HARMONY™

Mineral resources and mineral reserves 2013

SAFETY ACCOUNTABLE ACHIEVEMENT CONNECTED HONESTY

CONTENTS

Mineral resources and mineral reserves

INTRODUCTION

As at 30 June 2013, Harmony's attributable gold equivalent mineral reserves amounted to 51.5Moz, spread across Harmony's assets in South Africa and PNG. This represents a decrease of 2.8% to the annual declared reserves. The decrease is due to depletion and reserves that have been reduced from surface sources in South Africa.

Attributable gold equivalent mineral resources are 147.7Moz, a decrease year on year. The 1.7% decrease collectively represents mined resources during the year, together with some geology changes.

The mineral resources are reported inclusive of the mineral reserves. We use certain terms in this report such as 'measured', 'indicated' and 'inferred' resources, which SEC guidelines strictly prohibit US-registered companies from including in their filings with the SEC. US investors are urged to consider closely the disclosure in our Form 20-F.

In converting the mineral resources to mineral reserves the following commodity prices and exchange rates were applied:

- A gold price of US$1 400/oz
- An exchange rate of US$/ZAR8.89
- The above parameters resulted in a gold price of R400 000/kg
- The Hidden Valley mine and Wafi-Golpu project in the MMJV used prices of US$1 250/oz Au, US$21/oz Ag, US$15/lb Mo and US$3.10/lb Cu at an exchange rate of A$0.98 per US$
- Gold equivalent ounces are calculated assuming a US$1 400/oz Au, US$3.10/lb Cu and US$23.00/oz Ag with 100% recovery for all metals.

AUDITING

Harmony's South African mineral resources and mineral reserves have been comprehensively audited by a team of internal competent persons that functions independently of the operating units. The internal audit team verifies compliance with the Harmony code of resource blocking, valuation, resource classification, cut-off calculations, development of life-of-mine plans and SAMREC compliant statements from each operation and project which supports Harmony's annual mineral resources and mineral reserves declaration. This audit process is specifically designed to comply with the requirements of internationally recognised procedures and standards such as:

- South African Code for Reporting Mineral Resources and Mineral Reserves – SAMREC Code
- Industry Guide 7 of the United States Securities Exchange Commission
- Sarbanes-Oxley requirements
- Australian Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves – the JORC Code, which complies to the SAMREC Code.

In addition to the internal audits, Harmony's South African mineral resources to mineral reserves conversion process and four operations, Masimong mine, Target 1 mine, Kalgold mine and Phoenix project were reviewed and audited by SRK Consulting Engineers and Scientists for compliance with the South African Code for Reporting Mineral Resources and Mineral Reserves – SAMREC Code and Sarbanes-Oxley requirements. Harmony's Papua New Guinea mineral resources and mineral reserves were independently reviewed by AMC Consultants Proprietary Limited for compliance with the standards set out in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves – the JORC Code.

COMPETENT PERSON'S DECLARATION

In South Africa Harmony appoints an ore reserve manager at each of its operations who takes responsibility for the compilation and reporting of mineral resources and mineral reserves at their operations. In PNG, competent persons are appointed for the mineral resources and mineral reserves for specific projects and operations.

The mineral resources and mineral reserves in this report are based on information compiled by the following competent persons:

