# ORE RESERVES AND MINERAL RESOURCES REPORT 2017

# **BUILDING ON FIRM FOUNDATIONS**DELIVERING A SUSTAINABLE FUTURE









# **CONTENTS**

- For more information, select pages below.
- 01 Introduction
- 02 Locations at a glance04 Feature: Mogalakwena Geology

#### **Ore Reserves and Mineral Resources Summary**

- 06 Estimated Ore Reserves08 Estimated Mineral Resources

#### Ore Reserve and Mineral Resource estimates

- 10 Diamonds
- 18 Copper
- Platinum Group Metals 21
- 29 Iron Ore
- 31 Manganese
- 32 Coal
- 39 Nickel
- 40 **Definitions**
- 41 Reserve and Resource Reconciliation Overview
- 48 Competent Persons List
- Glossary
- 54 Other Anglo American publications



**Cover images**1. Load and haul operations at Mafube Colliery, South Africa.

- 2. Bucket wheel reclaimer at the Kolomela Mine plant, South Africa.
- 3. Exploration drilling at Mogalakwena Mine, South Africa.

# INTRODUCTION

The Ore Reserve and Mineral Resource estimates presented in this Annual Report are prepared in accordance with the Anglo American plc (AA plc) Reporting of Exploration Results, Mineral Resources and Ore Reserves standard. This standard requires that the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 edition (the JORC Code) be used as a minimum standard. Some Anglo American plc subsidiaries have a primary listing in South Africa where public reporting is carried out in accordance with the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the SAMREC Code). The SAMREC Code is similar to the JORC Code and the Ore Reserve and Mineral Resource terminology appearing in this section follows the definitions in both the JORC (2012) and SAMREC (2016 Edition) Codes. Ore Reserves in the context of this Annual Report have the same meaning as 'Mineral Reserves' as defined by the SAMREC Code and the CIM (Canadian Institute of Mining and Metallurgy) Definition Standards on Mineral Resources and Mineral Reserves.

The information on Ore Reserves and Mineral Resources was prepared by or under the supervision of Competent Persons as defined in the JORC or SAMREC Codes. All Competent Persons have sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking. All the Competent Persons consent to the inclusion in this report of the information in the form and context in which it appears. The names of the Competent Persons (CPs) along with their Recognised Professional Organisation (RPO) affiliation and years of relevant experience are listed in the Ore Reserve and Mineral Resource Report 2017.

Anglo American Group companies are subject to a comprehensive programme of reviews aimed at providing assurance in respect of Ore Reserve and Mineral Resource estimates. The reviews are conducted by suitably qualified Competent Persons from within the Anglo American Group, or by independent consultants. The frequency and depth of the reviews is a function of the perceived risks and/or uncertainties associated with a particular Ore Reserve and Mineral Resource. The overall value of the entity and time that has lapsed since an independent third-party review is also considered. Those operations/projects that were subjected to independent third-party reviews during the year are indicated in footnotes to the tables.

The JORC and SAMREC Codes require due consideration of reasonable prospects for eventual economic extraction for Mineral Resource definition. These include long-range commodity price forecasts which are prepared by in-house specialists largely using estimates of future supply and demand and long term economic outlooks. The calculation of Mineral Resource and Ore Reserve estimates are based on long-term prices determined at the beginning of the second quarter each year. Ore Reserves are dynamic and are more likely to be affected by fluctuations in the prices of commodities, uncertainties in production costs, processing costs and other mining, infrastructure, legal, environmental, social and governmental factors which may impact the financial condition and prospects of the Group. Mineral Resource estimates also change and tend to be influenced mostly by new information pertaining to the understanding of the deposit and secondly by the conversion to Ore Reserves. Unless otherwise stated, Mineral Resources are additional to (exclusive of) those resources converted to Ore Reserves and are reported on a dry tonnes basis

The appropriate Mineral Resource classification is determined by the appointed Competent (or Qualified) Persons. The choice of appropriate category of Mineral Resource depends upon the quantity, distribution and quality of geoscientific information available and the level of confidence in these data.

To accommodate the various factors that are important in the development of a classified Mineral Resource estimate, a scorecard approach is generally used. Mineral Resource classification defines the confidence associated with different parts of the Mineral Resource.

The confidence that is assigned refers collectively to the reliability of the Grade and Tonnage estimates. This reliability includes consideration for the fidelity of the base data, the geological continuity predicated by the level of understanding of the geology, the likely precision of the estimated grades and understanding of grade variability, as well as various other factors (in particular density) that may influence the confidence that can be placed on the Mineral Resource. Most business units have developed commodity-specific scorecard-based approaches to the classification of their Mineral Resources.

The estimates of Ore Reserves and Mineral Resources are stated as at 31 December 2017. The figures in the tables have been rounded, and if used to derive totals and averages, minor differences with stated results could occur.

The Ore Reserves and Mineral Resources Report 2017 should be considered the only valid source of Ore Reserve and Mineral Resource information for the Anglo American group exclusive of Kumba Iron Ore and Anglo American Platinum Limited which publish their own independent annual reports.

It is accepted that mine design and planning may include some Inferred Mineral Resources. Inferred Mineral Resources in the Life of Mine Plan (LOM Plan) are described as 'Inferred (in LOM Plan)' separately from the remaining Inferred Mineral Resources described as 'Inferred (ex. LOM Plan)', as required. These resources are declared without application of any Modifying Factors. Reserve Life reflects the scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.

The Ownership (Attributable) Percentage that Anglo American holds in each operation and project is presented beside the name of each entity. Operations and projects which fall below the internal threshold for reporting (25% attributable interest) are excluded from the Ore Reserves and Mineral Resources estimates. Operations or projects which were disposed of during 2017 and hence not reported are: Pandora (Platinum) and Dartbrook (Coal).

In South Africa, the Minerals and Petroleum Resources Development Act, Number 28 of 2002 (MPRDA) was implemented on 1 May 2004 (subsequently amended by the Minerals and Petroleum Resources Development Amendment Act 49 of 2008) effectively transferred custodianship of the previously privately held mineral rights to the State.

A Prospecting Right is a right issued in terms of the MPRDA that is valid for up to five years, with the possibility of a further extension of three years.

A Mining Right is a right issued in terms of the MPRDA and is valid for up to 30 years, with the possibility of a further extension of 30 years. The Minister of Mineral Resources will grant a renewal of the Mining Right if the terms and conditions of the Mining Right have been complied with and the applicant is not in contravention of any relevant provisions of the MPRDA.

In preparing the Ore Reserve and Mineral Resource statement for South African assets, Anglo American plc has adopted the following reporting principles in respect of Prospecting Rights and Mining Rights:

- Where applications for Mining Rights and Prospecting Rights have been submitted and these are still being processed by the relevant regulatory authorities, the relevant Ore Reserves and Mineral Resources have been included in the statement.
- Where applications for Mining Rights and Prospecting Rights have been initially refused by the regulatory authorities, but are the subject of ongoing legal process and discussions with the relevant authorities and where Anglo American plc has reasonable expectations that the Prospecting Rights will be granted in due course, the relevant Mineral Resources have been included in the statement (any associated comments appear in the footnotes).

# **LOCATIONS AT A GLANCE**

# OUR OPERATIONS AND SELECTED PROJECTS AROUND THE WORLD

Anglo American is a globally diversified business focused on world-class competitive mining operations that provide the raw materials to meet growing consumer-driven demands of the world's developed and maturing economies.

The portfolio of mining businesses includes Diamonds, Copper, Platinum Group Metals (PGMs), Nickel and the bulk commodities of Iron Ore, Manganese and Coal.

For more information, visit www.angloamerican.com/about-us/where-we-operate







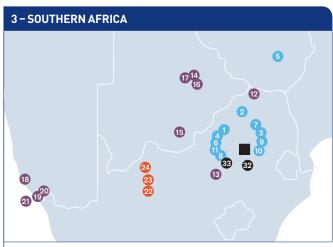
2 Victor

Coal

3 Trend & Roman Mountain









- Amandelbult Complex Tumela and Dishaba
- 2 Mogalakwena
- 3 Twickenham
- Union
- Unki
- Bafokeng Rasimone JV
- 7 Bokoni JV
- 8 Kroondal Marikana JV
- Modikwa JV
- 10 Mototolo JV
- 11 Siphumelele 3 shaft

For more information Select asset above

#### De Beers Consolidated Mines

- Venetia
- Voorspoed
- Debswana
- Damtshaa
- 15 Jwaneng
- 16 Letlhakane Orapa
- Namdeb

# 18 Elizabeth Bay

- 19 Mining Area 1
- Midwater 💿 Orange River

#### Debmarine

Atlantic 1

Iron Ore and Manganese

- 22 Kolomela Sishen
- 4 Hotazel Mines

#### Coal

- 25 Goedehoop
- 26 Greenside
- 27 Isibonelo 28 Kleinkopje
- 29 Kriel
- 30 Landau
- 31 Mafube 2 New Denmark
- 3 New Vaal 34 Zibulo

Manganese

4 - AUSTRALIA

**1** GEMCO

# Coal

- 2 Capcoal
- 3 Dawson
- 4 Grosvenor Moranbah North

For more information Select asset above

# MOGALAKWENA GEOLOGY

Mogalakwena Mine, located in the North-West province of South Africa, is the largest active open cast Platinum Mine in the world.

Mogalakwena Mine is a high-tonnage low-grade operation exploiting the Platinum Group Elements (PGEs) and Base Metals. Mineralisation predominantly occurs in the enriched Platreef horizon in the Northern Limb of the Bushveld Complex, the largest and most platiniferous of the world's mafic igneous intrusive complexes. Mining operations commenced in 1993 using conventional open pit methods with ore material currently being treated through three processing plants with a combined capacity of 14.4 million tonnes per annum. The mine is unique in the company as the only high-tonnage open pit operation and unique in the South African Platinum Mining Industry as the only PGE producer on the Northern Limb. Platreef ore is extracted from three pits, from Sandsloot in the south (currently decommissioned), through to Zwartfontein South in the middle and Mogalakwena's 'super pit' in the North.

In broad terms, the Platreef orebody can be described as a multiple-pulse mafic magmatic horizon, dominantly pyroxenitic in composition with PGEs occurring both as discrete Platinum Group Minerals (PGMs) and hosted by sulfides. It averages 150m in thickness, with a prominently top-loaded grade profile, whereby the better mineralisation is located in the upper 30 to 40m of the package. It strikes North-West/South-East down the length of the Mogalakwena operation, dipping at an average angle of 40 to 50° to the west.

As a PGE-bearing horizon the Platreef is markedly dissimilar to the Merensky and UG2 Reefs, the stable, thin and stratiform reef horizons that the Bushveld Complex is renowned for. By comparison the Platreef is a far thicker and a more variable orebody, typified by extensive assimilation of footwall fragments, known as xenoliths.

The combination of these features make the orebody amenable to the massive open cast mining methodology employed at Mogalakwena.

Unlike the other PGE orebodies of the Bushveld Complex, the Platreef resides in direct contact with the basement lithologies of the complex. This results in a high degree of interaction and assimilation of a wide range of footwall rock types, ranging from shales and banded ironstones in the south of the operation, through to dolomites in the centre of the mining area, to granites in the northern parts of the property.

Carbonate floor rocks incorporated into the basal Platreef have been altered to mineralised 'parapyroxenites' and 'calc-silicates' formed during extensive syn-magmatic interaction with high-Mg silicate melts. Towards the north, where the Platreef is floored by Archaean basement granite, partial melting of this protolith has resulted in the formation of a rock referred to as a Granofels.

This Granofels is present in a prominent interaction zone developed between the base of the Platreef and the underlying basement granite. Resultantly the mineralised horizon defined for the Platreef orebody often incorporates significant portions of the immediate footwall.

The Platreef within the mining complex is structurally affected by dolerite dykes and several predominantly lateral fault systems orientated in a North-East/South-West direction, dipping between 70-85° towards the South-East quadrant. The dykes and Platreef adjacent to major fault systems constitute areas of no mineralisation and are discounted as geological loss zones. The fault systems display normal to reverse fault displacements ranging between 50m to 600m, with the up-thrown blocks proving favorable to mine design. The Platreef hosts significant dolomite inclusions in the southern region of the mining area and these also constitute geological loss zones.

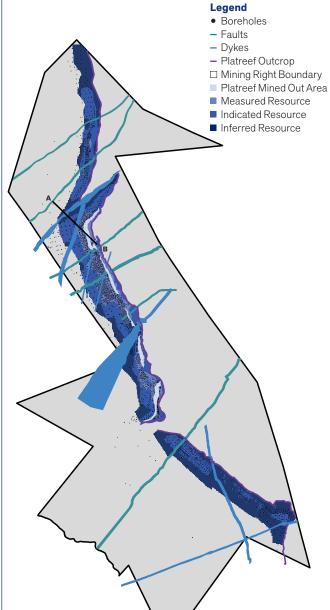
Production drilling and loading operations in Mogalakwena Central Pit, looking North-East, exposing fresh Platreef on the northern face, with the eastern face exposing footwall granite and the central dolerite dyke.

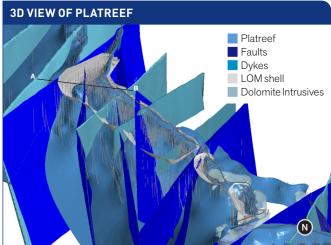


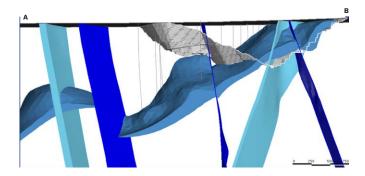


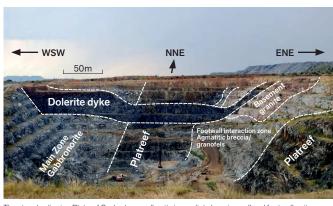
PLATREEF MINERAL RESOURCE CLASSIFICATION

# Polokwane Polokwane AAPL Managed Non-Managed (JVs) Projects Mokopane Bokoni mine Twickenham mine Limpopo Modikwa mine Der Brochen Project









The steeply-dipping Platreef Orebody as well as its immediate hangingwall and footwall units, are cross-cut by a dolerite dyke running perpendicular to strike.

# **ESTIMATED ORE RESERVES**(1)

as at 31 December 2017

Detailed Proved and Probable estimates appear on the referenced pages in the Ore Reserves and Mineral Resources Report 2017.

See page   10 in RRF Report for details						_	P	roved + Probable	
			Ø						Recovered Grade (cpht)
DIAMOND® OPERATIONS - DBCM   Size inger   21 in RRR Report for related   Minor (veers) (vee	Gahcho Kué	Kimberlite		43.4	OP	11	48.4	30.9	156.9
See page   12 m RRF Report for details)	Victor	Kimberlite		85.0	OP	2	0.0	0.1	18.7
Nomerita			Ø						Recovered Grade (cpht)
Nonspoed   Kimberfile	Venetia (OP)	Kimberlite		62.9	OP	29	18.4	14.7	125.5
DIAMOND**  OPERATIONS - Debswana (See pages 14 & 15 in R&R Report for details)	Venetia (UG)	Kimberlite			UG		79.4	98.9	80.3
See page 14 & 15 in RRR Report for details)	Voorspoed	Kimberlite		62.9	OP	3	-	_	-
Nameng   Kimberlite   42.5   OP   17   174.8   138.2   126.     Lethkakne   TMR			Ø						Recovered Grade (cpht)
Lethakane   TMR	Damtshaa	Kimberlite		42.5	OP	17	4.9	25.6	19.2
Orapa         Kimberlitos         42.5         OP         13         140.8         144.5         97.           DIAMOND®® OPERATIONS - Namdebs (See page 16 in RRRR Report for details)         Ø         Ownership of See page 16 in RRR Report for details)         Ø         Mining Area         LOM®         Saleable Carats (Cept (expt	Jwaneng	Kimberlite		42.5	OP	17	174.8	138.2	126.5
DIAMOND® OPERATIONS - Namdeb   See page   6 in RRZ Report for details   O	Letlhakane	TMR		42.5	n/a	26	8.4	34.6	24.3
See page 1 fain R&R Report for details	Orapa	Kimberlite		42.5	OP	13	140.8	144.5	97.5
Elizabeth Bay   Aeolian and Marine   42.5   OC   2   78   75.4   10.2     Mining Area   Beaches   42.5   OC   5   3.6   6.73   5.3     Orange River   Fluvial Placers   42.5   OC   5   3.6   6.73   5.3     Orange River   Fluvial Placers   42.5   OC   4   132   13.796   0.9     Atlantic   Marine Placers   42.5   MM   20   Saleable Carats (kcr)   k.0   8.9883   0.0.0     Midwater   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   42.5   MM   3   129   435   0.3     Orange River   Marine   Marin			Ø						Recovered Grade (cpht)
Name   Placers   Fluvial Placers   42.5   OC   4   132   13.796   O.9.	Elizabeth Bay	Aeolian and Marine		42.5	OC	2	78	754	10.28
Atlantic 1   Marine Placers   42.5   MM   20   6,094   89,983   0.00     Midwater   Marine Placers   42.5   MM   3   129   435   0.3     COPPER OPERATIONS   0   0   0   0   0   0   0   0   0     Collahuasi   Sulphide (directfeed)   44.0   0   69   27,085   272,15   1.0     Low Grade Sulphide (in situ + stockpile)   50   0   10   614   77.4   0.7     Los Bronces   Sulphide – Intation   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   23   6,443   1,0549   0.6     Sulphide – Dump Leach   50.1   0   0   10   614   77.4   0.7     See page 21 in R&R Report for details   6   0   0   0   0   0   0   0   0     Merensky Report for details   6   0   0   0   0   0   0   0   0   0	Mining Area 1	Beaches		42.5	OC	5	36	673	5.37
Marine Placers   Marine Placers   Marine   Ma	Orange River	Fluvial Placers		42.5	OC	4	132	13,796	0.96
Midwater   Marine   42.5   MM   3   129   4.35   0.3									Recovered Grade (cpm <sup>2</sup> )
COPPER OPERATIONS   Company   Mining   Method	Atlantic 1	Marine Placers		42.5	MM	20	6,094	89,883	0.07
See page 18 in R&R Report for details	Midwater	Marine		42.5	MM	3	129	435	0.30
Low Grade Sulphide (in situ + stockpile)			Ø						Grade (%TCu)
El Soldado   Sulphide   Sol.   OP   10   614   77.4   0.77	Collahuasi	Sulphide (direct feed)		44.0	OP	69	27,085	2,721.5	1.00
Description		Low Grade Sulphide (in situ + stoc	kpile)				2,818	498.1	0.57
Sulphide - Dump Leach	El Soldado	Sulphide		50.1	OP	10	614	77.4	0.79
PLATINUM <sup>(4)</sup> OPERATIONS   See page 21 in R&R Report for details   See page 31 in R&	Los Bronces	Sulphide – Flotation		50.1	OP	23	6,443	1,054.9	0.61
See page 21 in R&R Report for details   See page 31 in R&R Report for details   See		Sulphide – Dump Leach					1,361	460.2	0.30
UG2 Reef   57.8   UG   n/a   38.6   294.3   4.0			Ø						Grade (4E g/t)
Platreef         In situ + stockpile         78.0         OP         n/a         126.6         1,399.1         2.8           Main Sulphide Zone         78.0         UG         n/a         5.2         47.4         3.4           KUMBA IRON ORE OPERATIONS (See page 29 in R&R Report for details)         Ø         Ownership Method         Mining Method         Reserve Life <sup>(S)</sup> (years)         Saleable Product (years)         Grac (htt)         Grac (%F           KOlomela         Hematite         53.2         OP         14         168         64           Sishen         Hematite         53.2         OP         13         370         64           IRON ORE BRAZIL OPERATIONS (See page 30 in R&R Report for details)         Ø         Ownership Method         Mining Method         Reserve Life <sup>(S)</sup> (years)         Saleable Product <sup>(S)</sup> (years)         Grac (wint)           Serra do Sapo         Friable Itabirite and Hematite         100         OP         51         715         67.0           Itabirite         OP         Mining Method         Reserve Life <sup>(S)</sup> (years)         ROM Tonnes (Mt)         Grac (wint)           SAMANCOR MANGANESE OPERATIONS (See page 31 in R&R Report for details)         Ø         Ownership %         Mining Method         Reserve Life <sup>(S)</sup> (years)         ROM Tonnes (Mt)         Gra	Merensky Reef			33.8	UG	n/a	13.4	90.2	4.61
Main Sulphide Zone         78.0         UG         n/a         5.2         47.4         3.4           KUMBA IRON ORE OPERATIONS (See page 29 in R&R Report for details)         Ø         Wining Method 96         Mining Method (years)         Reserve Life <sup>(2)</sup> (years)         Saleable Product (Mt)         Grace (years)           Kolomela         Hematite         53.2         OP         14         168         64.           Sishen         Hematite         53.2         OP         13         370         64.           IRON ORE BRAZIL OPERATIONS (See page 30 in R&R Report for details)         Ø         Ownership 96         Mining Method (years)         Reserve Life <sup>(2)</sup> (years)         Saleable Product <sup>(5)</sup> Grace (years)         Grace (years)           Serra do Sapo         Friable Itabirite and Hematite         100         OP         51         715         67.           Itabirite         OP         51         715         67.         67.           SAMANCOR MANGANESE OPERATIONS (See page 31 in R&R Report for details)         Ø         Mining Method (years)         Mining Method (years)         ROM Tonnes (Mt)         Grace (years)           GEMCO <sup>(6)</sup> ROM + Sand Tailings         40.0         OP         7         67.9         44.           Mamatwan         29.6         OP	UG2 Reef			57.8	UG	n/a	38.6	294.3	4.07
KUMBA IRON ORE OPERATIONS (See page 29 in R&R Report for details)         Ø Wining Method % (years)         Reserve Life <sup>(2)</sup> (years)         Saleable Product (Mt)         Grad (Mt)           Kolomela         Hematite         53.2         OP         14         168         64.           Sishen         Hematite         53.2         OP         13         370         64.           IRON ORE BRAZIL OPERATIONS (See page 30 in R&R Report for details)         Ø Wining Method (years)         Reserve Life <sup>(2)</sup> (years)         Saleable Product <sup>(5)</sup> (Mt)         Grad (Mt)           Serra do Sapo Friable Itabirite and Hematite Itabirite         100         OP         51         715         67.           Itabirite         OP         51         738         67.           SAMANCOR MANGANESE OPERATIONS (See page 31 in R&R Report for details)         Ø Ownership % Method (years)         Mining Method (years)         ROM Tonnes (Mt)         Grad (%)           GEMCO <sup>(6)</sup> ROM + Sand Tailings         40.0         OP         7         67.9         44.           Mamatwan         29.6         OP         16         55.0         36.	Platreef	<i>In situ</i> + stockpile		78.0	OP	n/a	126.6	1,399.1	2.81
(See page 29 in R&R Report for details)         %         Method (years)         (Mt)         (%F           Kolomela         Hematite         53.2         OP         14         168         64.           Sishen         Hematite         53.2         OP         13         370         64.           IRON ORE BRAZIL OPERATIONS (See page 30 in R&R Report for details)         Ø         Ownership %         Mining Method (years)         Reserve Life <sup>(2)</sup> (years)         Saleable Product <sup>(6)</sup> (%F           Serra do Sapo         Friable Itabirite and Hematite         100         OP         51         715         67.           Itabirite         OP         0P         738         67.           SAMANCOR MANGANESE OPERATIONS (See page 31 in R&R Report for details)         Ø         Ownership %         Mining Method (years)         Reserve Life <sup>(2)</sup> (years)         ROM Tonnes (Mt)         Grac (%M           GEMCO <sup>(6)</sup> ROM + Sand Tailings         40.0         OP         7         67.9         44.           Mamatwan         29.6         OP         16         55.0         36.	Main Sulphide Zon	ne		78.0	UG	n/a	5.2	47.4	3.44
Sishen         Hematite         53.2         OP         13         370         64.           IRON ORE BRAZIL OPERATIONS (See page 30 in R&R Report for details)         Ownership % Method (years)         Mining Method (years)         Reserve Life <sup>(2)</sup> (years)         Saleable Product <sup>(5)</sup> (Mt)         Grad (%F           Serra do Sapo Itabirite         Friable Itabirite and Hematite Itabirite         100         OP         51         715         67.           SAMANCOR MANGANESE OPERATIONS (See page 31 in R&R Report for details)         Ø         Ownership % Method Method (years)         Mining Method (years)         Reserve Life <sup>(2)</sup> (years)         ROM Tonnes (Mt)         Grad (%M           GEMCO <sup>(6)</sup> ROM + Sand Tailings         40.0         OP         7         67.9         44.           Mamatwan         29.6         OP         16         55.0         36.			Ø						Grade (%Fe)
RON ORE BRAZIL OPERATIONS (See page 30 in R&R Report for details)	Kolomela	Hematite		53.2	OP	14		168	64.3
(See page 30 in R&R Report for details)         %         Method         (years)         (Mt)         (%F           Serra do Sapo         Friable Itabirite and Hematite         100         OP         51         715         67.           Itabirite         OP         738         67.           SAMANCOR MANGANESE OPERATIONS (See page 31 in R&R Report for details)         Ownership %         Mining Method         Reserve Life <sup>(2)</sup> (years)         ROM Tonnes (Mt)         Grac (%M           GEMCO <sup>(6)</sup> ROM + Sand Tailings         40.0         OP         7         67.9         44.           Mamatwan         29.6         OP         16         55.0         36.	Sishen	Hematite		53.2	OP	13		370	64.6
Itabirite         OP         738         67.           SAMANCOR MANGANESE OPERATIONS (See page 31 in R&R Report for details)         Ø wnership % Method Method (years)         Mining Method (years)         ROM Tonnes (years)         ROM Tonnes (Mt)         Grac (%M           GEMCO <sup>(6)</sup> ROM + Sand Tailings         40.0         OP         7         67.9         44.           Mamatwan         29.6         OP         16         55.0         36.			Ø						Grade <sup>(5)</sup> (%Fe)
SAMANCOR MANGANESE OPERATIONS (See page 31 in R&R Report for details)  Ownership % Mining Method (years)  Method (years)  ROM Tonnes (Mt)  GEMCO <sup>(6)</sup> ROM + Sand Tailings  40.0 OP 7  67.9 44.  Mamatwan  29.6 OP 16  55.0 36.	Serra do Sapo	Friable Itabirite and Hematite		100	OP	51		715	67.5
GEMCO <sup>(6)</sup> ROM + Sand Tailings         40.0         OP         7         67.9         44.           Mamatwan         29.6         OP         16         55.0         36.0		Itabirite			OP			738	67.5
GEMCO <sup>(6)</sup> ROM + Sand Tailings         40.0         OP         7         67.9         44.           Mamatwan         29.6         OP         16         55.0         36.			Ø						Grade (%Mn)
Mamatwan         29.6         OP         16         55.0         36.	GEMCO <sup>(6)</sup>	ROM + Sand Tailings							44.3
	Mamatwan					16			36.8
<b>Wessels</b> 29.6 UG 61 83.1 42.				29.6	UG	61		83.1	42.4

ROM = Run of Mine.

Operations = Mines in steady-state or projects in ramp-up phase. TMR = Tailings Mineral Resource.

Mining method: OP = Open Pit, UG = Underground, MM = Marine Mining,

Mct = Million carats. Mt = Million tonnes. kct = thousand carats. kt = thousand tonnes. k (m²) = thousand square metres.

Diamond Recovered Grade is quoted as carats per hundred metric tonnes (cpht) or as carats per square metre (cpm²)

Estimates of 0.0 represent numbers less than 0.05.

TCu = Total Copper. 4E is the sum of Platinum, Palladium, Rhodium and Gold.

Moz = Million troy ounces. g/t = grams per tonne.

ROM = Run of Mine

Estimated Ore Reser	rves continued				_	Pı	roved + Probable	
COAL OPERATION (See page 32 in R&R		Ø	Ownership %	Mining Method	Reserve Life <sup>(2)</sup> (years)		Saleable Tonnes <sup>(7)</sup> (Mt)	Saleable Quality
Capcoal (OC)*	Metallurgical - Coking		78.6	OC	15		28.0	5.5 CSN
	Metallurgical - Other						44.3	6,840 kcal/kg
	Thermal – Export						7.3	6,210 kcal/kg
Capcoal (UG)*	Metallurgical - Coking		70.0	UG	1		4.1	8.5 CSN
Dawson	Metallurgical - Coking		51.0	OC	14		61.1	7.0 CSN
	Thermal – Export						56.3	6,510 kcal/kg
Grosvenor	Metallurgical - Coking		100	UG	30		108.2	8.5 CSN
Moranbah North	Metallurgical - Coking		88.0	UG	11		81.6	8.0 CSN
COAL OPERATION (See page 32 in R&R	Report for details)	Ø	Ownership %	Mining Method	Reserve Life <sup>(2)</sup> (years)		Saleable Tonnes <sup>(7)</sup> (Mt)	Saleable Quality
Trend	Metallurgical - Coking		100	OC	7		8.3	7.0 CSN
Roman Mountain	Metallurgical - Coking		100	OC	15		25.8	7.0 CSN
(See page 32 in R&R		Ø	Ownership %	Mining Method	Reserve Life <sup>(2)</sup> (years)		Saleable Tonnes <sup>(7)</sup> (Mt)	Saleable Quality
Cerrejón	Thermal – Export		33.3	OC	16		459.1	6,140 kcal/kg
COAL OPERATION (See page 33 & 37 in	NS - South Africa R&R Report for details)	Ø	Ownership %	Mining Method	Reserve Life <sup>(2)</sup> (years)		Saleable Tonnes <sup>(7)</sup> (Mt)	Saleable Quality
Goedehoop	Thermal – Export		100	UG	8		25.0	5,930 kcal/kg
Goedehoop – MRD	Thermal – Export			n/a	3		1.3	5,070 kcal/kg
Greenside	Thermal – Export		100	UG	10		29.6	5,880 kcal/kg
Greenside – MRD	Thermal – Export			n/a	2		0.4	5,590 kcal/kg
Isibonelo	Synfuel		100	OC	9		44.4	4,640 kcal/kg
Kleinkopje	Thermal – Export		100	OC	8		20.6	6,270 kcal/kg
Kriel	Thermal – Domestic		73.0	UG&OC	6		22.4	4,840 kcal/kg
Landau	Thermal – Export		100	OC	8		21.9	5,870 kcal/kg
	Thermal – Domestic						3.4	4,430 kcal/kg
Mafube	Thermal – Export		50.0	OC	13		27.9	6,040 kcal/kg
	Thermal – Domestic						14.4	5,010 kcal/kg
New Denmark	Thermal – Domestic		100	UG	19		95.7	5,080 kcal/kg
New Vaal	Thermal – Domestic		100	OC	12		192.6	3,520 kcal/kg
Zibulo	Thermal – Export		73.0	UG&OC	16		55.0	5,980 kcal/kg
	Thermal – Domestic						9.4	4,950 kcal/kg
NICKEL OPERATION (See page 39 in R&R		Ø	Ownership %	Mining Method	Reserve Life <sup>(2)</sup> (years)	Contained Nickel (kt)	ROM Tonnes (Mt)	Grade (%Ni)
Barro Alto	Saprolite		100	OP	22	586	41.9	1.40
Niquelândia	Saprolite		100	OP	17	98	7.8	1.26

(1) Estimated Ore Reserves are the sum of Proved and Probable Ore Reserves (on an exclusive basis, i.e. Mineral Resources are reported as additional to Ore Reserves unless otherwise stated), Please refer to the detailed Ore Reserve estimates tables in the AA plc R&R Report for the individual Proved and Probable Reserve estimates. The Ore Reserve estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard. Ore Reserve estimates for operations in South Africa are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The figures reported represent 100% of the Ore Reserves. Anglo American plc ownership is stated separately. Rounding of figures may cause computational discrepancies.

Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

DBCi = De Beers Canada, DBCM = De Beers Consolidated Mines, Debswana = Debswana Diamond Company, Namdeb = Namdeb Holdings.
Reported Diamond Reserves are based on a Bottom Cut-off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). Specific BCO's applied to derive estimates are included in the detailed Diamond Reserve tables in the AA plc R&R Report. No Diamond Reserves reported for Voorspoed Kimberlite as mining is now scheduled exclusively from Inferred Resources.

Snap Lake was placed on extended care and maintenance at the end of 2015 and was allowed to flood in Q1 2017. It is now considered a project. (4) Details of the individual Anglo American Platinum Limited managed and Joint Venture managed operations appear in the AA plc R&R Report.

Ownership percentages for reef totals are weighted by Contained Metal (4E Moz).

- (5) Iron Ore Brazil Saleable Product tonnes are reported on a wet basis (average moisture content is 9.2 wt% of the wet mass) with quality stated on a dry basis.
- (6) GEMCO Manganese grades are reported as per washed ore samples and should be read together with their respective yields, see page 31 in the AA plc
- Total Saleable Tonnes represents the product tonnes quoted as metric tonnes on a Product moisture basis. The coal quality for Coal Reserves is quoted as either kilocalories per kilogram (kcal/kg) or Crucible Swell Number (CSN). Kilocalories per kilogram represent Calorific Value (CV) on a Gross As Received (GAR) basis. CV is rounded to the nearest 10 kcal/kg and CSN to the nearest 0.5 index.
  - Metallurgical Coking: High-, medium- or low-volatile semi-soft, soft or hard coking coal primarily for blending and use in the steel industry. Metallurgical - Other: Semi-soft, soft, hard, semi-hard or anthracite coal, other than Coking Coal, such as pulverized coal injection (PCI) or other general metallurgical coal for the export or domestic market with a wider range of properties than Coking Coal.
  - Thermal Export: Low- to high-volatile thermal coal primarily for export in the use of power generation; quality measured by calorific value (CV).

Thermal - Domestic: Low- to high-volatile thermal coal primarily for domestic consumption for power generation.

Synfuel: Coal specifically for the domestic production of synthetic fuel and chemicals.

Peace River Coal (Trend and Roman Mountain operations) was placed on extended care and maintenance at the end of 2014.

Operations = Mines in steady-state or projects in ramp-up phase. MRD = Mineral Residue Deposit.

Mining method: OP = Open Pit, UG = Underground, OC = Open Cast/Cut.

\* Capcoal comprises opencast operations at Lake Lindsay and Oak Park, with an underground longwall operation at Grasstree.

# **ESTIMATED MINERAL RESOURCES**(1)

as at 31 December 2017

Detailed Measured, Indicated and Inferred estimates appear on the referenced pages in the Ore Reserves and Mineral Resources Report 2017.

