# MINERAL RESOURCE AND ORE RESERVE - SUMMARY

AngloGold Ashanti strives to actively create value by growing its major assets – the Mineral Resource and Ore Reserve. This drive is based on active, well-defined brownfields and greenfields exploration programmes, innovation in both geological modelling and mine planning, and continual optimisation of the asset portfolio. Ensuring a viable Mineral Resource and Ore Reserve pipeline enables delivery of sustained value-adding growth in the long term.

Responsible management of our Mineral Resource and Ore Reserve, our exploration programme and related planning, is vital in optimising the operating lives of our portfolio. In so doing, AngloGold Ashanti ensures that it is able to deliver on its strategy and the related strategic objectives in particular, namely, to maintain long-term optionality and improve the quality of our portfolio. See also *Planning for the future* in this report.

## Reporting compliance

AngloGold Ashanti's Mineral Resource and Ore Reserve are reported as at 31 December 2020, in accordance with the minimum standards described by the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 edition) and Section 12.13 of the JSE Listing Requirements (as updated from time to time).

We achieve this by ensuring the principles of integrity transparency and materiality are central to the compilation of the <R&R> and by using reporting criteria and definitions as detailed in the SAMREC Code. In complying with the SAMREC Code, changes to AngloGold Ashanti's Mineral Resource and Ore Reserve have been reviewed and it was concluded that none of the changes are material to the overall valuation of the Company. AngloGold Ashanti has therefore again resolved not to provide the detailed reporting as defined in Table 1 of the SAMREC Code, apart from the maiden Mineral Resource declaration for Butcher Well. However, as in previous years, we will continue to provide the high level of detail necessary to comply with the transparency requirements of the SAMREC Code.

## **Price assumptions**

The SAMREC Code requires the use of reasonable economic assumptions. These include long-range commodity price and exchange rate forecasts. These are reviewed annually and are prepared in-house using a range of techniques including historic price averages. AngloGold Ashanti selects a conservative Ore Reserve price relative to its peers. This is done to fit into the strategy to include a margin in the mine planning process. The resultant plan is then valued at a higher business planning price.

### **Gold price**

The following local prices of gold were used as the basis for estimation:

	Gold price US\$/oz	Australia AUD/oz	Brazil BRL/oz	Argentina ARS/oz	Colombia COP/oz
Ore Reserve					
2020	1,200	1,604	5,510	119,631	4,096,877
2019	1,100	1,512	4,230	57,080	3,230,030
Mineral Resource					
2020	1,500	2,170	7,682	142,507	5,094,827
2019	1,400	1,981	5,166	78,102	3,838,220

#### **Copper price**

The following copper prices were used as the basis for estimation:

	Copper pr	ice
	US\$/lb	COP/lb
Ore Reserve		
2020	2.65	9,047
2019	2.65	7,947
Mineral Resource		
2020	3.30	11,209
2019	3.30	9,646

**GOLD** 

**COPPER** 

**124.5Moz** Inclusive Mineral Resource

29.7Moz Ore Reserve **9,677MIb**Inclusive Mineral Resource

**3,105Mlb** Ore Reserve

# MINERAL RESOURCE AND ORE RESERVE - SUMMARY continued

## **Mineral Resource**

### Gold

The AngloGold Ashanti Mineral Resource reduced from 175.6Moz in December 2019 to 124.5Moz in December 2020. This gross annual decrease of 51.1Moz includes depletion of 3.7Moz, and 54.1Moz for the disposal of assets in the South African region and of Sadiola. This was partly offset by additions due to exploration and modelling changes of 2.9Moz, changes in economic assumptions of 3.5Moz and other factors of 0.3Moz. The Mineral Resource was estimated using a gold price of \$1,500/oz, unless otherwise stated (2019: \$1,400/oz).

#### Mineral Resource - Gold

		Moz
As at 31 December 2019		175.6
Disposal	Mponeng	(45.6)
	Vaal River Surface	(2.5)
	Mine Waste Solutions	(2.1)
	West Wits Surface	(0.5)
	Sadiola	(3.2)
	Sub-total	121.7
Depletions		(3.7)
	Sub-total	118.0
Additions	Due to:	
Geita	Exploration success	1.9
Siguiri	Gold price and exploration success	1.5
Iduapriem	Mineral Resource gold price increase	0.8
Tropicana	Gold price and revised underground constraining	0.8
Cerro Vanguardia	Gold price and exploration success	0.7
Serra Grande	Revised interpretation of Mina III underground	0.6
AGA Mineração	Gold price and exploration countered by changes in methodology	0.5
Other	Additions less than 0.5Moz	1.1
	Sub-total	125.9
Reductions	Due to:	
Obuasi	Estimation methodology and cost	(1.4)
Other	Reductions less than 0.5Moz	(0.0)
As at 31 December 2020		124.5

## **Copper**

The AngloGold Ashanti Mineral Resource of 4.39Mt (9,677Mlb) remained unchanged between December 2019 and December 2020. The Mineral Resource was estimated at a copper price of US\$3.30/lb (2019: US\$3.30/lb).

