

PLANNING FOR THE FUTURE

OUR PLANNING FOR THE FUTURE ENCOMPASSES THE FOLLOWING:

EXPLORATION

This is aimed at ensuring that we have available a pipeline of Mineral Resource and Ore Reserve, both at our existing operations and at new projects, with the potential to be developed into future mining operations to ensure the long-term sustainability of our business.

TECHNOLOGY AND INNOVATION

We invest in the skills and technology necessary to enable us to access and exploit, safely and cost efficiently, the extensive deep-level Mineral Resource which will ensure the long-term future of our South African operations.

CLOSURE AND REHABILITATION

Given that mining operations exploit a non-renewable resource, we include planning for mine closure right from the start of a mining project. Our closure planning takes into account our environmental remediation and our estimate of social obligations that follow on from the cessation of mining operations and closure. All our mining operations and projects have closure plans in place.

EXPLORATION

AngloGold Ashanti's exploration programme covers Greenfields and Brownfields projects, focused on creating significant value for the company by providing long-term optionality and improving the portfolio quality.

During 2016, the exploration expenditure amounted to \$144m (including equity accounted investments), which included over 54km of diamond (DD), reverse circulation (RC) and aircore (AC) drilling. Our exploration work involves achieving the following objectives:

- **Greenfields exploration**, which aims to discover large, high-value Mineral Resource that will eventually lead to the development of new gold mines. AngloGold Ashanti's Greenfields exploration team is recognised as the industry's most successful in Mineral Resource discovery by SNL*, a leading industry research group. The team has a proven track record that includes the discovery of world-class ore bodies in Colombia at La Colosa, Gramalote, and Nuevo Chaquiro; and in Australia at Tropicana. These discoveries are attributed to our committed and professional team of geoscientists working on a portfolio of highly prospective and rigorously prioritised Greenfields ground holdings.

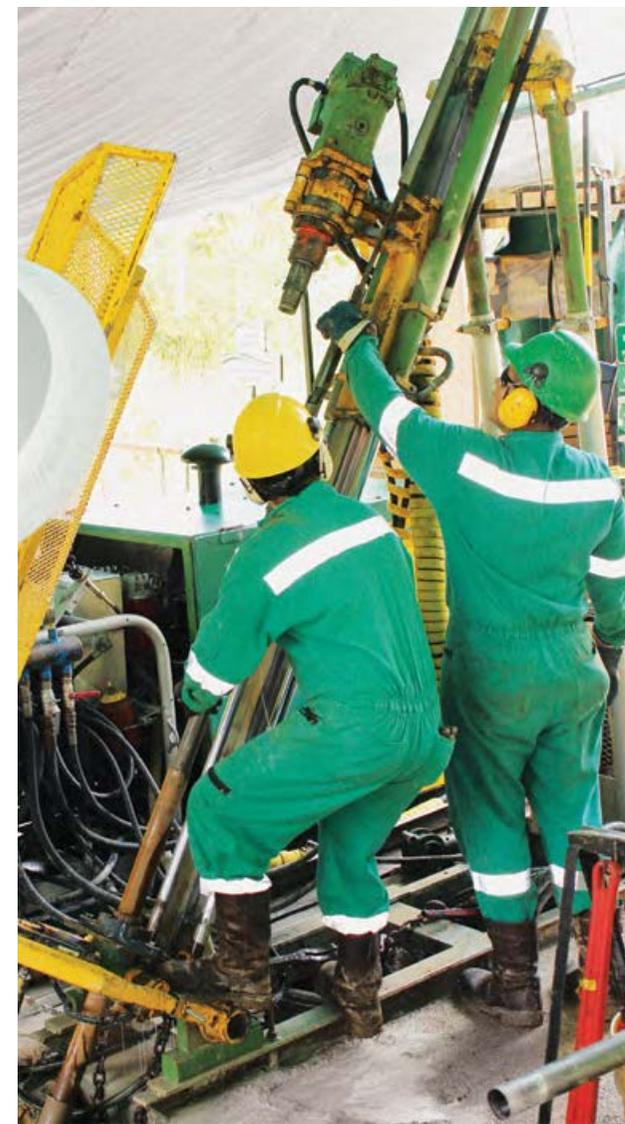
- **Brownfields exploration** which focuses on delivering value through incremental additions to Ore Reserves in existing mines as well as new discoveries in defined areas around existing operations. Brownfields exploration actively drives the creation of value by growing our major asset, the Mineral Resource and Ore Reserve. The brownfields exploration programme is based on innovation in geological modelling and mine planning, and continual optimisation of our asset portfolio.

