany	--	--	--	--	43	1,880	--	1,130	14,100
Hong Kong	93	--	--	93	205	3,960	--	28	--
India	--	--	--	--	--	--	--	--	2,510
Ireland	67	--	--	67	--	--	6 5/	15 5/	--
Israel	--	--	--	--	--	--	219 5/	36	--
Italy	--	--	--	--	--	18	--	87 5/	20,900
Japan	14,400	--	--	14,400	--	4,130	61 5/	5,350	31,300
Korea, Republic of	--	--	--	--	12	1,530	--	4,780	25
Lebanon	--	--	--	--	--	108	--	--	--
Malaysia	--	--	--	--	--	--	--	--	63
Mexico	11,300	--	39,700	51,000	--	8,170	381	833	4
Netherlands	--	--	--	--	--	46	--	826	1,790
Poland	--	--	--	--	--	--	--	691	--
Saudi Arabia	--	--	--	--	--	--	--	--	10,000
Singapore	--	--	--	--	--	--	--	382	--
Spain	--	--	--	--	--	--	--	1,610	--
Sweden	--	--	--	--	--	643	--	--	16,000
Switzerland	--	1,420	--	1,420	--	--	--	26	--
Taiwan	--	--	--	--	--	13,800	--	893 5/	--
United Kingdom	27	--	17 5/	43	--	5,200	--	473	11,000
Other	--	--	--	--	58	--	--	231 5/	--
Total	27,100	1,460	39,700	68,200	3,180	56,900	5,870	21,600	161,000
Year to date	582,000	16,000	171,000	770,000	28,600	230,000	68,900	222,000	1,770,000

-- Zero.

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

2/ Includes silver content of base metal ores and concentrates.

3/ Semimanufactured (including silver plated with gold or platinum) forms of silver.

4/ Less than 1/2 unit.

5/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS 1/

(Kilograms of metal content)

Period and country	Platinum grain and nuggets	Platinum sponge	Other unwrought platinum	Platinum, other	Platinum waste and scrap	Platinum coins	Unwrought palladium	Palladium, other	Iridium 2/	Unwrought osmium	Unwrought ruthenium	Rhodium 3/
2001	2,480	68,700	3,660	5,330	3,960	53	146,000	13,600	3,110	77	8,170	12,400
2002:												
July	182	3,850	236	577	12,300	2	5,670	648	207	--	360	423
August	237	7,310	189	329	464	--	4,070	1,400	200	--	1,040	617
September:												
Argentina	--	--	--	--	14	--	--	--	--	--	--	--
Belgium	--	214	--	--	--	--	260	--	--	--	--	53
Brazil	--	--	--	--	6	--	--	--	--	--	--	--
Canada	2	--	--	34	117	--	194	--	--	--	--	--
Chile	--	--	--	--	10	--	--	--	--	--	--	--
China	--	--	--	3	--	--	230	--	--	--	--	(4/)
Colombia	--	--	38	--	12	--	--	--	--	--	--	--
France	--	--	--	10	--	--	--	8	--	--	--	--
Germany	52	77	73	121	124	--	52	244	23	--	91	45
Greece	--	--	--	--	7	--	--	--	--	--	--	--
Israel	--	--	58	--	--	--	--	--	--	--	--	--
Italy	--	21	--	--	--	--	2	8	--	--	--	(4/)
Japan	--	--	71	--	--	--	413	114	--	--	--	15
Korea, Republic of	--	--	--	--	12	--	--	--	--	--	--	--
Lebanon	--	--	--	--	1	--	--	--	--	--	--	--
Mexico	--	--	--	--	249	--	2	--	--	--	--	--
Norway	--	46	--	--	--	--	757	22	--	--	--	--
Philippines	--	--	--	--	7	--	--	--	--	--	--	--
Russia	--	31	--	--	--	--	31	51	--	--	--	32
South Africa	124	4,770	--	66	--	--	1,210	1,280 5/	60	--	469	387
Switzerland	2	113	1	470	--	--	187	17	--	--	--	--
United Kingdom	--	1,170	43	70	486	--	472	1,090	77 5/	--	--	16
Total	180	6,440	283	774	1,050	--	3,810	2,840	160	--	560	459
Year to date	1,300	55,000	2,270	3,990	73,800	15	62,000	9,500	1,810	3	8,110	5,850

-- Zero.

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

2/ Unwrought and other forms of iridium.

3/ Unwrought and other forms of rhodium.

4/ Less than 1/2 unit.

5/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.



TABLE 7  
U.S. EXPORTS OF PLATINUM-GROUP METALS 1/

(Kilograms of metal content, unless otherwise specified)

