

West African Gold Mines

Quarterly Summary to 30 September 2018



For the quarter ending 30 September 2018 reported gold production totalled 1.85 Moz, with Ghana, Burkina Faso and Mali accounting for 81.3% of the production. Randgold's Loulo mine in Mali once again was the largest gold producer with 174,018 oz, followed by Gold Fields' Tarkwa mine (126,500 oz) in Ghana and B2Gold Corporation's Fekola mine (107,002 oz) in Mali.

The average gold price (London PM Fix) for the quarter was US\$1,213/oz. The average reported All-in Sustaining Costs (AISC) was US\$959/oz and to be considered in the lowest cost quartile an AISC of less than or equal to US\$787/oz was required. The mine with the lowest reported AISC was Newmont's Akyem mine in Ghana with an AISC of US\$574/oz, this was followed by B2Gold's Fekola mine (US\$607/oz) in Mali and Endeavour Mining's Hounde mine (US\$638/oz) in Burkina Faso.

Top 10 Gold Mines by Gold Production

Rank		Operation	Country	Principal Owners (Excluding Govt Interests)	Au Produced (oz)
1	-	Loulo	Mali	Randgold Resources Limited 80%	174,018
2	-	Tarkwa	Ghana	Gold Fields Limited 90%	126,500
3		Fekola	Mali	B2Gold Corporation 80%	107,002
4=	↑1	Akyem	Ghana	Newmont Mining Corporation 100%	107,000
4=	↓1	Essakane	Burkina Faso	IAMGOLD Corporation 90%	107,000
6	-	Ahafo	Ghana	Newmont Mining Corporation 100%	105,000
7=	-	Siguiri	Guinea	AngloGold Ashanti Limited 85%	64,000
7=	↑1	Iduapriem	Ghana	AngloGold Ashanti Limited 100%	64,000
9	↑6	Asanko	Ghana	Asanko Gold Inc. 45%; Gold Fields Limited 45%	61,599
10	↓1	Hounde	Burkina Faso	Endeavour Mining Corporation 90%	60,736

West African Gold Mines

Quarterly Summary to 30 September 2018



Top 10 Gold Mines by All-In Sustaining Costs

Rank	Operation	Country	Principal Owners (Excluding Govt Interests)	AISC (US\$/oz)	
1	↑9	Akyem	Ghana	Newmont Mining Corporation 100%	574
2	↓1	Fekola	Mali	B2Gold Corporation 80%	607
3	-	Hounde	Burkina Faso	Endeavour Mining Corporation 90%	638
4	↓2	Sissingue	Cote d'Ivoire	Perseus Mining Limited 86%	658
5	↑3	Damang	Ghana	Gold Fields Limited 90%	682
6	↓1	Ity	Cote d'Ivoire	Endeavour Mining Corporation 80%;	730
7	↑13	Ahafo	Ghana	Newmont Mining Corporation 100%	787
8	↓2	Yaramoko	Burkina Faso	Roxgold Inc. 90%	788
9	New	Boungou	Burkina Faso	SEMAFO Inc. 90%	807
10	↓6	Nampala	Mali	Robex Resources Inc. 100%	827