		Measured + Indicated		1	Total Inferred <sup>(2)</sup>					
DIAMOND <sup>(3)</sup> OPER (See page 10 in R&R		Ø	Ownership %	Mining Method	Carats (Mct)	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Tonnes (Mt)	Grade (cpht)
Gahcho Kué	Kimberlite		43.4	OP	2.6	1.8	142.2	18.0	12.8	140.4
Victor	Kimberlite		85.0	OP	0.1	0.5	24.1	0.3	0.8	34.5
DIAMOND <sup>(3)</sup> OPER (See page 12 in R&R		Ø	Ownership %	Mining Method	Carats (Mct)	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Tonnes (Mt)	Grade (cpht)
Venetia (OP)	Kimberlite	_	62.9	OP		_	_	3.1	18.0	17.1
Venetia (UG)	Kimberlite			UG	-	-	-	59.6	69.9	85.3
Voorspoed	Kimberlite		62.9	OP	0.5	1.9	26.9	3.8	20.1	19.1
	RATIONS - Debswa R&R Report for details		Ownership %	Mining Method	Carats (Mct)	Tonnes (Mt)	Grade (cpht)	Carats (Mct)	Tonnes (Mt)	Grade (cpht)
Damtshaa	Kimberlite		42.5	OP	0.9	3.7	22.9	5.0	20.7	24.3
Jwaneng	Kimberlite		42.5	OP	62.3	74.1	84.1	60.0	70.8	84.7
	TMR & ORT			n/a		_	_	24.3	33.4	72.7
Letlhakane	TMR & ORT		42.5	n/a	1.4	0.0	5,322.2	14.1	54.6	25.8
Orapa	Kimberlite		42.5	OP	297.0	292.0	101.7	66.2	77.5	85.3
	RATIONS – Namdeb R&R Report for details		Ownership %	Mining Method	Carats (kct)	Tonnes (kt)	Grade (cpht)	Carats (kct)	Tonnes (kt)	Grade (cpht)
Douglas Bay	Aeolian and Deflation		42.5	OC	160	2,269	7.05	1	127	0.79
Elizabeth Bay	Aeolian, Marine and	Deflation	42.5	OC	131	2,300	5.69	2,484	33,873	7.33
Mining Area 1	Beaches		42.5	OC	346	37,898	0.91	3,003	192,228	1.56
Orange River	Fluvial Placers		42.5	OC	194	45,158	0.43	160	51,450	0.31
					Carats (kct)	Area k (m²)	Grade (cpm²)	Carats (kct)	Area k (m²)	Grade (cpm²)
Atlantic 1	Marine Placers		42.5	MM	6,635	90,512	0.07	78,797	1,127,012	0.07
Midwater	Marine		42.5	MM	565	2,447	0.23	134	1,572	0.09
COPPER OPERAT (See page 19 in R&R		Ø	Ownership %	Mining Method	Contained Copper (kt)	Tonnes (Mt)	Grade (%TCu)	Contained Copper (kt)	Tonnes (Mt)	Grade (%TCu)
Collahuasi	Oxide and Mixed		44.0	OP	453	65.0	0.70	292	51.3	0.57
	Sulphide (direct feed	d)			8,907	946.2	0.94	26,866	2,962.4	0.91
	Low Grade Sulphide	e (in situ)			5,151	1,170.6	0.44	6,411	1,430.8	0.45
El Soldado	Sulphide		50.1	OP	777	136.5	0.57	65	14.6	0.44
Los Bronces	Sulphide – Flotation		50.1	OP	13,299	3,043.2	0.44	5,927	1,311.2	0.45
	Sulphide – Dump Le	each				_	_	14	4.7	0.29
PLATINUM <sup>(4)</sup> OPE (See page 22 in R&R		Ø	Ownership %	Mining Method	Contained Metal (4E Moz)	Tonnes (Mt)	Grade (4E g/t)	Contained Metal (4E Moz)	Tonnes (Mt)	Grade (4E g/t)
Merensky Reef			56.2	UG	96.6	563.3	5.34	95.3	610.4	4.86
UG2 Reef			54.1	UG	202.7	1,095.0	5.76	103.3	529.2	6.07
Platreef			78.0	OP	96.2	1,324.9	2.26	71.6	1,140.0	1.95
Main Sulphide Zone	•		78.0	UG	17.5	130.5	4.18	6.3	46.0	4.25
(See page 29 in R&R	Report for details)	Ø	Ownership %	Mining Method		Tonnes (Mt)	Grade (%Fe)		Tonnes (Mt)	Grade (%Fe)
Kolomela	Hematite		53.2	OP		93.0	62.9		79.6	62.7
Sishen	Hematite		53.2	OP		431.3	52.4		114.4	50.9
(See page 30 in R&R	Report for details)	Ø	Ownership %	Mining Method		Tonnes <sup>(5)</sup> (Mt)	Grade <sup>(5)</sup> (%Fe)		Tonnes <sup>(5)</sup> (Mt)	Grade <sup>(5)</sup> (%Fe)
Serra do Sapo	Friable Itabirite and I	Hematite	100	OP		250.5	32.0		100.1	35.8
	Itabirite					1,143.2	30.9		614.1	31.1
(See page 31 in R&R	GANESE OPERATI Report for details)	ONS Ø	Ownership %	Mining Method		Tonnes (Mt)	Grade (%Mn)		Tonnes (Mt)	Grade (%Mn)
GEMCO <sup>(6)(7)</sup>	ROM + Sand Tailing	js	40.0	OP		131.7	42.6		34.7	39.9
Mamatwan <sup>(6)</sup>			29.6	OP		87.5	34.9		0.5	37.2
Wessels <sup>(6)</sup>			29.6	UG		144.1	42.6		3.1	45.7

Operations = Mines in steady-state or projects in ramp-up phase. TMR = Tailings Mineral Resource. ORT = Old Recovery Tailings. Mining method: OP = Open Pit, UG = Underground, MM = Marine Mining.

Mct = Million carats. Mt = Million tonnes. kct = thousand carats. kt = thousand tonnes. k (m²) = thousand square metres.

Diamond Grade is quoted as carats per hundred metric tonnes (cpht) or as carats per square metre (cpm²)

Estimates of 0.0 represent numbers less than 0.05.

TCu = Total Copper. 4E is the sum of Platinum, Palladium, Rhodium and Gold. Moz = Million troy ounces. g/t = grams per tonne. ROM = Run of Mine.

Estimated Mineral Resources continu	ued			Measure	d + Indicate	ed	Total	Inferred <sup>(2)</sup>	
<b>COAL OPERATIONS – Australia</b> (See page 34 in R&R Report for detail	ls) Ø	Ownership %	Mining Method		MTIS <sup>(8)</sup> (Mt)	Coal Quality (kcal/kg)		MTIS <sup>(8)</sup> (Mt)	Coal Quality (kcal/kg)
Capcoal (OC)*		78.6	OC		166.3	6,920		197.3	6,840
Capcoal (UG)*		70.0	UG		90.4	6,730		6.3	6,470
Dawson		51.0	OC		663.3	6,700		351.2	6,680
Grosvenor		100	UG		214.5	6,370		44.5	6,360
Moranbah North		88.0	UG		82.9	6,630		4.4	6,420
COAL OPERATIONS - Canada (See page 34 in R&R Report for detail	ls) Ø	Ownership %	Mining Method	_	MTIS <sup>(8)</sup> (Mt)	Coal Quality (kcal/kg)	_	MTIS <sup>(8)</sup> (Mt)	Coal Quality (kcal/kg)
Trend		100	OC		26.5	6,980		2.6	6,370
Roman Mountain		100	OC		4.3	7,910		2.2	7,950
COAL OPERATIONS - Colombia (See pages 34 in R&R Report for deta		Ownership %	Mining Method	_	MTIS <sup>(8)</sup> (Mt)	Coal Quality (kcal/kg)	_	MTIS <sup>(8)</sup> (Mt)	Coal Quality (kcal/kg)
Cerrejón		33.3	OC		3,681.4	6,570		722.6	6,410
COAL OPERATIONS - South Afr (See pages 35 & 37 in R&R Report for		Ownership %	Mining Method	_	MTIS <sup>(8)</sup> (Mt)	Coal Quality (kcal/kg)	_	MTIS <sup>(8)</sup> (Mt)	Coal Quality (kcal/kg)
Goedehoop		100	UG		209.9	5,360		6.0	4,750
Greenside		100	UG		23.8	5,720		0.2	5,950
Greenside – MRD			n/a		9.7	3,750		_	
Isibonelo		100	UG		23.6	5,250		_	
Kleinkopje		100	OC		_	-		3.7	6,070
Kriel		73.0	UG&OC		134.5	4,980		_	
Landau		100	OC		45.7	4,990		11.2	5,870
Landau – MRD			n/a		22.4	2,580		_	
Mafube		50.0	OC		74.8	5,090		-	
New Denmark		100	UG		80.5	5,670		_	_
Zibulo		73.0	UG&OC		326.7	4,920		248.9	4,760
NICKEL OPERATIONS (See page 39 in R&R Report for detail	ls) Ø	Ownership %	Mining Method	Contained Nickel (kt)	Tonnes (Mt)	Grade (%Ni)	Contained Nickel (kt)	Tonnes (Mt)	Grade (%Ni)
Barro Alto Saprolite		100	OP	192	16.1	1.19	295	22.5	1.31
Ferruginous L	aterite			49	4.1	1.21	64	5.2	1.21
Niquelândia Saprolite		100	OP	36	2.9	1.25		_	_

Operations = Mines in steady-state or projects in ramp-up phase. MRD = Mineral Residue Deposit.

- (1) Estimated Mineral Resources are presented on an exclusive basis, i.e. Mineral Resources are reported as additional to Ore Reserves unless otherwise stated. Please refer to the detailed Mineral Resource estimates tables in the AA plc R&R Report for the detailed Measured, Indicated and Inferred Resource estimates. The Mineral Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard. The Mineral Resource estimates for operations in South Africa are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The figures reported represent 100% of the Mineral Resources. Anglo American plc ownership is stated separately. Rounding of figures may cause computational discrepancies.
- (2) Total Inferred is the sum of 'Inferred (in LOM Plan)', the Inferred Resources within the scheduled Life of Mine Plan (LOM Plan) and 'Inferred (ex. LOM Plan)', the portion of Inferred Resources with reasonable prospects for eventual economic extraction not considered in the Life of Mine Plan (LOM Plan) as relevant. Due to the uncertainty that may be attached to some Inferred Resources, it cannot be assumed that all or part of an Inferred Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.
- (3) DBCi = De Beers Canada, DBCM = De Beers Consolidated Mines, Debswana = Debswana Diamond Company, Namdeb = Namdeb Holdings. Estimated Diamond Resources are presented on an exclusive basis, i.e. Diamond Resources are quoted as additional to Diamond Reserves. Reported Diamond Resources are based on a Bottom Cut-off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). Specific BCO's applied to derive estimates are included in the detailed Diamond Resource tables in the AA plc R&R Report.
- (4) Details of the individual Anglo American Platinum Limited managed and Joint Venture managed operations appear in the AA plc R&R Report. Ownership percentages for reef totals are weighted by Contained Metal (4E Moz). Merensky Reef, UG2 Reef and Main Sulphide Zone Mineral Resources are estimated over a 'Resource Cut' which takes cognisance of the mining method, potential economic viability and geotechnical aspects in the hangingwall or footwall of the reef.
- Iron Ore Brazil Mineral Resource tonnes and grades are reported on a dry basis.
- (6) Manganese Mineral Resources are quoted as inclusive of those used to calculate Ore Reserves and must not be added to the Ore Reserves.
- GEMCO Manganese grades are reported as per washed ore samples and should be read together with their respective yields, see page 31 in the AA plc R&R Report.
- Coal Resources are quoted on a Mineable Tonnes In Situ (MTIS) basis in million tonnes, which are in addition to those Coal Resources that have been modified to produce the reported Coal Reserves. Coal Resources are reported on an in situ moisture basis. The coal quality for Coal Resources is quoted on an in situ heat content as kilocalories per kilogram (kcal/kg), representing Calorific Value (CV) on a Gross As Received (GAR) basis. CV is rounded to the nearest 10 kcal/kg.

Mining method: OP = Open Pit, UG = Underground, OC = Open Cast/Cut.
\* Capcoal comprises opencast operations at Lake Lindsay and Oak Park, with an underground longwall operation at Grasstree.

estimates as at 31 December 2017

#### **DE BEERS CANADA**

The Diamond Reserve and Diamond Resource estimates are reported in accordance with the Canadian Institute of Mining and Metallurgy (CIM) Definition Standards on Mineral Resources and Mineral Reserves. The estimates reported represent 100% of the Diamond Reserves and Diamond Resources. Diamond Resources are reported as additional to Diamond Reserves. Rounding of figures may cause computational discrepancies. The mines, located in Canada are operated under De Beers Canada Incorporated (DBCi).

De Beers Canada - Opera	tions		всо		Tre	ated Tonnes	Red	overed Grade	Sale	eable Carats
DIAMOND RESERVES	Ownership %	LOM	(mm)	Classification	2017	2016	2017	2016	2017	2016
Gahcho Kué (OP)	43.4	11	1.00		Mt	Mt	cpht	cpht	Mct	Mct
Kimberlite				Proved	-	_	-	· –	_	-
				Probable	30.9	33.3	156.9	153.4	48.4	51.1
				Total	30.9	33.3	156.9	153.4	48.4	51.1
Victor (OP)	85.0	2	1.50				cpht	cpht		
Kimberlite				Proved	_	-	_	-	_	-
				Probable	0.1	1.9	18.7	15.8	0.0	0.3
				Total	0.1	1.9	18.7	15.8	0.0	0.3
De Beers Canada – Opera	tions		BCO			Tonnes		Grade		Carats
DIAMOND RESOURCES	Ownership %		(mm)	Classification	2017	2016	2017	2016	2017	2016
Gahcho Kué (OP)	43.4		1.00		Mt	Mt	cpht	cpht	Mct	Mct
Kimberlite				Measured	_	_	_	· –	_	_
				Indicated	1.8	2.3	142.2	135.9	2.6	3.2
		Meas	sured ar	d Indicated	1.8	2.3	142.2	135.9	2.6	3.2
		In	iferred (i	n LOM Plan)	0.2	1.1	61.0	130.1	0.2	1.4
		Inf		k. LOM Plan)	12.6	11.8	141.9	140.2	17.8	16.5
				tal Inferred	12.8	12.9	140.4	139.3	18.0	17.9
Victor (OP)	85.0		1.50				cpht	cpht		
Kimberlite				Measured						
				Indicated	0.5	0.5	24.1	24.0	0.1	0.1
				d Indicated	0.5	0.5	24.1	24.0	0.1	0.1
				n LOM Plan)	0.5	1.3	31.6	28.2	0.2	0.4
		Int		k. LOM Plan)	0.4	0.3	38.3	24.5	0.1	0.1
DIAMOND RESOURCES ARE R	SEDORTED AS ADDITIO	NAL TO DI		tal Inferred	8.0	1.6	34.5	27.5	0.3	0.4
DIAMOND RESOURCES ARE R	EPORTED AS ADDITIO	JNAL TO DIA	AIVIUNDR	ESERVES.						
De Beers Canada - Projec	ets		всо		Tre	ated Tonnes	Red	overed Grade	Sale	eable Carats
DIAMOND RESERVES	Ownership %	LOM	(mm)	Classification	2017	2016	2017	2016	2017	2016
Snap Lake (UG)	85.0	-	1.14		Mt	Mt	cpht	cpht	Mct	Mct
Kimberlite				Proved	-	-	-	-	_	-
				Probable	-	5.9	_	126.0	_	7.4
				Total	-	5.9	-	126.0	-	7.4
De Beers Canada – Projec	ets		всо			Tonnes		Grade		Carats
DIAMOND RESOURCES	Ownership %		(mm)	Classification	2017	2016	2017	2016	2017	2016
Snap Lake (UG)	85.0		1.14		Mt	Mt	cpht	cpht	Mct	Mct
Kimberlite				Measured		_	-	-	-	-
				Indicated	7.7	4.1	197.1	177.9	15.2	7.3
				d Indicated	7.7	4.1	197.1	177.9	15.2	7.3
				n LOM Plan)	-	8.6	- 470 5	196.7	-	17.0
		Int	,	k. LOM Plan)	14.7	8.0	179.5	155.3	26.4	12.5
			Ic	tal Inferred	14.7	16.6	179.5	176.7	26.4	29.4

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

Mining method: OP = Open Pit, UG = Underground.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh).

Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05. Recovered Grade is quoted as carats per hundred metric tonnes (cpht).

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that the upgraded tha

Snap Lake and Victor Mines are wholly owned by DBCi.

Gahcho Kué is held by an unincorporated Joint Venture between DBCi (51%) and Mountain Province Diamonds Incorporated (49%).

# estimates as at 31 December 2017

#### **EXPLANATORY NOTES**

**Gahcho Kué:** The decrease in Saleable Carats due to production is partially offset by a grade update based on new information from focused mining. The estimates for 5034 NE and Tuzo are based on both micro-diamonds (75 or 74 micron BCO) and macro-diamonds. The estimates for 5034-North Pipe and 5034-South Pipe are based on micro-diamonds only. 5034-North Pipe and 5034-South Pipe are classified as Inferred resources and total approximately 1.3 Mct in an estimated 0.8 Mt of material. Due to recovery inefficiencies near the bottom cut-off, the estimates may be carried out using a higher cut-off. The operation is expected to treat approximately 32 Mt of material containing an estimated 49 Mct (100% basis). Scheduled Inferred Resources (0.3 Mt) constitute 0.6% (0.3 Mct) of the estimated carats. The estimates are scheduled tonnes and carats as per the Life of Mine Plan approved in 2017. Gahcho Kué completed ramp-up at the end of Q1 2017. The Stockpile Probable Reserves at a 1.00mm BCO of 1.0 Mct (0.6 Mt at 161.0 cpht) are excluded from the table. The Stockpile Resource estimates at a 1.00mm BCO of 0.01 Mct (0.01 Mt at 115.5 cpht) Inferred (in LOM Plan) are excluded from the table.

Victor: The decrease in Saleable Carats is primarily due to production. The decrease in the Diamond Resource due to production is partially offset by model refinement. The Stockpile Probable Reserves at a 1.50mm BCO of 0.2 Mct (0.8 Mt at 19.6 cpht) are excluded from the table. The Stockpile Resource estimates at a 1.50mm BCO of 0.1 Mct (1.3 Mt at 8.2 cpht) Inferred (in LOM Plan) and 0.1 Mct (2.7 Mt at 3.9 cpht) Inferred (ex. LOM Plan) are excluded from the table. The geographically separate Tango Extension Diamond Resource estimates at a 1.50mm BCO of 3.7 Mct (18.1 Mt at 20.7 cpht) Inferred are not reported as part of the Victor resource. An increase in Tango Extension Diamond Resources is due to application of an updated RPEEE test. Following strategic decisions taken during 2017, the Tango Extension Project has been discontinued and the project is now dormant.

Snap Lake: The mine was placed on extended care and maintenance at the end of 2015 and was allowed to flood in Q1 2017. As a result of the flooding, the Diamond Reserve has been reallocated to Diamond Resource. Estimates are based on both micro-diamonds (150 micron BCO) and macro-diamonds. Due to recovery inefficiencies near the bottom cut off, the estimates may be carried out using a higher cut off.

#### LIFE OF MINE INFORMATION

Operations	LOM Plan (years)	LOM Plan Final Year	Mining Lease Last Year	% Interred carats in LOM Plan
DBCi – Gahcho Kué	11	2028	2023/2026*	1%
DBCi – Victor	2	2019	2024	58%+

<sup>\*</sup> Application to renew the Mining Leases will be submitted at the appropriate time. There is a reasonable expectation that such renewal will not be withheld.

 $Aspects of the Diamond \, Reserve \, and \, Diamond \, Resource \, estimates \, were \, reviewed \, by \, independent \, consultants \, during \, 2017 \, at \, Gahcho \, Ku\'e \, and \, Victor. \, and \, Victor. \, and \, Victor \, is a consultant of the property of the prop$ 

Loading operations at Gahcho Kué Mine.



The current Victor LOM Plan contains 41% low geoscientific confidence material which has not been classified as Diamond Resource.

estimates as at 31 December 2017

#### **DE BEERS CONSOLIDATED MINES**

The Diamond Reserve and Diamond Resource estimates are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The estimates reported represent 100% of the Diamond Reserves and Diamond Resources. Diamond Resources are reported as additional to Diamond Reserves. Rounding of figures may cause computational discrepancies. The mines, located in South Africa, are operated under De Beers Consolidated Mines Proprietary Limited (DBCM). DBCM is indirectly owned, through DBCM Holdings, by De Beers plc (74%) and its broad based black economic empowerment partner Ponahalo Investments Proprietary Limited (26%).

De Beers Consolidated Mines	s – Operations		всо		Tr	eated Tonnes	Re	covered Grade	S	aleable Carats
DIAMOND RESERVES	Ownership %	LOM	(mm)	Classification	2017	2016	2017	2016	2017	2016
Venetia	62.9	29	1.00		Mt	Mt	cpht	cpht	Mct	Mct
Kimberlite (OP)				Proved	-	_	-	_	-	_
				Probable	14.7	20.2	125.5	122.4	18.4	24.8
				Total	14.7	20.2	125.5	122.4	18.4	24.8
Kimberlite (UG)				Proved	_		-	_	-	
Life Extension Project				Probable	98.9	92.4	80.3	77.2	79.4	71.3
•				Total	98.9	92.4	80.3	77.2	79.4	71.3
Voorspoed (OP)	62.9	3	1.47				cpht	cpht		
Kimberlite				Proved	-	_	-	_	-	_
				Probable	_	2.0	_	15.4	_	0.3
				Total	_	2.0	_	15.4	_	0.3
De Beers Consolidated Mines	s – Operations		BCO			Tonnes		Grade		Carats
DIAMOND RESOURCES	Ownership %		(mm)	Classification	2017	2016	2017	2016	2017	2016
Venetia	62.9		1.00		Mt	Mt	cpht	cpht	Mct	Mct
Kimberlite (OP)				Measured	-	-	-	_	-	_
				Indicated	-	-	-	_	_	_
		Meas	sured ar	nd Indicated	-	_	_	_	_	_
		In	ferred (i	n LOM Plan)	2.1	2.1	25.0	25.0	0.5	0.5
		Inf	erred (e:	x. LOM Plan)	15.8	20.8	16.1	15.6	2.5	3.2
			To	otal Inferred	18.0	22.9	17.1	16.5	3.1	3.8
Kimberlite (UG)				Measured	-	_	_	_	_	_
Life Extension Project				Indicated	-	_	_	-	_	_
		Meas	sured ar	nd Indicated	_	_	_	-	_	_
		In	ferred (i	n LOM Plan)	36.7	39.9	84.9	79.1	31.2	31.6
		Inf	erred (e:	x. LOM Plan)	33.2	30.0	85.6	93.5	28.4	28.0
			To	otal Inferred	69.9	69.9	85.3	85.3	59.6	59.6
Voorspoed (OP)	62.9		1.47				cpht	cpht		
Kimberlite				Measured	-	-	-	_	_	_
				Indicated	1.9	2.1	26.9	27.2	0.5	0.6
		Meas	sured ar	nd Indicated	1.9	2.1	26.9	27.2	0.5	0.6
		In	ferred (i	n LOM Plan)	5.8	7.4	19.1	18.4	1.1	1.4
		Inf	erred (e	x. LOM Plan)	14.3	14.4	19.1	16.7	2.7	2.4
			Ťc	otal Inferred	20.1	21.8	19.1	17.3	3.8	3.8

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

Mining method: OP = Open Pit, UG = Underground.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh).

Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05. Recovered Grade is quoted as carats per hundred metric tonnes (cpht).

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated or Measured Diamond Resource after continued exploration

# estimates as at 31 December 2017

#### **EXPLANATORY NOTES**

Venetia: The Life of Mine (LOM) is stated as 29 years which reflects the full duration of the current Venetia consolidated OP and UG Life of Mine Plan. The current Mining Right expires in 2038. Venetia Mine will apply to extend the Mining Right at the appropriate time in the future.

Venetia (OP): The decrease in Saleable Carats is primarily due to production and a revised mine design which transfers material to the Underground Project. The decrease in the Diamond Resource is due to revised economic assumptions associated with the K03 pipe. The LOM Plan includes the K01, K02 and K03 pipes. The K01 estimates are based on both micro-diamonds (104 micron BCO) and macro-diamonds. Due to recovery inefficiencies near the Bottom Cut-off, the estimates may be carried out using a higher cut-off. The Stockpile Probable Reserves at a 1.00mm BCO of 0.2 Mct (0.3 Mt at 89.0 cpht) are excluded from the table. The Stockpile Resource estimates at a 1.00mm BCO of 0.03 Mct (0.1 Mt at 26.3 cpht) Inferred (in LOM Plan) are excluded from the table.

Venetia (UG): The increase in Saleable Carats is due to mine design changes in the Open Pit, K01 and K02 Underground and a transfer of material from the Open Pit to the Underground Project. The project is expected to treat approximately 132 Mt of material containing an estimated 102 Mct. Scheduled Inferred Resources (33.0 Mt) constitute 22% (22.5 Mct) of the estimated carats. The estimates are scheduled tonnes and carats as per the Life of Mine Plan approved in 2017. Namagualand: The Diamond Resource estimates reflect the tonnes and carats associated with the Buffels Marine Mining Right. The Beach Placers Diamond

Resource estimates at a 1.15mm BCO, consisting of 0.8 Mct (12.7 Mt at 6.5 cpht) Indicated Resources and 0.6 Mct (39.5 Mt at 1.4 cpht) Inferred Resources are excluded from the table as operations have ceased. **Voorspoed:** The Diamond Reserve was mined out in 2017.

#### LIFE OF MINE INFORMATION

Operations	LOM Plan (years)	LOM Plan Final Year	Mining Right Last Year	% Inferred carats in LOM Plan
DBCM - Venetia	29	2046	2038*	19%+
DBCM - Voorspoed	3	2020	2023	91%++

- Application to renew the Mining Right will be submitted at the appropriate time. There is a reasonable expectation that such renewal will not be withheld.
- The current Venetia LOM Plan contains 2% low geoscientific confidence material which has not been classified as Diamond Resource.
- The current Voorspoed LOM Plan contains 9% low geoscientific confidence material which has not been classified as Diamond Resource.

Aspects of the Diamond Reserve and Diamond Resource estimates were reviewed by independent consultants during 2017 at Venetia and Voorspoed.

Venetia Underground Life Extension Project portal to the decline with associated shafts on left in the background.



estimates as at 31 December 2017

#### **DEBSWANA DIAMOND COMPANY**

The Diamond Reserve and Diamond Resource estimates are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The estimates reported represent 100% of the Diamond Reserves and Diamond Resources. Diamond Resources are reported as additional to Diamond Reserves. Rounding of figures may cause computational discrepancies. In Botswana the mines are owned in equal share by De Beers plc and the Government of the Republic of Botswana through the Debswana Diamond Company joint venture. Two resource types are processed, Kimberlite (mined from in situ material) and Tailings Mineral Resource (TMR).

Debswana – Operations			BCO		Tre	ated Tonnes	Reco	overed Grade	Saleable Carats	
DIAMOND RESERVES	Ownership %	LOM	(mm)	Classification	2017	2016	2017	2016	2017	2016
Damtshaa (OP)	42.5	17	1.65		Mt	Mt	cpht	cpht	Mct	Mct
Kimberlite				Proved	-	-	-	-	-	-
				Probable	25.6	25.0	19.2	18.7	4.9	4.7
				Total	25.6	25.0	19.2	18.7	4.9	4.7
Jwaneng (OP)	42.5	17	1.47				cpht	cpht		
Kimberlite				Proved	-	-	-	-	-	-
				Probable	138.2	106.4	126.5	130.4	174.8	138.8
Orapa (OP)	42.5	13	1.65	Total	138.2	106.4	126.5	130.4	174.8	138.8
Kimberlite	42.0	13	1.00	Proved	_	_	cpht -	cpht	_	_
Miliberite				Probable	144.5	157.3	97.5	92.2	140.8	144.9
				Total	144.5	157.3	97.5	92.2	140.8	144.9
Debswana – Operations			BCO			Tonnes		Grade		Carats
DIAMOND RESOURCES	Ownership %		(mm)	Classification	2017	2016	2017	2016	2017	2016
Damtshaa (OP)	42.5		1.65		Mt	Mt	cpht	cpht	Mct	Mct
Kimberlite				Measured	-	-	-	· –	_	-
				Indicated	3.7	4.4	22.9	25.0	0.9	1.1
				nd Indicated	3.7	4.4	22.9	25.0	0.9	1.1
			,	n LOM Plan)	7.5	7.6	24.9	24.9	1.9	1.9
		Inf	,	x. LOM Plan)	13.1	11.4	24.0	26.4	3.2	3.0
(0.5)	10.5			otal Inferred	20.7	19.0	24.3	25.8	5.0	4.9
Jwaneng (OP)	42.5		1.47				cpht	cpht		
Kimberlite				Measured	-	-	-	-	_	-
				Indicated	74.1	114.2	84.1	92.9	62.3	106.1
				nd Indicated	74.1	114.2	84.1	92.9	62.3	106.1
			,	n LOM Plan) x. LOM Plan)	0.0 70.8	77.0	30.0 84.8	82.5	0.0 60.0	63.5
		1111	,	otal Inferred	70.8 <b>70.8</b>	77.0	84.7	82.5	<b>60.0</b>	<b>63.5</b>
Orapa (OP)	42.5		1.65	, tai iiiieiieu	70.0	77.0	cpht	cpht	00.0	00.0
Kimberlite	72.0		1.00	Measured	_	_	-	-	_	_
				Indicated	292.0	295.4	101.7	101.3	297.0	299.3
		Meas	sured ar	nd Indicated	292.0	295.4	101.7	101.3	297.0	299.3
				n LOM Plan)		_	_	-		-
				x. LOM Plan)	77.5	68.2	85.3	85.8	66.2	58.6
			To	otal Inferred	77.5	68.2	85.3	85.8	66.2	58.6
DIAMOND RESOURCES ARE REI	PORTED AS ADDITIO	NAL TO DIA	MOND R	ESERVES.						
Debswana – Projects			всо			Tonnes		Grade		Carats
DIAMOND RESOURCES	Ownership %		(mm)	Classification	2017	2016	2017	2016	2017	2016
Letlhakane	42.5		1.65		Mt	Mt	cpht	cpht	Mct	Mct
Kimberlite				Measured	_	-	-	-	_	-
				Indicated	22.3	22.2	31.7	31.7	7.1	7.0
				nd Indicated	22.3	22.2	31.7	31.7	7.1	7.0
			,	n LOM Plan)	=	0.2		18.8		0.0
		Inf		x. LOM Plan)	18.7	18.7	27.8	27.8	5.2	5.2
			To	otal Inferred	18.7	18.9	27.8	27.7	5.2	5.2

 $\label{eq:model} \begin{tabular}{ll} Mining method: OP = Open Pit, UG = Underground. \\ LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning. \\ \end{tabular}$ 

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05. Recovered Grade is quoted as carats per hundred metric tonnes (cpht).

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated that the upgraded thaor Measured Diamond Resource after continued exploration

# estimates as at 31 December 2017

Debswana – Operations		BCO			Tonnes		Grade		Carats	
DIAMOND RESOURCES	Ownership %		assification	2017	2016	2017	2016	2017	2016	
Jwaneng	42.5	1.47		Mt	Mt	cpht	cpht	Mct	Mct	
TMR & ORT		N	Measured	-	-	-	_	_	-	
			Indicated	_	-	-	_	-	_	
		Measured and I	ndicated	_	-	_	_	_	_	
		Inferred (in L		33.3	34.5	46.1	46.1	15.4	15.9	
		Inferred (ex. L	(ex. LOM Plan) 0.1 0.1 8,333.6 8,3					8.9	8.9	
		Total	Inferred	33.4	34.7	72.7	71.6	24.3	24.8	
				Tro	ated Tonnes	Tonnes Recovered Grade Sale				
Debswana – Projects		BCO	_						eable Carats	
DIAMOND RESERVES	Ownership %		assification	2017	2016	2017	2016	2017	2016	
Letlhakane	42.5	26 1.15	_	Mt	Mt	cpht	cpht	Mct	Mct	
TMR			Proved	-	_	-	-	-	_	
			Probable	34.6	34.9	24.3	24.2	8.4	8.5	
			Total	34.6	34.9	24.3	24.2	8.4	8.5	
Debeure Budest					Tonnes		Grade		Carats	
Debswana – Projects DIAMOND RESOURCES	Ownership %	BCO (mm) CI	assification —	2017	2016	2017	2016	2017	2016	
Letlhakane	42.5	1.15	assilication	Mt	Mt			Mct	Mct	
TMR & ORT	42.5		Measured	IVIL	IVIL	cpht	cpht	- IVICE	IVICI	
TIVIR & ORT			Indicated	0.0	_	5,322.2	_	1.4	_	
		Measured and I		0.0	_	5,322.2	_	1.4 1.4	_	
									101	
		Inferred (in L		54.6	48.4	25.8	27.1 15.7	14.1	13.1	
		Inferred (ex. L	Inferred	54.6	6.3	25.8	25.8	144	1.0	
0	40 F		Interred	54.0	54.8			14.1	14.1	
Orapa	42.5	1.15	4			cpht	cpht			
TMR & ORT			Measured	100.0	_	-	_	1000	_	
			Indicated	189.3	_	68.8	_	130.3	_	
		Measured and I		189.3	-	68.8	_	130.3	-	
		Inferred (in L		-	-	-	-	_	-	
		Inferred (ex. L	,	-	157.3	-	57.7	_	90.8	
		Total	Inferred	_	157.3	_	57.7	_	90.8	

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

 $LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning. \\ Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). \\$ Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05. Recovered Grade is quoted as carats per hundred metric tonnes (cpht).

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

#### **EXPLANATORY NOTES**

Damtshaa: The increase in Saleable Carats is due to an estimation methodology change. The BK/9 and BK/12 Stockpile Resource estimates at a 1.65mm BCO of 0.1 Mct (1.2 Mt at 8.8 cpht) Inferred (in LOM Plan) are excluded from the table.

Jwaneng - Kimberlite: The increase in Saleable Carats is due to the inclusion of Cut-9 in the Diamond Reserve. This reduces the Diamond Resource. The Jwaneng DK/2 estimates are based on both micro-diamonds (104 micron BCO) and macro-diamonds. Due to recovery inefficiencies near the Bottom Cut-off, the estimates may be carried out using a higher cut-off. The Life of Mine Plan approved in 2017 includes the Cut-8 estimates of 81 Mt of material to be treated containing an estimated 92 Mct (North, Centre and South Pipes, excluding the 4th Pipe which is mined as part of waste stripping and stockpiled) and the Cut-9 estimates of 40 Mt of material to be treated containing an estimated 48 Mct. The Stockpile Probable Reserves at a 1.47mm BCO of 1.9 Mct (2.5 Mt at 76.3 cpht) are excluded from the table. The DK/2 Stockpile Resource estimates at a 1.47mm BCO of 4.9 Mct (9.2 Mt at 53.3 cpht) Inferred (in LOM Plan) and 2.4 Mct (6.7 Mt at 35.6 cpht) Inferred (ex. LOM Plan) are excluded from the table.

Jwaneng - TMR & ORT: The Jwaneng Tailings Mineral Resource (TMR) is reported as Inferred (in LOM Plan) and Old Recovery Tailings (ORT) is reported as Inferred (ex LOM Plan)

LetIhakane - Kimberlite: Open Pit operations ceased as planned in 2017. The remaining Diamond Resources are reported as a project for possible underground mining. DK/1 and DK/2 Stockpile Resource estimates at a 1.65mm BCO of 0.2 Mct (1.4 Mt at 15.0 cpht) Inferred (ex. LOM Plan) are excluded from the table. LetIhakane - TMR & ORT: The project is expected to treat approximately 89 Mt of material containing an estimated 23 Mct. Scheduled Inferred Resources (54.5 Mt) constitute 62% (14.0 Mct) of the estimated carats. The estimates are scheduled tonnes and carats as per the Life of Mine Plan approved in 2017. The Letlhakane TMR will be considered an operation once ramp-up is complete in Q2 2018. The Letlhakane Old Recovery Tailings (ORT) was sampled using auger drilling and pitting enabling classification and inclusion in the Diamond Resources. The Letlhakane Tailings Mineral Resource (TMR) is reported as Inferred (in LOM Plan) and Old Recovery Tailings (ORT) is reported as Indicated.

Orapa - Kimberlite: The Orapa AK/1 estimates are based on both micro-diamonds (104 micron BCO) and macro-diamonds. Due to recovery inefficiencies near the bottom cut-off, the estimates may be carried out using a higher cut-off. The AK/1 Stockpile Resource estimates at a 1.65mm BCO of 13.5 Mct (31.9 Mt at 42.4 cpht) Inferred (in LOM Plan) are excluded from the table.