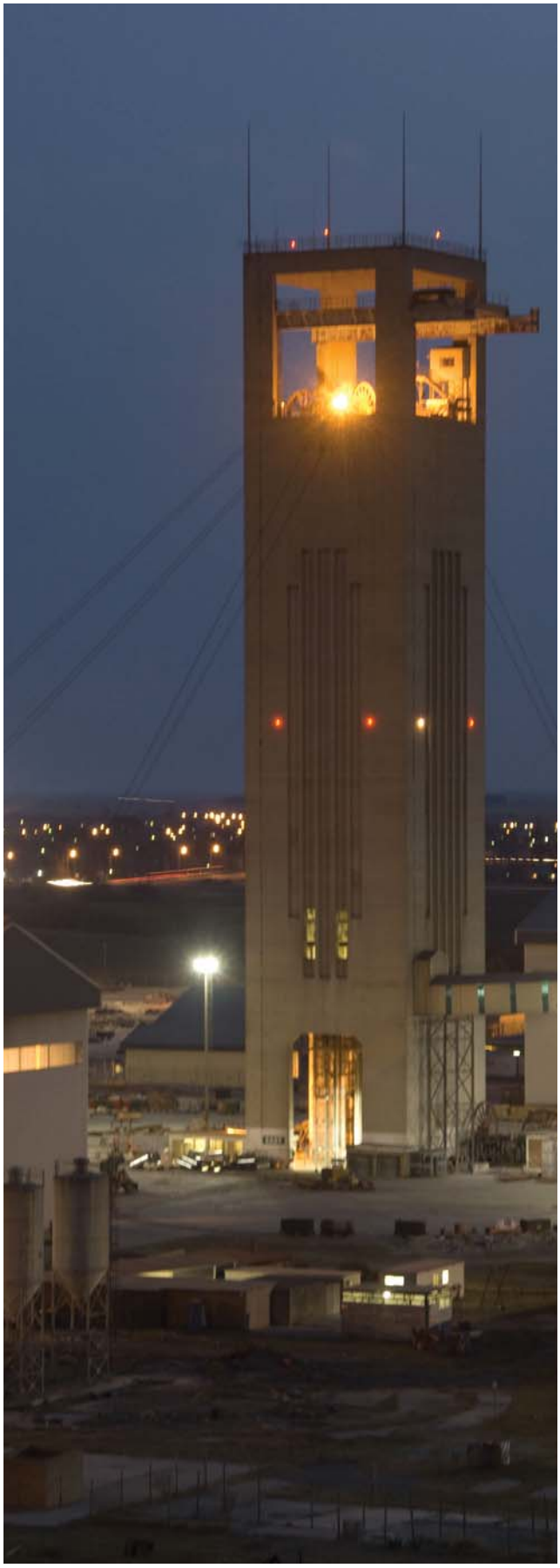
- **Resources and Reserves South Africa:** Jaco Boshoff, BSc (Hons), MSc, MBA, Pr. Sci. Nat., who has 18 years' relevant experience and is registered with the South African Council for Natural Scientific Professions (SACNASP) and a member of the South African Institute of Mining and Metallurgy (SAIMM)
- **Resources and Reserves Papua New Guinea:** Gregory Job, BSc, MSc, who has 25 years' relevant experience and is a member of the Australian Institute of Mining and Metallurgy (AusIMM).

Mr Boshoff and Mr Job are full-time employees of Harmony Gold Mining Company Limited.

These competent persons consent to the inclusion in the report of the matters based on the information in the form and context in which it appears.