Gold Operations That Report All-In Sustaining Costs

AISC Rank	Operation	Country	Principal Owners (Excluding Govt Interests)	Au Produced (oz)	AISC (US\$/oz)
1	Akyem	Ghana	Newmont Mining Corporation 100%	107,000	574
2	Fekola	Mali	B2Gold Corporation 80%	107,002	607
3	Hounde	Burkina Faso	Endeavour Mining Corporation 90%	60,736	638
4	Sissingue	Cote d'Ivoire	Perseus Mining Limited 86%	17,882	658
5	Damang	Ghana	Gold Fields Limited 90%	51,300	682
6	Ity	Cote d'Ivoire	Endeavour Mining Corporation 80%; Didier Drogba Group 10%	20,993	730
7	Ahafo	Ghana	Newmont Mining Corporation 100%	105,000	787
8	Yaramoko	Burkina Faso	Roxgold Inc. 90%	30,532	788
9	Boungou	Burkina Faso	SEMAFO Inc. 90%	10,500	807
10	Nampala	Mali	Robex Resources Inc. (Owner) 100%	12772	827
11	Karma	Burkina Faso	Endeavour Mining Corporation 90%	26,064	841
12	Siguiri	Guinea	AngloGold Ashanti Limited 85%	64,000	874
13	Agbaou	Cote d'Ivoire	Endeavour Mining Corporation 85%	31,248	954
14	Tarkwa	Ghana	Gold Fields Limited 90%	126,500	972
15	Iduapriem	Ghana	AngloGold Ashanti Limited 100%	64,000	977
16	Essakane	Burkina Faso	IAMGOLD Corporation 90%	107,000	993
17	Asanko	Ghana	Asanko Gold Inc. 45%; Gold Fields Limited 45%	61,599	995



West African Gold Mines

Quarterly Summary to 30 September 2018



AISC Rank	Operation	Country	Principal Owners (Excluding Govt Interests)	Au Produced (oz)	AISC (US\$/oz)
18	Yanfolila	Mali	Hummingbird Resources Plc 80%	22,206	1,006
19	Syama	Mali	Resolute Mining Limited 80%	37,102	1,007
20	Sadiola Hill	Mali	AngloGold Ashanti Limited 41%; IAMGOLD Corporation 41%;	34,000	1,009
21	Mana	Burkina Faso	SEMAFO Inc. 90%	47,700	1,017
22	Edikan	Ghana	Perseus Mining Limited 90%	54,595	1,045
23	Sabodala	Senegal	Teranga Gold Corporation 90%	56,376	1,052
24	Bissa-Bouly	Burkina Faso	Nord Gold SE 90%	58,600	1,112
25=	Bea Mountain	Liberia	Avesoro Resources Inc. 90%	27,456	1,113
25=	Youga	Burkina Faso	Avesoro Resources Inc. 90%	19,721	1,113
27	Morila	Mali	AngloGold Ashanti Limited 40%; Randgold Resources Limited 40%	18,738	1,294
28	Tabakoto	Mali	Endeavour Mining Corporation 80%	26,456	1,420
29	Lefa	Guinea	Nord Gold SE 100%	47,700	1,427
30	Taparko	Burkina Faso	Nord Gold SE 90%	23,900	1,459

Notes: Sadiola Hill's AISC is the weighted average of AngloGold Ashanti Limited's and IAMGOLD Corporation's AISC; Morila's AISC is only AngloGold Ashanti Limited's reported AISC as Randgold Resources Limited does not report individual mine AISC.

Gold Operations That Do Not Report AISC

Rank	Operation	Country	Principal Owners (Excluding Govt Interests)	Au Produced (oz)
1	Loulo	Mali	Randgold Resources Limited 80%	174,018
2	Chirano	Ghana	Kinross Gold Corporation 90%	56,675
3	Tasiast	Mauritania	Kinross Gold Corporation 100%	53,363
4	Wassa	Ghana	Golden Star Resources Limited 90%	38,097
5	Tongon	Cote d'Ivoire	Randgold Resources Limited 89.7%	26,068
6	Bogoso-Prestea	Ghana	Golden Star Resources Limited 90%	19,016
7	Bonikro	Cote d'Ivoire	LGL Mines CI SA (89.9%)	NA
8	Nzema	Ghana	BCM International Limited (90%)	NA

Notes: BCM International Limited is a private company, which recently purchased the Nzema mine and do not report quarterly production results. LGL Mines CI SA a private company purchased the Bonikro mine from Newcrest Mining Limited.

Data Sources: Data was sourced from company quarterly reports, S&P Global Market Intelligence, cost curve created by Aurum Analytics.