Orapa - TMR & ORT: The updated Tailings Mineral Resource (TMR) estimate based on auger drilling was classified in 2017. The increase in the Diamond Resource is due to the new sampling information and the change in BCO from 1.47mm to 1.15mm. The Orapa Old Recovery Tailings (ORT) was sampled using auger drilling and pitting enabling classification and inclusion in the Diamond Resources. The Orapa TMR and ORT estimates are combined in the tables: TMR estimates: 1.15 mm BCO: 113.4 Mct (189.2 Mt at 59.9 cpht) Indicated Resources. ORT estimates: 1.15 mm BCO: 16.9 Mct (0.1 Mt at 24,138.6 cpht) Indicated Resources.

#### LIFE OF MINE INFORMATION

Operations	LOM Plan (years)	LOM Plan Final Year	Mining Right Last Year	% Inferred carats in LOM Plan
Debswana – Damtshaa*	17	2034	2029**	29%
Debswana – Jwaneng	17	2034	2029**	10%
Debswana – Letlhakane (TMR)	26	2043	2029**	62%
Dehswana – Orana	13	2030	2029**	10%

Damtshaa resumed production in H2 2017.

Aspects of the Diamond Reserve and Diamond Resource estimates were reviewed by independent consultants during 2017 at Damtshaa, Jwaneng, Letlhakane and Orapa.

Application to renew the Mining Right will be submitted at the appropriate time. There is a reasonable expectation that such renewal will not be withheld.

estimates as at 31 December 2017

#### **NAMDEB HOLDINGS**

The Diamond Reserve and Diamond Resource estimates are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The estimates reported represent 100% of the Diamond Reserves and Diamond Resources. Diamond Resources are reported as additional to Diamond Reserves. Rounding of figures may cause computational discrepancies. As of 1 October 2011 Namdeb Holdings (Pty) Ltd (NDBH), a 50/50 joint venture between De Beers plc and the Government of the Republic of Namibia, holds the licences for both the land and sea operations. In addition, NDBH holds 100% ownership of the operating companies, Namdeb Diamond Corporation (Pty) Ltd and De Beers Marine Namibia (Pty) Ltd.

Namdeb Holdings – Terrestri	al Operations		всо		Tr	reated Tonnes	Re	covered Grade	Sa	aleable Carats
DIAMOND RESERVES	Ownership %	LOM	(mm)	Classification	2017	2016	2017	2016	2017	2016
Elizabeth Bay (OC)	42.5	2	1.40		kt	kt	cpht	cpht	kct	kct
Aeolian and Marine				Proved	-	-	_	_	_	_
				Probable	754	2,288	10.28	8.13	78	186
				Total	754	2,288	10.28	8.13	78	186
Mining Area 1 (OC)	42.5	5	2.00	Б			cpht _	cpht	_	
Beaches				Proved	672	0.050		1 71	36	49
				Probable <b>Total</b>	673 <b>673</b>	2,858 <b>2,858</b>	5.37 <b>5.37</b>	1.71 <b>1.71</b>	<b>36</b>	49 <b>49</b>
Orange River (OC)	42.5	4	3.00	IUtai	073	2,030	cpht	cpht	30	45
Fluvial Placers	12.0		0.00	Proved	_	_	- cpin	- cpin	_	_
. iarian laboro				Probable	13,796	13,952	0.96	1.00	132	139
				Total	13,796	13,952	0.96	1.00	132	139
Namdeb Holdings - Offshor			BCO			Area		covered Grade		aleable Carats
DIAMOND RESERVES	Ownership %	LOM	(mm)	Classification	2017	2016	2017	2016	2017	2016
Atlantic 1 (MM)	42.5	20	1.47		k (m²)	k (m²)	cpm <sup>2</sup>	cpm <sup>2</sup>	kct	kct
Marine Placers				Proved	-	40.400	- 0.07	-	-	4.000
				Probable	89,883	46,486	0.07	0.09	6,094	4,326
Midwater (MM)	42.5	3	2.00	Total	89,883	46,486	0.07 cpm <sup>2</sup>	0.09 cpm <sup>2</sup>	6,094	4,326
Marine	42.0	3	2.00	Proved	_	_	cpm	cpm _	_	_
Warne				Probable	435	423	0.30	0.22	129	94
				Total	435	423	0.30	0.22	129	94
Namdeb Holdings - Terresti	rial Operations		всо			Tonnes		Grade		Carats
DIAMOND RESOURCES	Ownership %		(mm)	Classification	2017	2016	2017	2016	2017	2016
Douglas Bay (OC)	42.5		1.40		kt	kt	cpht	cpht	kct	kct
Aeolian and Deflation				Measured	_	-	_	_	_	_
				Indicated	2,269	2,269	7.05	7.05	160	160
		Meas	sured an	d Indicated	2,269	2,269	7.05	7.05	160	160
Flinshath Barr (OC)	40 F		1.40	Inferred	127	127	0.79	0.79	1	1
Elizabeth Bay (OC) Aeolian, Marine and Defla	42.5		1.40	Measured	_		cpht	cpht	_	
Aeolian, Manne and Delia	ILION			Indicated	2,300	3,176	5.69	6.43	131	204
		Меая	sured an	id Indicated	<b>2,300</b>	3,176	<b>5.69</b>	6.43	131 131	204
				n LOM Plan)	4,865	4,216	9.18	12.10	447	510
			`	k. LOM Plan)	29,008	33,743	7.02	6.84	2,037	2,309
			Ťc	tal Inferred	33,873	37,959	7.33	7.43	2,484	2,819
Mining Area 1 (OC)	42.5		2.00				cpht	cpht		
Beaches		-		Measured	-	-	_	-	-	-
				Indicated	37,898	20,897	0.91	1.55	346	324
				d Indicated	37,898	20,897	0.91	1.55	346	324
			,	n LOM Plan)	8,348	23,176	9.04	2.82	755	654
		Int		k. LOM Plan)	183,880	170,160	1.22	1.39	2,248	2,373
Orango Piyor (OC)	42.5		3.00	tal Inferred	192,228	193,336	1.56	1.57	3,003	3,027
Orange River (OC) Fluvial Placers	42.0		3.00	Measured	_	_	cpht _	cpht _	_	_
i iuviai i ialtis				Indicated	45,158	78,790	0.43	0.37	194	292
		Меая	sured an	d Indicated	45,158	<b>78,790</b>	0.43	0.37	194	292
				n LOM Plan)	28	28	70.11	70.11	20	20
				k. LOM Plan)	51,421	47,515	0.27	0.32	140	153
				tal Inferred	51,450	47,543	0.31	0.36	160	173
DIAMOND RESOURCES ARE REI	PORTED AS ADDITIO	NAL TO DIA								

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

Mining method: OC = Open Cast, MM = Marine Mining.

LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning.

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05. Recovered Grade is quoted as carats per hundred metric tonnes (cpht) or as carats per square metre (cpm²). Area estimates are quoted in k (m²) = thousand square metres.

# estimates as at 31 December 2017

Namdeb Holdings - Offshore	e Operations	BCO		Area		Grade		Carats
DIAMOND RESOURCES	Ownership %	(mm) Classification	2017	2016	2017	2016	2017	2016
Atlantic 1 (MM)	42.5	1.47	k (m <sup>2</sup> )	k (m <sup>2</sup> )	cpm <sup>2</sup>	cpm <sup>2</sup>	kct	kct
Marine Placers		Measured	_	-	-	_	-	_
		Indicated	90,512	128,675	0.07	0.07	6,635	9,074
		Measured and Indicated	90,512	128,675	0.07	0.07	6,635	9,074
		Inferred (in LOM Plan)	301,196	209,039	0.11	0.10	31,951	21,264
		Inferred (ex. LOM Plan)	825,816	864,249	0.06	0.07	46,846	64,790
		Total Inferred	1,127,012	1,073,288	0.07	0.08	78,797	86,054
Midwater (MM)	42.5	2.00			cpm <sup>2</sup>	cpm <sup>2</sup>		
Marine		Measured	_	_	_	_	_	_
		Indicated	2,447	1,970	0.23	0.25	565	502
		Measured and Indicated	2,447	1,970	0.23	0.25	565	502
		Inferred (in LOM Plan)	_	-	_	-	_	_
		Inferred (ex. LOM Plan)	1,572	2,249	0.09	0.21	134	481
		Total Inferred	1,572	2,249	0.09	0.21	134	481

DIAMOND RESOURCES ARE REPORTED AS ADDITIONAL TO DIAMOND RESERVES.

 $\label{eq:model} \begin{tabular}{ll} Mining method: OC = Open Cast, MM = Marine Mining. \\ LOM = Life of Mine (years) is based on scheduled Probable Reserves including some Inferred Resources considered for Life of Mine planning. \\ \begin{tabular}{ll} A constant of the planning of the$ 

Reported Diamond Reserves/Resources are based on a Bottom Cut-Off (BCO) which refers to the bottom screen size aperture and varies between 1.00mm and 3.00mm (nominal square mesh). Unless stated otherwise tonnage is quoted as dry metric tonnes. Estimates of Diamond Reserve tonnes reflect the tonnage to be treated. Estimates of 0.0 represent numbers less than 0.05. Recovered Grade is quoted as carats per hundred metric tonnes (cpht) or as carats per square metre (cpm²). Area estimates are quoted in k (m²) = thousand square metres.

Due to the uncertainty that may be attached to some Inferred Diamond Resources, it cannot be assumed that all or part of an Inferred Diamond Resource will necessarily be upgraded to an Indicated or Measured Diamond Resource after continued exploration

Namdeb Land consists of Elizabeth Bay, Midwater, Mining Area 1 and Orange River. Orange River consists of the Auchas, Daberas, Obib and Sendelingsdrif operations. Namdeb Marine (Debmarine Namibia) consists of Atlantic 1.

Elizabeth Bay: The decrease in Saleable Carats is due to production and re-estimation based on new drilling and sampling information. The decrease in Diamond Resources is primarily due to revised economic assumptions, refinement of resource models and re-estimation.

Mining Area 1: The decrease in Saleable Carats is due to the revised Life of Mine Plan with an associated decrease in tonnes and an increase in grade as well as production. The Life of Mine has been reduced from 22 years to 5 years following revision of the strategy for this operation during 2017. The Life of Mine includes a material portion of scheduled tonnes with low geoscientific confidence, planned to be upgraded to Inferred Resources on a continuous two-year rolling basis. Incremental Inferred Resource development is dependent on beach accretion for drilling and sampling. Beach accretion is a process through which an existing beach is built seaward to extend into areas previously under water. The accretion is accomplished by sand build-up derived from current mining and dredging activities. The decrease in Diamond Resources due to production is largely offset by additions from new drilling and sampling information in the Ultra Shallow Water A zone (0 - 7m). The Overburden Stockpile Resource estimates at a 2.00mm BCO of 15 kct (4,421 kt at 0.33 cpht) Inferred (ex. LOM Plan) and the DMS and Recovery Tailings Resource estimates at a 2.00mm BCO of 550 kct (46,240 kt at 1.19 cpht) Inferred (ex. LOM Plan) are excluded from the table.

Orange River: Obib is now included in the Diamond Reserve, and will run concurrently with Daberas and Sendelingsdrif.

Atlantic 1: The increase in Saleable Carats is due to inclusion of a new mining vessel (the AMV3) in the LOM Plan and improved extraction factors. Due to the high costs associated with resource development, Indicated Resources are converted to Diamond Reserves on an annual basis to ensure that a high proportion of reserves are available two to three years ahead of current mining. The LOM Plan includes a material proportion of Inferred Resources. The decrease in Diamond Resources is primarily due to new sampling information.

Bogenfels: Inferred Resource estimates are as follows:

Deflation deposits: 1.40mm BCO: 524 kct (7,913 kt at 6.62 cpht) Inferred.

Pocket beaches: 2.00mm BCO: 228 kct (3,042 kt at 7.50 cpht) Inferred.

Midwater: The Midwater Resource comprises the offshore portion of the Diamond Area No. 1 (DA1) Mining Licences 43, 44 and 45, as well as the offshore licences ML 128A, B and C, at water depths greater than 30m. Midwater is included in the Namdeb Terrestrial LOM Plan. The decrease in Diamond Resource due to revised economic assumptions is largely offset by Indicated Resource additions enabled by new sampling information.

#### LIFE OF MINE INFORMATION

Operations	(years)	Final Year	Last Year	in LOM Plan
Namdeb Holdings Terrestrial - Elizabeth Bay*	2	2019	2035	81%+
Namdeb Holdings Terrestrial - Mining Area 1*	5	2022	2035	52%+
Namdeb Holdings Terrestrial - Orange River*	4	2021	2035	13%
Namdeb Holdings Offshore - Atlantic 1	20	2037	2035	80%++
Namdeb Holdings Offshore - Midwater*	3	2020	2035	_

LOMPI-- LOMPI--

Aspects of the Diamond Reserve and Diamond Resources estimates were reviewed by independent consultants during 2017 at both the Terrestrial and Offshore operations

Elizabeth Bay, Mining Area 1, Orange River and Midwater operate under an integrated management structure.

The Elizabeth Bay LOM Plan contains 5% low geoscientific confidence material which has not been classified as Diamond Resource. The Mining Area 1 LOM Plan contains 46% low geoscientific confidence material which has not been classified as Diamond Resource.

<sup>++</sup> Atlantic 1 produces rolling Diamond Reserves two to three years ahead of mining.

# **COPPER**

# estimates as at 31 December 2017

#### **COPPER**

The Ore Reserve and Mineral Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard. The estimates reported represent 100% of the Ore Reserves and Mineral Resources. Rounding of figures may cause computational discrepancies for totals.

Copper - Operations		Reserve	_		ROM Tonnes		Grade	Con	tained Metal
ORE RESERVES	Ownership %	Life	Classification	2017	2016	2017	2016	2017	2016
Collahuasi (OP)	44.0	69		Mt	Mt	%TCu	%TCu	kt	kt
Sulphide			Proved	469.1	392.4	1.15	1.12	5,395	4,395
Flotation	Copper		Probable	2,252.4	2,144.7	0.96	0.95	21,690	20,414
(direct feed)			Total	2,721.5	2,537.1	1.00	0.98	27,085	24,809
						%Mo	%Mo		
			Proved			0.023	0.025	108	98
	Molybdenum		Probable		•	0.026	0.025	575	528
			Total			0.025	0.025	683	626
			_			%TCu	%TCu		
Low Grade Sulphide			Proved	10.2	26.1	0.57	0.53	58	138
Flotation	Copper		Probable	487.9	524.5	0.57	0.54	2,760	2,831
(in situ + stockpile)			Total	498.1	550.6	0.57	0.54	2,818	2,969
						%Mo	%Mo		
			Proved			0.010	0.017	1	4
	Molybdenum		Probable		•	0.014	0.013	66	68
			Total			0.014	0.013	67	72
El Soldado (OP)	50.1	10				%TCu	%TCu		
Sulphide			Proved	50.5	53.5	0.80	0.81	404	434
Flotation			Probable	26.9	28.6	0.78	0.78	210	223
			Total	77.4	82.2	0.79	0.80	614	656
Los Bronces (OP)	50.1	23	_			%TCu	%TCu		
Sulphide			Proved	746.2	772.6	0.64	0.62	4,776	4,790
Flotation	Copper		Probable	308.6	368.6	0.54	0.52	1,667	1,917
			Total	1,054.9	1,141.2	0.61	0.59	6,443	6,707
						%Mo	%Mo		
			Proved			0.015	0.014	112	108
	Molybdenum		Probable		•	0.015	0.015	46	55
			Total			0.015	0.014	158	163
						%TCu	%TCu		
Sulphide			Proved	361.7	369.0	0.30	0.31	1,085	1,144
Dump Leach			Probable	98.5	59.6	0.28	0.28	276	167
			Total	460.2	428.6	0.30	0.31	1,361	1,311

 $Mining\ method:\ OP = Open\ Pit.\ Reserve\ Life = The\ scheduled\ extraction\ period\ in\ years\ for\ the\ total\ Ore\ Reserves\ in\ the\ approved\ Life\ of\ Mine\ Plan.\ TCu = Total\ Copper.$ 

El Soldado and Los Bronces are operated by Anglo American Sur S.A. Its shareholders are Anglo American through Inversiones Anglo American Sur S.A. and Anglo American Clarent (UK) Ltd; Mitsubishi, through MC Resource Development Ltd. And Codelco and Mitsui, through Inversiones Minera Becrux SpA.

#### **EXPLANATORY NOTES**

Copper Reserves Cut-off grades (%TCu): Collahuasi – 0.3%, El Soldado – 0.2%, Los Bronces – 0.2%.

Collahuasi – Oxide and Mixed: The Life of Mine Plan does not include the Oxide and Mixed (Leach) material due to higher processing costs compared to the concentrator plant.

Collahuasi – Sulphide: The increase is due to an updated resource model based on new drilling information and a new classification methodology applied to Rosario West.

Collahuasi – Low Grade Sulphide: A Low Grade Sulphide Stockpile of 1,346 kt Cu (232.1 Mt at 0.58 %TCu) and 32 kt Mo (232.1 Mt at 0.014 %Mo) Probable Reserves is included in the 2017 estimates.

El Soldado: The Ore Reserve estimates include mineralised void-fill material from the collapse of previously mined areas of approximately 169 kt Contained Copper (19.9 Mt at 0.85 %TCu). An application to renew the mine safety plan permit was granted in April 2017 allowing mining operations to re-start. The current approved LOM Plan is based on extension of the current Environmental Permit to 2027. There is a reasonable expectation that the permit will be extended.

Los Bronces – Ore Reserves: Estimates exclude material (Flotation – 31.2 Mt @ 0.54 %TCu, Dump Leach – 31.1 Mt @ 0.26 %TCu) within the Andina exploitation concession area that is incorporated into the Los Bronces LOM Plan as per historical agreements between Anglo American Sur S.A. and Codelco's División Andina.

#### Mineral Tenure

 $\textbf{Los Bronces:} \ \ \text{The current pit design is in accordance with the limits approved in the EIA-LBDP (RCA N° 3159/2007) and a permit (DIA Fase 7, RCA N° 498/2015) obtained in late 2015 with the exception of three pit development phases.$ 

Audits related to the generation of the Ore Reserve and Mineral Resource estimates were carried out by independent consultants during 2017 at Los Bronces.

# **COPPER**

# estimates as at 31 December 2017

Copper - Operations				Tonnes		Grade	Cor	tained Metal
MINERAL RESOURCES	Ownership %	Classification	2017	2016	2017	2016	2017	2016
Collahuasi (OP)	44.0		Mt	Mt	%TCu	%TCu	kt	kt
Oxide and Mixed		Measured	36.2	34.5	0.67	0.70	243	242
Leach		Indicated	28.8	48.8	0.73	0.65	210	317
		Measured and Indicated	65.0	83.3	0.70	0.67	453	559
		Inferred (in LOM Plan)						
		Inferred (ex. LOM Plan)	51.3	52.2	0.57	0.53	292	277
		Total Inferred	51.3	52.2	0.57	0.53	292	277
6 1 1 1			100	107	%TCu	%TCu	100	100
Sulphide		Measured	18.8	10.7	1.01	0.99	190	106
Flotation	0	Indicated	927.4	773.0	0.94	0.95	8,717	7,344
(direct feed)	Copper	Measured and Indicated Inferred (in LOM Plan)	<b>946.2</b> 556.1	<b>783.8</b> 763.2	<b>0.94</b> 0.98	<b>0.95</b> 0.97	<b>8,907</b>	7,450
		Inferred (ex. LOM Plan)	2,406.3	2.440.9	0.89	0.90	5,450 21,416	7,403 21,968
		Total Inferred	2,400.3 <b>2,962.4</b>	3,204.1	0.89	0.90 <b>0.92</b>	26,866	29,371
		Total Illielled	2,902.4	3,204.1	%Mo	%Mo	20,800	29,371
		Measured			0.014	0.032	3	3
		Indicated			0.014	0.032	287	263
	Molybdenum	Measured and Indicated			0.031	0.034	<b>290</b>	266
	Worybuerium	Inferred (in LOM Plan)		•	0.013	0.012	72	92
		Inferred (ex. LOM Plan)			0.013	0.012	409	415
		Total Inferred			0.016	0.016	481	507
		Total illielled			%TCu	%TCu	701	301
Low Grade Sulphide		Measured	219.7	165.1	0.44	0.43	967	710
Flotation		Indicated	950.9	1,001.3	0.44	0.43	4,184	4,306
(in situ)	Copper	Measured and Indicated	1,170.6	1,166.4	0.44	0.43	5,151	5,015
( 6.14)	Сорро	Inferred (in LOM Plan)	115.0	73.9	0.54	0.56	621	414
		Inferred (ex. LOM Plan)	1,315.8	1,523.3	0.44	0.45	5,790	6,855
		Total Inferred	1,430.8	1,597.2	0.45	0.46	6,411	7,269
			,	,	%Mo	%Mo	- /	,
		Measured			0.010	0.012	22	20
		Indicated			0.010	0.010	95	100
	Molybdenum	Measured and Indicated			0.010	0.010	117	120
		Inferred (in LOM Plan)			0.007	0.007	8	5
		Inferred (ex. LOM Plan)			0.006	0.006	79	91
		Total Inferred			0.006	0.006	87	97
El Soldado (OP)	50.1				%TCu	%TCu		
Sulphide		Measured	103.5	105.6	0.60	0.60	621	634
Flotation		Indicated	33.0	33.1	0.47	0.47	156	157
		Measured and Indicated	136.5	138.7	0.57	0.57	777	790
		Inferred (in LOM Plan)	0.8	0.8	0.49	0.49	4	4
		Inferred (ex. LOM Plan)	13.8	13.8	0.44	0.44	61	61
		Total Inferred	14.6	14.7	0.44	0.44	65	65
Los Bronces (OP)	50.1		1 010 0		%TCu	%TCu	5.500	
Sulphide		Measured	1,318.8	1,141.8	0.42	0.41	5,539	4,681
Flotation		Indicated	1,724.4	1,984.7	0.45	0.44	7,760	8,733
	Copper	Measured and Indicated	3,043.2	3,126.4	0.44	0.43	13,299	13,414
		Inferred (in LOM Plan)	29.3	42.4	0.54	0.55	158	233
		Inferred (ex. LOM Plan)	1,281.9	1,579.4 <b>1.621.8</b>	0.45	0.43	5,769	6,791
		Total Inferred	1,311.2	1,621.8	0.45	0.43	5,927	7,025
		Magazirad			%Mo	%Mo	110	Ω1
		Measured			0.009	0.008	119	91
	Maded	Indicated  Measured and Indicated			0.010 <b>0.010</b>	0.010 <b>0.009</b>	172 <b>291</b>	198 <b>290</b>
	Molybdenum	Inferred (in LOM Plan)			0.010	0.009	<b>291</b> 5	2 <b>90</b>
		Inferred (ex. LOM Plan)			0.016	0.013	141	158
		Total Inferred			0.011	0.010	146	163
		Total lillerieu			%TCu	%TCu	140	103
Sulphide		Measured	_	_	-701Cu	701 Cu	_	_
Dump Leach		Indicated	_	_	_	_	_	_
_ 3p _00011		Measured and Indicated	_	_	_	_	_	_
		Inferred (in LOM Plan)	4.7	8.6	0.29	0.31	14	27
		Inferred (ex. LOM Plan)	-	-	-	-	-	_
		Total Inferred	4.7	8.6	0.29	0.31	14	27
					7.23	J.J.	• •	

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

Mining method: OP = Open Pit. TCu = Total Copper.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

#### **EXPLANATORY NOTES**

Copper Resources: An optimised pit shell is used as the basis for the test of reasonable prospects for eventual economic extraction. Mineralised material outside the optimised pit shell are not included in the Mineral Resource statement. Mineral Resources are quoted above the following cut-off grades (%TCu): Collahuasi - 0.3%, El Soldado - 0.2%, Los Bronces - 0.2%.

Collahuasi - Oxide and Mixed: The decrease is primarily due to refinement of the oxide-mixed and secondary geological contacts in the updated resource model. Collahuasi - Low Grade Sulphide: A Low Grade Sulphide Stockpile of 16kt Cu (3.5 Mt at 0.47 %TCu) Indicated Resources is excluded from the 2017 estimate. El Soldado: The estimates include mineralised void-fill material from the collapse of previously mined areas of approximately 8 kt Contained Copper (0.8 Mt at 1.00 %TCu) Indicated Resources.

Los Bronces - Sulphide (Flotation): The decrease in Inferred Resources is due to new drilling information resulting in a smaller Resource Shell. Los Bronces - Sulphide (Dump Leach): The decrease is due to new drilling information which provides increased resource confidence allowing conversion of previously Inferred Mineral Resources to Ore Reserves.

# **COPPER**

# estimates as at 31 December 2017

Copper - Projects		Reserve			ROM Tonnes	Grade		Contained Metal	
ORE RESERVES	Ownership %	Life	Classification	2017	2016	2017	2016	2017	2016
Quellaveco (OP)	81.9	30		Mt	Mt	%TCu	%TCu	kt	kt
Sulphide			Proved	898.2	951.4	0.58	0.58	5,209	5,518
Flotation	Copper		Probable	435.2	380.6	0.54	0.57	2,350	2,169
			Total	1,333.4	1,332.0	0.57	0.58	7,560	7,687
						%Mo	%Mo		
			Proved			0.021	0.018	189	171
	Molybdenum		Probable			0.023	0.020	100	76
			Total			0.022	0.019	289	247

Copper - Projects				Tonnes		Grade	Con	tained Metal
MINERAL RESOURCES	Ownership %		2017	2016	2017	2016	2017	2016
Quellaveco (OP)	81.9		Mt	Mt	%TCu	%TCu	kt	kt
Sulphide		Measured	70.6	135.0	0.32	0.32	226	432
Flotation		Indicated	719.3	641.0	0.43	0.39	3,093	2,500
	Copper	Measured and Indicated	789.9	776.1	0.42	0.38	3,319	2,932
		Inferred (in LOM Plan)	32.4	12.6	0.48	0.67	155	84
		Inferred (ex. LOM Plan)	804.4	734.7	0.32	0.32	2,574	2,351
		Total Inferred	836.8	747.2	0.33	0.33	2,729	2,435
					%Mo	%Mo	kt	kt
		Measured			0.011	0.008	8	11
		Indicated			0.020	0.014	144	90
	Molybdenum	Measured and Indicated			0.019	0.013	152	101
		Inferred (in LOM Plan)			0.013	0.010	4	1
		Inferred (ex. LOM Plan)			0.013	0.010	105	73
		Total Inferred			0.013	0.010	109	75
Sakatti	100		Mt	Mt	%TCu	%TCu	kt	kt
Sulphide		Measured	_	-	-	-	_	-
		Indicated	3.5	3.5	3.45	3.45	121	121
	Copper	Measured and Indicated	3.5	3.5	3.45	3.45	121	121
		Inferred	40.9	40.9	1.77	1.77	724	724
					%Ni	%Ni	kt	kt
		Measured			-	-	_	-
		Indicated			2.47	2.47	87	87
	Nickel	Measured and Indicated			2.47	2.47	87	87
		Inferred			0.83	0.83	337	337
				-	3Eg/t	3E g/t	3E Moz	3E Moz
		Measured			-	-	_	-
		Indicated			2.49	2.49	0.3	0.3
	PGE	Measured and Indicated		•	2.49	2.49	0.3	0.3
		Inferred			1.37	1.37	1.8	1.8
West Wall	50.0		Mt	Mt	%TCu	%TCu	kt	kt
Sulphide		Measured	_	-	-	-	_	-
		Indicated	495.0	495.0	0.55	0.55	2,723	2,723
		Measured and Indicated	495.0	495.0	0.55	0.55	2,723	2,723
		Inferred	970.0	970.0	0.48	0.48	4,656	4,656
Los Bronces Sur	50.1		Mt	Mt	%TCu	%TCu	kt	kt
Sulphide		Inferred	900.0	900.0	0.81	0.81	7,290	7,290
Los Bronces Underground	50.1		Mt	Mt	%TCu	%TCu	kt	kt
Sulphide		Inferred	2,126.0	1,200.0	1.20	1.46	25,512	17,520

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

Mining method: OP = Open Pit. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.

TCu = Total Copper. Ni = Total Nickel. 3E is the sum of Platinum, Palladium and Gold.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

Quellaveco is a Joint Venture with Mitsubishi Corporation. West Wall is a Joint Venture with Glencore. Los Bronces Sur and Los Bronces Underground are part of Anglo American Sur.

#### **EXPLANATORY NOTES**

Quellaveco - Ore Reserves: A minimum cut-off of 0.30 %TCu is applied to determine Ore Reserves.

Quellaveco - Mineral Resources: Mineral Resources are quoted above a 0.20 %TCu cut-off within an optimised pit shell. The increase is primarily due to a refined resource model and depth extension based on a modification to the geological interpretation.

Sakatti: Mineral Resources are quoted at a 1% Copper Equivalent (ČuEq) cut-off as Copper contributes approximately 46% of the total gross revenue. Sakatti co-product estimated grades:

Indicated - Cobalt 0.11%, Platinum 0.98 g/t, Palladium 1.18 g/t and Gold 0.33 g/t. CuEq average grade 11.41%.

Inferred – Cobalt 0.04%, Platinum 0.61 g/t, Palladium 0.43 g/t and Gold 0.33 g/t. CuEq average grade 4.68%.

A test for reasonable prospects for eventual economic extraction (RPEEE) is based on a predominately underground Cut & Fill mining method and the Mineral Resources fall within a volume defined using a \$45/t Net Smelter Return (NSR) value.

West Wall: Mineral Resources are quoted above a 0.30 %TCu cut-off within an optimised pit shell based on a 2012 study. The West Wall project team revised the optimised pit shell using updated price and cost assumptions in 2016. The resulting Mineral Resource estimates are within 1% of the 2012 estimates. Anglo American requires an approved Concept Study to publicly report updated estimates, therefore, taking into account the minimal change, the 2012 estimates are reported.

Los Bronces Sur: The test for reasonable prospects of eventual economic extraction is based on an underground operation.

 $\textbf{Los Bronces Underground:} \ The \ reported \ Mineral \ Resources \ include \ mineralisation \ inside \ a \ 1\% \ nominal \ copper \ grade \ cut-off \ envelope \ within \ a \ volume \ defined \$ using a \$50/t Net Smelter Return (NSR) value. The test for reasonable prospects of eventual economic extraction is based on an underground operation. The increase is due to an updated resource model based on new drilling information and updated economic assumptions.

Audits related to the generation of the Ore Reserve and Mineral Resource estimates for Copper Projects were carried out by independent consultants during 2017 at Quellaveco. Audits related to the generation of the Mineral Resource estimates for Copper Projects were carried out by independent consultants during 2017 at Los Bronces Sur and UG.

estimates as at 31 December 2017

#### **ANGLO AMERICAN PLATINUM LIMITED**

The Ore Reserve and Mineral Resource estimates are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The estimates reported represent 100% of the Ore Reserves and Mineral Resources. All Mineral Resources are reported over an economic and mineable cut appropriate to the specific reef. Rounding of figures may cause computational discrepancies.

Anglo American plc's ownership of Anglo American Platinum Limited (AAPL) is 78.0%.

South Africa Operations			F	ROM Tonnes		Grade	Conf	ained Metal	Conta	ined Metal
ORE RESERVES	Ownership %	Classification	2017	2016	2017	2016	2017	2016	2017	2016
Merensky Reef	33.8		Mt	Mt	4E g/t	4E g/t	4E Tonnes	4E Tonnes	4E Moz	4E Moz
		Proved	61.7	103.2	4.72	4.32	292	446	9.4	14.3
		Probable	28.5	25.3	4.37	4.37	124	111	4.0	3.6
		Total	90.2	128.5	4.61	4.33	416	557	13.4	17.9
UG2 Reef	57.8	Proved	192.3	266.3	4.15	4.14	799	1,104	25.6	35.5
		Probable	102.1	80.0	3.94	4.21	401	337	12.9	10.8
		Total	294.3	346.3	4.07	4.16	1,200	1,441	38.6	46.3
Platreef	78.0									
In situ		Proved	840.6	808.5	2.86	2.78	2,404	2,246	77.3	72.2
		Probable	504.5	558.1	2.86	2.76	1,443	1,540	46.4	49.5
Primary stockpile		Proved	13.1	6.5	2.26	2.16	30	14	1.0	0.4
		Probable	40.9	40.9	1.47	1.47	60	60	1.9	1.9
In situ + stockpile		Total	1,399.1	1,413.9	2.81	2.73	3,937	3,860	126.6	124.1
All Reefs	70.3	Proved	1,107.7	1,184.5	3.18	3.22	3,525	3,810	113.3	122.5
Merensky, UG2 & Platreef		Probable	675.9	704.3	3.00	2.91	2,028	2,048	65.2	65.8
		Total	1,783.6	1,888.8	3.11	3.10	5,553	5,858	178.5	188.3
Tailings	66.3	Proved	-	-	-	-	_		-	_
		Probable	0.8	0.2	1.24	1.32	1	0	0.0	0.0
		Total	0.8	0.2	1.24	1.32	1	0	0.0	0.0

Zimbabwe Operations		_	ROM Tonnes		Grade		Contained Metal		Contained Metal	
ORE RESERVES	Ownership %	Classification	2017	2016	2017	2016	2017	2016	2017	2016
Main Sulphide Zone	78.0		Mt	Mt	4E g/t	4E g/t	4E Tonnes	4E Tonnes	4E Moz	4E Moz
		Proved	13.8	12.3	3.50	3.45	48	42	1.5	1.4
		Probable	33.6	33.2	3.41	3.34	115	111	3.7	3.6
		Total	47.4	45.5	3.44	3.37	163	153	5.2	4.9

Ownership percentages per reef are weighted by Total 4E Moz of the individual operations.

Tonnes are quoted as dry metric tonnes.

4E is the sum of Platinum, Palladium, Rhodium and Gold.
Contained Metal is presented in metric tonnes and million troy ounces (Moz). Estimates of 0.0 represent numbers less than 0.05.

Concentrator recoveries for Merensky Reef range from 85% to 87%, UG2 Reef from 75% to 86%, Platreef from 76% to 82% and Main Sulphide Zone from 78% to 81%. Tailings reprocessing recoveries range from 30% to 40%.

Details of the individual operations and projects which contributed to the combined 2017 Ore Reserve estimates stated per reef appear later in this section Additional details of other potentially recoverable metals are available in the Anglo American Platinum Limited R&R Report.

#### **EXPLANATORY NOTES**

Ore Reserves: Ore Reserve pay limits are directly linked to the 2018 Business plan which takes into account Platinum Group Elements (PGEs), Base Metals and other credits. The pay limit is based on 'Cost 4' which consists of 'Direct Cash Cost' (on and off mine), 'Other Indirect Costs' and 'Stay in Business Capital' (on and off mine). The in situ Ore Reserve pay-limit varies across all operations between 2.7 g/t and 5.1 g/t 4E. The range is a function of various factors including depth of the orebody, geological complexity, mining method, infrastructure and economic parameters.

Merensky Reef: The Ore Reserve 4E ounces decreased primarily due to economic assumptions at Bokoni Mine where all previously reported Ore Reserves have been reallocated to Mineral Resources. Bokoni Mine has been placed on care and maintenance.

UG2 Reef: The Ore Reserve 4E ounces decreased due to economic assumptions at Bokoni Mine where all previously reported Ore Reserves have been reallocated to Mineral Resources and due to the disposal of the interest in Pandora Mine. The decrease was partially offset by the conversion of Mineral Resources to Ore Reserves primarily at Amandelbult complex (Dishaba and Tumela).

Platreef: The marginal increase in Ore Reserves 4E ounces is primarily due to enhanced geological modelling together with pit shell optimisation in the Mogalakwena North pit.

Platreef Primary stockpile: The Ore Reserve pay limit varies between 1.0 g/t and 1.7 g/t 4E. This stockpile is scheduled for future treatment and reported separately as Proved and Probable Reserves but included in the Total Platreef Ore Reserves. ROM stockpiles are reported as Proved and longer-term stockpiles as Probable Ore Reserves.