Jaco Boshoff
25 October 2013

Greg Job
25 October 2013



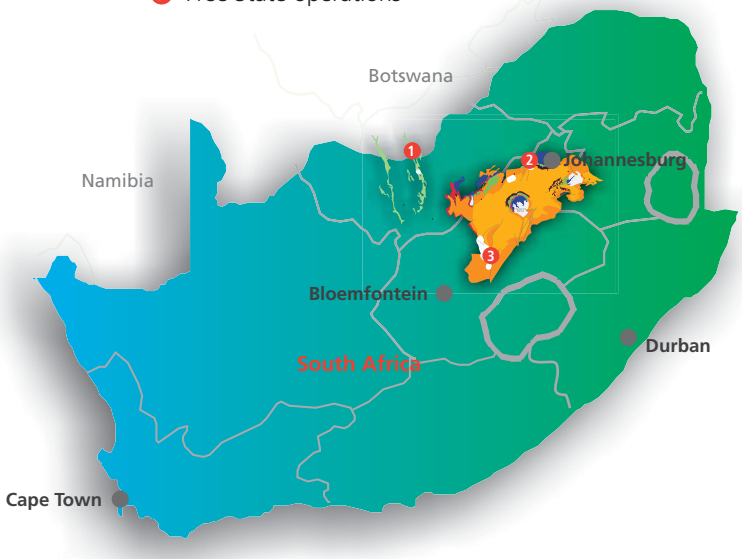
Mineral resources and mineral reserves

LOCALITY MAP OF HARMONY'S OPERATIONS AND PROJECTS

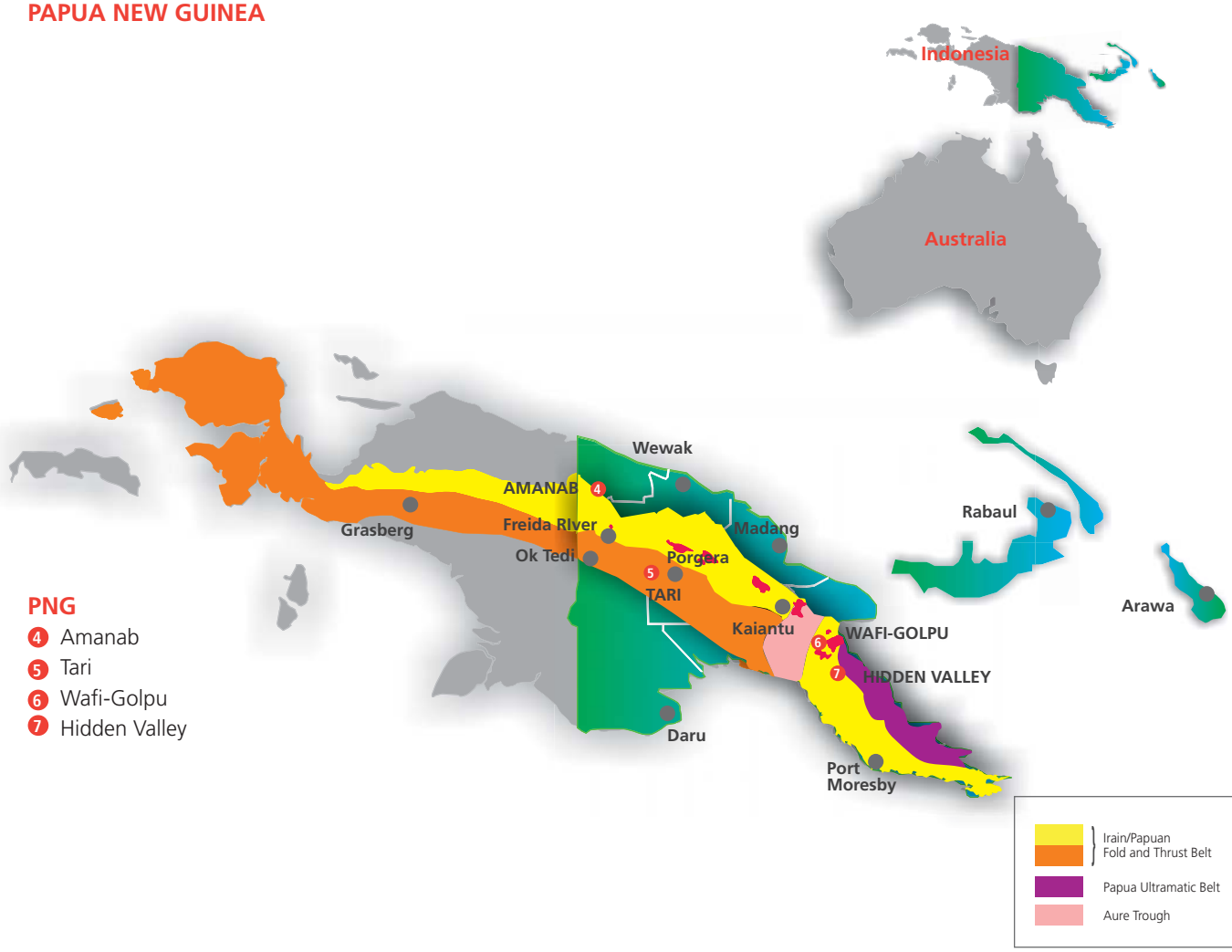
SOUTH AFRICA

SOUTH AFRICA

1. Kalgold
2. West Rand operations
3. Free State operations



PAPUA NEW GUINEA



PNG

4. Amanab
5. Tari
6. Wafi-Golpu
7. Hidden Valley

Mineral resources and mineral reserves

EXPLORATION AND PROJECTS SOUTH AFRICA

BROWNFIELDS EXPLORATION

Freddies 9 shaft

A pre-feasibility study is investigating the possibility of mining the AC and Central blocks after a business case identified these areas as being best mined from the Tshepong infrastructure. These blocks form the up-dip extension of the Tshepong/Phakisa high-grade black chert facies of the Basal reef. In the early stages of the study, it became apparent that a large amount of development would be needed to properly access the resource and we have postponed any further work after gold price parameters were adjusted downwards.

Kalgold

An exploration project was initiated at Kalgold in the last financial year which aimed to explore the regional potential and find more localised, higher-grade orebodies that could supplement feed to the current plant. A high-resolution magnetic survey was completed in September 2012 which led to regional targets being identified on the lease area. This will be followed by drilling in due course. The survey also identified more localised targets which, when combined with a new three-dimensional geological database, has enabled an exploration drilling programme to be developed. The initial programme targets the Windmill prospect and by year end, six of the planned 22 holes had been completed.

Masimong surface drilling

The remaining two holes of the exploration programme started in 2012 were completed during the year. The programme was designed to test the theory that high-grade channels presently being mined at Masimong extend to the east of the Saaiplaas fault, against which all workings presently stop.

All four holes intersected the primary target (B reef). Grades obtained were variable, as expected in a highly channelised environment, with the historically better grade B1 facies intersected in all four holes. We also confirmed that the black chert facies of the Basal reef is still present 400m beyond the Saaiplaas fault in the north. Towards the south, the holes confirmed the start of the zone of coalescence of the Leader and Basal reefs with only small remnant Basal patches preserved.

