

Mineral Industry Surveys

For information, contact:

Micheal W. George, Gold Commodity Specialist U.S. Geological Survey 989 National Center Reston, VA 20192

Telephone: (703) 648-4962, Fax: (703) 648-7757

E-mail: mgeorge@usgs.gov

Wanda G. Wooten (Data) Telephone: (703) 648-7967 Fax: (703) 648-7975 E-mail: wwooten@usgs.gov

Internet: http://minerals.usgs.gov/minerals

GOLD IN SEPTEMBER 2012

U.S. mines produced 20,500 kilograms (kg) of gold in September, a slight increase compared with August production. For the first 9 months of 2012, domestic gold production was 175,000 kg, which was slightly less than that of the first 9 months of 2011. Nevada produced 76% of the year-to-date domestic gold production, and Alaska produced 11%. The average daily gold production for U.S. mines was 683 kg in September, compared with 657 kilograms per day (kg/d) for August, 639 kg/d for year-to-date 2012, and 641 kg/d for the full year 2011.

The average Engelhard gold price was \$1,750.86 per troy ounce for September, a 7% increase compared with the average gold price in August and slightly lower than the average gold price in September 2011. The gold price began the month at \$1,700.53 per troy ounce, then fell to \$1,693.52 per troy ounce on September 5, the lowest level of the month. The price rose to \$1,788.18 per troy ounce on September 21, the highest level of the year, before falling to \$1,748.37 per troy ounce on September 26. The price increased and ended the month at \$1,779.67 per troy ounce.

Barrick Gold Corp. (Toronto, Ontario, Canada) applied for a permit to Montana's Department of Environmental Quality to expand the life of the Golden Sunlight Mine in Montana to 2017 by enlarging the Minerals Hill main pit. The expansion would add 3.8 million metric tons (Mt) of ore and requires the removal of 47 Mt of waste but would not extend beyond the operation's current property boundaries (Kosich, 2012).

Paramount Gold and Silver Corp. (Winnemucca, NV) completed a preliminary economic assessment of the Sleeper Gold Project in Humboldt County, NV. The assessment concluded that the most attractive scenario for the project would be a large-scale open pit mining operation with a heap-leach processing plant handling both oxide and sulfide material, producing doré. The 81,000-metric-ton-per-day operation would result in a projected 17 years of operation with an annual average production of 5,350 kg of gold and 8,180 kg of silver. The projected average cash operation cost was \$767 per ounce of gold equivalent recovered, and the startup cost was estimated at \$346 million. The project has estimated measured and indicated resources of 327 Mt of ore with ore grades of 0.33

gram per metric ton (g/t) of gold and 3.86 g/t of silver. The estimated amount of contained metals was 108 t of gold and 1,260 kg of silver (Paramount Gold and Silver Corp., 2012).

Midas Gold Corp. (Vancouver, British Columbia, Canada) released results of the preliminary economic assessment of the Golden Meadows Project in Idaho. The base case for the project would be open pit mining at the three gold mineralized zones (Hanger Flats, West End, and Yellow Pine) with planned annual production of 10,800 kg of gold and 2,900 t of antimony for the 14.2-year mine life. The deposits consist of oxide mineralization, which would be processed by milling and then vat leaching to recover gold and silver only, and sulfide mineralization, which would be milled and treated with sequential flotation to produce two concentrates—antimony and gold. The antimony concentrates would be shipped to a third party smelter, and the gold concentrates would be further processed on site followed by vat leaching to produce goldsilver doré. The initial capital for the project was estimated at \$879 million, and, using \$1,400 per troy ounce for the price of gold, the after-tax net present value of the project would be \$1,480 million, with an internal rate of return of 27.2%. The estimated indicated resources for the project were 78.2 Mt of ore with 1.68 g/t gold, 0.52 g/t silver, and 0.06% antimony; the project contains 132,000 kg of gold, 40,800 kg of silver, and 49,200 t of antimony (Midas Gold Corp., 2012, p. 1–3).