Tailings: Operating tailings storage facilities are not reported as part of the published Ore Reserves. At Union mine, a dormant storage facility has been evaluated and is separately reported as Probable Ore Reserves. The treatment of tailings is sensitive to both price and volume resulting in tailings material being reported as Probable Reserves only.

Main Sulphide Zone: The significant increase in Ore Reserve 4E ounces is primarily due to conversion of Mineral Resources to Ore Reserves. Anglo American Platinum Limited reports an effective 100% interest in Southridge Limited (Unki Mine), subject to the finalisation of the indigenisation laws by the Zimbabwean Government.

Alternative units: Tonnage in million short tons (Mton) and associated grade in troy ounces per short ton (oz/ton) are:

	Total Ore Reserves								
	Tor	ns (Mton)	Ounces (oz/ton)						
Reef	2017	2016	2017	2016					
Merensky Reef	99.4	141.7	0.135	0.126					
UG2 Reef	324.5	381.8	0.119	0.121					
Platreef	1,542.2	1,558.6	0.082	0.080					
Main Sulphide Zone	52.2	50.2	0.100	0.098					

estimates as at 31 December 2017

South Africa Operations			Tonnes			Grade	Cont	ained Metal	Conta	ained Metal
MINERAL RESOURCES	Ownership %	Classification	2017	2016	2017	2016	2017	2016	2017	2016
Merensky Reef	56.2		Mt	Mt	4E g/t	4E g/t	4E Tonnes	4E Tonnes	4E Moz	4E Moz
		Measured	245.6	214.2	5.45	5.53	1,336	1,182	43.0	38.0
		Indicated	317.7	330.3	5.25	5.27	1,668	1,741	53.6	56.0
	Measur	Measured and Indicated		544.4	5.34	5.37	3,004	2,923	96.6	94.0
	Infer	Inferred (in LOM Plan)		8.5	7.54	7.80	46	66	1.5	2.1
	Inferr	ed (ex. LOM Plan)	604.3	628.7	4.83	4.87	2,920	3,062	93.9	98.4
		Total Inferred	610.4	637.2	4.86	4.91	2,966	3,128	95.3	100.6
UG2 Reef	54.1	Measured	571.2	549.3	5.71	5.75	3,261	3,158	104.9	101.5
		Indicated	523.9	525.3	5.81	5.81	3,043	3,053	97.8	98.2
	Measur	ed and Indicated	1,095.0	1,074.6	5.76	5.78	6,304	6,211	202.7	199.7
	Infer	red (in LOM Plan)	0.4	1.4	5.16	4.41	2	7	0.1	0.2
	Inferr	ed (ex. LOM Plan)	528.7	552.3	6.08	6.07	3,211	3,353	103.3	107.8
		Total Inferred	529.2	553.7	6.07	6.06	3,213	3,360	103.3	108.0
Platreef	78.0	Measured	255.5	259.2	2.09	2.10	534	545	17.2	17.5
		Indicated	1,069.4	1,039.7	2.30	2.30	2,460	2,387	79.1	76.7
	Measured and Indicated		1,324.9	1,298.9	2.26	2.26	2,994	2,932	96.2	94.3
	Infer	red (in LOM Plan)	1.6	1.6	4.51	4.75	7	7	0.2	0.2
	Inferred (ex. LOM Plan)		1,138.4	1,133.2	1.95	1.97	2,220	2,238	71.4	71.9
		Total Inferred	1,140.0	1,134.8	1.95	1.98	2,227	2,245	71.6	72.2
All Reefs	60.8	Measured	1,072.3	1,022.7	4.79	4.78	5,131	4,885	165.0	157.1
Merensky, UG2 & Platreef		Indicated	1,910.9	1,895.2	3.75	3.79	7,171	7,181	230.5	230.9
	Measu	red and Indicated	2,983.2	2,917.9	4.12	4.14	12,302	12,066	395.6	388.0
	Infer	red (in LOM Plan)	8.1	11.5	6.83	6.97	55	80	1.8	2.6
	Inferr	ed (ex. LOM Plan)	2,271.5	2,314.2	3.68	3.74	8,351	8,653	268.5	278.2
		Total Inferred	2,279.6	2,325.7	3.69	3.75	8,406	8,733	270.3	280.7
Tailings	74.7	Measured	63.0	63.0	0.79	0.79	50	50	1.6	1.6
		Indicated	24.9	25.6	1.16	1.16	29	30	0.9	1.0
	Measur	ed and Indicated	87.9	88.6	0.89	0.90	79	80	2.5	2.6
	Infer	red (in LOM Plan)	-	-	_	-	-	_	_	-
	Inferr	ed (ex. LOM Plan)	1.2	1.2	0.91	0.91	1	1	0.0	0.0
		Total Inferred	1.2	1.2	0.91	0.91	1	1	0.0	0.0

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

Zimbabwe Operations	_		Tonnes			Grade	Contained Metal		Contained Me	
MINERAL RESOURCES	Ownership %	Classification	2017	2016	2017	2016	2017	2016	2017	2016
Main Sulphide Zone	78.0		Mt	Mt	4E g/t	4E g/t	4E Tonnes	4E Tonnes	4E Moz	4E Moz
		Measured	20.8	25.0	3.77	3.84	78	96	2.5	3.1
		Indicated	109.7	109.8	4.26	4.26	467	467	15.0	15.0
	Measu	red and Indicated	130.5	134.8	4.18	4.18	545	563	17.5	18.1
	Infe	erred (in LOM Plan)	8.3	8.1	3.70	3.70	31	30	1.0	1.0
	Infer	red (ex. LOM Plan)	37.7	37.9	4.37	4.36	165	165	5.3	5.3
		Total Inferred	46.0	46.0	4.25	4.25	196	195	6.3	6.3

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

Ownership percentages per reef are weighted by Total 4E Moz of the individual operations.

Tonnes are quoted as dry metric tonnes.

4E is the sum of Platinum, Palladium, Rhodium and Gold.

4E is the sum of Platinum, Palladium, Rhodium and Gold.

Contained Metal is presented in metric tonnes and million troy ounces (Moz). Estimates of 0.0 represent numbers less than 0.05.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

Details of the individual operations and projects which contributed to the combined 2017 Mineral Resource estimates stated per reef appear later in this section. Additional details of other potentially recoverable metals are available in the Anglo American Platinum Limited R&R Report.

# **EXPLANATORY NOTES**

Merensky Reef, UG2 Reef and Main Sulphide Zone: The Mineral Resources are estimated over a 'Resource Cut' which takes cognisance of the mining method, notential economic viability and genterbnical aspects in the hanging

potential economic viability and geotechnical aspects in the hangingwall or footwall of the reef.

Merensky Reef: The Mineral Resource 4E ounces decreased primarily due to the sale of a portion of Tumela Mine. The decrease is offset by reallocation of Ore Reserves to Mineral Resources at Bokoni Mine which has been placed on care and maintenance.

**UG2 Reef:** The Mineral Resource 4E ounces decreased primarily due to the sale of the interest in Pandora Mine and the sale of a portion of Tumela Mine. The decrease is offset by reallocation of Ore Reserves to Mineral Resources at Bokoni Mine which has been placed on care and maintenance.

Platreef: A 1.0 g/t 4E cut-off is used to define Platreef Mineral Resources (excluding oxidised and calc-silicate material for which a 3.0 g/t 4E cut-off is applied). The Mineral Resource 4E ounces increased due to the inclusion of the updated Boikgantsho Resource Model.

An oxidised and calc-silicate stockpile of 0.5 4E Moz (4.8 Mt at 3.19 g/t 4E) Measured Mineral Resource is excluded from the 2017 estimates.

Tailings: Operating tailings storage facilities are not reported as part of the Mineral Resources. At Amandelbult complex and Union dormant tailings storage facilities have been evaluated and are separately reported as Tailings Mineral Resources.

Main Sulphide Zone: Anglo American Platinum Limited reports an effective 100% interest in Southridge Limited (Unki Mine), subject to the finalisation of the indigenisation laws by the Zimbabwean Government.

Alternative units: Tonnage in million short tons (Mton) and associated grade in troy ounces per short ton (oz/ton) are:

	M	easured and	d Indicated		lotal Interred					
	Tor	ns (Mton)	Ounces	(oz/ton)	Tonne	es (Mton)	Ounces (oz/ton)			
Reef	2017	2016	2017	2016	2017	2016	2017	2016		
Merensky Reef	620.9	600.1	0.156	0.157	672.9	702.4	0.142	0.143		
UG2 Reef	1,207.1	1,184.5	0.168	0.169	583.3	610.3	0.177	0.177		
Platreef	1,460.5	1,431.8	0.066	0.066	1,256.6	1,250.9	0.057	0.058		
Main Sulphide Zone	143.8	148.5	0.122	0.122	50.7	50.7	0.124	0.124		

estimates as at 31 December 2017

AAPL Managed – Operations		Reserve		R	OM Tonnes		Grade	Cont	ained Metal	Conta	ined Metal
ORE RESERVES	Ownership %	Life	Classification	2017	2016	2017	2016	2017	2016	2017	2016
Amandelbult - Dishaba (UG)	78.0	>23		Mt	Mt	4E g/t	4E g/t	4E Tonnes	4E Tonnes	4E Moz	4E Moz
Merensky Reef			Proved	6.2	6.2	4.91	5.16	31	32	1.0	1.0
•			Probable	4.5	3.3	5.18	5.47	23	18	0.8	0.6
			Total	10.7	9.5	5.02	5.27	54	50	1.7	1.6
UG2 Reef			Proved	55.0	55.9	4.41	4.36	243	244	7.8	7.8
			Probable	8.0	5.1	4.53	4.72	36	24	1.2	0.8
			Total	63.0	61.0	4.43	4.39	279	268	9.0	8.6
Amandelbult – Tumela (UG)	78.0	23				4E g/t	4Eg/t				
Merensky Reef			Proved	0.1	0.3	5.75	6.02	1	2	0.0	0.1
			Probable	_	_	_	-	_	_	_	-
			Total	0.1	0.3	5.75	6.02	1	2	0.0	0.1
UG2 Reef			Proved	39.5	38.9	4.73	4.66	187	181	6.0	5.8
			Probable	0.1	0.1	4.51	4.48	0	0	0.0	0.0
			Total	39.5	38.9	4.73	4.66	187	181	6.0	5.8
Mogalakwena (OP)	78.0	>23				4E g/t	4E g/t				
Platreef – In situ			Proved	840.6	808.5	2.86	2.78	2,404	2,246	77.3	72.2
			Probable	504.5	558.1	2.86	2.76	1,443	1,540	46.4	49.5
			Total	1,345.1	1,366.6	2.86	2.77	3,847	3,786	123.7	121.7
Platreef - Primary Stockpile			Proved	13.1	6.5	2.26	2.16	30	14	1.0	0.4
			Probable	40.9	40.9	1.47	1.47	60	60	1.9	1.9
			Total	54.0	47.3	1.66	1.56	90	74	2.9	2.4
Twickenham (UG)	78.0	_				4E g/t	4E g/t				
UG2 Reef			Proved	_	_	_	-	-	-	-	-
			Probable	_	0.3	_	3.11	_	1	_	0.0
			Total	_	0.3	_	3.11	-	1	_	0.0
Union (UG)	66.3	18				4E g/t	4E g/t				
Merensky Reef			Proved	1.4	0.8	4.68	4.98	6	4	0.2	0.1
			Probable	1.1	0.9	5.67	5.57	6	5	0.2	0.2
			Total	2.5	1.7	5.13	5.30	12	9	0.4	0.3
UG2 Reef			Proved	34.2	35.6	4.39	4.37	150	156	4.8	5.0
			Probable	6.1	7.7	3.79	3.69	23	29	0.7	0.9
			Total	40.2	43.3	4.30	4.25	173	185	5.6	5.9
Tailings			Proved	-	_	_	_	-	_	-	_
			Probable	0.8	0.2	1.24	1.32	1	0	0.0	0.0
			Total	0.8	0.2	1.24	1.32	1	0	0.0	0.0
Unki (UG)	78.0	31				4E g/t	4E g/t				
Main Sulphide Zone			Proved	13.8	12.3	3.50	3.45	48	42	1.5	1.4
			Probable	33.6	33.2	3.41	3.34	115	111	3.7	3.6
			Total	47.4	45.5	3.44	3.37	163	153	5.2	4.9

 $Mining\ method: OP = Open\ Pit,\ UG = Underground.\ Estimates\ of\ 0.0\ represent\ numbers\ less\ than\ 0.05.$ 

Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan within the current Mining Right. Where applicable, an application to extend the Mining Right will be submitted at the appropriate time and there is reasonable expectation that such extension will not be withheld.

#### **EXPLANATORY NOTES**

**Dishaba:** The significant increase in Merensky Ore Reserve 4E ounces is due to conversion of Mineral Resources to Ore Reserves. The anticipated Life of Mine Plan exceeds the current Mining Right expiry date (2040).

Tumela: The Merensky Ore Reserve 4É ounces decreased due to a revised mine design. Reserve Life (for Merensky and UG2 Reefs) increases as a result of an optimised mine design.

Mogalakwena: The marginal increase in Ore Reserves 4E ounces is primarily due to enhanced geological modelling together with pit shell optimisation in the Mogalakwena North pit. The anticipated Life of Mine Plan exceeds the current Mining Right expiry date (2040).

Primary Stockpile – The Ore Reserve pay limit varies between 1.0 g/t and 1.7 g/t 4E. This stockpile is scheduled for future treatment and reported separately as

Primary Stockpile – The Ore Reserve pay limit varies between 1.0 g/t and 1.7 g/t 4E. This stockpile is scheduled for future treatment and reported separately as Proved and Probable Reserves. ROM stockpiles are reported as Proved and longer-term stockpiles as Probable Ore Reserves. Increase in the ROM stockpile is the result of production.

Twickenham: Twickenham remains on care and maintenance hence no Ore Reserves are reported.

**Union:** The Merensky Ore Reserve 4E ounces increased due to conversion of Mineral Resources to Ore Reserves as a result of the optimisation of the mine design. The significant decrease in UG2 Ore Reserve 4E ounces is primarily a result of production.

Unki: The significant increase in Ore Reserve 4E ounces is primarily due to conversion of Mineral Resources to Ore Reserves in the Unki East Upper area.

#### LIFE OF MINE INFORMATION

	Pay-limit	Planned Stoping Width (cm)					
AAPL Managed Operations:	4E g/t	MR	UG2	MSZ			
Amandelbult – Dishaba	5.1	156	163				
Amandelbult – Tumela	4.0	151	153				
Mogalakwena	2.7						
Union	4.8	156	153				
Unki	3.2			204			

Audits related to the generation of the Ore Reserve estimates were carried out by independent consultants during 2017 at the following AAPL Managed operations: Amandelbult complex (Dishaba and Turnela mines).

estimates as at 31 December 2017

Non-Managed – Operations		Reserve		RO	M Tonnes		Grade	Cont	ained Metal	Conta	ined Metal
ORE RESERVES	Ownership %	Life	Classification	2017	2016	2017	2016	2017	2016	2017	2016
Bafokeng Rasimone (UG)	25.7	>21		Mt	Mt	4E g/t	4E g/t	4E Tonnes	4E Tonnes	4E Moz	4E Moz
Merensky Reef			Proved	54.0	56.9	4.70	4.63	254	263	8.2	8.5
			Probable	22.8	19.4	4.15	4.16	95	81	3.0	2.6
			Total	76.9	76.3	4.54	4.51	349	344	11.2	11.1
UG2 Reef			Proved	8.8	42.3	3.83	4.01	34	169	1.1	5.4
			Probable	42.9	10.0	3.81	3.28	163	33	5.2	1.1
			Total	51.7	52.3	3.81	3.87	197	202	6.3	6.5
Bokoni (UG)	38.2	-				4Eg/t	4Eg/t				
Merensky Reef			Proved	-	39.1	_	3.72	_	145	-	4.7
			Probable	_	1.7	_	3.90	_	7	-	0.2
			Total	_	40.7	_	3.73	_	152	_	4.9
UG2 Reef			Proved	-	27.3	-	5.11	-	140	-	4.5
			Probable	_	15.2	_	5.06	-	77	_	2.5
			Total	_	42.5	_	5.09	_	217	_	7.0
Kroondal (UG)	39.0	8				4E g/t	4Eg/t				
UG2 Reef			Proved	15.2	19.3	2.68	2.68	41	52	1.3	1.7
			Probable	5.0	5.7	2.78	2.74	14	16	0.5	0.5
			Total	20.2	25.0	2.70	2.69	55	68	1.8	2.2
Marikana (UG)	39.0	_				4E g/t	4Eg/t				
UG2 Reef			Proved	-	0.7	-	2.44	_	2	_	0.1
			Probable	_	-	_	-	-	-	-	-
			Total	_	0.7	_	2.44	_	2	_	0.1
Modikwa (UG)	39.0	>25				4E g/t	4Eg/t				
UG2 Reef			Proved	11.7	12.5	4.70	4.95	55	62	1.8	2.0
			Probable	31.4	30.2	4.59	4.76	144	144	4.6	4.6
			Total	43.1	42.7	4.62	4.82	199	206	6.4	6.6
Mototolo (UG)	39.0	5				4E g/t	4Eg/t				
UG2 Reef			Proved	13.0	12.8	4.02	3.58	52	46	1.7	1.5
			Probable	_	-	-	-	_	-	_	-
			Total	13.0	12.8	4.02	3.58	52	46	1.7	1.5
Siphumelele 3 shaft (UG)	78.0	15				4E g/t	4Eg/t				
UG2 Reef			Proved	14.9	21.1	2.45	2.49	37	52	1.2	1.7
			Probable	8.6	5.6	2.43	2.40	21	13	0.7	0.4
			Total	23.6	26.7	2.44	2.47	58	65	1.9	2.1

Mining method: OP = Open Pit, UG = Underground. Estimates of 0.0 represent numbers less than 0.05.

Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan within the current Mining Right. Where applicable, an application to extend the Mining Right will be submitted at the appropriate time and there is reasonable expectation that such extension will not be withheld.

 $Information for Non-Managed operations\ provided\ by\ the\ Joint\ Venture\ partners, for\ additional\ details\ please\ refer\ to\ the\ applicable\ Annual\ Reports.$ 

#### **EXPLANATORY NOTES**

Bokoni: Bokoni has been placed on care and maintenance and hence no Ore Reserves are reported.

**Kroondal:** The UG2 Ore Reserve 4E ounces decreased primarily due to production.

Marikana: Marikana has been placed on care and maintenance and hence no Ore Reserves are reported.

Mototolo: The UG2 Ore Reserve 4E ounces increased primarily as a result of new information. Only five years of Ore Reserves are declared as per Glencore policy. Siphumelele 3 shaft: Siphumelele 3 shaft was not part of the disposal of the Rustenburg mines to Sibanye-Stillwater and is being mined on a royalty basis from Kroondal Mine (Sibanye-Stillwater). The UG2 Ore Reserve 4E ounces decreased due to reallocation of Ore Reserves to Mineral Resources.

estimates as at 31 December 2017

AAPL Managed – Operations		Tonnes			Grade	Cont	ained Metal	Conta	ined Metal
MINERAL RESOURCES	Ownership % Classification	2017	2016	2017	2016	2017	2016	2017	2016
Amandelbult – Dishaba (UG)	78.0	Mt	Mt	4E g/t	4E g/t	4E Tonnes	4E Tonnes	4E Moz	4E Moz
Merensky Reef	Measured	7.0	7.6	7.10	7.02	49	53	1.6	1.7
	Indicated	11.2	12.1	6.69	6.81	75	83	2.4	2.7
	Measured and Indicated	18.2	19.7	6.85	6.89	124	136	4.0	4.4
	Inferred (in LOM Plan)	0.4	-	7.75	-	3	-	0.1	-
	Inferred (ex. LOM Plan)	12.7	12.8	6.24	6.25	79	80	2.5	2.6
	Total Inferred	13.1	12.8	6.29	6.25	82	80	2.6	2.6
UG2 Reef	Measured	20.1	18.1	5.31	5.37	107	97	3.4	3.1
	Indicated	26.7	28.2	5.75	5.75	154	162	4.9	5.2
	Measured and Indicated	46.9	46.4	5.56	5.60	261	259	8.4	8.3
	Inferred (in LOM Plan)	-	-	-	-	-	-	-	-
	Inferred (ex. LOM Plan)	8.7	8.6	5.54	5.54	48	47	1.6	1.5
	Total Inferred	8.7	8.6	5.54	5.54	48	47	1.6	1.5
Amandelbult – Tumela (UG)	78.0			4E g/t	4E g/t				
Merensky Reef	Measured	25.4	27.4	6.83	6.73	174	184	5.6	5.9
	Indicated	46.4	59.5	7.05	6.74	327	401	10.5	12.9
	Measured and Indicated	71.8	86.9	6.97	6.74	501	585	16.1	18.8
	Inferred (in LOM Plan)	_	_	_	-	-	_	-	-
	Inferred (ex. LOM Plan)	45.2	74.6	7.03	6.52	318	487	10.2	15.6
	Total Inferred	45.2	74.6	7.03	6.52	318	487	10.2	15.6
UG2 Reef	Measured	109.9	119.4	5.44	5.46	598	652	19.2	21.0
	Indicated	45.0	61.9	5.52	5.57	248	345	8.0	11.1
	Measured and Indicated	154.9	181.3	5.46	5.50	846	997	27.2	32.0
	Inferred (in LOM Plan)	_	_	_	-	-	_	_	-
	Inferred (ex. LOM Plan)	47.2	74.7	5.77	5.77	272	431	8.7	13.8
	Total Inferred	47.2	74.7	5.77	5.77	272	431	8.7	13.8
Mogalakwena (OP)	78.0			4E g/t	4E g/t				
Platreef	Measured	255.5	259.2	2.09	2.10	534	545	17.2	17.5
	Indicated	1,069.4	1,039.7	2.30	2.30	2,460	2,387	79.1	76.7
	Measured and Indicated	1,324.9	1,298.9	2.26	2.26	2,994	2,932	96.2	94.3
	Inferred (in LOM Plan)	1.6	1.6	4.51	4.75	7	7	0.2	0.2
	Inferred (ex. LOM Plan)	1,138.4	1,133.2	1.95	1.97	2,220	2,238	71.4	71.9
	Total Inferred	1,140.0	1,134.8	1.95	1.98	2,227	2,245	71.6	72.2
Twickenham (UG)	78.0			4E g/t	4E g/t				
Merensky Reef	Measured	47.5	47.5	4.75	4.75	225	225	7.2	7.2
	Indicated	85.7	85.7	4.96	4.96	425	425	13.7	13.7
	Measured and Indicated	133.1	133.1	4.89	4.89	650	650	20.9	20.9
	Inferred	160.3	160.3	5.26	5.26	843	843	27.1	27.1
UG2 Reef	Measured	55.2	55.1	6.29	6.29	347	346	11.2	11.1
	Indicated	146.1	146.2	6.05	6.05	884	884	28.4	28.4
	Measured and Indicated	201.3	201.2	6.12	6.12	1,231	1,230	39.6	39.6
	Inferred	145.8	145.9	5.88	5.88	857	858	27.6	27.6
Union (UG)	66.3	07.0	07.0	4E g/t	4E g/t	470	474		
Merensky Reef	Measured	27.0	27.2	6.38	6.31	172	171	5.5	5.5
	Indicated	39.2	39.1	5.98	5.99	234	234	7.5	7.5
	Measured and Indicated	66.2	66.3	6.14	6.12	406	405	13.1	13.0
	Inferred (in LOM Plan)	-	-	-	-	-	-	_	-
	Inferred (ex. LOM Plan)	20.8	20.8	5.76	5.67	120	118	3.9	3.8
	Total Inferred	20.8	20.8	5.76	5.67	120	118	3.9	3.8
UG2 Reef	Measured	47.2	49.9	5.10	5.12	241	256	7.7	8.2
	Indicated	43.5	43.3	5.51	5.51	240	239	7.7	7.7
	Measured and Indicated	90.7	93.2	5.30	5.30	481	495	15.4	15.9
	Inferred (in LOM Plan)	-	-	-	-	- 047	-	- 7.0	-
	Inferred (ex. LOM Plan)	39.9	40.0	5.44	5.46	217	219	7.0	7.0
	Total Inferred	39.9	40.0	5.44	5.46	217	219	7.0	7.0
Unki (UG)	78.0	00.5	0= 0	4E g/t	4E g/t			0.5	
Main Sulphide Zone	Measured	20.8	25.0	3.77	3.84	78	96	2.5	3.1
	Indicated	109.7	109.8	4.26	4.26	467	467	15.0	15.0
	Measured and Indicated	130.5	134.8	4.18	4.18	545	563	17.5	18.1
	Inferred (in LOM Plan)	8.3	8.1	3.70	3.70	31	30	1.0	1.0
	Inferred (ex. LOM Plan)	37.7	37.9	4.37	4.36	165	165	5.3	5.3
	Total Inferred	46.0	46.0	4.25	4.25	196	195	6.3	6.3

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

estimates as at 31 December 2017

AAPL Managed - Operations		_		Tonnes		Grade	Contained Metal		Contained Metal	
MINERAL RESOURCES	Ownership %	Classification	2017	2016	2017	2016	2017	2016	2017	2016
Amandelbult complex	78.0		Mt	Mt	4E g/t	4E g/t	4E Tonnes	4E Tonnes	4E Moz	4E Moz
Tailings		Measured	63.0	63.0	0.79	0.79	50	50	1.6	1.6
		Indicated	8.1	8.1	0.82	0.82	7	7	0.2	0.2
	Measu	red and Indicated	71.1	71.1	0.79	0.79	57	57	1.8	1.8
	Infe	erred (in LOM Plan)	_	-	_	-	_	_	_	-
	Infe	rred (ex. LOM Plan)	1.2	1.2	0.91	0.91	1	1	0.0	0.0
		Total Inferred	1.2	1.2	0.91	0.91	1	1	0.0	0.0
Union	66.3				4E g/t	4E g/t				
Tailings		Measured	_	_	_	_	_	_	_	-
		Indicated	16.8	17.5	1.32	1.32	22	23	0.7	0.7
	Measu	red and Indicated	16.8	17.5	1.32	1.32	22	23	0.7	0.7
	Infe	erred (in LOM Plan)	_	-	_	-	_	_	_	-
	Infe	rred (ex. LOM Plan)	_	-	_	-	-	_	_	-
		Total Inferred	-	_	-	_	_	_	-	

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

#### **EXPLANATORY NOTES**

Tumela: The Merensky and UG2 Mineral Resource 4E ounces decreased due to the disposal of a portion of Tumela Mine.

 $\textbf{Mogalakwena:} A 1.0 \ \ \acute{g}/t \ 4E \ \text{cut-off is used to define Platreef Mineral Resources (excluding oxidised and calc-silicate material for which a 3.0 \ g/t \ 4E \ \text{cut-off is applied}). The Mineral Resource \ 4E \ \text{ounces increased due to the inclusion of the updated Boikgantsho Resource Model.}$ 

An oxidised and calc-silicate stockpile of 0.5 4E Moz (4.8 Mt at 3.19 g/t 4E) Measured Mineral Resource is excluded from the 2017 estimates. **Unki:** The Mineral Resource 4E ounces decreased due to conversion in the Unki East Upper area.

#### Resource Cut definition for UG operations

The Mineral Resources are estimated over a variable 'Resource Cut' targeting a minimum width which takes cognisance of the mining method, potential economic viability and geotechnical aspects in the hangingwall or footwall of the reef.

	'Resou	rce Cut' W	lidth (cm)
AAPL Managed Operations:	MR	UG2	MSZ
Amandelbult – Dishaba	120	120	
Amandelbult – Tumela	120	120	
Twickenham	105	95	
Union	150*	120	
Unki			120/180**

The Merensky Reef at Union is estimated over a fixed 'Resource Cut'.

Audits related to the generation of the Mineral Resource estimates were carried out by independent consultants during 2017 at the following AAPL Managed operations: Amandelbult complex (Dishaba and Tumela mines)

<sup>\*\*</sup> The current mining areas at Unki East and West are estimated over a 'Resource Cut' of 180cm and the remaining area estimated over a 'Resource Cut' of 120cm.

estimates as at 31 December 2017

Non-Managed – Operations			Tonnes		Grade	Cont	ained Metal	Conta	ined Metal
MINERAL RESOURCES	Ownership % Classification	2017	2016	2017	2016	2017	2016	2017	2016
Bafokeng Rasimone (UG)	25.7	Mt	Mt	4E g/t	4Eg/t	4E Tonnes	4E Tonnes	4E Moz	4E Moz
Merensky Reef	Measured	27.4	27.3	7.86	7.85	215	215	6.9	6.9
	Indicated	31.7	31.5	7.05	7.01	223	221	7.2	7.1
	Measured and Indicated	59.0	58.9	7.43	7.40	438	436	14.1	14.0
	Inferred (in LOM Plan)	5.7	8.5	7.53	7.80	43	66	1.4	2.1
	Inferred (ex. LOM Plan)	21.0	20.8	7.60	7.66	160	159	5.1	5.1
	Total Inferred	26.7	29.3	7.59	7.70	203	225	6.5	7.3
UG2 Reef	Measured	56.7	55.7	5.07	5.07	287	282	9.2	9.1
	Indicated	65.3	66.5	4.97	4.98	325	331	10.4	10.6
	Measured and Indicated	122.0	122.2	5.02	5.02	612	613	19.7	19.7
	Inferred (in LOM Plan)	0.4	1.2	5.16	4.55	2	6	0.1	0.2
	Inferred (ex. LOM Plan)	29.3	29.6	5.00	4.99	146	148	4.7	4.7
	Total Inferred	29.7	30.8	5.00	4.97	148	154	4.8	4.9
Bokoni (UG)	38.2			4E g/t	4Eg/t				
Merensky Reef	Measured	92.8	58.6	4.82	4.77	447	280	14.4	9.0
	Indicated	47.8	46.5	4.85	4.84	232	225	7.5	7.2
	Measured and Indicated	140.6	105.2	4.83	4.80	679	505	21.8	16.2
	Inferred	205.8	200.7	5.02	5.02	1,033	1,008	33.2	32.4
UG2 Reef	Measured	198.6	174.7	6.43	6.40	1,277	1,118	41.1	35.9
	Indicated	92.3	80.4	6.57	6.54	606	526	19.5	16.9
	Measured and Indicated	290.9	255.1	6.47	6.44	1,883	1,644	60.6	52.8
	Inferred	174.6	173.7	6.71	6.70	1,172	1,164	37.7	37.4
Kroondal (UG)	39.0			4E g/t	4Eg/t				
UG2 Reef	Measured	0.9	0.2	2.92	5.81	3	1	0.1	0.0
	Indicated	0.9	_	3.23	-	3	-	0.1	-
	Measured and Indicated	1.9	0.2	3.07	5.81	6	1	0.2	0.0
	Inferred (in LOM Plan)	_	0.2	_	3.56	_	1	_	0.0
	Inferred (ex. LOM Plan)	_	_	_	-	_	_	_	-
	Total Inferred	_	0.2	_	3.56	_	1	_	0.0
Marikana (UG)	39.0			4E g/t	4Eg/t				
UG2 Reef	Measured	24.2	17.5	3.20	4.28	77	75	2.5	2.4
	Indicated	11.9	10.0	3.52	4.11	42	41	1.3	1.3
	Measured and Indicated	36.1	27.5	3.31	4.22	119	116	3.8	3.7
	Inferred	5.5	3.4	2.96	3.14	16	11	0.5	0.3
Modikwa (UG)	39.0			4E g/t	4E g/t				
Merensky Reef	Measured	18.5	18.5	2.93	2.93	54	54	1.7	1.7
	Indicated	55.7	55.7	2.72	2.72	152	152	4.9	4.9
	Measured and Indicated	74.3	74.3	2.77	2.77	206	206	6.6	6.6
	Inferred (in LOM Plan)	_	_	_	-	_	_	_	-
	Inferred (ex. LOM Plan)	138.6	138.6	2.65	2.65	367	367	11.8	11.8
	Total Inferred	138.6	138.6	2.65	2.65	367	367	11.8	11.8
UG2 Reef	Measured	49.8	50.1	5.92	5.92	295	297	9.5	9.5
	Indicated	91.0	88.5	5.92	5.92	538	524	17.3	16.8
	Measured and Indicated	140.7	138.7	5.92	5.92	833	821	26.8	26.4
	Inferred (in LOM Plan)	_	_	_	-	-	-	_	-
	Inferred (ex. LOM Plan)	77.8	76.5	6.21	6.21	483	475	15.5	15.3
	Total Inferred	77.8	76.5	6.21	6.21	483	475	15.5	15.3
Mototolo (UG)	39.0			4E g/t	4Eg/t				
UG2 Reef	Measured	5.9	8.5	3.81	3.92	22	33	0.7	1.1
	Indicated	_	_	_	_	_	_	_	-
	Measured and Indicated	5.9	8.5	3.81	3.92	22	33	0.7	1.1
	Inferred (in LOM Plan)	_	_	_	_	_	_	_	-
	Inferred (ex. LOM Plan)	_	_	_	_	_	_	_	-
	Total Inferred	_	_	_	_	_	_	_	-
Siphumelele 3 shaft (UG)	78.0			4E g/t	4Eg/t				
UG2 Reef	Measured	2.7	0.2	2.64	5.03	7	1	0.2	0.0
	Indicated	1.2	0.2	2.69	4.98	3	1	0.1	0.0
	Measured and Indicated	3.9	0.4	2.66	5.00	10	2	0.3	0.
	Inferred (in LOM Plan)	-	-	_	-	-	_	-	٠.
	Inferred (ex. LOM Plan)	_	_	_	_	_	_	_	
	Total Inferred	_	_	_	_	_	_	_	_
	TED AS ADDITIONAL TO ORE RESERVES.								

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

Information for Non-Managed operations provided by the Joint Venture partners, for additional details please refer to the applicable Annual Reports.

#### **EXPLANATORY NOTES**

Bokoni: The Merensky and UG2 Mineral Resource 4E ounces increased as a result of economic assumptions. All previously reported Ore Reserves have been reallocated to Mineral Resources.

**Kroondal:** The UG2 Mineral Resource 4E ounces increased due to a change in the 'Resource Cut' application methodology. **Marikana:** The UG2 Mineral Resource 4E ounces increased significantly and the tonnage increased due to a change in the 'Resource Cut' application methodology.

Marikana has been placed on care and maintenance.

Mototolo: The UG2 Mineral Resource 4E ounces decreased primarily as a result of conversion of Mineral Resources to Ore Reserves.