On the strength of this information, Masimong has planned to equip and develop tunnels on 1650 level to access and cross the B reef channel and to undertake additional underground drilling. To date, equipping the haulage is virtually complete with only 30m of 650m remaining, after which development can start.

PROJECTS

Kalgold carbon-in-leach tank replacement project

The eight new CIL tanks and associated infrastructure were commissioned as planned in the first half of the year. The old tanks were decommissioned and removed to make way for the new elution plant which forms part of the Kalgold phase 1 plant refurbishment project.

Kalgold phase 1 plant refurbishment project

The Kalgold metallurgical plant was built in 1996 and expected to have to operate for 13 years. Kalgold's present life of mine is over 10 years and the plant needs to be refurbished if it is to last this long. The replacement of the CIL tanks was the start of this process and the new phase 1 continues the process by addressing more seriously deteriorated plant items such as the two smaller ball mills, elution circuit and mill sumps.

The sum of R37 million has been budgeted for this project, mostly for replacing the elution column and associated circuit. Two ball mills have been purchased from a discontinued operation and are being refurbished prior to installation at Kalgold. The project is expected to be completed in April 2014.

Work continues on the design of phase 2 – refurbishing the rest of the plant, including the leach and crusher sections as well as general plant infrastructure.

Phoenix 500

The Phoenix surface tailings retreatment project in the Free State was started in July 2011 and completed in March 2013. The sum of R184 million was budgeted to allow the operation to become standalone from the Free State underground operations, to have its own tailings deposition site and to be able to treat 500 000 tonnes of tailings per month. The new tailings deposition site was built on the old St Helena tailings dam footprint and included building the associated return-water and stormwater dams and pump stations. In addition, a new 19km overland slurry delivery pipeline and a 13km return-water line were laid, and a tank each added to the two trains of tanks in the Saaiplaas plant. The residue pumping system at Saaiplaas was also upgraded.