References Cited

Kosich, Dorothy, 2012, Golden Sunlight Mine applies for expansion to extend mine life: Mineweb, October 1. (Accessed October 3, 2012, at http://www.mineweb.com/mineweb/view.mineweb/en/page34?oid=159405&sn=Detail&pid=110649.)

Midas Gold Corp., 2012, Midas Gold completes positive preliminary economic assessment for Golden Meadows Project, Idaho: Vancouver, British Columbia, Canada, Midas Gold Corp. news release, September 4, 20 p. (Accessed December 5, 2012, at http://www.midas.gold.corp.com/i/pdf/pr/2012-21_MGC_GoldenMeadows.

http://www.midasgoldcorp.com/i/pdf/nr/2012-21_MGC_GoldenMeadows-PEA-FINAL.pdf.)

Paramount Gold and Silver Corp., 2012, Paramount Gold & Silver files final PEA reports on its Sleeper Project in Nevada: Winnemucca, NV, Paramount Gold and Silver Corp. news release, September 13. (Accessed December 5, 2012, at http://paramountgold.com/News/NewsRelease.asp?ID=100249.)

TABLE 1 $\label{eq:mine_production} \mbox{ MINE PRODUCTION OF RECOVERABLE GOLD IN THE UNITED } \mbox{ STATES, BY STATE}^1$

(Kilograms)

	Other					
	Alaska	Nevada	States ²	Total		
2011: ^p						
September	2,400	14,700	2,810	19,900		
October	1,950	14,300	3,050	19,300		
November	1,850	13,500	3,250	18,500		
December	1,810	15,700	3,110	20,600		
January-December	25,800	172,000	36,100	234,000		
2012:						
January	1,730	15,100	2,600	19,400		
February	1,620	14,100	2,470	18,100		
March	1,890	14,500	2,540	18,900		
April	2,570	12,600	2,540	17,700		
May	2,200	14,100	2,480	18,800		
June	2,260	15,600	2,370 °	20,200		
July	2,550	15,700	2,500	20,700		
August	2,090	15,500	2,750	20,400		
September	2,150	15,900	2,480	20,500		
January-September	19,100	133,000	22,700	175,000		

Preliminary. Revised.

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

 $^{^2}$ Includes Arizona, California, Colorado, Idaho, Montana, New Mexico, South Dakota, Utah, and Washington.

TABLE 2 GOLD PRICES

(Dollars per troy ounce)

Engelhard:	
2011:	
Low/date	1,321.89 Jan. 28
High/date	1,898.87 Sep. 6
Average	1,573.57
2012:	
August:	
Low/date	1,600.36/2
High/date	1,673.49/27
Average	1,631.36
September:	
Low/date	1,693.52 Sep. 5
High/date	1,788.18 Sep. 21
Average	1,750.86
Year to date:	
Low/date	1,543.27 May 30
High/date	1,788.18 Sep. 21
Average	1,654.62
Handy and Harman:	
2011, Average	1,570.66
2012:	
August	1,627.97
September	1,747.24
Year to date	1,651.23
London Final:	
2011, Average	1,571.08
2012:	
August	1,626.03
September	1,744.45
Year to date	1,651.56

Source: Platts Metals Week.

 $\label{eq:table 3} \text{U.S. IMPORTS AND EXPORTS OF GOLD}^1$

(Kilograms of gold content, unless otherwise specified)