# Mineral Resource - Copper

		Mt	MIb
As at 31 December 2019		4.39	9,677
Additions	Due to:		
Quebradona	No changes	_	_
As at 31 December 2020		4.39	9,677

## Note:

To reflect that figures are not precise calculations and that there is uncertainty in their estimation, AngloGold Ashanti reports tonnage, content for gold to two decimals and copper content with no decimals

#### **Ore Reserve**

### Gold

The AngloGold Ashanti Ore Reserve reduced from 43.9Moz in December 2019 to 29.7Moz in December 2020. This gross annual decrease of 14.2Moz includes depletion of 3.4Moz, and disposal of assets in the South African region and Sadiola of 16.7Moz. This is partly offset by additions due to exploration and modelling changes of 4.5Moz, changes in economic assumptions of 1.0Moz and other factors of 0.4Moz. The Ore Reserve was estimated using a gold price of \$1,200/oz, unless otherwise stated (2019: \$1,100/oz).

#### Ore Reserve - Gold

		Moz
As at 31 December 2019		43.9
Disposal	Mponeng	(11.0)
	Vaal River Surface	(2.1)
	Mine Waste Solutions	(1.9)
	West Wits Surface	(0.2)
	Sadiola	(1.6)
	Sub-total Sub-total	27.1
Depletions		(3.4)
	Sub-total	23.7
Additions	Due to:	
Obuasi	Updated Mineral Resource models based on new exploration results	1.8
Geita	Exploration success at Nyamulilima and the completion of an economic	
	study to start up this new open pit	1.4
Kibali	Exploration success	0.5
Iduapriem	Increased Ore Reserve price and operational improvements	0.5
AGA Mineração	Exploration and increased Ore Reserve price countered by geological	
	model changes at the quartz-vein satellite orebodies and Serrotinho	0.4
Siguiri	Exploration success	0.4
Serra Grande	New exchange rate, gold price and cost reduction	0.4
Cerro Vanguardia	Exploration, methodology, price and cost countered	
	by geotechnical changes	0.3
Sunrise Dam	Exploration success	0.3
Other	Additions less than 0.3Moz	0.1
	Sub-total	29.8
Reductions	Due to:	
Other	Reductions less than 0.3Moz	(0.1)
As at 31 December 2020		29.7

# **Copper**

The AngloGold Ashanti Ore Reserve increased from 1.39Mt (3,068Mlb) in December 2019 to 1.41Mt (3,105Mlb) in December 2020. This gross annual increase of 0.02Mt is due to optimisation of the production levels. The Ore Reserve was estimated at a copper price of US\$2.65/lb (2019: US\$2.65/lb).

### Ore Reserve - Copper

		Mt	Mlb
As at 31 December 2019		1.39	3,068
Additions	Due to:		
Quebradona	Result of the update of the mine plan in an effort to optimise		
	the production levels as part of the Feasibility study	0.02	37.3
As at 31 December 2020		1.41	3,105

### Note:

The Mineral Resource, as reported, is inclusive of the Ore Reserve component, unless otherwise stated. Mineral Resource and Ore Reserve estimates are reported as at 31 December 2020 and are net of 2020 production depletion. Although the term Mineral Reserve is used throughout the SAMREC Code, it is recognised by the SAMREC Code that the term Ore Reserve is synonymous with Mineral Reserve. AngloGold Ashanti elects to use Ore Reserve in its reporting.

# MINERAL RESOURCE AND ORE RESERVE — SUMMARY continued

## **By-products**

Several by-products will be recovered in the processing of the gold Ore Reserve and copper Ore Reserve. These include 0.41Mt of sulphur from the Brazil operations (AGA Mineração and Serra Grande), 23.89Moz of silver from the Argentinian operation (Cerro Vanguardia) and 26.19Moz of silver from Colombia (Quebradona). At present, there are no plans to recover molybdenum at the Quebradona project in Colombia. The Quebradona process plant will be designed to treat approximately 6.2Mtpa of underground ore to produce copper concentrate over a 23-year mine life, with provision of space for a molybdenum plant in the future.