The project was successfully completed ahead of time and under budget when the new tailings dam accepted its first tailings in March 2013. In the next three months, the plant averaged slightly over 500 000tpm throughput which has significantly relieved pressure on the old dams. Only the underground operations now deposit in these dams.

Mineral resources and mineral reserves

EXPLORATION AND PROJECTS SOUTH AFRICA CONTINUED

Kusasalethu elution plant

Kusasalethu does not have an elution plant and has in the past used excess capacity at Evander to complete the gold recovery process. With the sale of Evander to Pan African Resources, it became necessary for an elution plant to be built at Kusasalethu as this is a long life mine.

The R92 million project was started early in 2012 when tenders were adjudicated. Work on the ground only started in October 2012 when foundations were prepared.
By financial year end, the construction part of the project was 90% complete with commissioning due to begin in September 2013.

The completed elution plant will make Kusasalethu self-sufficient with no transfer of carbon-loaded material to another plant being necessary. It will also significantly ease the elution capacity constraint that Harmony has experienced from time to time in the past.

Bio-energy project

This project is evaluating the feasibility of establishing a 5MW renewable energy plant in the Free State. The objective is to establish a farm growing a non-edible crop on mine-impacted land which will then be passed through an anaerobic digestive system and the methane gas harvested to replace fossil fuel. Harmony owns a considerable amount of land, including that on which tailings dams are situated, and could use the energy generated to power aspects of the gold-extraction process in metallurgical plants, such as kilns and elution plants, as well as the main office block and perhaps vehicles. Such a project would generate local jobs, use impacted land to generate an income and potentially remediate the soil.

The feasibility study started in May 2012 and is expected to be complete by mid-2014. As part of the study, an agricultural trial was conducted to understand the plant specimens best suited to the land and what yields could be expected. This information has been assimilated into the feasibility study which has shown a positive return. Outstanding work includes permitting and an environmental impact assessment to determine how this project will proceed.