Siphumelele 3 shaft: The UG2 Mineral Resource 4E ounces increased due to a change in the 'Resource Cut' application methodology.

estimates as at 31 December 2017

AAPL - Projects			Tonnes			Grade	Cont	ained Metal	Contained Metal	
MINERAL RESOURCES	Ownership %	Classification	2017	2016	2017	2016	2017	2016	2017	2016
Der Brochen	78.0		Mt	Mt	4E g/t	4E g/t	4E Tonnes	4E Tonnes	4E Moz	4E Moz
Merensky Reef		Measured	41.4	38.0	4.75	4.63	197	176	6.3	5.7
		Indicated	59.2	46.2	4.51	4.42	267	204	8.6	6.6
	Measu	red and Indicated	100.6	84.3	4.61	4.51	464	380	14.9	12.2
		Inferred	74.4	97.9	4.53	4.25	337	416	10.8	13.4
UG2 Reef		Measured	111.3	102.1	3.96	4.12	441	421	14.2	13.5
		Indicated	155.1	172.1	3.96	3.91	614	673	19.8	21.6
	Measu	red and Indicated	266.5	274.2	3.96	3.99	1,055	1,094	33.9	35.2
		Inferred	126.1	128.2	4.10	4.00	517	513	16.6	16.5
Sheba's Ridge	27.3				3E g/t	3Eg/t	3E Tonnes	3E Tonnes	3E Moz	3E Moz
Mineralised Pyroxenite		Measured	79.9	79.9	0.88	0.88	70	70	2.3	2.3
		Indicated	97.2	97.2	0.85	0.85	83	83	2.7	2.7
	Measu	red and Indicated	177.1	177.1	0.87	0.87	153	153	4.9	4.9
		Inferred	428.3	428.3	0.96	0.96	411	411	13.2	13.2

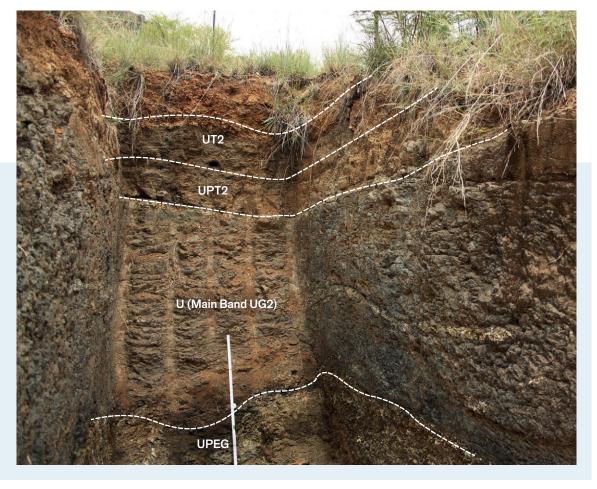
Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

#### **EXPLANATORY NOTES**

Der Brochen: The Merensky Mineral Resources are estimated over a 'Resource Cut' of 90cm, the UG2 Mineral Resources are estimated over a variable 'Resource Cut' targeting a minimum width of 180cm which takes cognisance of the mining method, potential economic viability and geotechnical aspects in the hangingwall or footwall of the reef.

Sheba's Ridge: A cut-off grade of 0.5 g/t 3E is applied for Mineral Resource definition. Anglo American Platinum Limited holds an attributable interest of 35%.

UG2 Reef outcrop at the Der Brochen Project, South Africa. The immediate footwall of the UG2 comprises a pegmatoidal feldspathic pyroxenite (UPEG). The Main Band UG2 (U) is characterised by a single characterised by a single thick chromitite layer overlain by a poikilitic feldspathic pyroxenite parting (UPT2) and an upper chromitite layer (UT2).



Tonnes are quoted as dry metric tonnes. 3E is the sum of Platinum, Palladium and Gold.

Contained Metal is presented in metric tonnes and million troy ounces (Moz).

# **IRON ORE**

# estimates as at 31 December 2017

#### **KUMBA IRON ORE**

The Ore Reserve and Mineral Resource estimates are reported in accordance with The South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition). The estimates reported represent 100% of the Ore Reserves and Mineral Resources. Rounding of figures may cause computational discrepancies.

Anglo American plc's interest in Kumba Iron Ore Limited is 69.7%. Detailed information appears in the Kumba Iron Ore Limited Annual Report.

Kumba Iron Ore - Operations		Reserve			ROM Tonnes		Grade		Sa	aleable F	Product
ORE RESERVES .	Ownership %	Life	Classification	2017	2016	2017	2016		2017		2016
Kolomela (OP)	53.2	14		Mt	Mt	%Fe	%Fe	Mt	%Fe	Mt	%Fe
Hematite			Proved	92.2	59.0	64.3	64.4	88	64.3	57	65.0
			Probable	83.4	132.8	64.4	64.4	80	64.4	129	64.9
			Total	175.6	191.8	64.4	64.4	168	64.3	187	65.0
Sishen (OP)	53.2	13				%Fe	%Fe				
Hematite			Proved	352.1	353.8	58.3	59.8	261	64.7	273	65.6
			Probable	148.7	198.4	57.1	54.8	109	64.4	140	63.5
			Total	500.8	552.2	57.9	58.0	370	64.6	412	64.9

Kumba Iron Ore - Operations				Tonnes		Grade
MINERAL RESOURCES	Ownership %	Classification	2017	2016	2017	2016
Kolomela (OP)	53.2		Mt	Mt	%Fe	%Fe
Hematite		Measured	36.2	27.5	63.1	63.7
		Indicated	56.7	67.4	62.8	62.6
		Measured and Indicated	93.0	94.9	62.9	62.9
		Inferred (in LOM Plan)	19.4	52.7	60.9	65.2
		Inferred (ex. LOM Plan)	60.3	56.6	63.3	62.9
		Total Inferred	79.6	109.3	62.7	64.0
Sishen (OP)	53.2				%Fe	%Fe
Hematite		Measured	216.8	160.6	55.7	57.2
		Indicated	214.5	180.5	49.0	47.1
		Measured and Indicated	431.3	341.1	52.4	51.9
		Inferred (in LOM Plan)	25.5	28.7	57.5	58.1
		Inferred (ex. LOM Plan)	88.9	64.2	49.0	48.2
		Total Inferred	114.4	92.9	50.9	51.3

MINIERAL RESOLUCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES

Kumba Iron Ore - Projects				Tonnes		Grade		Grade
MINERAL RESOURCÉS	Ownership %	Classification	2017	2016	2017	2016	2017	2016
Zandrivierspoort	26.6		Mt	Mt	%Fe	%Fe	%Fe <sub>3</sub> O <sub>4</sub>	%Fe <sub>3</sub> O <sub>4</sub>
Magnetite and Hematite		Measured	107.0	107.0	34.7	34.7	41.5	41.5
		Indicated	206.4	206.4	34.4	34.4	42.5	42.5
		Measured and Indicated	313.4	313.4	34.5	34.5	42.2	42.2
		Inferred	162.7	162.7	34.5	34.5	38.1	38.1

Mining method: OP = Open Pit. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.

The tonnage is quoted as dry metric tonnes and abbreviated as Mt for million tonnes. The Mineral Resources are constrained by a Resource Shell and iron cut-off grade, which defines the spatial limits of eventual economic extraction.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or

An audit related to the generation of the Ore Reserve and Mineral Resource estimates was carried out by independent consultants during 2017 at Sishen.

#### **EXPLANATORY NOTES**

Kolomela - Ore Reserves: Ore Reserves are reported above a cut-off of 50.0 %Fe inclusive of dilution. The decrease is primarily due to application of updated Modifying Factors based on first principles which also take into account feedback from the value chain reconciliation process as well as production. This is partially offset by conversion of predominantly Inferred Mineral Resources to Ore Reserves enabled by new drilling information. The reduction in Reserve Life is primarily driven by the change in the Modifying Factors.

Sishen – Ore Reserves: Ore Reserves are reported above a cut-off of 40.0 %Fe inclusive of dilution. The decrease is due to production and an improved mine

design process to better align with the resource model and scheduling which is partially offset by the introduction of an additional pushback. The decrease in Reserve Life is due to the reduction in Ore Reserves as well as a higher planned mining rate. **Kolomela – Mineral Resources:** Mineral Resources are reported above a cut-off of 50.0 %Fe *in situ*. The decrease is primarily due to new drilling information

which provides increased resource confidence allowing conversion of previously Inferred Mineral Resources to Ore Reserves as well as an update to the resource model which resulted in a smaller Resource Shell using a lower revenue factor.

A long-term stockpile of 0.8Mt @55.6% Fe Indicated Resources is excluded from the table.

Sishen - Mineral Resources: Mineral Resources are reported above a cut-off of 40.0 %Fe in situ. The substantial increase is primarily due to the addition of low-grade ore types (enabled by the use of ultra-high dense media separation technology) and a larger Resource Shell using a higher revenue factor. A long-term stockpile of 13.8Mt @ 48.1% Fe Indicated Resources is excluded from the table.

Zandrivierspoort: The Zandrivierspoort Magnetite Project Mineral Resources are reported above a cut-off of 21.7 %Fe in situ. This a 50:50 Joint Venture between ArcelorMittal SA and Sishen Iron Ore Company (SIOC). The Mineral Resources are considered to have reasonable prospects for eventual economic extraction based on current long-term economic assumptions.

#### **Mineral Tenure**

All Ore Reserves and Mineral Resources (in addition to Ore Reserves) quoted are held under notarially executed Mining and Prospecting Rights granted to Sishen Iron Ore Company (Pty) Ltd (SIOC) in terms of the Mineral and Petroleum Resources Development Act no 28 of 2002 (MPRDA).

For additional detail on the status of Mining and Prospecting Rights, please refer to the Kumba Iron Ore Limited Integrated Report 2017 and Ore Reserves and Mineral Resources Report 2017.

# **IRON ORE**

# estimates as at 31 December 2017

#### **IRON ORE BRAZIL**

The Ore Reserves and Mineral Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard. The estimates reported represent 100% of the Ore Reserves and Mineral Resources. Rounding of figures may cause computational discrepancies.

Iron Ore Brazil - Operations	Reserve				ROM Tonnes		Grade	Saleable Pr			roduct
ORE RESERVES	Ownership %	Life	Classification	2017	2016	2017	2016		2017		2016
Serra do Sapo (OP)	100	51		Mt	Mt	%Fe	%Fe	Mt	%Fe	Mt	%Fe
Friable Itabirite and Hema	tite		Proved	_	_	_	_	-	_	-	_
			Probable	1,479.1	1,353.5	37.3	37.9	715	67.5	663	67.5
			Total	1,479.1	1,353.5	37.3	37.9	715	67.5	663	67.5
Itabirite			Proved	-	_	_	_	-	_	-	_
			Probable	1,903.1	1,452.0	30.9	31.1	738	67.5	565	67.5
			Total	1,903.1	1,452.0	30.9	31.1	738	67.5	565	67.5

Iron Ore Brazil - Operations				Tonnes		Grade
MINERAL RESOURCES	Ownership %	Classification	2017	2016	2017	2016
Serra do Sapo (OP)	100		Mt	Mt	%Fe	%Fe
Friable Itabirite and Hema	atite	Measured	141.7	188.5	32.1	31.6
		Indicated	108.8	220.8	32.0	33.2
		Measured and Indicated	250.5	409.4	32.0	32.5
		Inferred (in LOM Plan)	55.1	62.5	36.7	35.7
		Inferred (ex. LOM Plan)	45.0	33.5	34.8	35.6
		Total Inferred	100.1	96.0	35.8	35.7
Itabirite		Measured	290.3	488.1	30.4	30.5
		Indicated	853.0	953.5	31.1	31.0
		Measured and Indicated	1,143.2	1,441.6	30.9	30.8
		Inferred (in LOM Plan)	77.3	189.5	31.0	31.0
		Inferred (ex. LOM Plan)	536.8	367.1	31.1	31.1
		Total Inferred	614.1	556.6	31.1	31.1

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

Iron Ore Brazil - Projects				Tonnes		Grade
MINERAL RESOURCES	Ownership %	Classification	2017	2016	2017	2016
Itapanhoacanga	100		Mt	Mt	%Fe	%Fe
Friable Itabirite and Hemat	tite	Measured	31.0	31.0	40.6	40.6
		Indicated	117.5	117.5	41.3	41.3
		Measured and Indicated	148.6	148.6	41.1	41.1
		Inferred	114.5	114.5	40.4	40.4
Compact Itabirite		Measured	23.2	23.2	33.6	33.6
		Indicated	73.4	73.4	34.5	34.5
		Measured and Indicated	96.6	96.6	34.3	34.3
		Inferred	57.0	57.0	34.5	34.5
Serro	100				%Fe	%Fe
Friable Itabirite and Hemat	tite	Measured	4.7	4.7	44.7	44.7
		Indicated	87.3	87.3	41.0	41.0
		Measured and Indicated	92.0	92.0	41.2	41.2
		Inferred	32.8	32.8	41.0	41.0
Compact Itabirite		Measured	7.3	7.3	33.0	33.0
		Indicated	274.4	274.4	32.1	32.1
		Measured and Indicated	281.7	281.7	32.1	32.1
		Inferred	111.1	111.1	34.6	34.6

Mining method: OP = Open Pit. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan. The ROM tonnage is guoted as dry metric tonnes and abbreviated as Mt for million tonnes.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration

#### **EXPLANATORY NOTES**

Minas-Rio: Minas-Rio comprises the Serra do Sapo operation and the Itapanhoacanga project. Licenses to exploit remaining portions of the Serra do Sapo orebody are pending approval as per state legislation.

Serra do Sapo – Ore Reserves: Ore Reserves are reported above a cut-off of 25.0 %Fe inclusive of dilution. ROM Tonnes and grades are reported on a dry basis. Saleable Product tonnes are reported on a wet basis (average moisture content is 9.2 wt% of the wet mass) with quality stated on a dry basis.

The increases are due to acquisition of outstanding Mineral Rights allowing a larger Reserve Shell and environmental reclassification enabling the conversion of additional Mineral Resources to Ore Reserves.

Serra do Sapo – Mineral Resources: Mineral Resources are reported above a cut-off of 25.0 %Fe in situ. In situ tonnes and grade are reported on a dry basis. Friable Itabirite and Hematite includes Friable Itabirite, Semi-Friable Itabirite, High Alumina Friable Itabirite, Soft Hematite and Canga.

Itapanhoacanga: Mineral Resources are reported above a cut-off of 25.0 % Fe in situ. In situ tonnes and grade are reported on a dry basis.

Friable Itabirite and Hematite includes Friable Itabirite, Semi-Compact Itabirite, Soft Hematite and Hard Hematite.

Serro: Mineral Resources are reported above a cut-off of 25.0 %Fe in situ. In situ tonnes and grade are reported on a dry basis.

Friable Itabirite and Hematite includes Friable Itabirite, Semi-Compact Itabirite, Hard Hematite and Canga.

 $No \ audits \ related \ to \ the \ generation \ of \ the \ Ore \ Reserve \ and \ Mineral \ Resource \ estimates \ were \ carried \ out \ by \ independent \ consultants \ during \ 2017.$ 

# **MANGANESE**

estimates as at 31 December 2017

#### **SAMANCOR MANGANESE**

The Ore Reserve and Mineral Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012). Rounding of figures may cause computational discrepancies. The estimates reported represent 100% of the Ore Reserves and Mineral Resources (source: South32).

Samancor Manganese - Ope	erations	Reserve		F	ROM Tonnes		Grade		Yield
ORE RESERVES	Ownership %	Life	Classification	2017	2016	2017	2016	2017	2016
GEMCO (OP)	40.0	7		Mt	Mt	%Mn	%Mn	%	%
ROM			Proved	40.5	47.2	45.0	45.2	58.7	55.0
			Probable	21.1	19.7	44.4	43.2	55.6	55.0
			Total	61.6	66.9	44.8	44.6	57.7	55.0
Sand Tailings			Proved	-	-	-	-	-	-
			Probable	6.3	7.1	40.0	40.0	31.0	33.0
			Total	6.3	7.1	40.0	40.0	31.0	33.0
<b>Hotazel Manganese Mines</b>	29.6					%Mn	%Mn		
Mamatwan (OP)		16	Proved	18.6	19.6	37.1	37.5		
			Probable	36.4	40.3	36.7	36.8		
			Total	55.0	59.9	36.8	37.0		
Wessels (UG)		61	Proved	2.4	5.6	42.2	42.9		
			Probable	80.7	88.0	42.4	42.2		
			Total	83.1	93.6	42.4	42.2		
Samancor Manganese - Ope	erations		_		Tonnes		Grade		Yield
MINERAL RESOURCES	Ownership %		Classification	2017	2016	2017	2016	2017	2016
GEMCO (OP)	40.0			Mt	Mt	%Mn	%Mn	%	%
ROM			Measured	72.6	90.7	46.4	45.0	48.0	48.0
			Indicated	47.4	28.7	42.2	43.4	48.6	47.0
		Measure	ed and Indicated	120.0	119.4	44.7	44.6	48.2	47.8
			Inferred	32.4	34.5	41.3	42.6	47.8	49.0
Sand Tailings			Measured	-	-	-	-	-	_
			Indicated	11.7	12.5	20.8	20.8	_	-
		Measure	ed and Indicated	11.7	12.5	20.8	20.8	_	_
			Inferred	2.3	2.3	20.8	20.0	_	-
<b>Hotazel Manganese Mines</b>	29.6					%Mn	%Mn		
Mamatwan (OP)			Measured	36.1	28.1	34.9	35.7		
` ,			Indicated	51.4	63.3	34.9	34.7		
		Measure	ed and Indicated	87.5	91.4	34.9	35.0		
			Inferred	0.5	0.3	37.2	34.3		
Wessels (UG)			Measured	18.1	18.7	44.1	43.9		
` '			Indicated	126.0	124.8	42.4	42.1		
		Measure	ed and Indicated	144.1	143.5	42.6	42.3		
			Inferred	3.1	3.2	45.7	46.0		

MINERAL RESOURCES INCLUDE ORE RESERVES.

 $Mining\ method: OP = Open\ Pit, UG = Underground.\ Reserve\ Life = The\ scheduled\ extraction\ period\ in\ years\ for\ the\ total\ Ore\ Reserves\ in\ the\ approved\ life\ of\ operations\ plant.$   $The\ tonnage\ is\ quoted\ as\ dry\ metric\ tonnes.$ 

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

Samancor Manganese is a Joint Venture with South 32.

#### **EXPLANATORY NOTES**

**GEMCO – Ore Reserves:** ROM Ore Reserve estimates are reported at a cut-off of >40.0 %Mn washed product and 1m ore thickness. Sand Tailings Ore Reserve estimates are reported at a cut-off of 0 %Mn *in situ*. Ore Reserve tonnes are stated as ROM, manganese grades are reported as expected product and should be read together with their respective tonnage yields.

Mamatwan - Ore Reserves: Ore Reserves for all zones are reported at a cut-off of 35.0 %Mn.

Wessels – Ore Reserves: Ore Reserves for the Lower Body and Upper Body ore types are reported at a cut-off of 37.5 %Mn. The decrease is due to a review of geotechnical constraints and results in the reduced Reserve Life.

**GEMCO – Mineral Resources:** ROM Mineral Resource are reported at a cut-off of >35.0 %Mn washed product and 1m ore thickness. ROM Mineral Resource tonnes are stated as in situ, manganese grades are given as per washed ore samples and should be read together with their respective tonnage yields. Sands Mineral Resource tonnes and manganese grades are reported as *in situ*.

Mamatwan – Mineral Resources: Mineral Resources within the M, C, N and X Zones are reported at a cut-off of 35.0 %Mn. The Top Cut (balance I&O) Mineral Resources are reported at a cut-off of 28.0 %Mn.

 $\textbf{Wessels-Mineral Resources:} \ \textbf{Mineral Resources:$ 

# **COAL**

# estimates as at 31 December 2017

#### COAL

The Coal Reserve and Coal Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard as well as the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (The SAMREC Code, 2016 Edition) as applicable. The estimates reported represent 100% of the Coal Reserves and Coal Resources. Rounding of figures may cause computational discrepancies.

Coal – Australia Operations		Reserve _	R	OM Tonnes <sup>(2)</sup>		Yield <sup>(3)</sup>	Salea	ıble Tonnes <sup>(2)</sup>	Salea	ble Quality <sup>(</sup>
COAL RESERVES®	Ownership%	Life Classification	2017	2016	2017	2016	2017	2016	2017	2016
Capcoal (OC)	78.6	<u>15</u>	Mt	Mt	ROM %	ROM %	Mt	Mt	CSN	CSN
Metallurgical – Coking		Proved	57.8	61.7	25.4	26.4	15.2	17.0	5.5	5.5
		Probable <b>Total</b>	45.9 <b>103.8</b>	45.9 <b>107.7</b>	26.8 <b>26.0</b>	26.8 <b>26.6</b>	12.8 <b>28.0</b>	12.8 <b>29.7</b>	5.5 <b>5.5</b>	5.5 <b>5.5</b>
		Total	103.0	107.7	20.0	20.0	20.0	25.1	kcal/kg	kcal/kg
Metallurgical - Other		Proved			41.4	40.3	24.9	25.8	6,840	6,830
g		Probable		•	40.8	40.8	19.5	19.5	6,840	6,840
		Total			41.1	40.5	44.3	45.3	6,840	6,830
									kcal/kg	kcal/kg
Thermal – Export		Proved			7.0	6.9	4.2	4.4	6,180	6,150
		Probable			6.5	6.5	3.1	3.1	6,240	6,240
Capcoal (UG) - Grasstree	70.0	Total			6.8	6.7	7.3	7.5	<b>6,210</b> CSN	<b>6,190</b> CSN
Metallurgical – Coking	70.0	Proved	0.6	10.1	61.9	71.4	0.4	7.5	9.0	8.5
g		Probable	4.8	4.8	74.2	74.2	3.7	3.7	8.5	8.5
		Total	5.4	14.8	72.8	72.3	4.1	11.2	8.5	8.5
Dawson (OC)	51.0	14							CSN	CSN
Metallurgical – Coking		Proved	59.8	39.7	38.2	52.8	23.7	21.6	7.5	7.5
		Probable	75.7	57.4	47.5	34.4	37.4	20.3	6.5	7.0
		Total	135.5	97.1	43.4	41.9	61.1	41.9	7.0	7.5
Thermal – Export		Proved			43.3	25.1	26.9	10.3	kcal/kg 6,550	kcal/kg 6,300
тотна Ехрогі		Probable			37.4	39.8	29.4	23.6	6,470	6,650
		Total		•	40.0	33.8	56.3	33.8	6,510	6,540
Grosvenor (UG)	100	30							CSN	CSN
Metallurgical - Coking		Proved	36.4	24.4	64.9	66.1	24.3	17.0	8.5	8.0
		Probable	132.8	161.0	61.5	65.3	83.9	111.0	8.5	8.5
		Total	169.2	185.4	62.2	65.4	108.2	128.0	8.5	8.5
Moranbah North (UG)	88.0	11	700	07.1	77.7	740	01.4	50.0	CSN	CSN
Metallurgical – Coking		Proved Probable	76.9 25.1	67.1 48.0	77.7	74.3 72.5	61.4 20.2	52.6 36.7	8.0 8.0	8.0 8.0
		Total	102.0	115.1	78.4 <b>77.8</b>	73.5	81.6	89.4	8.0	8.0
Australia Metallurgical – C	okina 83.4	Total	Mt	Mt	Plant %	Plant %	Mt	Mt	CSN	CSN
<u></u>		Proved	231.5	203.0	61.3	61.9	125.0	115.7	7.5	7.5
		Probable	284.3	317.1	57.8	60.8	157.9	184.4	7.5	8.0
		Total	515.8	520.1	59.2	60.9	282.9	300.1	7.5	8.0
Australia Metallurgical – O	ther 78.6	5 .					0.10	05.0	kcal/kg	kcal/kg
		Proved			41.4	40.3	24.9	25.8	6,840	6,830
		Probable <b>Total</b>			40.8 <b>41.1</b>	40.8 <b>40.5</b>	19.5 <b>44.3</b>	19.5 <b>45.3</b>	6,840 <b>6,840</b>	6,840 <b>6,830</b>
Australia Thermal – Export	54.2	Total		_	41.1	40.5	44.5	45.5	kcal/kg	kcal/kg
Additional Export	0 1.2	Proved			38.4	19.6	31.1	14.7	6,500	6,250
		Probable			34.5	35.9	32.5	26.6	6,450	6,600
		Total			36.2	28.9	63.6	41.3	6,480	6,480
Coal - Canada Operations		Reserve		OM Tonnes <sup>(2)</sup>		Yield <sup>(3)</sup>		able Tonnes <sup>(2)</sup>		ble Quality
COAL RESERVES(1)	Ownership%	Life Classification	2017	2016	2017	2016	2017	2016	2017	2016
Trend (OC)	100		Mt	Mt	ROM %	ROM %	Mt	Mt	CSN	CSN
Metallurgical – Coking		Proved	116	116	- 60 5	60 5	- 0 2	- 0.2	7.0	7.0
		Probable <b>Total</b>	11.6 <b>11.6</b>	11.6 <b>11.6</b>	69.5 <b>69.5</b>	69.5 <b>69.5</b>	8.3 <b>8.3</b>	8.3 <b>8.3</b>	7.0 <b>7.0</b>	7.0 <b>7.0</b>
Roman Mountain (OC)	100	15	11.0	11.0	09.0	03.0	0.0	0.0	CSN	CSN
Metallurgical – Coking	100	Proved	_	_	_	_	_	_	-	-
		Probable	36.8	36.8	67.0	67.0	25.8	25.8	7.0	7.0
		Total	36.8	36.8	67.0	67.0	25.8	25.8	7.0	7.0
Canada Metallurgical - Co	<b>king</b> 100		Mt	Mt	Plant %	Plant %	Mt	Mt	CSN	CSN
		Proved	-	-	-	-	-	-	-	-
		Probable	48.4	48.4	67.6	67.6	34.1	34.1	7.0	7.0
		Total	48.4	48.4	67.6	67.6	34.1	34.1	7.0	7.0
			_	OMT: (*)		V. 1 1/0		LL-T- (A)	<u> </u>	LL C "
Coal - Colombia Operations		Reserve		OM Tonnes <sup>(2)</sup>		Yield <sup>(3)</sup>		able Tonnes(2)		ble Quality
COAL RESERVES(1)	Ownership%	Life Classification	2017	2016	2017	2016	2017	2016	2017	2016
Cerrejón (OC)	33.3	<u>16</u>	Mt	Mt	ROM %	ROM %	Mt	Mt	kcal/kg	kcal/kg
Thermal – Export		Proved	431.3	487.5	96.5	96.3	418.4	473.0	6,140	6,080
		Probable	42.0	74.2	96.5	96.5	40.7	72.1	6,170	6,090
		Total	473.3	561.7	96.5	96.3	459.1	545.1	6,140	6,080

# COAL

# estimates as at 31 December 2017

Coal - South Africa Operations	Re	eserve		R	OM Tonnes <sup>(2)</sup>		Yield <sup>(3)</sup>	Salea	ble Tonnes(2)	Salea	ble Quality
	ership%	Life	Classification	2017	2016	2017	2016	2017	2016	2017	2016
Goedehoop (UG)	100	8		Mt	Mt	ROM %	ROM %	Mt	Mt	kcal/kg	kcal/kg
Thermal – Export			Proved	21.8	35.7	51.6	52.5	11.5	19.2	5,970	6,010
			Probable	22.8	10.6	57.6	60.8	13.5	6.6	5,890	5,960
Croomoido (UC)	100	10	Total	44.5	46.4	54.7	54.4	25.0	25.8	5,930	6,000
Greenside (UG)	100	10	Drovad	110	15.0	72.0	740	0.0	100	kcal/kg	kcal/kg
Thermal – Export			Proved Probable	11.8 28.3	15.9 28.5	73.9 69.9	74.0 68.5	9.0 20.6	12.2 20.3	5,970	5,970 5,890
			Total	40.1	44.4	<b>71.1</b>	70.5	20.6 <b>29.6</b>	32.5	5,840 <b>5,880</b>	5,920
Isibonelo (OC)	100	9	Iotai	40.1	44.4	/ 1.1	70.5	29.0	32.3	kcal/kg	kcal/kg
Synfuel	100		Proved	35.6	49.9	100	100	35.6	49.9	4,640	4,750
- Cymraei			Probable	8.8	-	100	-	8.8	-	4,620	- 1,7 00
			Total	44.4	49.9	100	100	44.4	49.9	4,640	4,750
Kleinkopje (OC)	100	8			1010				1010	kcal/kg	kcal/kg
Thermal – Export			Proved	10.7	11.7	51.5	51.4	5.7	6.2	6,320	6,300
·			Probable	31.1	32.1	46.8	46.5	14.9	15.3	6,250	6,250
			Total	41.8	43.8	48.0	47.8	20.6	21.5	6,270	6,260
Kriel	73.0	6								kcal/kg	kcal/kg
Thermal – Domestic (UG)			Proved	4.7	11.2	100	100	4.7	11.2	4,940	4,950
			Probable	16.0	-	100	-	16.0	-	4,840	-
			Total	20.8	11.2	100	100	20.8	11.2	4,860	4,950
Thermal – Domestic (OC)			Proved	1.7	3.5	100	100	1.7	3.5	4,550	4,520
			Probable	-	_	_	-	_	_	_	_
			Total	1.7	3.5	100	100	1.7	3.5	4,550	4,520
Landau (OC)	100	8					10.0			kcal/kg	kcal/kg
Thermal – Export			Proved	8.8	11.6	41.4	42.2	3.7	5.0	6,190	6,200
			Probable	34.9	8.8	51.1	42.8	18.2	3.8	5,810	6,180
			Total	43.7	20.4	49.2	42.5	21.9	8.8	5,870	6,190
Thermal – Domestic			Proved			27.3	21.1	2.4	2.5	kcal/kg 4,480	kcal/kg 4,600
mema Domestic			Probable			2.8	26.5	1.0	2.4	4,320	4,430
			Total			7.7	23.4	3.4	4.9	4,430	4,520
Mafube (OC)	50.0	13	Total				20.1	0.1	-1.0	kcal/kg	kcal/kg
Thermal – Export	00.0		Proved	0.8	4.8	55.2	47.9	0.5	2.3	6,170	6,170
,p			Probable	64.0	64.0	42.8	42.8	27.4	27.4	6,040	6,040
			Total	64.8	68.8	43.0	43.2	27.9	29.8	6,040	6,050
										kcal/kg	kcal/kg
Thermal – Domestic			Proved			17.7	21.6	0.2	1.1	5,010	5,020
			Probable		•	22.4	22.4	14.3	14.3	5,010	5,010
			Total			22.3	22.3	14.4	15.3	5,010	5,010
New Denmark (UG)	100	19								kcal/kg	kcal/kg
Thermal – Domestic			Proved	44.3	17.0	100	100	44.3	17.0	5,200	5,040
			Probable	51.4	85.5	100	100	51.4	85.5	4,970	5,110
Nam Val (OC)	100	10	Total	95.7	102.5	100	100	95.7	102.5	5,080	5,100
New Vaal (OC) Thermal – Domestic	100	12	Proved	203.8	238.0	92.6	92.5	192.6	226.9	kcal/kg 3,520	kcal/kg 3,660
memai – Domestic			Probable	203.6	230.0	92.0	92.5	192.0	220.9	3,320	3,000
			Total	203.8	238.0	92.6	92.5	192.6	226.9	3,520	3,660
Zibulo	73.0	16	Total	200.0	200.0	32.0	32.0	132.0	220.5	kcal/kg	kcal/kg
Thermal – Export (UG)	. 0.0		Proved	39.5	46.0	68.4	69.1	27.1	31.9	5,990	6,000
[ ( )			Probable	39.1	39.2	60.3	60.3	23.3	23.4	5,970	5,970
			Total	78.6	85.3	63.9	65.4	50.4	55.3	5,980	5,990
										kcal/kg	kcal/kg
Thermal – Domestic (UG)			Proved			10.4	10.4	4.1	4.8	4,960	4,970
			Probable		•	12.5	12.3	4.8	4.8	4,940	4,940
			Total			11.3	11.3	8.9	9.6	4,950	4,950
										kcal/kg	kcal/kg
Thermal – Export (OC)			Proved	4.2	5.3	63.4	63.8	2.7	3.4	5,980	5,970
			Probable	3.0	3.0	63.9	63.7	1.9	1.9	5,960	5,950
			Total	7.2	8.3	63.6	63.8	4.6	5.3	5,970	5,960
Thormal Damasti- (00)			D=01/			7.0	71	0.2	0.4	kcal/kg	kcal/kg
Thermal – Domestic (OC)			Proved			7.2	7.1	0.3	0.4	4,940	4,940
			Probable <b>Total</b>			7.6 <b>7.4</b>	7.6 <b>7.3</b>	0.2 <b>0.5</b>	0.2 <b>0.6</b>	4,930 <b>4,940</b>	4,930 <b>4,940</b>
South Africa Thermal – Export	84.0		าบเสา	Mt	Mt	Plant %	Plant %	Mt	Mt	kcal/kg	kcal/kg
	J-4.U		Proved	387.7	450.6	62.4	62.0	60.1	80.1	6,030	6,040
			Probable	299.5	271.8	54.4	54.2	119.9	98.8	5,970	6,020
			Total	687.1	722.4	56.9	57.7	180.0	179.0	5,990	6,030
South Africa Thermal - Domest	ic 95.3				-					kcal/kg	kcal/kg
			Proved			92.0	90.9	250.2	267.3	3,890	3,850
			Probable			81.2	83.9	87.7	107.2	4,940	5,070
			Total			89.1	88.9	338.0	374.5	4,160	4,200
South Africa – Synfuel	100		Б :			10-		05.5		kcal/kg	kcal/kg
			Proved			100	100	35.6	49.9	4,640	4,750
			Probable			100	400	8.8	40.0	4,620	4 750
			Total			100	100	44.4	49.9	4,640	4,750

Mining method: OC = Open Cast/Cut, UG = Underground. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.
For the multi-product operations, the ROM tonnes apply to each product.
The Saleable tonnes cannot be calculated directly from the ROM reserve tonnes using the air dried yields as presented since the difference in moisture content is not taken into account.
Ownership percentages for country totals are weighted by Saleable tonnes and should not be directly applied to the ROM tonnes. Footnotes appear at the end of the section.