#### Sale of assets

AngloGold Ashanti sold various assets in South African and Mali during 2020. On conclusion of the sales and after depletions for that period of 2020 the final Mineral Resource and Ore Reserve at the time of the sale are shown below:

#### **South Africa:**

Mponeng:	Mineral Resource	45.65Moz
	Ore Reserve	10.94Moz
Surface Operations:	Mineral Resource	5.11Moz
	Ore Reserve	4.16Moz
Mali:		
Sadiola:	Mineral Resource	3.32Moz
	Ore Reserve	1.58Moz

#### Corporate governance

AngloGold Ashanti has established a Mineral Resource and Ore Reserve Steering Committee (RRSC) that is responsible for setting and overseeing the Mineral Resource and Ore Reserve governance framework and for ensuring that the Company's goals and strategic objectives are met while complying with all relevant regulatory codes. The committee's membership and terms of references are mandated under a policy document signed by the Chief Executive Officer.

Over more than a decade, AngloGold Ashanti has developed and implemented a rigorous system of internal and external reviews aimed at providing assurance in respect of Ore Reserve and Mineral Resource estimates. Due to the travel restrictions around COVID-19, the 2020 internal reviews could not take place on site but were instead conducted as desktop reviews. The same restrictions meant that the external audits could not take place either. Given the scope of work required on site for the external audits, it was not possible to conduct these remotely. To meet the internal policy requirement that all operations be audited on average of once every three years, the number of audits to be conducted in 2021 will be increased.

Numerous internal Mineral Resource and Ore Reserve process reviews were completed by suitably qualified Competent Persons from within AngloGold Ashanti. No significant deficiencies were identified. The Mineral Resource and Ore Reserve are underpinned by appropriate Mineral Resource management processes and protocols that ensure adequate corporate governance. These procedures have been developed to comply with the guiding principles of the US Sarbanes-Oxley Act of 2002 (SOX).

AngloGold Ashanti makes use of a web-based group reporting database called the Resource and Reserve Reporting System

(RCubed) for the compilation and authorisation of Mineral Resource and Ore Reserve reporting. It is a fully integrated system for the reporting and reconciliation of Mineral Resource and Ore Reserve that supports various regulatory reporting requirements, including the SEC and the JSE under the SAMREC Code. AngloGold Ashanti uses RCubed to ensure that a documented chain of responsibility exists from the Competent Persons at the operations to the RRSC.

AngloGold Ashanti has also developed an enterprise-wide risk management tool that provides consistent and reliable data that allows for visibility of risks and actions across the Group. This tool is used to facilitate, control and monitor material risks to the Mineral Resource and Ore Reserve, thus ensuring that appropriate risk management and mitigation plans are in place.

### **Competent Persons**

The information in this report relating to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by or under the supervision of the Competent Persons as defined in the SAMREC Code. All Competent Persons are employed by AngloGold Ashanti, except for those at Kibali (which uses Barrick's Competent Persons), and have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking. The legal tenure of each operation and project has been verified to the satisfaction of the accountable Competent Person, and all Ore Reserve have been confirmed to be covered by the required mining permits or there exists a realistic expectation that these permits will be issued. This is detailed in the <R&R>. The Competent Persons consent to the inclusion of Exploration Results, Mineral Resource and Ore Reserve information in the <R&R> report, in the form and context in which it appears.

Accordingly, the Chairman of the RRSC, VA Chamberlain, MSc (Mining Engineering), BSc (Hons) (Geology), MGSSA, FAusIMM, assumes responsibility for the Mineral Resource and Ore Reserve processes for AngloGold Ashanti and is satisfied that the Competent Persons have fulfilled their responsibilities. VA Chamberlain has 33 years' experience in exploration and mining and is employed full-time by AngloGold Ashanti. He can be contacted at the following address: 76 Rahima Moosa Street, Newtown, 2001, South Africa.

A detailed breakdown of AngloGold Ashanti's Mineral Resource and Ore Reserve and related backup detail are available on the AngloGold Ashanti website, <a href="https://www.anglogoldashanti.com">www.anglogoldashanti.com</a> and on our reporting website, <a href="https://www.aga-reports.com">www.aga-reports.com</a>.