* *SNL 2016 Strategies for Gold Reserves Replacement, best for the period studied from 2001-2015, page 16.*

GREENFIELDS EXPLORATION

Our greenfields exploration covers more than 9,000km² of highly-prospective ground in three countries; Australia, Colombia and Brazil, and also has small ground positions in Tanzania, the United States and Argentina. Greenfields also initiated focused generative activities in countries with operational synergies.

In **Australia**, in the Laverton district, AC drilling was completed over numerous AngloGold Ashanti-held targets with 617 holes drilled for a total of 40,719m. Drilling encountered strong carbonate-sericite ± silica alteration with minor pyrite or arsenopyrite in several holes with brecciated quartz veins also observed. Several encouraging results from both Ahab and Pioneer were received. The positive AC samples from Pioneer were followed-up by six



PLANNING FOR THE FUTURE (CONTINUED)

RC holes with three DD tails (702m/471m) and results of this drilling will be available in early in 2017.

In late 2016 the Butcher Well and Lake Carey farm-in agreement was signed between AngloGold Ashanti and Saracen Mineral Holdings Limited. AngloGold Ashanti has acquired earn-in rights for 340km² of tenements on and along the western margin of Lake Carey in the Laverton district of Western Australia, including those hosting the historically-mined Butcher Well gold deposits. AngloGold Ashanti can earn up to 70% of the joint venture by spending A\$15m within 48 months from commencement date and get 51%, and a further A\$10m within 24 months thereafter. The conditions precedent for the agreement were met on 22 December 2016, and the first phase of drilling at Butcher Well is expected to commence in the first quarter of 2017.

At the Strawbridge Project in Western Australia, the planned AC drilling programme was completed with 257 AC holes drilled for a total of 12,770m. Results at Strawbridge from the AC drilling and geochemical sampling in 2016 returned no significant results.

In **Colombia**, drilling was completed at the Guintar project (AngloGold Ashanti 100%) situated 40km west of Medellin. Three DD holes for 1,219 m were drilled on epithermal

targets above a potential buried porphyry. Several narrow (2-6m) intervals of anomalous gold mineralisation >1g/t were intersected. A re-evaluation of the regional geology at Guintar, identified subtle multi-element epithermal signatures in gravels associated with N-S trending graben structures. Follow-up exploration at this new target, Nuevo Guintar, indicates a potentially preserved epithermal target. Detailed mapping, soil sampling and ground geophysics was completed to delineate drill targets.

In **Brazil**, the greenfields exploration team signed a new farm-in and JV agreement with Luna Gold to explore a ~2,000km² tenement package, located in the Maranhão state of Brazil. Under the terms of the agreement, AngloGold Ashanti can spend \$14m over four years to earn a 70% interest in the tenements, which includes a minimum commitment of \$2m. The JV officially initiated in August and regional mapping and soil sampling programmes were completed. 11 200km of a high resolution aeromagnetic and radiometric survey were flown. In parallel, considerable effort has also been placed on obtaining environmental permits for planned drilling expected to start in the first quarter of 2017.

In **Tanzania, Guinea, Argentina** and the **United States**, early stage grassroots evaluation and reconnaissance programmes progressed.

BROWNFIELDS EXPLORATION

Brownfields exploration was carried out in ten countries, in and around AngloGold Ashanti operations. A total of 656,350m of DD and RC drilling was completed during the year.

South Africa: Exploration in the South Africa region continued with three holes being drilling at Mponeng's Western Ultra Deep Levels (WUDLs). Surface drill holes UD59, UD60 and UD58A all intersected the VCR during the year with only UD58A continuing to drill as it completes its short deflection programme. UD61 and UD63 will start in 2017.