# COAL

# estimates as at 31 December 2017

Coal – Australia Operations	_		MTIS(5)		Coal Quality
COAL RESOURCES <sup>(5)</sup> Ownership%	Classification	2017	2016	2017	2016
<b>Capcoal (OC)</b> 78.6		Mt	Mt	kcal/kg <sup>(6)</sup>	kcal/kg <sup>(6)</sup>
	Measured	56.6	56.6	6,910	6,910
	Indicated	109.7	109.7	2017   kcal/kg <sup>(6)</sup> 6,910   6,920   6,920   6,770   6,860   6,840   6,760   6,640   6,730   6,470   6,720   6,690   6,680   6,360   6,360   6,400   6,360   6,680   6,400   6,630   6,680   6,680   6,690   6,650   6,650   6,650   6,650   6,670   6,580   6,720   6,720   6,720   6,710	6,920
	Measured and Indicated	166.3	166.3	6,920	6,920
	Inferred (in LOM Plan) <sup>(7)</sup>	34.5	34.5	6,770	6,770
	Inferred (ex. LOM Plan) <sup>(8)</sup>	162.8	162.8	6,860	6,860
	Total Inferred	197.3	197.3	6,840	6,840
Capcoal (UG) - Grasstree 70.0	Measured	69.7	69.7	6,760	6,760
	Indicated	20.7	20.7	6,760 6,640 6,730 - 6,470 6,470 6,720 6,690 6,700 5,960 6,680 6,360 6,400 6,370 6,130 6,460 6,360 6,680 6,400 6,630 - 6,420 6,650 6,690 6,670 6,580 6,720 6,710	6,640
Measured Indicated Inferred (in LOM Plan) <sup>10</sup>   16   17   17				6,730	
		_	-	_	-
		6.3	6.3	6.470	6,470
					6,470
Dawson (OC) 51.0					6,780
51.0					6,760
Measured   Measured		6,770			
	` '				6,870
	,				6,710
					6,730
Grosvenor (UG) 100					6,530
				9 6,680 5 6,360 9 6,400 4 6,370 6,130 3 6,460 0 6,680 0 6,400 0 6,630 3 - 9 6,420 2 6,420 6 6,650 3 6,690 9 6,580	6,680
	Measured and Indicated	214.5	194.4	6,370	6,580
	Inferred (in LOM Plan)(7)	14.0	12.0	6,130	6,340
	Inferred (ex. LOM Plan)(8)	30.4	25.3	6,460	6,800
					6,650
Moranbah North (UG) 88.0					6,690
					6,600
					6,670
				0,000	6,620
	,			C 400	,
					6,720
					6,710
Australia – Mine Leases 66.3					6,720
		Measured and Indicated 1,217.3 876.9 6,670	6,780		
					6,740
	Inferred (in LOM Plan) <sup>(7)</sup>	49.1	69.0	6,580	6,730
	Inferred (ex. LOM Plan) <sup>(8)</sup>	554.6	382.0	6,720	6,780
	Total Inferred	603.7	451.0	6,710	6,770
	_		MTIS <sup>(5)</sup>		Coal Quality
	Classification	2017	2016	2017	2016
<b>Trend (OC)</b> 100		Mt	Mt	kcal/kg <sup>(6)</sup>	kcal/kg <sup>(6)</sup>
	Measured	20.1	20.1	7,010	7,010
	Indicated	6.5	6.5	6.900	6,900
	Measured and Indicated	26.5	26.5	6.980	6,980
	Inferred (in LOM Plan) <sup>(7)</sup>	0.0	0.0		7,600
	Inferred (ex. LOM Plan) <sup>(8)</sup>	2.6	2.6		6,370
	Total Inferred	2.6	2.6		6,370
Roman Mountain (OC) 100	Measured	1.9	1.9	6,650 6,670 6,580 6,720 6,710  Coal ( 2017 kcal/kg <sup>(6)</sup> 7,010 6,980 7,600 6,370 6,370 7,870 7,940 7,910	7,870
Toman mountain (00)	Indicated	2.4	2.4		7,870
				6,470 6 6,720 6 6,790 6 6,700 6 5,960 6 6,680 6 6,680 6 6,360 6 6,130 6 6,130 6 6,400 6 6,360 6 6,400 6 6,630 6 6,680 6 6,680 6 6,680 6 6,680 6 6,420 6 6,650 6 6,650 6 6,670 6 6,580 6 6,720 6 6,710 6   Coal C  2017  kcal/kg <sup>(6)</sup> k 7,010 7 7,940 7 7,940 7 7,940 7 7,940 7 7,950 7 7,950 7 7,950 7 7,950 7 7,950 7 7,900 7 7,920 7 7,900 7 7,920 7 7,950 7 7,950 7 7,950 7 7,950 7 7,900 7 7,910 7 7,920 7 7,920 7 7,950 7 7,950 7 7,950 7 7,900 7 7,910 7 7,920 7 7,900 7 7,910 7 7,920 7 7,950 7 7,950 7 7,950 7 7,950 7 7,900 7 7,910 7 7,920 7 7,900 7 7,910 7 7,920 7 7,950 7 7,950 7 7,950 7 7,950 7 7,910 7 7,920 7 7,950 7	,
	Measured and Indicated	4.3	4.3		<b>7,910</b>
	Inferred (in LOM Plan) <sup>(7)</sup>	0.5	0.5		7,920
	Inferred (ex. LOM Plan) <sup>(8)</sup>	1.7	1.7		7,960
	Total Inferred	2.2	2.2		7,950
Canada – Mine Leases 100	Measured	21.9	21.9		7,080
	Indicated	8.9	8.9		7,180
	Measured and Indicated	30.8	30.8		7,110
	Inferred (in LOM Plan) <sup>(7)</sup>	0.5	0.5	7,920	7,920
	Inferred (ex. LOM Plan) <sup>(8)</sup>	4.2	4.2	7,000	7,000
	Total Inferred	4.8	4.8	7,100	7,100
Coal - Colombia Operations	_		MTIS <sup>(5)</sup>		Coal Quality
COAL RESOURCES <sup>(5)</sup> Ownership%	Classification	2017	2016	2017	2016
Cerrejón (OC) 33.3		Mt	Mt		kcal/kg <sup>(6)</sup>
	Measured	2,675.0	2,478.3	, 0	6,560
	Indicated	1,006.4	1,196.6		6,580
		3,681.4	3,674.9		6,570
			3.074.9	0.570	0,570
	Measured and Indicated				6 600
	Inferred (in LOM Plan)(7)	33.2	29.7	6,510	6,600
					6,600 6,460 <b>6,470</b>

COAL RESOURCES ARE REPORTED AS ADDITIONAL TO COAL RESERVES.

Mining method: OC = Open Cast/Cut, UG = Underground.
Ownership percentages for country totals are weighted by Total MTIS.

# COAL

# estimates as at 31 December 2017

Coal – South Africa Operations		_		MTIS(5)		Coal Quality
	nership% 100	Classification	2017	2016	2017	2016
Goedehoop (UG)	100	Measured	Mt 192.5	Mt 179.7	kcal/kg <sup>(6)</sup> 5,380	kcal/kg <sup>@</sup> 5,360
		Indicated	17.4	17.4	5,100	5,090
		Measured and Indicated	209.9	197.1	5,360	5,340
		Inferred (in LOM Plan) <sup>(7)</sup>	-	1.6	-	4,820
		Inferred (ex. LOM Plan)(8)	6.0	6.3	4,750	4,760
		Total Inferred	6.0	7.9	4,750	4,770
Greenside (UG)	100	Measured	23.0	23.0	5,730	5,730
		Indicated	0.8	0.8	5,360	5,360
		Measured and Indicated	23.8	23.8	5,720	5,720
		Inferred (in LOM Plan) <sup>(7)</sup>	0.2	0.2	5,950	5,590
		Inferred (ex. LOM Plan) <sup>(8)</sup>	_			-
(110)	100	Total Inferred	0.2	0.2	5,950	5,590
Isibonelo (UG)	100	Measured	5.4	-	4,880	
		Indicated	18.2	16.8	5,360	5,400
		Measured and Indicated	23.6	16.8	5,250	5,400
		Inferred (in LOM Plan) <sup>(3)</sup>	-	-	_	_
		Inferred (ex. LOM Plan) <sup>(8)</sup>	_		_	_
Kleinkopje (OC)	100	Total Inferred  Measured		-		
Kleinkopje (OC)	100	Indicated				_
		Measured and Indicated	_	_	_	_
		Inferred (in LOM Plan) (7)	3.7	3.7	6,070	6,070
		Inferred (In LOW Flan) <sup>(8)</sup>	3. <i>1</i>	5.1	0,070	0,070
		Total Inferred	3.7	3.7	6,070	6,070
Kriel	73.0	iotai mierred	3.1	3.1	0,070	0,070
UG	13.0	Measured	64.3	40.0	5,280	5,230
50		Indicated	11.1	40.0	5,360	J,ZJU 
		Measured and Indicated	75.5	40.0	<b>5,290</b>	5,230
		Inferred (in LOM Plan) <sup>(7)</sup>	7 3.3	40.0	3,230	3,230
		Inferred (ex. LOM Plan) <sup>(8)</sup>	_	_	_	_
		Total Inferred	_	_	_	_
OC		Measured	58.0	58.4	4,580	4,580
00		Indicated	1.0	1.0	4,930	4,930
		Measured and Indicated	59.0	59.4	4,590	4,590
		Inferred (in LOM Plan) <sup>(7)</sup>	-	-	-1,000	-1,000
		Inferred (ex. LOM Plan) <sup>(8)</sup>	_	_	_	_
		Total Inferred	_	_	_	_
Landau (OC)	100	Measured	30.4	46.4	4,990	5,140
		Indicated	15.3	36.6	5,000	5,250
		Measured and Indicated	45.7	82.9	4,990	5,190
		Inferred (in LOM Plan) <sup>(7)</sup>	6.0	_	5,480	_
		Inferred (ex. LOM Plan) (8)	5.2	18.1	6,320	5,500
		Total Inferred	11.2	18.1	5,870	5,500
Mafube (OC)	50.0	Measured	72.7	72.9	5,090	5,090
		Indicated	2.1	2.1	5,150	5,150
		Measured and Indicated	74.8	75.1	5,090	5,090
		Inferred (in LOM Plan) (7)	-	-	_	-
		Inferred (ex. LOM Plan) (8)	-	-	_	-
		Total Inferred	-	-	_	_
New Denmark (UG)	100	Measured	80.5	70.3	5,670	5,790
		Indicated	-	-	_	-
		Measured and Indicated	80.5	70.3	5,670	5,790
		Inferred (in LOM Plan) <sup>(7)</sup>	-	-	_	-
		Inferred (ex. LOM Plan) <sup>(8)</sup>	-	-	_	-
		Total Inferred	_	_	_	_
Zibulo	73.0					
UG		Measured	169.7	170.1	4,910	4,910
		Indicated	157.1	157.1	4,930	4,930
		Measured and Indicated	326.7	327.1	4,920	4,920
		Inferred (in LOM Plan) <sup>(7)</sup>	26.9	26.9	5,250	5,250
		Inferred (ex. LOM Plan)(8)	222.0	222.0	4,700	4,700
		Total Inferred	248.9	248.9	4,760	4,760
OC		Measured	-	-	-	-
		Indicated	_	-	_	-
		Measured and Indicated	_	-	-	_
		Inferred (in LOM Plan) <sup>(8)</sup>	- 0.1	-	- - 700	-
		Inferred (ex. LOM Plan) <sup>(8)</sup>	0.1	0.1	5,700	5,700
	00.7	Total Inferred	0.1	0.1	5,700	5,700
South Africa – Mine Leases	80.7	Measured	696.5	660.8	5,180	5,180
		Indicated	223.0	231.7	5,010	5,030
		Measured and Indicated	919.5	892.5	5,140	5,140
		Inferred (in LOM Plan) <sup>(7)</sup>	36.8	32.4	5,370	5,320
		Inferred (ex. LOM Plan) <sup>(8)</sup>	233.3	246.6	4,740	4,760
		Total Inferred	270.1	278.9	4,830	4,820

COAL RESOURCES ARE REPORTED AS ADDITIONAL TO COAL RESERVES.

 $\label{eq:mining} \begin{tabular}{ll} Mining method: OC = Open Cast/Cut, UG = Underground. \\ Ownership percentages for country totals are weighted by Total MTIS. \\ \end{tabular}$ 

## **ORE RESERVES AND MINERAL RESOURCES**

# COAL

# estimates as at 31 December 2017

Coal – Australia Projects	F	Reserve	_	RC	OM Tonnes(2)		Yield <sup>(3)</sup>	Sale	able Tonnes(2)	Salea	ble Quality <sup>(4)</sup>
COAL RESERVES(1)	Ownership%	Life	Classification	2017	2016	2017	2016	2017	2016	2017	2016
Capcoal (UG) – Aquila	70.0	11		Mt	Mt	ROM %	ROM %	Mt	Mt	CSN	CSN
Metallurgical - Coking			Proved	_	-	-	-	-	-	-	-
			Probable	46.6	46.6	68.1	68.1	33.5	33.5	9.0	9.0
			Total	46.6	46.6	68.1	68.1	33.5	33.5	9.0	9.0
Coal – Australia Projects									MTIS(5)	С	oal Quality
COAL RESOURCES(5)	Ownership%					(	Classification	2017	2016	2017	2016
Capcoal (UG) - Aquila	70.0							Mt	Mt	kcal/kg <sup>(6)</sup>	kcal/kg <sup>(6</sup>
							Measured	17.5	17.5	6,820	6,820
							Indicated	16.1	16.1	6,450	6,450
					Mea	asured and	Indicated	33.6	33.6	6,640	6,640
						Inferred (in	LOM Plan) <sup>(7)</sup>	0.0	0.0	6,660	6,660
					Ir	nferred (ex.	LOM Plan)(8)	3.6	3.6	6,030	6,030
						Tota	al Inferred	3.6	3.6	6,030	6,030
Drayton South	88.2						Measured	490.6	492.1	6,230	6,240
							Indicated	182.3	189.0	6,230	6,260
					Mea	asured and	Indicated	672.9	681.1	6,230	6,250
							Inferred	83.2	90.7	5,890	5,950
Moranbah South	50.0						Measured	481.9	481.9	6,270	6,270
							Indicated	222.5	222.5	6,420	6,420
					Mea	asured and		704.4	704.4	6,320	6,320
							Inferred	28.0	28.0	6,700	6.700
Teviot Brook	88.0						Measured	45.0	4.6	6,720	6,750
TOTION BIOCK							Indicated	142.2	163.3	6,630	6,610
					Me	asured and		187.2	167.9	6,650	6,610
						aoui ou unu	Inferred	14.5	32.2	6,330	6,510
Theodore	51.0						Measured	- 11.0	-	-	- 0,010
medare	01.0						Indicated	258.5	258.5	6,260	6,260
					Mas	asured and		258.5	258.5	6,260	6,260
					IVIC	asureu ariu	Inferred	106.0	106.0	6.160	6.160
Australia – Projects	68.0						Measured	1,035.0	996.1	6,280	6,270
Australia i rojects	00.0						Indicated	821.5	849.4	6,360	6,370
					Mos	asured and		1,856.6	1,845.5	<b>6,320</b>	<b>6,320</b>
							LOM Plan)(7)	0.0	0.0	6,660	6,660
							LOM Plan)(8)	235.3	260.6	6,140	6,190
					"	,	al Inferred	<b>235.3</b>	260.6	6,140	<b>6,190</b>
						1016	armeneu	233.3	200.0	0,140	0,190
Coal – Canada Projects									MTIS(5)	C	oal Quality
COAL RESOURCES(5)	Ownership%					(	Classification	2017	2016	2017	2016
Belcourt Saxon	100							Mt	Mt	kcal/kg <sup>(6)</sup>	kcal/kg <sup>(6</sup>
							Measured	166.7	166.7	6,500	6,500
							Indicated	4.3	4.3	6,500	6,500
					Mea	asured and	Indicated	171.0	171.0	6,500	6,500
							Inferred	0.2	0.2	6,500	6,500
COAL RESOURCES ARE REPOR	DTED AS ADDITIO	NIAL TO	COAL DECEDVES				Inferred	0.2	0.2	6,500	6,50

COAL RESOURCES ARE REPORTED AS ADDITIONAL TO COAL RESERVES.

Ownership percentages for country totals are weighted by Total MTIS.

Due to the uncertainty that may be attached to some Inferred Coal Resources, it cannot be assumed that all or part of an Inferred Coal Resource will necessarily be upgraded to an Indicated or Measured Coal Resource after continued exploration.

# **COAL**

## estimates as at 31 December 2017

Coal – South Africa Projects	_		MTIS(5)	С	oal Quality
COAL RESOURCES(5) Ownership %	Classification	2017	2016	2017	2016
Elders 73.0		Mt	Mt	kcal/kg <sup>(6)</sup>	kcal/kg <sup>(6)</sup>
	Measured	86.4	86.4	5,190	5,190
	Indicated	3.6	3.6	4,900	4,900
	Measured and Indicated	89.9	89.9	5,180	5,180
	Inferred	11.5	11.5	4,930	4,930
Elders UG Extension 73.0	Measured	69.4	69.4	5,530	5,530
	Indicated	81.7	81.7	5,580	5,580
	Measured and Indicated	151.2	151.2	5,560	5,560
	Inferred	63.7	63.7	5,470	5,470
Kriel East 73.0	Measured	116.5	116.5	4,940	4,940
	Indicated	15.8	15.8	4,870	4,870
	Measured and Indicated	132.3	132.3	4,930	4,930
	Inferred	5.6	5.6	4,900	4,900
New Largo 73.0	Measured	410.2	410.2	4,410	4,410
	Indicated	161.4	161.4	4,270	4,270
	Measured and Indicated	571.6	571.6	4,370	4,370
	Inferred	13.5	13.5	5,290	5,290
Nooitgedacht 100	Measured	34.5	34.5	5,330	5,330
	Indicated	10.2	10.2	5,410	5,410
	Measured and Indicated	44.7	44.7	5,350	5,350
	Inferred	10.8	10.8	5,280	5,280
South Rand 73.0	Measured	79.5	79.2	4,860	4,840
	Indicated	171.8	172.7	4,850	4,770
	Measured and Indicated	251.3	251.9	4,850	4,790
	Inferred	233.5	225.1	4,590	4,600
Vaal Basin 100	Measured	382.3	382.3	4,330	4,330
	Indicated	224.7	224.7	4,210	4,210
	Measured and Indicated	607.0	607.0	4,290	4,290
	Inferred	90.7	90.7	4,190	4,190
South Africa – Projects 81.9	Measured	1,178.8	1,178.6	4,620	4,620
	Indicated	669.2	670.1	4,590	4,570
	Measured and Indicated	1,848.1	1,848.7	4,610	4,600
	Inferred	429.4	420.9	4,690	4,700

Coal – South Africa Operat	tions <sub>D</sub>			ROM Tonnes <sup>(2)</sup>		Yield <sup>(3)</sup>	Sale	able Tonnes <sup>(2)</sup>	Salea	able Quality <sup>(4)</sup>
COAL RESERVES(1)	Ownership%	eserve Life Classification	2017	2016	2017	2016	2017	2016	2017	2016
Goedehoop – MRD	100	3	Mt	Mt	ROM %	ROM %	Mt	Mt	kcal/kg	kcal/kg
Thermal – Export		Proved	_	_	_	_	_	-	_	_
		Probable	4.4	_	26.9	_	1.3	-	5,070	_
		Total	4.4	_	26.9	_	1.3	-	5,070	_
Greenside – MRD	100	2							kcal/kg	kcal/kg
Thermal – Export		Proved	_	-	-	-	-	-	-	_
		Probable	1.4	2.4	26.4	35.0	0.4	0.8	5,590	5,590
		Total	1.4	2.4	26.4	35.0	0.4	0.8	5,590	5,590

Coal - South Africa Opera	ations			MTIS(5)	Coal Quality	
COAL RESOURCES(5)	Ownership%	Classification	2017	2016	2017	2016
Greenside - MRD	100		Mt	Mt	kcal/kg <sup>(6)</sup>	kcal/kg <sup>(6)</sup>
		Measured	9.7	9.7	3,750	3,750
		Indicated	_	-	_	_
		Measured and Indicated	9.7	9.7	3,750	3,750
		Inferred (in LOM Plan)(7)	_	-	_	-
		Inferred (ex. LOM Plan) <sup>(8)</sup>	_	-	_	_
		Total Inferred	_	-	_	_
Landau – MRD	100	Measured	_	-	-	-
		Indicated	22.4	-	2,580	_
		Measured and Indicated	22.4	-	2,580	_
		Inferred (in LOM Plan)(7)	_	-	_	_
		Inferred (ex. LOM Plan) <sup>(8)</sup>	_	_	_	_
		Total Inferred	_	-	_	_

COAL RESOURCES ARE REPORTED AS ADDITIONAL TO COAL RESERVES.

Ownership percentages for country totals are weighted by Total MTIS. MRD = Mineral Residue Deposit.

Due to the uncertainty that may be attached to some Inferred Coal Resources, it cannot be assumed that all or part of an Inferred Coal Resource will necessarily be upgraded to an Indicated or Measured Coal Resource after continued exploration.

## COAL

## estimates as at 31 December 2017

#### Table footnotes:

- Coal Reserves are quoted on a Run Of Mine (ROM) reserve tonnes basis, which represents the tonnes delivered to the plant. Saleable Reserve tonnes represents the estimated product tonnes Coal Reserves (ROM and Saleable) are on the applicable moisture basis.
- NOM tonnes quoted on an As Delivered moisture basis and Saleable tonnes on a Product moisture basis.

  Yield ROM % represents the ratio of Saleable Reserve tonnes to ROM reserve tonnes and is quoted on a constant moisture basis or on an air dried to air dried basis whereas Plant % is based on
- the 'Feed to Plant' tonnes. The product yields (ROM %) for Proved, Probable and Total are calculated by dividing the individual Saleable reserves by the total ROM reserves per classification. The coal quality for Coal Reserves is quoted as either kilocalories per kilogram (kcal/kg) or Crucible Swell Number (CSN). Kilocalories per kilogram represent Calorific Value (CV) on a Gross As
- Received (GAR) basis. CV is rounded to the nearest 10 kcal/kg and CSN to the nearest 0.5 index.

  Coal Resources are quoted on a Mineable Tonnes In Situ (MTIS) basis in million tonnes, which are in addition to those Coal Resources that have been modified to produce the reported Coal Resources.
- Coal Resources are reported on an *in situ* moisture basis.

  The coal quality for Coal Resources is quoted on an *in situ* heat content as kilocalories per kilogram (kcal/kg), representing Calorific Value (CV) rounded to the nearest 10 kcal/kg
- (7) Inferred (in LOM Plan) refers to Inferred Coal Resources that are included in the life of mine extraction schedule of the respective collieries and are not reported as Coal Reserves.
  (8) Inferred (ex. LOM Plan) refers to Inferred Coal Resources outside the Life of Mine Plan but within the mine lease area.

Metallurgical - Coking refers to a high-, medium- or low-volatile semi-soft, soft or hard coking coal primarily for blending and use in the steel industry; quality measured as Crucible Swell Number (CSN). Metallurgical – Other refers to semi-soft, soft, hard, semi-hard or anthracite coal, other than Coking Coal, such as pulverised coal injection (PCI) or other general metallurgical coal for the export or domestic market with a wider range of properties than Coking Coal; quality measured by calorific value (CV).

Thermal – Export refers to low- to high-volatile thermal coal primarily for export in the use of power generation; quality measured by calorific value (CV).

Thermal – Domestic refers to low- to high-volatile thermal coal primarily for domestic consumption for power generation; quality measured by calorific value (CV).

Synfuel refers to a coal specifically for the domestic production of synthetic fuel and chemicals; quality measured by calorific value (CV).

Capcoal comprises opencast operations at Lake Lindsay and Oak Park, an underground longwall operation at Grasstree and the Aquila Project. Lake Lindsay, Grasstree and the Aquila Project are owned by the Capcoal Joint Venture and Oak Park is owned by the Roper Creek Joint Venture. Due to the differing ownership structure, the attributable shareholding of Capcoal OC (Lake Lindsay and Oak Park) is determined annually using the proportion of the Saleable tonnes produced by the individual pits. The calculated ownership percentage therefore varies each year due to differing production schedules. Jellinbah and Lake Vermont are not reported as Anglo American's shareholding is below the internal threshold for reporting.

The Dartbrook project has been sold therefore is no longer reported. Drayton South project is part of an ongoing sales process.

Peace River Coal consists of Trend and Roman Mountain operations. The Belcourt Saxon Project is now a wholly owned entity of Peace River Coal.

Landau and Kleinkopje Colliery have undergone an amalgamation process with one management structure, forming Khwezela Colliery.
Kriel Block F Project has been incorporated into Kriel Colliery due to change in ownership from Anglo Operations Limited to Anglo American Inyosi Coal.
Kriel, New Denmark, New Vaal Collieries and the Vaal Basin Project are part of an ongoing sales process. The New Largo Project is pending a separate sales process.

Estimates for the following operations were updated by depletion (geological models and Coal Resource estimates not updated): Capcoal OC, Capcoal UG, Greenside, Kleinkopje, and Zibulo.

#### **EXPLANATORY NOTES**

#### Australia - Operations:

Capcoal (UG) - Grasstree: Coal Reserves decreased due to production. A first principles LOM Plan is being developed in 2018 with the expectation that the Life of

Dawson: Coal Reserves increase due to classification upgrades following additional drilling and a revised LOM Plan. Coal Resources increase due to change in the price assumptions methodology for reasonable prospects for eventual economic extraction (RPEEE) as well as additional drilling.

Grosvenor: Coal Resources increase primarily due to revision of the geotechnical assumptions in the revised LOM Plan with full seam height now reported. This was offset by the exclusion of low quality areas based on additional drilling. Reserve Life has increased due to lower planned production rates

Moranbah North: Coal Reserves decrease primarily as a result of production and revised LOM Plan layouts resulting in reallocation of Coal Reserves to Coal Resources. Reserve Life decreases due to increased planned production rates.

#### Canada - Operations:

Trend: The mine was placed on care and maintenance at the end of 2014. The Mineral Resources are considered to have reasonable prospects for eventual economic extraction based on current long-term economic assumptions.

Roman Mountain: The mine was placed on care and maintenance at the end of 2014. The Mineral Resources are considered to have reasonable prospects for eventual economic extraction based on current long-term economic assumptions.

## Colombia - Operations:

Cerrejón: Coal Reserves decreased due to a revised LOM Plan and production. A lower planned production rate maintains the Reserve Life. Coal Resources include approximately 748 Mt for which additional permissions to mine are required.

## South Africa - Operations:

Greenside: Coal Reserves decreased due to production.

Isibonelo: Coal Reserves were reallocated to Coal Resources due to revised economic parameters, this was partially offset by improved mining recovery

Kleinkopje: Kleinkopje stockpile Probable Reserve estimates of 4.6 Mt (ROM), with a yield of 31% and Saleable product of 1.5 Mt at 5,180 kcal/kg are excluded from the table.

Kriel: Coal Reserves increase due to inclusion of a portion of Block F in the LOM Plan. Coal Resources increase as a result of the amalgamation of the Block F Project into Kriel Colliery

Landau: Coal Reserves increase due to the inclusion of the Navigation project into the LOM Plan resulting in an increase in Reserve Life.

New Denmark: Coal Resources increase due to changes in mine layout, removing thin seam areas. Reserve Life decreased as a result of increased planned production rates

New Vaal: Coal Reserves decrease due to revision of Modifying Factors in the LOM Plan as well as production.

#### **Mineral Tenure**

Dawson: Renewal application has been lodged for three of the nine Exploration Permits for Coal (EPC 988). The tenure will then be subsequently grouped into projects based on area and JV ownership.

Drayton South: A reduction in reported tonnes is related to the tenure relinquishment south of the Golden Highway.

Teviot Brook: This area is actively under exploration and contains sufficient identified Coal Resources for the purposes of the current Moranbah North LOM Plan identified for extraction starting in approximately 2022. Coal Reserves for Teviot Brook (EPC 706) will be reported once environmental permissions have been obtained and a Mining Lease Application has been submitted. The Teviot Brook ownership changed to 88.0% to align with the Moranbah North JV agreement. Cerrejón: Coal Reserves are estimated for the area defined by the current approved Mining Right which expires in 2033. In order to exploit the Coal Resources, a renewal will be applied for at the appropriate time.

Goedehoop: The Mining Right for the Komati Power Station area (MP30/5/1/2/2/3 MR) is pending approval. There is a reasonable expectation that such approval will not be withheld

New Largo: The New Largo Mining Right was executed in April 2015, with an agreement that mining activities will only start once a Coal Supply Agreement with

Mining Right applications have been submitted for Elders, Kriel East, Elders UG Extension, South Rand and Vaal Basin. There is a reasonable expectation that such approvals will be granted.

Audits related to the generation of the Coal Reserve estimates were carried out by independent consultants during 2017 at the following operations and projects: Dawson, Grosvenor, Moranbah North, Greenside, Isibonelo and Kriel.

Audits related to the generation of the Coal Resource estimates were carried out by independent consultants during 2017 at the following operations and projects: Dawson, Grosvenor, Moranbah North, Teviot Brook, Goedehoop, Greenside, Isibonelo, Kleinkopje, Landau, Mafube and New Denmark

## **NICKEL**

## estimates as at 31 December 2017

#### **NICKEL**

The Ore Reserve and Mineral Resource estimates are reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012) as a minimum standard. The estimates reported represent 100% of the Ore Reserves and Mineral Resources. Rounding of figures may cause computational discrepancies for totals.

Nickel - Operations		Reserve		R	OM Tonnes		Grade	Со	ntained Nickel
ORE RESERVES	Ownership %	Life	Classification	2017	2016	2017	2016	2017	2016
Barro Alto (OP)	100	22		Mt	Mt	%Ni	%Ni	kt	kt
Saprolite			Proved	10.6	13.4	1.53	1.53	162	205
			Probable	31.3	27.0	1.35	1.32	424	356
			Total	41.9	40.4	1.40	1.39	586	561
Niquelândia (OP)	100	17				%Ni	%Ni		
Saprolite			Proved	6.0	5.9	1.28	1.28	77	75
·			Probable	1.7	1.9	1.20	1.19	21	22
			Total	7.8	7.7	1.26	1.26	98	97

Nickel - Operations				Tonnes		Grade	Cor	ntained Nickel
MINERAL RESOURCES	Ownership %	Classification	2017	2016	2017	2016	2017	2016
Barro Alto (OP)	100		Mt	Mt	%Ni	%Ni	kt	kt
Saprolite		Measured	3.0	1.3	1.28	1.36	38	17
		Indicated	13.1	6.1	1.17	1.15	154	70
		Measured and Indicated	16.1	7.4	1.19	1.19	192	87
		Inferred (in LOM Plan)	17.7	28.1	1.36	1.37	240	386
		Inferred (ex. LOM Plan)	4.8	1.3	1.14	1.16	54	14
		Total Inferred	22.5	29.3	1.31	1.36	295	400
Ferruginous Laterite		Measured	-	2.0	_	1.23	_	25
		Indicated	4.1	5.1	1.21	1.20	49	62
		Measured and Indicated	4.1	7.2	1.21	1.21	49	87
		Inferred (in LOM Plan)	_	_	_	_	_	_
		Inferred (ex. LOM Plan)	5.2	1.8	1.21	1.23	64	22
		Total Inferred	5.2	1.8	1.21	1.23	64	22
Niquelândia (OP)	100				%Ni	%Ni		
Saprolite		Measured	1.1	1.4	1.27	1.34	14	19
		Indicated	1.8	1.7	1.24	1.26	22	22
		Measured and Indicated	2.9	3.2	1.25	1.30	36	41
		Inferred (in LOM Plan)	-	_	_	_	_	_
		Inferred (ex. LOM Plan)	-	_	_	_	_	_
		Total Inferred	_	_	_	_	_	

MINERAL RESOURCES ARE REPORTED AS ADDITIONAL TO ORE RESERVES.

Nickel - Projects				Tonnes		Grade	Cor	ntained Nickel
MINERAL RESOURCES	Ownership %	Classification	2017	2016	2017	2016	2017	2016
Jacaré	100		Mt	Mt	%Ni	%Ni	kt	kt
Ferruginous Laterite		Measured	6.3	6.3	1.15	1.15	72	72
		Indicated	53.8	53.8	1.21	1.21	651	651
		Measured and Indicated	60.1	60.1	1.21	1.21	723	723
		Inferred	125.0	125.0	1.17	1.17	1,462	1,462
Saprolite		Measured	-	_	_	_	_	_
		Indicated	39.6	39.6	1.49	1.49	590	590
		Measured and Indicated	39.6	39.6	1.49	1.49	590	590
		Inferred	81.9	81.9	1.39	1.39	1,138	1,138

Mining method: OP = Open Pit. Reserve Life = The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan. Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

#### **EXPLANATORY NOTES**

Barro Alto - Ore Reserves: The Ore Reserves are derived from a mine plan which targets a smelter feed of between 10 - 19 %Fe and a SiO<sub>2</sub>/(MgO+CaO) ratio of 1.80. The increase is due to revised economic assumptions offset by production and changes in the scheduling strategy. The Reserve Life decreases as a result of higher planned peak production at the end of the current LOM Plan. There is a substantial amount of Inferred Resources in the current LOM Plan, however drilling is ongoing to further upgrade the geoscientific confidence which will enable conversion of this material to Ore Reserves over the next two years. A stockpile of 162kt Ni (12.3 Mt at 1.32 %Ni) Probable Reserves is excluded from the table.

The stockpile material is used for blending when the appropriate smelter feed chemistry can be achieved.

Niquelândia - Ore Reserves: The Niquelândia Mine is adjacent to the Codemin Ferro-Nickel smelter which is fed with ore from Barro Alto and is blended with Niquelândia ore to achieve an appropriate smelter feed chemistry. Ore Reserves are derived from a mine plan which targets a smelter feed between 12.5 - 19 %Fe and a SiO, /(MgO+CaO) ratio of 1.75. An increase in Reserve Life is as a result of revised economic assumptions and a change in the mining schedule with a flatter production profile to ramp-up in 2023.

Barro Alto - Saprolite Mineral Resources: Mineral Resources are quoted above a 0.9 %Ni cut-off. Ongoing drilling enabled upgrading of Inferred Resources to Measured and Indicated Resources.

A stockpile of 53kt Ni (4.0 Mt at 1.33 %Ni) Indicated Resources is excluded from the table.

The Stockpile Resources contain material with marginal Nickel grades and includes Low-MgO material.

Barro Alto – Ferruginous Laterite Mineral Resources: Material that is scheduled for stockpiling or has already been mined and stockpiled.

A stockpile of 12kt Ni (1.0 Mt at 1.19 %Ni) Indicated Resources is excluded from the table.

Niquelândia – Mineral Resources: Mineral Resources are quoted above a 0.9 %Ni cut-off. The decrease is due to conversion of Mineral Resources to Ore Reserves and a revised Mineral Resource shell using updated economic assumptions.

Jacaré: The Mineral Resources are reported within a pit shell developed for the Concept Study with a cut-off of 1.3 %Ni. A minimum mineralised width of 1m must

be present to allow material to be categorised as higher-grade Saprolite Mineral Resource. The Saprolite Resources are a combination of higher-grade Mineral Resources (>1.3 %Ni) that are expected to feed a pyrometallurgical treatment facility and lower-grade Mineral Resources (1.3 - 0.9 %Ni) that could be used to neutralise the acid in the proposed hydrometallurgical treatment of the Ferruginous Laterite material while still recovering Nickel in the process. The Plano de Aproveitamento Economico (PAE) is in progress and pending approval by Brazil's Departamento Nacional de Produção Mineral (DNPM).

No audits related to the generation of the Ore Reserve and Mineral Resource estimates were carried out by independent consultants during 2017

## **DEFINITIONS**

#### **ORE RESERVES**

An 'Ore Reserve' is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. 'Modifying Factors' are (realistically assumed) considerations used to convert Mineral Resources to Ore Reserves. These include, but are not restricted to, mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors. Ore Reserves are sub-divided in order of increasing confidence into Probable Ore Reserves and Proved Ore Reserves.

A 'Proved Ore Reserve' is the economically mineable part of a Measured Mineral Resource. A Proved Ore Reserve implies a high degree of confidence in the Modifying Factors.

A 'Probable Ore Reserve' is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Ore Reserve is lower than that applying to a Proved Ore Reserve. A Probable Ore Reserve has a lower level of confidence than a Proved Ore Reserve but is of sufficient quality to serve as the basis for a decision on the development of the deposit.

#### MINERAL RESOURCES

A 'Mineral Resource' is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade (or quality), and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade (or quality), continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories.

A 'Measured Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes and is sufficient to confirm geological and grade (or quality) continuity between points of observation where data and samples are gathered.

A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proved Ore Reserve or under certain circumstances to a Probable Ore Reserve.

An 'Indicated Mineral Resource' is that part of a Mineral Resource for which quantity, grade (or quality), densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes, and is sufficient to assume geological and grade (or quality) continuity between points of observation where data and samples are gathered.

An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Ore Reserve.

An 'Inferred Mineral Resource' is that part of a Mineral Resource for which quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. It is based on exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to an Ore Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

#### **COMMON TERMINOLOGY**

#### Grade

The relative quantity, percentage or quality, of a metal or mineral/diamond content estimated to be contained within a deposit.

#### Cut-off (grade)

A grade (see grade units) above which the Mineral Resource or Ore Reserve is reported as being potentially economic.

#### Run of Mine (ROM)

The mined material delivered from the mine to the processing plant is called run-of-mine, or ROM. This is the raw unprocessed mineralised material and includes mineralised rock and varying amounts of internal and external contamination (either unmineralised rock or mineralised material below the cut-off grade). Contamination is usually introduced by the mining process to ensure all the mineralised material is mined or to provide a minimum mining height. ROM material can have highly variable moisture content and maximum particle size.

## Inferred (in LOM Plan)/Inferred (ex. LOM Plan)

Inferred (in LOM Plan): Inferred Resources within the scheduled Life of Mine Plan (LOM Plan).

Inferred (ex. LOM Plan): The portion of Inferred Resources with reasonable prospects for eventual economic extraction not considered in the Life of Mine Plan (LOM Plan).

#### Reserve Life

The scheduled extraction period in years for the total Ore Reserves in the approved Life of Mine Plan.

#### Life of Mine Plan

A design and costing study of an existing operation in which appropriate assessments have been made of realistically assumed geological, mining, processing, metallurgical, economic, infrastructure, marketing, legal, environmental, social, governmental, engineering, operational and all other Modifying Factors, which are considered in sufficient detail to demonstrate at the time of reporting that extraction is reasonably justified.