# **Inclusive Mineral Resource by region – Attributable**

# Gold

		Tonnes	Grade	Contained gold	
As at 31 December 2020	Category	million	g/t	Tonnes	Moz
Africa	Measured	64.74	2.96	191.50	6.16
	Indicated	391.32	2.56	1,000.18	32.16
	Inferred	193.07	3.29	634.82	20.41
	Total	649.13	2.81	1,826.49	58.72
Americas	Measured	92.10	1.65	152.23	4.89
	Indicated	1,182.06	0.92	1,081.73	34.78
	Inferred	685.17	0.74	509.05	16.37
	Total	1,959.33	0.89	1,743.01	56.04
Australia	Measured	56.95	1.25	71.05	2.28
	Indicated	72.90	1.70	123.85	3.98
	Inferred	46.88	2.30	107.84	3.47
	Total	176.73	1.71	302.74	9.73
AngloGold Ashanti	Measured	213.79	1.94	414.77	13.34
	Indicated	1,646.28	1.34	2,205.76	70.92
	Inferred	925.12	1.35	1,251.70	40.24
	Total	2,785.19	1.39	3,872.24	124.50

# Copper

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		Tonnes	Grade	Contained copper	
As at 31 December 2020	Category	million	% Cu	Tonnes million	Pounds million
Americas	Measured	57.90	1.10	0.64	1,406
	Indicated	203.77	0.89	1.81	3,981
	Inferred	340.43	0.57	1.95	4,290
	Total	602.10	0.73	4.39	9,677
AngloGold Ashanti	Measured	57.90	1.10	0.64	1,406
	Indicated	203.77	0.89	1.81	3,981
	Inferred	340.43	0.57	1.95	4,290
	Total	602.10	0.73	4.39	9,677

# Ore Reserve by region – Attributable

# Gold

		Tonnes	Grade	Contained g	old
As at 31 December 2020	Category	million	g/t	Tonnes	Moz
Africa	Proved	34.34	1.73	59.45	1.91
	Probable	179.04	2.99	535.10	17.20
	Total	213.38	2.79	594.55	19.12
Americas	Proved	11.10	2.53	28.04	0.90
	Probable	201.44	1.02	205.94	6.62
	Total	212.54	1.10	233.98	7.52
Australia	Proved	26.42	1.29	34.04	1.09
	Probable	27.72	2.18	60.39	1.94
	Total	54.14	1.74	94.43	3.04
AngloGold Ashanti	Proved	71.85	1.69	121.54	3.91
	Probable	408.20	1.96	801.43	25.77
	Total	480.05	1.92	922.97	29.67

# MINERAL RESOURCE AND ORE RESERVE - SUMMARY continued

# **Exclusive Mineral Resource by region - Attributable**

## Gold

		Tonnes	Grade	Contained g	old
As at 31 December 2020	Category	million	g/t	Tonnes	Moz
Africa	Measured	13.29	2.82	37.49	1.21
	Indicated	209.47	2.37	496.73	15.97
	Inferred	186.53	3.36	626.44	20.14
	Total	409.29	2.84	1,160.66	37.32
Americas	Measured	20.94	3.49	73.00	2.35
	Indicated	1,040.37	0.85	884.45	28.44
	Inferred	683.75	0.74	504.95	16.23
	Total	1,745.06	0.84	1,462.39	47.02
Australia	Measured	30.53	1.21	37.01	1.19
	Indicated	45.18	1.40	63.46	2.04
	Inferred	42.36	2.28	96.44	3.10
	Total	118.06	1.67	196.91	6.33
AngloGold Ashanti	Measured	64.75	2.28	147.49	4.74
	Indicated	1,295.02	1.12	1,444.64	46.45
	Inferred	912.63	1.35	1,227.83	39.48
	Total	2,272.41	1.24	2,819.96	90.66

# **Copper**

		Tonnes	Grade	Contained copper	
As at 31 December 2020	Category	million	% Cu	Tonnes million	Pounds million
Americas	Measured	-	-	_	-
	Indicated	150.43	0.70	1.05	2,319
	Inferred	340.43	0.57	1.95	4,290
	Total	490.86	0.61	3.00	6,609
AngloGold Ashanti	Measured	-	-	_	-
	Indicated	150.43	0.70	1.05	2,319
	Inferred	340.43	0.57	1.95	4,290
	Total	490.86	0.61	3.00	6,609

# **Ore Reserve by region – Attributable**

# **Copper**

		Tonnes	Grade	Contained copper	
As at 31 December 2020	Category	million	% Cu	Tonnes million	Pounds million
Americas	Proved	_	_	_	_
	Probable	112.72	1.25	1.41	3,105
	Total	112.72	1.25	1.41	3,105
AngloGold Ashanti	Proved	_	_	-	_
	Probable	112.72	1.25	1.41	3,105
	Total	112.72	1.25	1.41	3,105