Argentina: At Cerro Vanguardia, drilling programmes for Mineral Resource creation and delineation continued during the year with focus on delineating vein extensions along strike and at depth in the Cerro Vanguardia tenements. Mapping, trenching and channel sampling continued as part of the reconnaissance programme to identify new drilling targets. In 2016, a new exploration earn-in project started in the Claudia concessions located to the south of the mine. Work completed at Claudia included mapping, sampling, geophysics, and initial phase drilling RC and DD drilling.

Brazil: In the Iron Quadrangle, the underground drilling programmes for depth extension related Mineral Resource conversion continued at both the Cuiabá and Lamego

mines. At Cuiabá, additional drilling was directed toward satellite mineralisation bodies that may be accessible from existing infrastructure. The surface drilling programmes at the Córrego do Sítio mine continued to infill and expand oxide Mineral Resource while the underground programme added extensions to several ore bodies.

At Serra Grande, exploration drilling continued to delineate the Inga mineralised structure. A new mineralised structure called Mangaba was discovered during the year through underground drilling and will be followed up. Geophysical surveys and soil sampling campaigns continued as part of the target generation program for the district.

Colombia: Exploration in the Gramalote area continued with programmes in and around the Gramalote Central deposit to complete infill drilling on the saprolite horizon. Regionally, limited drilling programmes were also conducted within the joint venture area.

At La Colosa, the emphasis on other project related drilling continued with support to geotechnical, hydrological and site infrastructure studies.

The Quebradona project work was directed toward metallurgical and infrastructure drilling studies during the year.

PLANNING FOR THE FUTURE (CONTINUED)

Tanzania: Drilling activities included infill drilling at Nyankanga Block 5 UG (Cut 9), Nyankanga Cut 7 and 8, Star & Comet Cut 3, Geita Hill East Cut 2, and Mineral Resource delineation drilling at Star & Comet UG (Cut 2 and 3) and Geita Hill East UG. A total of 28,573m exploration drilling was completed, comprising 10,783m DD from surface, 10,407m underground DD, and 7,383m RC drilling.

Routine geological pit mapping continued at Nyankanga Cut 7 and 8, Geita Hill East and West as well as Star & Comet Underground. In addition, a review of the preliminary geological interpretations of Kukuluma and Matandani was conducted. Detailed mapping was also conducted at Selous, ahead of planned drill-testing of this target.

The 3D Seismic Survey data acquisition within the central Geita area was successfully and an interpretation session of the initial processed data was conducted during December. A final interpretation and targeting session on site is planned for the first quarter of 2017.

Guinea: Exploration drilling focused on infill and reconnaissance drilling at Seguelen, Bidini, Tubani, Kami, Silakoro, Soloni, Kalamagna PB2, Boukaria West and Balato NE. A total of 57,974m was drilled during the year, comprising 3,336m DD, 7,894m RCDD, 43,714m RC, and 3,030m AC drilling. Other exploration activities included geochemical soil sampling, geometallurgical investigations, and the completion of LIDAR and airborne geophysical surveys.

Ghana: No exploration was conducted at Obuasi. Exploration at Iduapriem focused on infill drilling at Block 7&8, Mineral Resource delineation drilling at Block 4S and reconnaissance drilling at the Bankyem (Block 1 East), Block 1 West, Mile 5 and Nueng targets. A total of 11,316m was drilled, comprising 8,275m DD and 3,041m RC. Soil geochemical surveys were also completed over various target areas as part of a lease-scale programme.

Democratic Republic of the Congo: Drilling at Kibali totalled 28,111m, of which 19,434m was mine based drilling and 8,677m was on regional targets. Of the 28,111m DD drilling comprised 6,660m with the remaining being RC drilling. The exploration aimed to fulfil three main objectives: Mineral Resource-Ore Reserve replacement, potential oxide displacement ounces, and identify and develop new targets.

Mine based exploration took place at the Rhino-Agbarabo-Kombokolo area, Pakaka, Pamao, Tete Bakangwe, Kanga Sud, Ndala Village, Aerodrome and Sessenge Southwest, regional exploration was focused on the Kalimva-Ikamva targets in the north, Memekazi Ridge, and the Aindi Watsa-Dilolo-Zambula targets in the south.