Period and country	Ores and concentrates ²	Doré and precipitates	Refined bullion ³	Total ⁴	Waste and scrap (gross weight)	Metal powder (gross weight)	Gold compounds (gross weight)
nports for consumption:	concentrates	precipitates	Dullion	10181	(gross weight)	(gross weight)	(gross weight)
2011	203,000	161,000	143,000	507,000	57,400	437	37,600
2012:	_ 203,000	101,000	143,000	307,000	37,400	437	37,000
	- 540	21 700	10.200	22.500	5.070	7	4
August	549	21,700	10,200	32,500	5,070	7	4
September:	_	1.170	40	1.100	4.440		
Bolivia		1,150	48	1,190	1,440		
Brazil			118	118			
Canada	_ 1	82	3,750	3,840	414		
Chile		233	175	408	20		
Colombia	_ 	4,840	304	5,140			
Curacao		384		384	56		
Dominican Republic		17 5	18	35	931		
Ecuador		461	17	478			
El Salvador		2		2	442		
Guatemala		529	1	530	238		
Guyana	-	679		679			
Honduras		55	188	243	256		
Mexico	1	7,800	2,750	10,600	1,060		_
Nicaragua	_ 1	203	13	216	122		
	_	29	196	225	122		
Paraguay			196				
Peru		2,250		2,260			2
United Kingdom			(6)	(6)	681		
Venezuela		133		133	9		
Other		66 ⁵	139 5	206	534	17	103
Total	_ 2	18,900	7,730	26,600	6,200	17	105
January-September	4,520	158,000 *	83,900 *	247,000 *	83,900 *	271 *	13,000
xports:	_						
2011	8,400	62,800	403,000	474,000	626,000	670	3,930,000
2012:	_						
August	617	28,200	19,100	47,900	5,050	29	152,000
September:							
Australia	- 		9	9			272
Canada		212	50	262	4,200		37,300
China	100			100			22,900
Costa Rica							20,800
	- 57			57			
Dominican Republic	_				2 140		8,200 500
Germany	_ 146		3	149	3,140	1	
Hong Kong			1,020	1,040	(6)	9	- -
India		4,950	3,470	8,420		2	471
Japan	_ 				35	3	411
Korea, Republic of							4,570
Malaysia			13	13			12,900
	81		110	191		3	34,600
Mexico				(6)			13,800
Mexico Netherlands	- 		(6)				
	- - -		(6)				831
Netherlands Saudi Arabia	- - - -	 				 1	831 15,700
Netherlands Saudi Arabia Singapore	- - - - - -		 20	 20	 		831 15,700
Netherlands Saudi Arabia Singapore South Africa	- - - - -		20 9,260	20 9,260	 		
Netherlands Saudi Arabia Singapore South Africa Switzerland	- - - - - - -		20 9,260 15	20 9,260 23,600	 		15,700 - -
Netherlands Saudi Arabia Singapore South Africa Switzerland Taiwan	- - - - - - - -	23,600	20 9,260 15 (6)	20 9,260 23,600 (6)	 		15,700 - - 6,250
Netherlands Saudi Arabia Singapore South Africa Switzerland Taiwan Thailand	- - - - - - - - - -	23,600	20 9,260 15 (6)	20 9,260 23,600 (6)	 	1 	15,700 - - 6,250 188
Netherlands Saudi Arabia Singapore South Africa Switzerland Taiwan Thailand United Arab Emirates		23,600 1,390	20 9,260 15 (6) 	20 9,260 23,600 (6) 1,560	 	1 	15,700 - - 6,250 188
Netherlands Saudi Arabia Singapore South Africa Switzerland Taiwan Thailand United Arab Emirates United Kingdom		23,600 1,390 (6)	20 9,260 15 (6) 171 11,400	20 9,260 23,600 (6) 1,560 11,400	 1,410	1 4	15,700 - - 6,250 188 - 2,220
Netherlands Saudi Arabia Singapore South Africa Switzerland Taiwan Thailand United Arab Emirates		23,600 1,390	20 9,260 15 (6) 	20 9,260 23,600 (6) 1,560	 	1 	15,700 - - 6,250 188

See footnotes at end of table.

TABLE 3—Continued U.S. IMPORTS AND EXPORTS OF GOLD¹

Source: U.S. Census Bureau.

⁻⁻ Zero.

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

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

³Bullion 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."

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

⁶Less than ½ unit.

^{*}Correction posted on January 15, 2013.