Period and country	Palladium 2/	Platinum 2/	Platinum waste and scrap	Iridium, osmium, and ruthenium 2/ 3/	Rhodium 2/
2001	37,000	29,300	12,900	1,370	982
2002:					
July	3,980	2,180	1,440	231	34
August	1,450	2,460	1,700	151	60
September:					
Australia	27	6	--	--	--
Austria	--	3	--	--	--
Belgium	23 4/	1	--	--	--
Canada	137	224	188	--	(5/) 4/
Chile	--	224	--	--	--
China	35 4/	--	--	--	--
Denmark	2	6 4/	--	--	--
Finland	2	5 4/	--	--	--
France	53 4/	15	--	3 4/	--
Germany	266	377	925	--	53
Greece	--	2 4/	--	--	--
Hong Kong	45 4/	17	--	3	(5/)
Iceland	1 4/	--	--	--	--
India	(5/) 4/	--	--	--	--
Ireland	1	20	--	69	--
Israel	3	--	--	--	--
Italy	26 4/	7 4/	--	--	--
Japan	54 4/	312	44	--	--
Korea, Republic of	2	4	--	--	--
Malaysia	6 4/	--	--	--	--
Mexico	21 4/	12 4/	--	2	--
Netherlands	43	--	--	1	--
New Zealand	15 4/	5	--	--	--
Norway	--	1	3	--	--
Philippines	3 4/	--	--	--	--
Poland	--	--	37	--	--
Romania	--	3	--	--	--
Singapore	1	2	--	--	--
Slovenia	1	--	--	--	--
South Africa	--	--	--	--	1 4/
Spain	10	5 4/	--	--	--
Sweden	2 4/	(5/)	--	--	--
Switzerland	50	1,610	1	--	--
Taiwan	491 4/	15 4/	--	--	--
Thailand	6	12	--	--	(5/)
Turkey	1	1	--	--	--
United Arab Emirates	(5/)	--	--	--	--
United Kingdom	390 4/	730	1,970	78	1 4/
Total	1,720	3,620	3,170	155	55
Year to date	35,500	22,400	11,400	1,390	290

-- Zero.

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

2/ Unwrought and other forms.

3/ Gross weight.

4/ All or part of these data have been referred to the U.S. Census Bureau for verification.

5/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 8

LEADING GOLD-PRODUCING MINES IN THE UNITED STATES THROUGH THE THIRD QUARTER IN 2002, IN ORDER OF OUTPUT 1/

Rank	Mine	County and State	Operator	Kilograms
1	Newmont Nevada operations 2/ 3/	Various counties, NV	Newmont Gold Company	54,600
2	Betze-Post/Goldstrike	Eureka, NV	Barrick Gold Corporation	31,200
3	Cortez	Lander, NV	Placer Dome Inc.	26,200
4	Round Mountain	Nye, NV	Round Mountain Gold Corporation	18,000
5	Meikle/Goldstrike	Elko, NV	Barrick Gold Corporation	14,000
6	Bingham Canyon 4/	Salt Lake, UT	Kennecott Utah Copper Corp.	10,000
7	Fort Knox 5/	Fairbanks, AK	Fairbanks Gold Mining Inc.	9,210
8	Jerritt Canyon	Elko, NV	Independence Mining Company, Inc.	7,690
9	Cresson	Teller, CO	Cripple Creek & Victor Gold Mining Co.	4,620
10	Bald Mountain	White Pine, NV	Placer Dome Inc.	4,310
11	Greens Creek	Juneau, AK	Kennecott Greens Creek Mining Co.	2,410
12	Barney's Canyon	Salt Lake, UT	Kennecott Barney's Canyon Mining Co.	2,020
13	Denton-Rawhide	Mineral, NV	Kennecott Rawhide Mining Co.	1,980
14	Wharf	Lawrence, SD	Wharf Resources, Ltd.	1,930
15	Golden Sunlight	Jefferson, MT	Placer Dome Inc.	1,890
16	Getchell	Humboldt, NV	do.	1,700
17	Castle Mountain	San Bernardino, CA	Viceroy Resources Corporation	1,690
18	Rochester	Pershing, NV	Coeur d'Alene Mines Corp.	1,630
19	Rand	Kern, CA	Glamis Rand Mining Co.	1,620
20	Marigold	Humboldt, NV	Glamis Gold Ltd.	1,520
21	Briggs	Inyo, CA	Canyon Resources Corp.	1,220
22	Kettle River	Ferry, WA	Echo Bay Mines Limited	868
23	McCoy/Cove	Lander, NV	do.	513
24	Illinois Creek 6/	Yukon-Koyukuk, AK	American Reclamation Group LLC	497
XX	Florida Canyon	Lander, NV	Florida Canyon Mining, Inc.	(7/)
XX	Ken Snyder	Elko, NV	Euro-Nevada Mining Co.	(7/)
XX	Mesquite	Imperial, CA	Newmont Gold Company	(7/)
XX	McLaughlin	Napa, Yolo, CA	Barrick Gold Corporation	(7/)
XX	Montana Tunnels	Jefferson, MT	Montana Tunnels Mining, Inc.	(7/)
XX	Ruby Hill	Eureka, NV	Homestake Mining Company	(7/)

XX Not applicable.

1/ Data are rounded to no more than three significant digits; these mines accounted for more than 99% of the U.S. gold production through the third quarter of 2002.

2/ Includes Battle Mountain Gold, Carlin Mines Complex, Lone Tree, and Twin Creeks.

3/ Mill output.

4/ Mine production refers to total quantity of gold produced in concentrates.

5/ Mine production refers to gold equivalent produced.

6/ Estimate from State annual report.

7/ Production at Florida Canyon, Ken Snyder, Mesquite, McLaughlin, Montana Tunnels, and Ruby Hill is withheld; mines are among the top 30 gold-producing mines in the United States, but are not shown in rank order to avoid disclosing company proprietary data.

Sources: Company quarterly reports, Securities and Exchange Commission's 10Q reports and company news releases.