Mali: A total of 21,383m of exploration drilling was completed at Sadiola, comprising of 20,671m RC and 712m DD. Reconnaissance drilling for oxides concentrated on FN_a, FN_b-c and FN₃ along the Sadiola North East

mineralisation trend, FE₂S, Voyager East and FE₁W. While infill and deeper Mineral Resource delineation drilling targeted primarily SSP North and Tambali in support of the Sadiola Sulphide Project (SSP).

Australia: Underground Mineral Resource development drilling continued at Sunrise Dam throughout the year. Exploration DD focused primarily on increasing Indicated Mineral Resource (primarily in Vogue South), Reconnaissance drilling in Vogue Deepes and Mineral Resource creation drilling in the Carey Shear. Underground RC drilling continued to focus on converting the Indicated Mineral Resource into a minable Grade Control block model for use in stope development designs. Key DD drilling platforms have started being developed, which will be utilised over the life of mine to drill test exploration targets along the strike length of the deposit.

At Tropicana, the Long Island 100m x 100m drilling programme to test the strike extent and down-dip extensions of the known mineralised system at Tropicana was completed during December, 2016. In the period, additional closer spaced drilling was undertaken at Boston Shaker to achieve Indicated Mineral Resource classification, and minor infill drill programmes were completed at Tropicana, Havana and Havana South. A total of 35,618m of RC and 55,516m of DD drilling were completed.

Regional brownfields exploration based out of TGM consisted of AC, RC and DD drilling totalling 50,083m. In detail, this consisted of 29,927m of AC, 9,971m of RC and 3,852m of DD drilling. A number of encouraging Au assay results were intercepted from RC and AC drilling at the Sanpan, Voodoo Child, Madras, Angel Eyes, Paradise and New Zebra prospects, with results at the newly established New Zebra prospect particularly significant and drilling at Tumbleweed producing disappointing results.

Data from the seismic survey completed over the Crouching Tiger and Havana South areas merged with the 2014 Tropicana-Havana seismic survey. Currently work is focusing on interpretation of the merged seismic survey model to identify potential strike and down-dip extensions to the Tropicana gold system. A significant re-interpretation of the structural architecture of the belt was developed and delivered a considerable pipeline of exploration targets.

More detail on the company's exploration work for the year is included under the Exploration updates on the website at www.anglogoldashanti.com.

PLANNING FOR THE FUTURE (CONTINUED)

TECHNOLOGY AND INNOVATION

The Technology Innovation Consortium has as its aim the design of next generation mining methods, equipment and processes.

This involves a step change in the technology required to enable AngloGold Ashanti to mine safely, at deeper levels of 5,000m and more below surface, and to create a significant improvement in and extend the lives of current operations.

The consortium's long-term objective is to safely extract all of the gold, only the gold, all of the time, by boring out the high-grade reef and leaving behind the waste.

Work to date has focused on clear stage-gates for reef boring, ore body knowledge and the ultra-high strength backfill project, with the ultimate aim of achieving the desired machine and system efficiencies. There was pleasing progress in 2016 towards the overall objective of enabling the mechanical extraction of gold-bearing reefs where it is being tested in the deep-level South African mines.

Progress made in 2016 and the highlights of the project are set out below.

REEF BORING – SMALL RANGE

As planned, the Sandvik/Cubex machine was commissioned in 2016 at the Savuka section of the TauTona mine but due to technical

challenges faced during the stage gate reviews, the programme had to be discontinued and the machine will be decommissioned.

REEF BORING – MEDIUM RANGE:

MK IV Machine Test site

During 2016 the MK IV machine was commissioned in the test site at TauTona and has drilled 23 holes, with four holes drilled in the fourth quarter of 2016. It was determined that the quality of the holes regressed due to the self-pinning cylinders failing during the drilling cycle. This caused the machine to veer off the planned trajectory. Several new designs were investigated with the OEM Atlantis and improvements are ongoing. The addition of active sensors/pegs verified the potential of the machine to orientate, locate and direct itself to the next drilling position.

A decision was made to designate the MKIV for all research and development trials and to ensure that design targets are met on this proto-type machine prior to any further reef boring machine purchases taking place. These trials will include the results from the integrity test and furthermore improvements on the active peg system, hydro-transport, self-pinning cylinders and in hole cleaning. A structural integrity test was conducted by a company specialising in this field of work to determine the integrity of the machine with the report scheduled for finalisation in the first quarter in 2017, upon which decisions regards potential alterations or design changes will be made.