## Reasonable Prospects for Eventual Economic Extraction (RPEEE)

Assessment of RPEEE implies the judgement (albeit preliminary) by the Competent Person in respect of technical and economic factors likely to influence the prospect of economic extraction. The test should be applied at an appropriate and reasonable scale including consideration of geological, mining, metallurgical, processing, economic, marketing, legal, governmental, infrastructure, environmental, and socio-political factors.

2016-2017

Detailed 2016 and 2017 information appears on pages 10-39. Rounding of figures may cause computational discrepancies.

## (1) Ore Reserve and Mineral Resource reconciliation categories

Tonnage and content change categories	Definition and explanation
Opening Balance	as at 31 December – previous reporting year (as publicly reported in the AA plc R&R Report).
Production* (from Reserve Model)	The amount of material (expressed in terms of tonnage and content as applicable) removed by planned mining from the scheduled Ore Reserves, i.e. the areas actually mined during the reporting period which are removed from the reserve model(s).
Depletion* (from Resource Model)	The amount of material (expressed in terms of tonnage and content as applicable) removed by mining from the Mineral Resources, i.e. the areas actually mined during the reporting period which are removed from the resource model(s). Material removed from the 'Inferred in Mine Plan' category should be reported as Depletion.
Conversion	The effect of applying updated 'Modifying Factors' to Ore Reserves and Mineral Resources which include geotechnical, mining, metallurgical, marketing, legal, environmental, social and governmental considerations including infrastructure. Includes changes to the mining method, mine plan and/or layout changes, e.g. changes in pit slope angles or mineable cut due to geotechnical reasons. The change can be positive or negative year-on-year.
	Sub-Categories:
	• Conversion is the process of upgrading Mineral Resources to Ore Reserves based on a change in confidence levels and/or Modifying Factors.
	Reallocation is the process of downgrading of Ore Reserves to Mineral Resources or Mineral Resources to Mineralised Inventory based on a change in confidence levels and/or Modifying Factors.
	Sterilisation is the process of removing material from Ore Reserves and/or Mineral Resources that no longer has reasonable prospects for eventual economic extraction (RPEEE).
Economic Assumptions	The effect of RPEEE assumptions based on the current or future price of a commodity and associated exchange rate estimates as determined by the corporate centre (Global Assumptions) which has a direct impact on the Mineral Resources or Ore Reserves particularly the cut-off grade (which can be affected by changes in costs).
New Information/Exploration**	The effect of additional resource definition information (with QA/QC information) which initiates an update to the geological models (facies, structural, grade, geotechnical) and results in an updated (reclassified) resource model and subsequent determination of new Ore Reserve estimates. Includes ore bodies (or portions of current orebodies) within the same project/operation not previously reported.
Model Refinement	No additional resource definition drilling has been undertaken but the interpretation (geometry/ore-waste contacts) of the orebody has been refined or internal mine/lease boundaries changed, e.g. based on mapping information obtained during mining or a different structural model being applied. Changes to in situ tonnages as a result of new geological losses being applied or a change to the definition of the boundary of the Mineral Resources due to an updated 'economically mineable cut' being applied.
Methodology	Only valid for changes in the estimation or classification methodologies applied to the resource model evaluation, i.e. no new information available or model refinement taken place.
Transfer	Movement of Mineral Resources and/or Ore Reserves from one type of product/ore type facies to another due to internal contact changes/updates or from one mining/project area to another or relocation of <i>in situ</i> material to stockpiles.
New Technology	Changes to Mineral Resources or Ore Reserves in response to the application of new or improved mining and/or processing methods.
Stockpiles	Denotes material destined for long-term stockpiles, to be used for blending or processed in the latter years of the life of mine plan.
Reconciliation Adjustment	Changes which cannot be allocated to a defined category or an adjustment necessary to mitigate inaccurate production/depletion estimates of the previous year.*
Acquisitions	Additional Mineral Resources and Ore Reserves due to acquisitions of assets or increased direct ownership in JV agreements/associate companies.
Disposals	Reduction in Mineral Resources and Ore Reserves due to disposals of assets or reduced direct ownership in JV agreements/associate companies, refusal/withdrawal/relinquishment of Mining/Prospecting Rights or related permits, e.g. due to environmental issues, changes in policy.
Closing Balance	as at 31 December – current reporting year.

(2) Ore Reserves: Includes Proved and Probable.
Mineral Resources: Includes Measured, Indicated and Inferred.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued exploration.

<sup>\*</sup> The Production/Depletion figures can be estimated for the last three months of the reporting period based on the monthly average of the previous nine months.
\*\* Exploration – Applicable to greenfields drilling in a new project area for which a pre-feasibility study has not yet been undertaken or does not form part of a current project area.

2016-2017

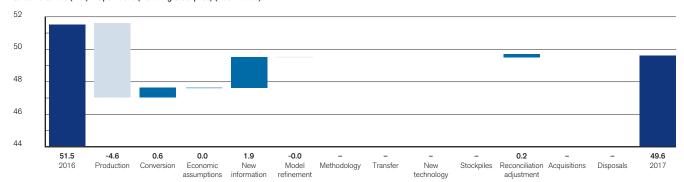
Detailed 2016 and 2017 information appears on pages 10-39.

Rounding of figures may cause computational discrepancies.



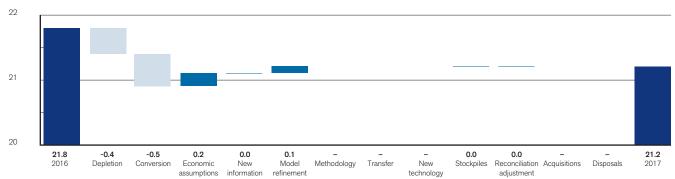
## De Beers Canada 2016-2017 Diamond Reserves reconciliation

Saleable Carats (Mct) - Operations (including Stockpiles) (100% basis)



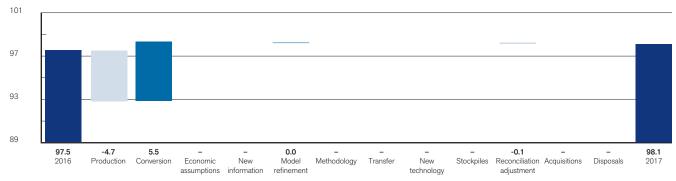
## De Beers Canada 2016-2017 Diamond Resources reconciliation

Carats (Mct) - Operations (including Stockpiles) (100% basis)



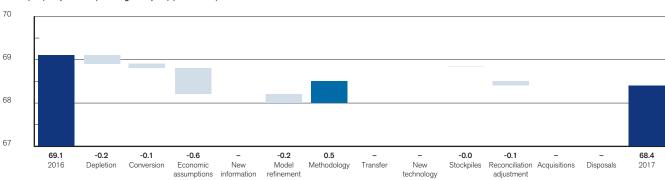
#### De Beers Consolidated Mines 2016–2017 Diamond Reserves reconciliation

Saleable Carats (Mct) – Operations (including Stockpiles) (100% basis)



## De Beers Consolidated Mines 2016–2017 Diamond Resources reconciliation

Carats (Mct) - Operations (including Stockpiles) (100% basis)



2016-2017

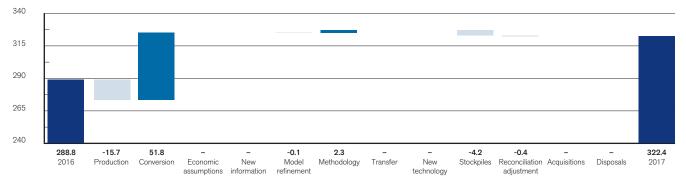
etailed 2016 and 2017 information appears on pages 10-39.

Total
Negative
Positive

Detailed 2016 and 2017 information appears on pages 10-39. Rounding of figures may cause computational discrepancies.

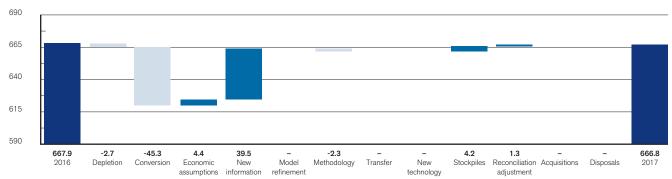
## Debswana Diamond Company 2016-2017 Diamond Reserves reconciliation

Saleable Carats (Mct) - Operations and Stockpiles (100% basis)



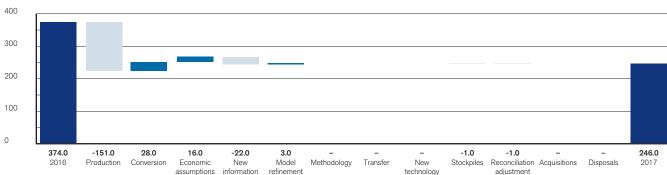
## Debswana Diamond Company 2016–2017 Diamond Resources reconciliation

Carats (Mct) - Operations, TMRs, ORTs and Stockpiles (100% basis)



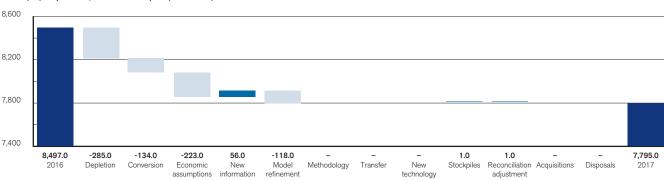
## Namdeb Holdings 2016-2017 Terrestrial Diamond Reserves reconciliation

Saleable Carats (kct) - Operations (100% basis)



## Namdeb Holdings 2016–2017 Terrestrial Diamond Resources reconciliation

Carats (kct) - Operations, TMRs and Stockpiles (100% basis)



2016-2017

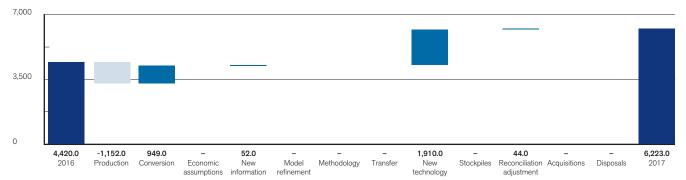
Detailed 2016 and 2017 information appears on pages 10-39.

Rounding of figures may cause computational discrepancies.



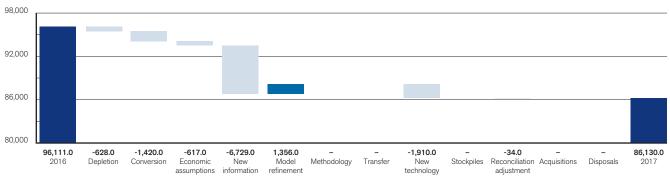
## Namdeb Holdings 2016–2017 Offshore Diamond Reserves reconciliation

Saleable Carats (kct) - Operations (100% basis)



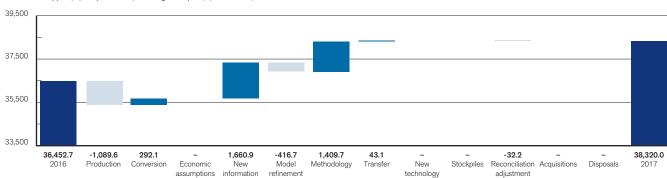
## Namdeb Holdings 2016-2017 Offshore Diamond Resources reconciliation

Carats (kct) - Operations (100% basis)



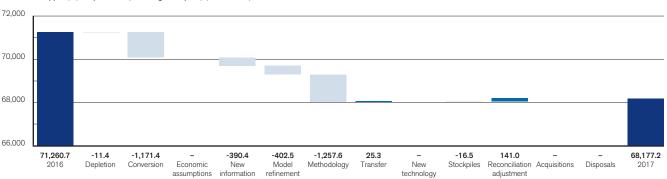
## Copper 2016-2017 Ore Reserves reconciliation

Contained Copper (kt) - Operations (including Stockpiles) (100% basis)



## Copper 2016–2017 Mineral Resources reconciliation

Contained Copper (kt) - Operations (including Stockpiles) (100% basis)



2016-2017

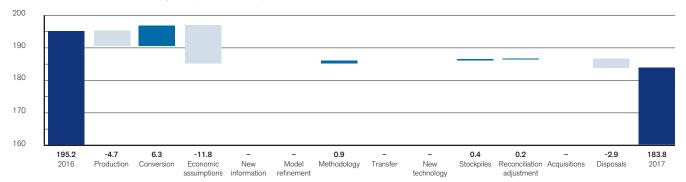
Detailed 2016 and 2017 information appears on pages 10-39.

Rounding of figures may cause computational discrepancies.



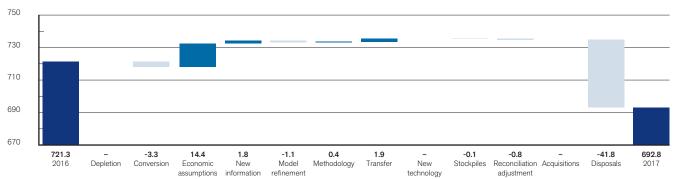
#### Platinum 2016-2017 Ore Reserves reconciliation

Contained Metal (4E Moz) - All Reefs, Tailings, Stockpiles and MSZ (Disposal reflects the sale of interest in Pandora) (100% basis)



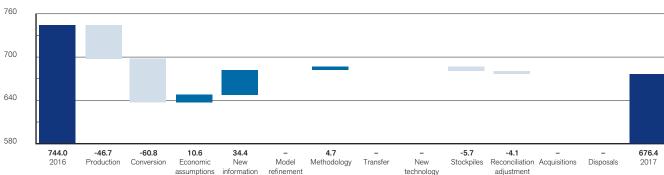
#### Platinum 2016-2017 Mineral Resources reconciliation

Contained Metal (4E Moz) – All Reefs, Tailings, Stockpiles and MSZ (Disposal reflects the sale of interest in Pandora and portion of Tumela) (100% basis)



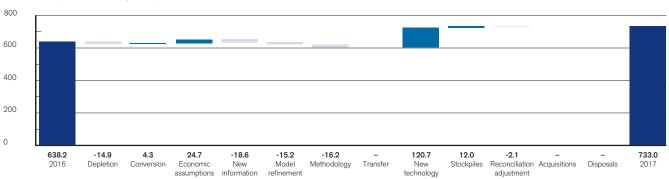
## Kumba Iron Ore 2016-2017 Ore Reserves reconciliation

ROM Tonnes (Mt) - Operations (100% basis)



## Kumba Iron Ore 2016–2017 Mineral Resources reconciliation

Tonnes (Mt) - Operations (including Stockpiles) (100% basis)



2016-2017

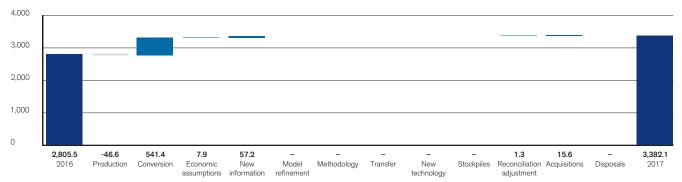
Detailed 2016 and 2017 information appears on pages 10-39.

Rounding of figures may cause computational discrepancies.



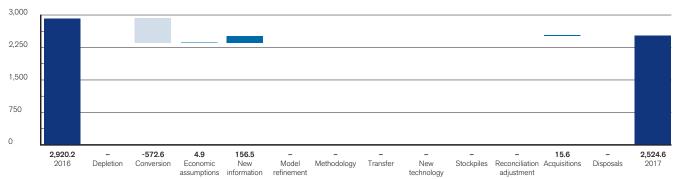
## Minas-Rio 2016-2017 Ore Reserves reconciliation

ROM Tonnes (Mt) - Operations (100% basis)



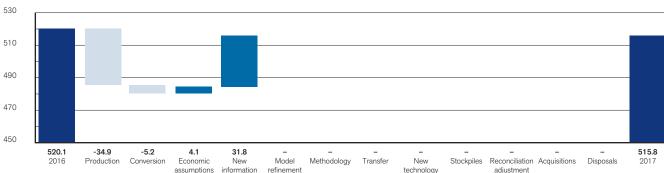
#### Minas-Rio 2016-2017 Mineral Resources reconciliation

Tonnes (Mt) - Operations and Projects (Serra do Sapo and Itapanhoacanga) (100% basis)



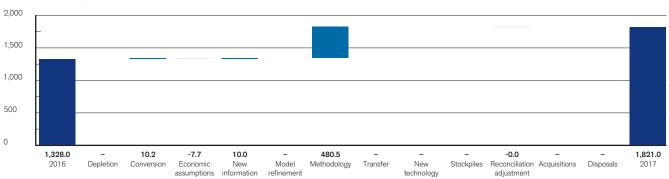
#### Coal Australia 2016-2017 Coal Reserves reconciliation

ROM Tonnes (Mt) - Operations (100% basis)



## Coal Australia 2016–2017 Coal Resources reconciliation

MTIS Tonnes (Mt) - Operations (100% basis)



2016-2017

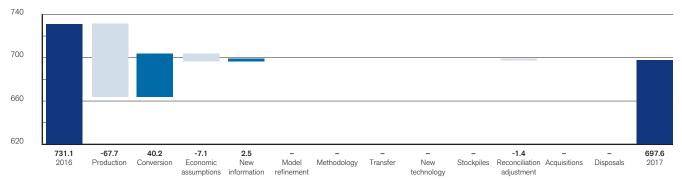
Detailed 2016 and 2017 information appears on pages 10-39.

Rounding of figures may cause computational discrepancies.



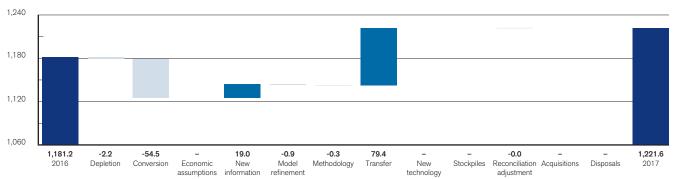
#### Coal South Africa 2016-2017 Coal Reserves reconciliation

ROM Tonnes (Mt) - Operations, MRDs and Stockpiles (100% basis)



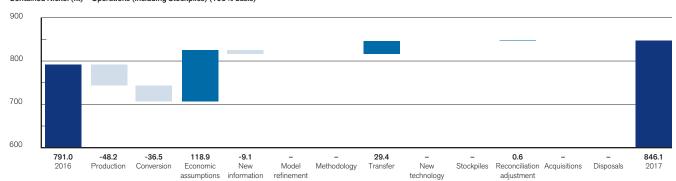
## Coal South Africa 2016-2017 Coal Resources reconciliation

MTIS Tonnes (Mt) - Operations and MRDs (100% basis)



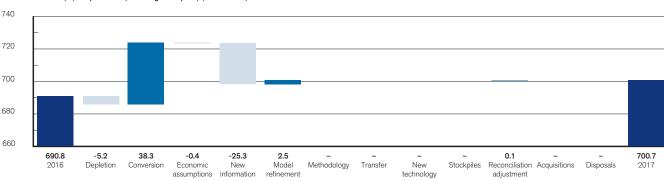
#### Nickel 2016-2017 Ore Reserves reconciliation

Contained Nickel (kt) - Operations (including Stockpiles) (100% basis)



#### Nickel 2016-2017 Mineral Resources reconciliation

Contained Nickel (kt) - Operations (including Stockpiles) (100% basis)



# **COMPETENT PERSONS (CP) LIST ORE RESERVES**

	Name	RPO	Years
DE BEERS CANADA – Operations			
Gahcho Kué	Andrew Bodden	PEO	10
Victor Mine	Marc Nadeau	PEO	26
DE BEERS CONSOLIDATED MINES – Operations			
Venetia (OP)	Willis Zvineyi Saungweme	ECSA	9
Venetia (UG)	Mervin Smit	SAIMM	10
Voorspoed	Witness Netshikulwe	SAIMM	19
DEBSWANA DIAMOND COMPANY – Operations			
Damtshaa, Letlhakane & Orapa	Tebogo Mompati	ECSA	10
Jwaneng	Withus Mbi Kuswani	SAIMM	22
NAMDEB HOLDINGS – Terrestrial Operations			
Elizabeth Bay, Mining Area 1, & Orange River	Edmond Nel	IMSSA	14
NAMDEB HOLDINGS – Offshore Operations			
Atlantic 1	Simon Hengua	SACNASP	10
Midwater	Edmond Nel	IMSSA	14
COPPER - Operations			
Collahuasi	Andrés Perez	AusIMM	21
El Soldado	Rodrigo Cifuentes	AuslMM	17
Los Bronces	Victor Parra	CMC	24
COPPER - Projects			
Quellaveco	Wilson Jara	AuslMM	23
PLATINUM SOUTH AFRICA – Operations			
Bafokeng Rasimone	Clive Ackhurst (1)	ECSA	17
Bafokeng Rasimone	Robby Ramphore (1)	SAIMM	21
Dishaba Mine	Ebrahim Ramzan	SAGC	8
Kroondal & Marikana Platinum Mine	Brian Smith (1)	SAGC	15
Modikwa Platinum Mine	Jurie de Kock <sup>(1)</sup>	SAIMM	16
Mogalakwena Mine	Marlon van Heerden	SAIMM	10
Mototolo Platinum Mine	Frederik C Fensham <sup>(1)</sup>	SACNASP	24
Siphumelele Mine 3	Brian Smith (1)	SAGC	15
Tumela Mine	Ebrahim Ramzan	SAGC	8
Union Mine	Theunis Goosen	SAIMM	28
PLATINUM SOUTH AFRICA – Tailings Dams			
Union	Pier de Vries	SACNASP	15
PLATINUM ZIMBABWE – Operations			
Unki Mine	Clever Dick	SAIMM	14

RPO = Registered Professional Organisation. Years = Years of Relevant Experience in the commodity and style of mineralisation.

<sup>(1)</sup> Not employed by Anglo American plc Group.

	Name	RPO	Years
KUMBA IRON ORE - Operations			
Kolomela	Grant Crawley	ECSA	7
Sishen	Terence Jordaan (1)	ECSA	13
IRON ORE BRAZIL - Operations			
Serra do Sapo	Antônio Hamilton Caires Junior	AusIMM	13
SAMANCOR MANGANESE – Operations			
GEMCO	Ursula Sandilands	AuslMM	20
Mamatwan & Wessels	Johann Lamprecht (2)	SACNASP	6
COAL AUSTRALIA - Operations			
Capcoal (OC)	Innocent Mashiri	AusIMM	8
Capcoal (UG)	Johnson Lee	AusIMM	12
Dawson	Innocent Mashiri	AusIMM	8
Grosvenor	Johnson Lee	AusIMM	12
Moranbah North	Johnson Lee	AusIMM	12
COAL AUSTRALIA – Projects			
Capcoal (UG) – Aquila	Johnson Lee	AusIMM	12
COAL CANADA - Operations			
Trend	David Lortie	APEGBC	24
Roman Mountain	David Lortie	APEGBC	24
		7.11 2.02.0	
COAL COLOMBIA - Operations	Germán Hernández	GSSA	00
Cerrejón	German Hernandez	GSSA	28
COAL SOUTH AFRICA – Operations			
Goedehoop	Shaun Levings	SAGC	10
Greenside	Maqadini Mpepe	ECSA	19
Isibonelo	Shaun Levings	SAGC	10
Kleinkopje	Maqadini Mpepe	ECSA	19
Kriel	Tsunduka Nkuna	SACNASP	9
Landau (operation and life extension)	Phumzile Mkhize & Maqadini Mpepe	SACNASP/ECSA	12 & 19
Mafube (operation and life extension)	Deborah Xaba & Joanne Uys	SACNASP	18 & 15
New Denmark	Boitumelo Mogale	SACNASP	10
New Vaal	Mark Goodale	SACNASP	16
Zibulo	Michael Naidoo	SACNASP	11
NICKEL - Operations			
Barro Alto & Niquelândia	Bruno Conceição	AusIMM	10

 $RPO = Registered \ Professional \ Organisation. \ Years = Years \ of \ Relevant \ Experience \ in \ the \ commodity \ and \ style \ of \ mineralisation.$ 

 $<sup>^{\</sup>mbox{\scriptsize (1)}}$  Not employed by Anglo American plc Group.

<sup>(2)</sup> Not employed by Samancor Manganese.

# COMPETENT PERSONS (CP) LIST MINERAL RESOURCES

	Name	RPO	Years
DE BEERS CANADA – Operations			
Gahcho Kué	Kevin Earl Gostlin	NAPEG	11
Victor Mine	James Alexander	SACNASP	16
DE BEERS CANADA – Projects			
Snap Lake	Jason Dankowski	NAPEG	11
Tango Extension	Pamela Cook Ellemers	APGO	10
DE BEERS CONSOLIDATED MINES – Operations			
Namaqualand	William Graham MacDonald	SACNASP	21
Venetia (OP & UG)	Siyanda Caleb Dludla	SACNASP	13
Voorspoed	Maanda Ratshitanga	SACNASP	18
DEBSWANA DIAMOND COMPANY – Operations			
Damtshaa, Letlhakane & Orapa	Olefile Mashabila	SACNASP	11
Jwaneng	Phenyo Maoto	SACNASP	13
NAMDEB HOLDINGS – Terrestrial Operations			
Bogenfels, Douglas Bay, Elizabeth Bay, Mining Area 1 and Orange River	Jana Jacob	SACNASP	19
NAMDEB HOLDINGS – Offshore Operations			
Atlantic 1	Godfrey Ngaisiue	SACNASP	14
Midwater	Jana Jacob	SACNASP	19
COPPER – Operations			
Collahuasi	Yuan Tay	CMC	16
El Soldado	Raúl Ahumada	AusIMM	29
Los Bronces	César Ulloa	AusIMM	13
COPPER - Projects			
Los Bronces Sur	César Ulloa	AusIMM	13
Los Bronces Underground	Ivan Vela	CMC	31
Quellaveco	José Cardenas	CMC	8
Sakatti	Janne Siikaluoma	AusIMM	10
West Wall	Manuel Machuca (1)	AuslMM	23
PLATINUM SOUTH AFRICA – Operations			
Bafokeng Rasimone	Prinushka Padiachy (1)	SACNASP	8
Bokoni Platinum Mine	Vinodh Sewpersad	SACNASP	26
Kroondal Mine & Marikana Platinum Mine	Leonard Changara (1)	SACNASP	18
Mogalakwena Mine	Kavita Mohanlal	SACNASP	14
Mototolo Platinum Mine	Pieter Jan Grabe (1)	SACNASP	32
Siphumelele Mine 3	Etienne Malherbe (1)	SACNASP	10
Dishaba Mine, Modikwa Platinum Mine, Tumela Mine, Twickenham Platinum Mine and Union Mine	lain Colquhoun	SACNASP	20
PLATINUM SOUTH AFRICA - Projects			
Der Brochen	Iain Colquhoun	SACNASP	20
Sheba's Ridge	Steve Savage & Eric Roodt (1)	SACNASP	14&26
PLATINUM SOUTH AFRICA – Tailings Dams			
Amandelbult	Kavita Mohanlal	SACNASP	14
Union	Pier de Vries	SACNASP	15
PLATINUM ZIMBABWE – Operations			
Unki Mine	lain Colquhoun	SACNASP	20
	1 22		

 $\mathsf{RPO} = \mathsf{Registered} \, \mathsf{Professional} \, \mathsf{Organisation}. \, \mathsf{Years} = \mathsf{Years} \, \mathsf{of} \, \mathsf{Relevant} \, \mathsf{Experience} \, \mathsf{in} \, \mathsf{the} \, \mathsf{commodity} \, \mathsf{and} \, \mathsf{style} \, \mathsf{of} \, \mathsf{mineralisation}.$ 

 $<sup>^{\</sup>mbox{\scriptsize (1)}}$  Not employed by Anglo American plc Group.

KOMBRAIRON ORE—Operations         Hannes Viljeen (more projects)         SACINASP (more projects)         3 ACINASP (more projects)         4 ACINASP (more projects)         <		Name	RPO	Years	
Sibhen         Michael van den Heever         SACNASP         8           KUMBAIRON ORE - Projects           Tandnriverspoort         Stuart Mac Greeger         SACNASP         1           ROM ORE BRAZIL - Operations           Fernando Rosa Guimariães         Ausilimit         7           Serra do Sago         Fernando Rosa Guimariães         Ausilimit         9           SAMANCOR MANGANESE - Operations         Elemando Rosa Guimariães         Ausilimit         18         \$           GEMCO         David Hope & Joshua Harvey         Ausilimit         12         Que 88           COLA CAUSTRALIA - Operations         Elemando Rosa Guimariães         Ausilimit         12         Que 88           COLA CAUSTRALIA - Operations         Elemando Rosa Guimariães         Ausilimit         12         Que 88                 COLA CAUSTRALIA - Operations                      Elemando Rosa Guimariães               Ausilimit               Ausilimit               Ausilimit               Ausilimit <th colspa<="" th=""><th>KUMBA IRON ORE – Operations</th><th></th><th></th><th></th></th>	<th>KUMBA IRON ORE – Operations</th> <th></th> <th></th> <th></th>	KUMBA IRON ORE – Operations			
KUMBA IRON ORE — Projects         Sandrivinerpoort         SALDASP         1 1           IRON ORE BRAZIL — Operations         Fernando Rosa Guimariaes         AudilMM         9           IRON ORE BRAZIL — Projects         Fernando Rosa Guimariaes         AudilMM         9           SAMANCOR MANGANESE — Operations         Fernando Rosa Guimariaes         AudilMM         11 8 15           SAMANCOR MANGANESE — Operations         Edward Ferreira. Archurergewi Nengovinalia & Farrisan i Inomas Rambudua         \$20 8 88           COAL AUSTRALIA — Operations         Edward Ferreira. Archurergewi Nengovinalia & Farrisan i Inomas Rambudua         \$20 8 88           Coposal OC & Capocal UG         Analim Magnation & AudilMM         22           Dewon         Georgina Netherica Magnation & AudilMM         27           Morantoan North         Kate Medling         AudilMM         27           COAL CANDAD — Operations         Terrei & Roman Mountain         Develous Elevation & AudilMM         27           COAL COAL OR — Operations         Germán Hernández         GSSA         28           COAL COUNTRICA — Operations         Germán Hernández         GSSA         28           COAL COUNTRICA — Operations         Germán Hernández         GSSA         28           COAL CANDAD — Operations         Addit Opperman         SACNASP         10 </th <th></th> <th>,</th> <th></th> <th></th>		,			
Zandrivierspoort         Stuart Mac Giregor         SACNASP         11           IRON ORE BRAZIL – Operations         Fernando Rosa Guimarães         AusiMM         70           SERR do Sapo         Fernando Rosa Guimarães         AusiMM         70           RON ORE BRAZIL – Projects         Fernando Rosa Guimarães         AusiMM         11           SAMANCOR MANGANESE – Operations         Busid Hope à Joshua Harvey         AusiMM         11.5         15           SAMANCOR MANGANESE – Operations         Edward Ferreira, Aphatenação Nongochella & SACNASP         20,6 & Edward Aphatenação Nongochella & SACNASP         20,6 & Edward Aphatenação Nongochella & SACNASP<	Sishen	Michael van den Heever	SACNASP	8	
RON ORE BRAZIL - Operations   Serra do Sapo   Fernando Rosa Guimaráes   Ausi MM   9   9   1   1   1   1   1   1   1   1	KUMBA IRON ORE – Projects				
Serna do Sapo         Fernando Rosa Guimaráes         AusiMM         9           IRON DEE BRAZIL - Projects         Fernando Rosa Guimaráes         AusiMM         0           SAMANCOR MANGANESE - Operations         Edward Ferreira, Arburenqui Nengovhela & Farisani Thomas Rambuda         AusiMM         11 k 15           COAL AUSTRALIA - Operations         Edward Ferreira, Arburenqui Nengovhela & Farisani Thomas Rambuda         AusiMM         12 k 15           COAL AUSTRALIA - Operations         Andrew Laws         AusiMM         22           Dawson         Georgina Rees         AusiMM         30           Coal CANADA - Operations         Kate Mediling         AusiMM         10           Condicionam Mountain         David Lentie         APEGBC         22           COAL COLOMBIA - Operations         Germán Hernández         GSSA         20           Greenside         André Chapeanies         ACANADA         2           Concious Colombia - Operations         GERMAN Masioles Ismatulle         SACNADA         2           Gocido Colombia - Operations         Masioles Ismatulle         SACNADA         2           Greenside         Masioles Ismatulle         SACNADA         1           Greenside         Masional Masionalulle         SACNADA         1           Islicion	Zandrivierspoort	Stuart Mac Gregor	SACNASP	11	
RON ORE BRAZIL - Projects   Itapanhoacanga & Serro	IRON ORE BRAZIL - Operations				
Repanhacanga & Serro   Formando Rosai Guimarises   AusilMin   18   5	Serra do Sapo	Fernando Rosa Guimarães	AusIMM	9	
SAMANCOR MANGANESE - Operations         David Hope & Joshua Harvey         AuslMM         11 & 15           GEMCO         David Hope & Joshua Harvey         AuslMM         11 & 15           Mamatwan & Wessels         Edward Ferreira, Avhurengwi Nengowhelia & Farisani Thomas Rambuda         SACNASP         20,6 & 8           COAL AUSTRALIA - Operations         AuslMM         22           Capocal OC& Capcoal UG         Andrew Laws         AuslMM         7           Conception         Rate Medling         AuslMM         7           COAL CANDADA - Operations         Tend & Roman Mountain         David Lortie         APEGBC         24           COAL COLORIBIA - Operations         Operations         Agency Medical Persons         Aperations         2           COAL SOUTH AFRICA - Operations         Germán Hernández         GSSA         28           COAL SOUTH AFRICA - Operations         Adri Opperman         SACNASP         9           Greenside         Massixole Simakuhle         SACNASP         10           Greenside         Massixole Simakuhle         SACNASP         14           Isibonelo         Menker Katuruza         SACNASP         12           Kriel         The Capca Marker Katuruza         SACNASP         12           Kriel         The Cap	IRON ORE BRAZIL – Projects				
GEMCO         David Hope & Joshua Harvey         Au siMM         11 & 15           Mamatwan & Wessels         Edward Ferreira, Anhurang with Nengonhelia & SACNASP         20,6 & 8           COAL AUSTRALIA - Operations         Andrew Laws         Au silMM         22           Capocal UG         Andrew Laws         Au silMM         22           Dawson         Georgina Rees         Au silMM         7           Moranbah North         Kate Medling         Au silMM         7           Moranbah North         Kate Medling         Au silMM         7           COAL CANDA - Operations         Tend & Roman Mountain         David Lortie         APEGBC         24           COAL COLOMBIA - Operations         Cerein         German Hernández         & SACNASP         26           COAL SOUTH AFRICA - Operations         Marcia Marcia Sacration         Andri Opperman         SACNASP         10           Greenside         Massiole Simulature         SACNASP         10           Sibonelo         Massiole Simulature         SACNASP         10           Kleinkogie         Phumzile Michize & Jaanne Uys         SACNASP         10           Kleinkogie         Phumzile Michize & Jaanne Uys         SACNASP         11         15           Kroil         Sa	Itapanhoacanga & Serro	Fernando Rosa Guimarães	AusIMM	9	
GEMCO         David Hope & Joshua Harvey         Au siMM         11 & 15           Mamatwan & Wessels         Edward Ferreira, Anhurang with Nengonhelia & SACNASP         20,6 & 8           COAL AUSTRALIA - Operations         Andrew Laws         Au silMM         22           Capocal UG         Andrew Laws         Au silMM         22           Dawson         Georgina Rees         Au silMM         7           Moranbah North         Kate Medling         Au silMM         7           Moranbah North         Kate Medling         Au silMM         7           COAL CANDA - Operations         Tend & Roman Mountain         David Lortie         APEGBC         24           COAL COLOMBIA - Operations         Cerein         German Hernández         & SACNASP         26           COAL SOUTH AFRICA - Operations         Marcia Marcia Sacration         Andri Opperman         SACNASP         10           Greenside         Massiole Simulature         SACNASP         10           Sibonelo         Massiole Simulature         SACNASP         10           Kleinkogie         Phumzile Michize & Jaanne Uys         SACNASP         10           Kleinkogie         Phumzile Michize & Jaanne Uys         SACNASP         11         15           Kroil         Sa	SAMANCOR MANGANESE – Operations				
Mamatwan & Wessels         Edward Ferreira, Avhurengniv Nengovhela & Farisan i Tromas Rambuda         SACNASP         20, 6 & 8           COAL AUSTRALIA - Operations         Audrew Laws         AusiMM         22           Dawson         Georgina Rees         AusiMM         8           Grosvenor         Kata Medling         AusiMM         7           Moranbah North         Kate Medling         AusiMM         7           COAL CANADA - Operations         Trend & Roman Mountain         David Lortie         AFEGBC         24           COAL COLOMBIA - Operations         Germán Hernández         GSSA         28           COAL SOUTH AFRICA - Operations         Germán Hernández         GSSA         28           COAL SOUTH AFRICA - Operations         Adri Opperman         SACNASP         12           Gedebnoop         Adri Opperman         SACNASP         14           Isbonelo         Meaker Katuruza         SACNASP         12           Kieil         Tummile Michize         SACNASP         12           Kieil         Tummile Michize         SACNASP         12         15         16           Kleinkopje         Phumzile Michize         SACNASP         12         15         16         16         16         16         16<	•	David Hope & Joshua Harvey	AusIMM	11 & 15	
CAL AUSTRALIA - Operations         Andrew Laws         AusIMM         22           Dawson         Georgina Rees         AusIMM         7           Morsovenor         Kata Medding         AusIMM         7           Mornabah North         Kate Medding         AusIMM         7           COAL CANADA - Operations           Terned & Roman Mountain         David Lortie         APEGBC         24           COAL COLOMBIA - Operations           Geresion         Germân Hernândez         SSSA         28           COAL SOUTH AFRICA - Operations           Geoedhoop         Adri Opperman         SACNASP         1           Geoedhoop         Meaker Katuruza         SACNASP         1           Kleinkopje         Phumzile Mkrize & Solanne Uys         SACNASP         1           Kleinkopje everation and life extension)         Deborah Xaba & Josanne Uys         SACNASP         1           Mafuse feet extension         Boitumelo Mogale         SACNASP <td></td> <td>Edward Ferreira, Avhurengwi Nengovhela &amp;</td> <td></td> <td></td>		Edward Ferreira, Avhurengwi Nengovhela &			
Capocal OC & Capocal UG         Andrew Laws         AuslMM         22           Dawson         Georgina Rees         AuslMM         3           Grosvenor         Kate Mediling         AuslMM         7           Moranbah North         Kate Mediling         AuslMM         7           COAL CANADA — Operations         Use of David Lortie         APEGBC         28           COAL COLOMBIA — Operations         Use of David Lortie         APEGBC         28           COAL SOUTH AFRICA — Operations         Use of David Lortie         SCNASP         9           Greenside         Massicol Simakuhle         SACNASP         9           Greenside         Massicol Simakuhle         SACNASP         10           Isibonelo         Massicol Simakuhle         SACNASP         10           Kleinkogie         Phumzile Mkhize         SACNASP         12           Kleinkogie         Bottuneto Maria	COAL ALISTBALIA - Operations	i ansani momasikambuda			
Dawson         Georgina Rees         AusIMM         8           Grosvenor         Kate Mediling         AusIMM         7           COAL CANADA - Operations         Tomate Roman Mountain         David Lortie         APEGBC         24           COAL COLOMBIA - Operations           Cerrejón         Germán Hernández         GSSA         28           COAL SOUTH AFRICA - Operations           Geoedhoop         Adri Opperman         SACNASP         9           Greenside         Maskorle Simakuhle         SACNASP         10           Kleinkopje         Phumzile Mkhize         SACNASP         12           Kriel         Tsunduka Nkun         SACNASP         12           Kriel         Tsunduka Nkun         SACNASP         12           Kriel (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12         15           Mafube (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         18         15           Mary Denmark         Boitunel Morgale         SACNASP         18         15           New Denmark         Boitunel Merchale         SACNASP         16           COAL AUSTRALIA - Projects         Anter Meding         <	•	Andrew Laws	AuslMM	22	
Grosvenor         Kate Medling         AusIMM         7           Moranbah North         Kate Medling         AusIMM         7           COAL CANADA – Operations         Trend & Roman Mountain         David Lortie         APEGBC         24           COAL COLOMBIA – Operations         Germán Hernández         GSSA         28           COAL SOUTH AFRICA – Operations         Goedehoop         Adri Opperman         SACNASP         9           Goedehoop         Massixole Simakuhile         SACNASP         10           Kleinkopje         Phumzile Mkhize         SACNASP         10           Kleinkopje         Phumzile Mkhize         SACNASP         12         15           Kriel         Tsunduka Ntuna         SACNASP         12         15           Mafube (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12         15           Mafube (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12         15           Mary Denmark         Boitumelo Mogale         SACNASP         18         15           New Denmark         Boitumelo Mogale         SACNASP         16           CALAUSTRALIA – Projects         Boitumelo Mogale         SACNASP         4 </td <td></td> <td></td> <td></td> <td></td>					
Moranbah North         Kate Medling         AuslMM         7           COAL CANADA - Operations         Trend & Roman Mountain         David Lortie         APEGBC         2           COAL COLOMBIA - Operations         Cerrejón         Germán Hernández         GSSA         28           COAL SOUTH AFRICA - Operations         Geoelboop         Adri Opperman         SACNASP         9           Greenside         Masixole Simakuhle         SACNASP         9           Kirel         Manduka Nuna         SACNASP         9           Michael Solitania         Masixole Simakuhle         SACNASP         9 </td <td></td> <td>· ·</td> <td></td> <td></td>		· ·			
COAL CANADA - Operations         David Lortice         APEGBC         24           COAL COLOMBIA - Operations         Germán Hernández         GSSA         28           COAL SOUTH AFRICA - Operations         Germán Hernández         GSSA         28           Goedehoop         Adri Opperman         SACNASP         9           Greenside         Msaksxole Simakuhle         SACNASP         14           Isbionelo         Meker Katuruza         SACNASP         10           Kleinkopje         Phumzile Mkhize         SACNASP         12           Kriel         Tsunduka Nkuna         SACNASP         12         15           Kind Operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         18 & 15           COAL AUSTRALIA – Projects         Andrew Laws         Aus IMM         22           Dray to Sacra Marcha (Sacra Marcha (Sacra Marcha (Sacra Marcha (Sacr					
Trend & Roman Mountain         David Lorlie         APEGBC         24           COAL COLOMBIA - Operations         Germán Hernández         GSSA         28           COAL SOUTH AFRICA - Operations         Brain Massivole Sirnakuhle         SACNASP         9           Goedehoop         Adri Opperman         SACNASP         14           Isibonelo         Measker Katuruza         SACNASP         10           Kleinkopie         Phumzile Mkhize         SACNASP         12           Kriel         Tsunduka Nikuna         SACNASP         12           Mafube (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           Mew Denmark         Boitumelo My         SACNASP         18 & 15           New Denmark         Boitumelo My         SACNASP         18 & 15           New Denmark         Boitumelo My         SACNASP         18 & 15           Tobol AUSTRALIA - Projects         Australia         2           Capcal Aquila & Moranbah South         Andrew Laws         AuslMM         22           Teviot Brook         Kate Medling         AuslMM         22           COAL CANAD	COAL CANADA - Operations				
COAL COLOMBIA - Operations         Germán Hernández         GSSA         28           COAL SOUTH AFRICA - Operations         Adri Opperman         SACNASP         9           Greenside         Masixole Simakuhle         SACNASP         14           Isibonelo         Meaker Katuruza         SACNASP         10           Kleinkogie         Phumzile Mkhize         SACNASP         12           Kleinkogie         Phumzile Mkhize         SACNASP         12           Landau (operation and life extension)         Phumzile Mkhize         SACNASP         12           Mafube (operation and life extension)         Phumzile Mkhize         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           Member Demark         Boitumelo Mogale         SACNASP         10           Sibus         Ulrike Hermann         SACNASP         10           COAL AUSTRALIA - Projects         Agency Majus         Agency Majus         2           Elders Gextension, Kriel East and South Ra	·	David Lortie	APEGRC.	24	
Cerrejón         Germán Hernández         GSSA         28           COAL SOUTH AFRICA - Operations         COAL SOUTH AFRICA - Operations         Adri Opperman         SACNASP         9           Greenside         Masking Simakuhla         SACNASP         10           Kleinkopie         Meaker Katuruza         SACNASP         10           Kleinkopje         Phumzile Mkhize         SACNASP         12           Kriel         Tsunduka Nkuna         SACNASP         9           Landau (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         16           COLA USTRALIA - Projects         Aus IMM         22           Capcoal Aquila & Moranbah South         Andrew Laws         Aus IMM         32           Toylor South & Theodore         Barro Alto Media         Aus IMM         32           Elders Us Saxon         David Lortie         APEGBC         24           COAL CANADA - Projects         Belicut Saxon         Adri Opperman         SACNASP		David Lot tile	711 Edbo		
COAL SOUTH AFRICA - Operations         Adri Opperman         SACNASP         9           Goedehoop         Adri Opperman         SACNASP         14           Greenside         Maskxole Simakuhle         SACNASP         14           Isionelo         Meaker Katuruza         SACNASP         10           Kleinkopje         Phumzile Mkhize         SACNASP         12           Kriel         Tsunduka Nkuna         SACNASP         9           Landau (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           New Denmark         Boitumedo Mogale         SACNASP         10           Sibulo         Ulrike Herrmann         SACNASP         16           COAL AUSTRALIA - Projects         Andrew Laws         AusIMM         22           Capcoal Aquila & Moranbah South         Andrew Laws         AusIMM         32           Teylor Brook         Kate Medling         AusIMM         32           Teylor Brook         Kate Medling         AusIMM         32           COAL CANADA - Projects         Adri Opperman         SACNASP         9           Elders US Extension, Krie	-	Carrata Harata dan	4220	00	
Goedehoop         Adri Opperman         SACNASP         9           Greenside         Masixole Simakuhle         SACNASP         14           Isionelo         Meaker Katuruza         SACNASP         10           Kleinkopje         Phumzile Mkhize         SACNASP         12           Kriel         Tsunduka Nkuna         SACNASP         9           Landau (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         16           COAL AUSTRALIA – Projects         Ulrike Hermann         SACNASP         16           Expecial Aquila & Moranbah South         Andrew Laws         Aus IMM         22           Drayton South & Theodore         Is an Driver (**)         Aus IMM         32           Teylor Brook         Kate Mediling         Aus IMM         32           COAL CANADA – Projects         Aug Immediate Mediling         Aug Immediate Mediling         Aug Immediate Mediling         Aug Immediate Mediling         32         42           Elders	•	German Hernandez	GSSA	28	
Greenside         Masixole Simakuhlle         SACNASP         14           Isibonelo         Meaker Katuruza         SACNASP         10           Kleinkoje         Phumzile Mkhize         SACNASP         12           Kriel         Tsunduka Nkuna         SACNASP         9           Landau (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         10           Zibulo         Ulrike Herrmann         SACNASP         10           Zibulo         Andrew Laws         AusiMM         22           Capcoal Aquila & Moranbah South         Andrew Laws         AusiMM         22           Drayton South & Theodore         Ian Driver <sup>(1)</sup> AusiMM         32           Teviot Brook         Kate Medling         AusiMM         32           COAL CANADA - Projects         Belcourt Saxon         David Lortie         APEGBC         24           COAL SOUTH AFRICA - Projects         Belders         Adri Opperman         SACNASP         9           Elders         Adri Opperman         SACNASP         16 </td <td>•</td> <td></td> <td></td> <td></td>	•				
Isibonelo         Meaker Katuruza         SACNASP         10           Kleinkopje         Phumzile Mkhize         SACNASP         12           Kriel         Tsunduka Nkuna         SACNASP         9           Landau (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         10           Zibulo         Ulrike Herrmann         SACNASP         10           Zibulo         Ulrike Herrmann         SACNASP         10           COAL AUSTRALIA - Projects         Andrew Laws         AuslMM         22           Drayton South & Theodore         Ian Driver (°)         AuslMM         32           Tevitot Brook         Kate Medling         AuslMM         32           COAL CANADA - Projects         Belcourt Saxon         David Lortie         APEGBC         24           COAL SOUTH AFRICA - Projects         Belders         Adri Opperman         SACNASP         9           Elders UG Extension, Kriel East and South Rand         Ulrike Herrmann         SACNASP         15           New Largo         Joanne Ugs         SACNASP<	·				
Kleinkopje         Phumzile Mkhize         SACNASP         12           Kriel         Tsunduka Nkuna         SACNASP         9           Landau (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         10           Zibulo         Ulrike Herrmann         SACNASP         10           Zibulo         Ulrike Herrmann         SACNASP         10           COAL AUSTRALIA - Projects         Boitumelo Mogale         SACNASP         10           Capcoal Aquila & Moranbah South         Andrew Laws         AusiMM         22           Drayton South & Theodore         Ian Driver (°)         AusiMM         32           Teviot Brook         Kate Medling         AusiMM         32           Teviot Brook         Kate Medling         AusiMM         7           COAL CANADA - Projects         Belcourt Saxon         Apriged         2           Elders         Adri Opperman         SACNASP         9           Elders UG Extension, Kriel East and South Rand         Ulrike Herrmann         SACNASP         16					
Kriel         Tsunduka Nkuna         SACNASP         9           Landau (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         10           Zibulo         Ulrike Herrmann         SACNASP         16           COAL AUSTRALIA - Projects         Andrew Laws         AusiMM         22           Capcoal Aquila & Moranbah South         Andrew Laws         AusiMM         22           Drayton South & Theodore         Ian Driver (°)         AusiMM         32           Teviot Brook         Kate Medling         AusiMM         32           COAL CANADA - Projects         Belcourt Saxon         David Lortie         APEGBC         24           COAL SOUTH AFRICA - Projects         Adri Opperman         SACNASP         9           Elders UG Extension, Kriel East and South Rand         Ulrike Herrmann         SACNASP         16           New Largo         Joanne Uys         SACNASP         15           Nooitgedacht         Frans Botes         SACNASP         22           Vaal Basin         Monica Beamish         SACNASP					
Landau (operation and life extension)         Phumzile Mkhize & Joanne Uys         SACNASP         12 & 15           Mafube (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         10           Zibulo         Ulrike Herrmann         SACNASP         16           COAL AUSTRALIA - Projects         Total Moranbah South         Andrew Laws         AusIMM         22           Capcoal Aquila & Moranbah South         Andrew Laws         AusIMM         32         22           Drayton South & Theodore         Ian Driver (°)         AusIMM         32           Teviot Brook         Kate Medling         AusIMM         7           COAL CANADA - Projects         Belcourt Saxon         David Lortie         APEGBC         24           COAL SOUTH AFRICA - Projects         Adri Opperman         SACNASP         9           Elders UG Extension, Kriel East and South Rand         Ulrike Herrmann         SACNASP         16           New Largo         Joanne Uys         SACNASP         15           Nooitgedacht         Frans Botes         SACNASP         15           Nooitgedacht         Frans Botes         SACNASP         19           NICKEL - Opera					
Mafuble (operation and life extension)         Deborah Xaba & Joanne Uys         SACNASP         18 & 15           New Denmark         Boitumelo Mogale         SACNASP         10           Zibulo         Ulrike Herrmann         SACNASP         16           COAL AUSTRALIA – Projects         Capcoal Aquila & Moranbah South         AusIMM         22           Drayton South & Theodore         lan Driver (1)         AusIMM         32           Teviot Brook         Kate Medling         AusIMM         7           COAL CANADA – Projects         Belcourt Saxon         David Lortie         APEGBC         24           COAL SOUTH AFRICA – Projects         Adri Opperman         SACNASP         9           Elders UG Extension, Kriel East and South Rand         Ulrike Herrmann         SACNASP         16           New Largo         Joanne Uys         SACNASP         15           Nooitgedacht         Frans Botes         SACNASP         15           Noitgedacht         Frans Botes         SACNASP         19           NICKEL – Operations         Barro Alto & Niquelândia         Paulo Henrique Faria         AusIMM         7           NICKEL – Projects					
New Denmark         Boitumelo Mogale         SACNASP         10           Zibulo         Ulrike Herrmann         SACNASP         16           COAL AUSTRALIA – Projects         Urgen South & Theodore           Capcoal Aquila & Moranbah South         Andrew Laws         AusIMM         22           Drayton South & Theodore         Ian Driver (°)         AusIMM         32           Teviot Brook         Kate Medling         AusIMM         7           COAL CANADA – Projects         Belcourt Saxon         David Lortie         APEGBC         24           COAL SOUTH AFRICA – Projects           Elders         Adri Opperman         SACNASP         9           Elders UG Extension, Kriel East and South Rand         Ulrike Herrmann         SACNASP         16           New Largo         Joanne Uys         SACNASP         15           Nooitgedacht         Frans Botes         SACNASP         22           Vaal Basin         Monica Beamish         SACNASP         19           NICKEL – Operations         Barro Alto & Niquelândia         Paulo Henrique Faria         AusIMM         7           NICKEL – Projects	·	,			
Zibulo     Ulrike Herrmann     SACNASP     16       COAL AUSTRALIA - Projects     Capcoal Aquila & Moranbah South     Andrew Laws     AusIMM     22       Drayton South & Theodore     lan Driver (°)     AusIMM     32       Teviot Brook     Kate Medling     AusIMM     7       COAL CANADA - Projects       Belcourt Saxon     David Lortie     APEGBC     24       COAL SOUTH AFRICA - Projects       Elders     Adri Opperman     SACNASP     9       Elders UG Extension, Kriel East and South Rand     Ulrike Herrmann     SACNASP     16       New Largo     Joanne Uys     SACNASP     15       Nooitgedacht     Frans Botes     SACNASP     15       Nooitgedacht     Frans Botes     SACNASP     19       NICKEL - Operations       Barro Alto & Niquelândia     Paulo Henrique Faria     AusIMM     7       NICKEL - Projects					
COAL AUSTRALIA – Projects       Capcoal Aquila & Moranbah South     Andrew Laws     AusIMM     22       Drayton South & Theodore     lan Driver (1)     AusIMM     32       Teviot Brook     Kate Medling     AusIMM     7       COAL CANADA – Projects       Belcourt Saxon     David Lortie     APEGBC     24       COAL SOUTH AFRICA – Projects       Elders     Adri Opperman     SACNASP     9       Elders UG Extension, Kriel East and South Rand     Ulrike Herrmann     SACNASP     16       New Largo     Joanne Uys     SACNASP     15       Nooitgedacht     Frans Botes     SACNASP     22       Vaal Basin     Monica Beamish     SACNASP     19       NICKEL – Operations       Barro Alto & Niquelândia     Paulo Henrique Faria     AusIMM     7       NICKEL – Projects					
Capcoal Aquila & Moranbah South         Andrew Laws         AusIMM         22           Drayton South & Theodore         lan Driver (1)         AusIMM         32           Teviot Brook         Kate Medling         AusIMM         7           COAL CANADA – Projects           Belcourt Saxon         David Lortie         APEGBC         24           COAL SOUTH AFRICA – Projects           Elders         Adri Opperman         SACNASP         9           Elders UG Extension, Kriel East and South Rand         Ulrike Herrmann         SACNASP         16           New Largo         Joanne Uys         SACNASP         15           Nooitgedacht         Frans Botes         SACNASP         22           Vaal Basin         Monica Beamish         SACNASP         19           NICKEL – Operations         Paulo Henrique Faria         AusIMM         7           NICKEL – Projects         Paulo Henrique Faria         AusIMM         7		Office Heritianii	0/10/1/10/	10	
Drayton South & Theodore     Ian Driver (*)     AusIMM     32       Teviot Brook     Kate Medling     AusIMM     7       COAL CANADA - Projects       Belcourt Saxon     David Lortie     APEGBC     24       COAL SOUTH AFRICA - Projects       Elders     Adri Opperman     SACNASP     9       Elders UG Extension, Kriel East and South Rand     Ulrike Herrmann     SACNASP     16       New Largo     Joanne Uys     SACNASP     15       Nooitgedacht     Frans Botes     SACNASP     22       Vaal Basin     Monica Beamish     SACNASP     19       NICKEL - Operations       Barro Alto & Niquelândia     Paulo Henrique Faria     AusIMM     7       NICKEL - Projects		Androudous	AMAIonA	00	
Teviot Brook Kate Medling AusIMM 7  COAL CANADA - Projects  Belcourt Saxon David Lortie APEGBC 24  COAL SOUTH AFRICA - Projects  Elders Adri Opperman SACNASP 9  Elders UG Extension, Kriel East and South Rand Ulrike Herrmann SACNASP 16  New Largo Joanne Uys SACNASP 15  Nooitgedacht Frans Botes SACNASP 22  Vaal Basin Monica Beamish SACNASP 19  NICKEL - Operations  Barro Alto & Niquelândia Paulo Henrique Faria AusIMM 7					
COAL CANADA - Projects Belcourt Saxon David Lortie APEGBC 24  COAL SOUTH AFRICA - Projects Elders Adri Opperman SACNASP 9  Elders UG Extension, Kriel East and South Rand Ulrike Herrmann SACNASP 16  New Largo Joanne Uys SACNASP 15  Nooitgedacht Frans Botes SACNASP 22  Vaal Basin Monica Beamish SACNASP 19  NICKEL - Operations Barro Alto & Niquelândia Paulo Henrique Faria AusIMM 7					
Belcourt SaxonDavid LortieAPEGBC24COAL SOUTH AFRICA – ProjectsEldersAdri OppermanSACNASP9Elders UG Extension, Kriel East and South RandUlrike HerrmannSACNASP16New LargoJoanne UysSACNASP15NooitgedachtFrans BotesSACNASP22Vaal BasinMonica BeamishSACNASP19NICKEL – OperationsBarro Alto & NiquelândiaPaulo Henrique FariaAus IMM7NICKEL – Projects		Nate Wediing	Austiviivi	1	
COAL SOUTH AFRICA - Projects  Elders Adri Opperman SACNASP 9  Elders UG Extension, Kriel East and South Rand Ulrike Herrmann SACNASP 16  New Largo Joanne Uys SACNASP 15  Nooitgedacht Frans Botes SACNASP 22  Vaal Basin Monica Beamish SACNASP 19  NICKEL - Operations  Barro Alto & Niquelândia Paulo Henrique Faria AusIMM 7  NICKEL - Projects	•	D : II :	ADEODO	0.4	
EldersAdri OppermanSACNASP9Elders UG Extension, Kriel East and South RandUlrike HerrmannSACNASP16New LargoJoanne UysSACNASP15NooitgedachtFrans BotesSACNASP22Vaal BasinMonica BeamishSACNASP19NICKEL - OperationsBarro Alto & NiquelândiaPaulo Henrique FariaAusIMM7NICKEL - Projects	Belcourt Saxon	David Lortie	APEGBC	24	
Elders UG Extension, Kriel East and South RandUlrike HerrmannSACNASP16New LargoJoanne UysSACNASP15NooitgedachtFrans BotesSACNASP22Vaal BasinMonica BeamishSACNASP19NICKEL - OperationsBarro Alto & NiquelândiaPaulo Henrique FariaAusIMM7NICKEL - Projects	•				
New LargoJoanne UysSACNASP15NooitgedachtFrans BotesSACNASP22Vaal BasinMonica BeamishSACNASP19NICKEL - OperationsBarro Alto & NiquelândiaPaulo Henrique FariaAusIMM7NICKEL - Projects					
NooitgedachtFrans BotesSACNASP22Vaal BasinMonica BeamishSACNASP19NICKEL - OperationsBarro Alto & NiquelândiaPaulo Henrique FariaAusIMM7NICKEL - Projects					
Vaal Basin     Monica Beamish     SACNASP     19       NICKEL - Operations     Barro Alto & Niquelândia     Paulo Henrique Faria     AusIMM     7       NICKEL - Projects					
NICKEL - Operations Barro Alto & Niquelândia Paulo Henrique Faria AusIMM 7  NICKEL - Projects					
Barro Alto & Niquelândia Paulo Henrique Faria AusIMM 7  NICKEL – Projects		Monica Beamish	SACNASP	19	
NICKEL - Projects					
	Barro Alto & Niquelândia	Paulo Henrique Faria	AusIMM	7	
JacaréCláudia Mara Sperandio NevesAusIMM12	NICKEL - Projects				
	Jacaré	Cláudia Mara Sperandio Neves	AusIMM	12	

 $RPO = Registered\ Professional\ Organisation.\ Years = Years\ of\ Relevant\ Experience\ in\ the\ commodity\ and\ style\ of\ mineralisation.$ 

 $<sup>^{\</sup>mbox{\scriptsize (1)}}$  Not employed by Anglo American plc Group.

## **GLOSSARY**

#### **MASS UNITS**

carat is a unit of mass equal to 0.2g

kt: kilotonne; metric system unit of mass equal to 1,000 metric tonnes

Moz: million troy ounces (a kilogram is equal to 32.1507 ounces; a troy ounce is equal to 31.1035 grams)

Mt: million tonnes, metric system unit of mass equal to 1,000 kilotonnes

MTIS: Mineable Tonnes In Situ; quoted in million tonnes, adjusted for geological loss and derated for any previous mining

mtpa: million tonnes per annum

**Tonnes:** metric system unit of mass equal to 1,000 kilograms

## GRADE UNITS (expressed on a moisture-free basis)

Au: Gold (g/t)

cpht: carats per hundred metric tonnes

cpm<sup>2</sup>: carats per square metre

CSN: Crucible Swell Number (CSN is rounded to the nearest 0.5 index)
CV: Calorific Value (CV is rounded to the nearest 10 kcal/kg)

 kcal/kg:
 kilocalories per kilogram

 g/t:
 grams per tonne

 kct:
 Thousand carats

 Mct:
 Million carats

 TCu:
 Total Copper (%)

**4E PGE:** The sum of Platinum, Palladium, Rhodium and Gold grades in grams per tonne (g/t)

**3E PGE:** The sum of Platinum, Palladium and Gold grades in grams per tonne (g/t)

% Cu: weight percent Copper
% Fe: weight percent Iron
% Mn: weight percent Manganese
% Mo: weight percent Molybdenum
% Ni: weight percent Nickel

#### MINING METHODS

MM: Marine Mining – Mining diamonds deposited on the continental shelf using mining vessels equipped with specialised underwater mining

tools such as suction drills and crawlers.

OC: Open Cast/Cut – A surface mining method performed on orebodies with shallow-dipping tabular geometries.

 $Beach\ Accretion\ is\ a\ form\ of\ Open\ Cast\ mining\ and\ is\ a\ process\ through\ which\ an\ existing\ beach\ is\ built\ seaward\ to\ extend\ into\ areas\ previously$ 

 $submerged\ by\ sea\ water.\ The\ accretion\ is\ accomplished\ by\ sand\ build-up\ derived\ from\ current\ mining\ activities.$ 

Open Pit - A surface mining method in which both ore and waste are removed during the excavation of a pit. The pit geometry is related to the

orebody shape, but tends to have a conical form, closing with depth.

UG: Underground – A class of subsurface mining methods, where the ore is accessed either through a vertical shaft or decline. Ore and waste are

moved within subsurface excavations, which may be located on several different elevations. The nature of the underground excavations is

dependent on the geometry and size of the mineralisation.

## PROCESSING METHODS

Dump Leach: A process similar to Heap Leaching, but usually applied to lower grade material. Rather than constructing a heap of material with a controlled

grain size, the material grain sizes are as mined, similar to the situation found within a waste rock dump. This material is then irrigated with a

 $leach \ solution \ that \ dissolves \ the \ valuable \ minerals, allowing \ recovery \ from \ the \ drained \ leach \ solution.$ 

Flotation: A process for concentrating minerals based on their surface properties. Finely ground mineral is slurried with water and specific reagents that

increase the water repellent nature of the valuable mineral and agitated with air. The water repellent mineral grains cling to froth bubbles that

concentrate the mineral at the top of the flotation cell, from where it is mechanically removed.

Heap Leach: A process in which mineral-bearing rock is crushed and built into a designed heap. The heap is irrigated with a leach solution that dissolves the

desirable mineral and carries it into a drain system from which solution is pumped and the mineral/elements of interest are recovered.

#### PROFESSIONAL ORGANISATIONS

**APEGBC:** The Association of Professional Engineers and Geoscientists of British Columbia

APGO: Association of Professional Geoscientists of Ontario

AusIMM: The Australasian Institute of Mining and Metallurgy

CMC: Chilean Mining Commission (Comisión Calificadora de Competencias en Recursos y Reservas Mineras)

ECSA: Engineering Council of South Africa
GSSA: Geological Society of South Africa
IMMM: Institute of Materials, Minerals and Mining
IMSSA: The Institute of Mine Surveyors of South Africa

NAPEG: Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists

**PEO:** Professional Engineers of Ontario

SACNASP: South African Council for Natural Scientific Professions

**SAGC:** South African Geomatics Council

SAIMM: South African Institute of Mining and Metallurgy

## **GLOSSARY**

**RESOURCE TYPES** 

Aeolian: Diamond deposits created and enriched during transport of sediment through wind action (aeolian processes) resulting in the

formation of wind blown dunes, ripples and sand sheets within which localised enrichment of diamonds may occur.

Banded Iron Formation: A chemical sedimentary rock consisting of silica and iron oxide. The rock texture is characteristically laminated or banded.

Beaches: Diamond deposits enriched through marine processes and preserved along the marine shoreline within a series of fossil terraces.

Canga: An iron rich rock formed where material weathered from an original iron ore deposit has been cemented by iron minerals.

Colluvium: Loose, unconsolidated material that accumulates above the weathering iron ore bodies.

**Deflation:** Diamond deposits enriched through wind driven removal of light particles resulting in concentration of diamonds.

Ferruginous Laterite: An especially iron-rich laterite.

Fluvial Placer: Diamond deposits formed and preserved within fossil sand and gravel terraces located adjacent to contemporary fluvial

(river) systems.

Fresh Rock: Mineable material that has not been significantly modified by surface weathering processes.

**Hematite:** An iron oxide mineral with the chemical formula  $Fe_2O_3$ .

Itabirite: Itabirite is a banded quartz hematite schist.

Friable Itabirite is the extensively weathered equivalent leading to disaggregation of the individual mineral grains comprising the rock.

Kimberlite: A potassic ultrabasic volcanic rock, emplaced as either pipes, dykes or sills, which sometimes contain diamonds.

Laterite: A clay-like soil horizon rich in iron and aluminium oxides that formed by the weathering of igneous rocks under tropical

conditions.

**Magnetite:** An iron oxide mineral with the chemical formula  $Fe_3O_4$ .

Main Sulphide Zone (MSZ): The MSZ is a Platinum Group Metals (PGMs) and Base Metals (BMs) layer within the uppermost pyroxenite unit of the ultramafic

succession of the Great Dyke. The MSZ reef is a tabular zone with disseminated sulphides, consisting of an upper zone enriched

with BMs and a lower zone enriched with PGMs.

Marine: Submerged diamond deposits enriched through fluvial (river), beach and marine reworking processes.

Merensky Reef (MR): The Merensky Reef is located within the Upper Critical Zone of the Bushveld Complex and ranges in width from a few millimetres

to  $\sim$ 9m but normally expected to vary between 0.2m to 2.5m. The Merensky Reef occurs at the interface between the Merensky Pyroxenite and the underlying anorthosite to norite. The Merensky Reef is characterised by the occurrence of one or more

narrow chromitite stringers and frequently includes a coarse-grained pegmatoidal feldspathic pyroxenite.

MRD: Mineral Residue Deposit is material discarded from the beneficiation process. This material may be re-treated to produce a

saleable product or sold as is, where there is reasonable prospects for eventual economic extraction.

**ORT:** Old Recovery Tailings are heavy minerals discarded from the Recovery Section of the Ore Processing Plant. In some cases these

tailings can be re-treated.

Oxide: Oxide ores are those found within close proximity to the surface and whose mineralogy is dominated by oxidised species,

including oxides and sulphates. Frequently, silicate minerals have broken down partially or completely to clay-rich species. The Platreef dips to the west and strikes North-West/South-East within the Northern Limb of the Bushveld Complex; ranging in

width from  $\sim$ 40m to  $\sim$ 200m. The upper portion is predominantly top-loaded with Platinum Group Metals (PGMs) and this mineralisation is often but not always associated with Base Metal (BM) mineralisation. The Platreef is characterised as a multi-pulse mafic magmatic horizon predominantly pyroxenitic in composition typified by an extensive assimilation of footwall

lithologies.

Pocket Beach: Diamond deposits formed due to interactions of ocean (longshore) currents with specific shoreline topographic features that

facilitate the concentration of diamonds.

Porphyry (Copper): Large copper deposits hosted by intermediate felsic rocks. These deposits form close to large-scale subduction zones.

Saprolite: Clay-rich rock formed by decomposition of pre-existing rocks within a surface weathering environment.

Stockpile: Stockpile resources comprise material that is mined together with the principal ore, but for economic or technical reasons is not

processed. This material is stockpiled in preparation for processing when economic or technical conditions are more favourable.

Sulphide: Sulphide ores contain sulphide minerals that have not been subjected to surface oxidation.

Tailings: Material left over after the process of separating the valuable fraction of the mineralised material from the uneconomic fraction

(gangue) of the run-of-mine. In some cases tailings can be re-treated to extract by-products.

TMR: Tailings Mineral Resource is Coarse Processed Kimberlite discarded from the Ore Processing Plant. In some cases these

tailings can be re-treated.

**UG2 Reef (UG2):** The UG2 Reef is located between 20m and 400m below the Merensky Reef and is the second chromitite unit within the Upper

Group. The UG2 Reef is typically a massive chromitite unit and ranges in width from 0.3m to 3.0m but normally expected to vary between 0.6m to 2.0m. The hanging wall of the UG2 Reef is characterised by a feldspathic pyroxenite unit that may include several narrow chromitite stringers and the footwall of the UG2 Reef typically a coarse-grained pegmatoidal feldspathic

pyroxenite.

COAL PRODUCTS

Platreef (PR):

Metallurgical - Coking: High-, medium- or low-volatile semi-soft, soft or hard coking coal primarily for blending and use in the steel industry; quality

measured as Crucible Swell Number (CSN).

Metallurgical - Other: Semi-soft, soft, hard, semi-hard or anthracite coal, other than Coking Coal, such as pulverized coal injection (PCI) or other

 $general\ metallurgical\ coal\ for\ the\ export\ or\ domestic\ market\ with\ a\ wider\ range\ of\ properties\ than\ Coking\ Coal;\ quality\ measured$ 

by calorific value (CV).

Thermal – Export: Low- to high-volatile thermal coal primarily for export in the use of power generation; quality measured by calorific value (CV).

Thermal – Domestic: Low- to high-volatile thermal coal primarily for domestic consumption for power generation; quality measured by calorific value (CV).

Synfuel: Coal specifically for the domestic production of synthetic fuel and chemicals; quality measured by calorific value (CV).

## OTHER ANGLO AMERICAN PUBLICATIONS

- Annual Report 2017
- Sustainability Report 2017
- Tax and Economic Contribution Report
- Transformation Report
- Our Code of Conduct
- The Safety, Health and Environment (SHE) Way
- The Social Way
- The Socio-Economic Assessment Toolbox (SEAT)
- Notice of 2018 AGM
- www.facebook.com/angloamerican
- www.twitter.com/angloamerican
- www.linkedin.com/company/anglo-american
- www.youtube.com/angloamerican
- www.flickr.com/angloamerican
- www.slideshare.com/angloamerican

Financial and other reports may be found at: www.angloamerican.com/reporting

©Anglo American plc 2018. All rights reserved.

## **Strategic partners**

Below is a selection of the many organisations with which Anglo American currently works in partnership. These important relationships form part of the Group's commitments to a wide range of key sustainability and other societal objectives.

