MK III Machines

Carbon Leader Reef (CLR) prototype site

Drilling continued with three MK III machines in the CLR block, machines drilled 33 holes in the first half of the year. At the end of the second quarter, geotechnical concerns resulted in a revised extraction strategy that resulted in the loss of some current mining ground and consequently the reduction of one machine.

Ventersdorp Contact Reef (VCR) prototype site

After a premature failure of the 980mm reamer, a decision was made to continue drilling with the 660mm reamer. Work will continue to enhance the design of the 980mm reamer. Seven holes were drilled in the fourth quarter of 2016.

During the year, an MK III machine was installed in the VCR site and drilling commenced in third quarter after commissioning. The usual teething problems associated with a commissioning process were resolved.

Work will continue at both sites in a stage gate approach as more is learnt about the machines from trials as well as from the integrity test. The aim is to achieve consistent performance to prove the economic viability of the project.

ORE BODY KNOWLEDGE AND EXPLORATION

The year started with the final accuracy trial on the Sandvik/Cubex machine. The aim was to improve the targeted accuracy. Analysis

of the holes drilled and results indicated that they did follow a similar trend, implying that a correction factor could be applied to ensure an accurate end point is reached. Drilling trials with the Bohrmeister fit-for-purpose drill rig commenced in the fourth quarter after its commissioning at TauTona. The first stage gates were met when four holes had been drilled at the set drilling target rate (8m/hr) and hole depth (100m) at different inclinations. After the compressor started losing pressure, the trial was stopped for repairs to the unit. This machine was replaced with the fit-for-purpose Bohrmeister drill rig during the fourth quarter.

Drilling for the next stage gate will begin in the first half of 2017. This stage gate will aim to improve on the accuracy of the drilled holes. In-hole surveying for data collection remains a technical challenge and design modifications on the deployment mechanism are currently underway.

ULTRA-HIGH STRENGTH BACKFILL

To date, two ultra-high strength backfill (UHSB) plants were successfully commissioned; one plant at the CLR site and the other at the VCR site at TauTona. These plants are in full operation and have the capability to mix the dry tailings underground with other ingredients, thereafter pumping the final product at 4m³/hour over a distance of 600m.

Engineering construction and equipping of the Savuka CLR plant and the TauTona

PLANNING FOR THE FUTURE (CONTINUED)

B120 plant will commence as soon as the site excavation has been completed in the first half of 2017. Construction of the surface solution plant was completed in the fourth quarter of 2016. This plant is expected to allow for pumping the UHSB solution (UHSB product excluding cement) from surface to the B120 plant underground.

Mponeng extraction ratio improvement project product development is in progress. A range of designs have been tested and the characteristics modelled by rock engineering. Final results are pending before a suitable product can be identified.

REHABILITATION AND CLOSURE

Rehabilitation and closure make up the final stage in the mining process, once all the gold-bearing ore has been depleted and mined out, that is when the life of mine has ended.

This happens as mines eventually exhaust their economically viable resources and mining operations cease. Although finalisation of this stage comes at the end of the mine life, at AngloGold Ashanti planning for mine closure is incorporated into our mine plans at the start of the exploration stage. We then continually revise the processes and plans to adapt to any relevant changes that may be applicable

during the life of mine. Once mining activities cease, the final closure plan is implemented.

Responsible closure planning follows a holistic approach, taking into account all aspects of pre-operational planning, operational activities and post-closure activity.

The approach for many of our older mines is to incorporate closure considerations into existing operational plans as far as possible, to reduce operating and final closure costs and to mitigate the socio-economic impacts of closure. To support this goal, we apply a comprehensive closure planning management standard and guidelines that offer practical assistance to operations on how to apply the standard.

The purpose of the closure management standard is to facilitate the design and implementation of closure plans to the extent possible during the life of a mine.

In our newer operations, planning for closure begins at mine conception and is incorporated in mine design – in essence, new mines are designed with closure in mind. Social considerations are also addressed, as communities close to the mine may be affected by closure. The closure planning standard provides for continuing community engagement and the development, where possible, of alternative livelihoods to mitigate the impact of closure. The objectives for overall closure, including social and workforce aspects, are



clearly identified in closure plans, as these guide the definition of applicable options.

Our approach to the rehabilitation process is governed by our land use and biodiversity management standards and adapted for site-specific requirements. These standards include legal compliance as a minimum. We have set out some specific examples of the rehabilitation and closure processes and/or plans under the regional reviews. Concurrent rehabilitation is undertaken where feasible, balanced against the need to avoid limiting access to resources in the future.

REMEDICATION OBLIGATIONS AND PROVISIONS

The company's long-term environmental remediation obligations include decommissioning and restoration liabilities relating to past operations. These obligations are based on an operation's Environmental Management Plan and the relevant regulatory requirements. An assessment

of closure liabilities is undertaken annually and these liabilities are presented in the table overleaf.

Provisions for remediation costs are made when there is a present obligation, when it is probable that expenditure on remediation work will be required and when the cost can be estimated within a reasonable range of possible outcomes. These costs are based on information currently available, the technology expected to be available at the time of the clean-up, the expected time-frame for remediation, laws and regulations presently or virtually certain to be enacted, and previous experience of remediation. Provision for restoration and decommissioning costs is made at the present value of the expenditures expected to settle the obligation using estimated cash flows based on current prices and discounted at a pre-tax rate that reflects current market assessments of the time value of money.

PLANNING FOR THE FUTURE (CONTINUED)

REHABILITATION LIABILITIES PER OPERATION (\$ MILLION)

Operation	2016			2015
	Restoration	Decommissioning	Total	Total
South Africa	14.8	80.4	95.2	95.3
Kopanang	1.1	12.1	13.2	13.6
Moab Khotsong ⁽¹⁾	4.2	29.1	33.3	37.5
TauTona ⁽²⁾	3.6	11.9	15.5	14.0
Mponeng	2.6	5.5	8.1	5.9
Legacy projects				
- Vaal River	-	4.2	4.2	4.7
- West Wits	-	0.3	0.3	0.3
- Other	0.2	-	0.2	0.3
First Uranium SA	3.1	16.4	19.5	18.2
Nufcor	-	0.9	0.9	0.8
Continental Africa	261.7	168.1	429.8	425.1
Ghana				
Iduapriem	35.7	8.3	44.0	41.5
Obuasi ⁽³⁾	154.0	62.2	216.2	209.8
Guinea				
Siguiri	28.1	27.9	56.0	61.2
Mali ⁽⁴⁾				
Morila	-	7.0	7.0	8.6
Sadiola	14.7	12.5	27.2	26.6
Yatela	4.5	10.1	14.6	14.2
DRC				
Kibali ⁽⁴⁾	-	9.5	9.5	7.0
Tanzania				
Geita	24.7	30.6	55.3	56.2

Operation	2016			2015
	Restoration	Decommissioning	Total	Total
Australasia	42.5	28.9	71.4	61.4
Australia				
Sunrise Dam	19.7	10.0	29.7	30.3
Tropicana	22.8	18.9	41.7	31.1
Americas	108.1	41.0	149.1	137.5
Argentina				
Cerro Vanguardia	45.8	17.5	63.3	60.3
Brazil				
AGA Mineração	44.9	16.5	61.4	58.0
Serra Grande	9.6	7.0	16.6	14.1
United States of America				
Cripple Creek & Victor & Other	0.5	-	0.5	0.5
Colombia				
La Colosa	7.0	-	7.0	4.6
Gramalote ⁽⁴⁾	0.3	-	0.3	-
Other	3.7	-	3.7	6.0
	430.8	318.4	749.2	725.3
Less equity-accounted investments included above ⁽⁴⁾	(4.9)	(39.1)	(44.0)	(42.2)
	425.9	279.3	705.2	683.1

⁽¹⁾ Includes Great Noligwa.

⁽²⁾ Includes Savuka.

⁽³⁾ Includes Mpasatia (Bibiani pit).

⁽⁴⁾ The equity-accounted investments refer to the Mali assets, Kibali in the DRC and Gramalote in Colombia.