Phoenix 500 surface tailings

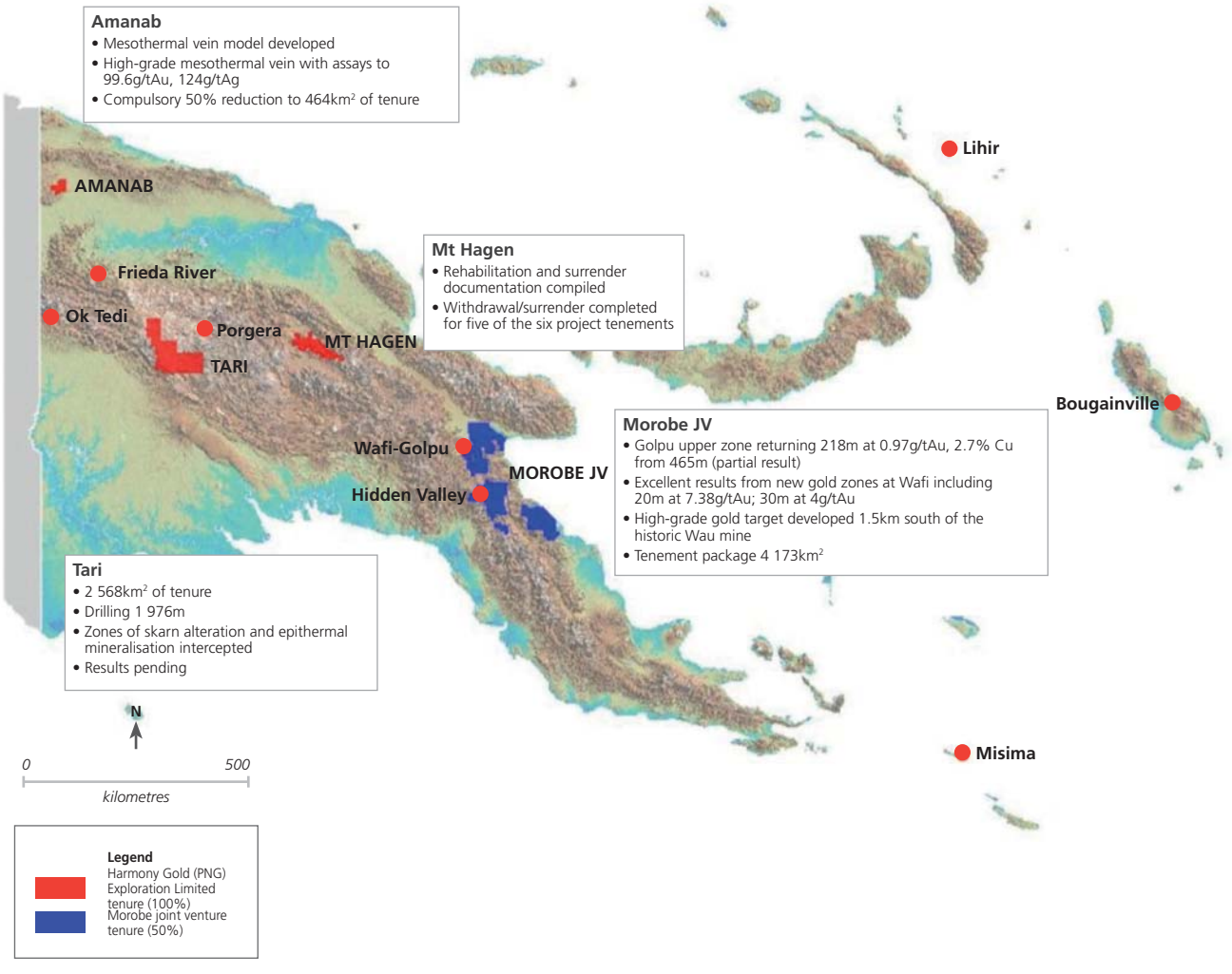
Mineral resources and mineral reserves

EXPLORATION AND PROJECTS PNG

PNG EXPLORATION OVERVIEW 2013

- Focused strategic programme: total PNG exploration expenditure A$59.5 million
  - Reduced greenfield tenement portfolio
  - Brownfield focus: 67 165m drilling; 80% Wafi-Golpu project; 20% greenfield prospects
- Wafi-Golpu project
  - Drilling highlights better continuity of porphyry in the upper levels of the deposit with better grades and recoveries
  - Excellent results from the broader project area with emerging high-grade gold opportunities:
    - Northern zone:
      WR 483: 124m at 3.1g/t Au from 272m
      Including: 20m at 7.38g/t Au from 320m
    - Bridge zone:
      WR457: 66m at 2.56g/t Au from 114m
      Including: 30m at 4g/t Au from 150m
  - Pre-feasibility delivered in August 2012 with reserve of 12.4Moz Au, and 5.4Mt Cu. Studies focused on a modular, scalable development path for reduced capital requirement
- Developing PNG portfolio of quality gold and copper-gold prospects in a world-class province:
  - Advanced brownfield porphyry copper-gold and epithermal gold targets in Morobe province
  - High-grade mesothermal Au-Ag stockwork at Amanab
  - Porphyry copper-gold and associated gold skarn mineralisation at Tari
- Discovery cost less than US$10 per resource ounce

FIGURE 1: HARMONY FY13 PNG EXPLORATION PROJECT LOCATIONS AND WORK SUMMARY



Mineral resources and mineral reserves

EXPLORATION AND PROJECTS PNG CONTINUED

Morobe joint venture (Harmony, Newcrest 50% each)
The Morobe JV land holding comprises over 4 173km^2 of tenure. The tenements sit within a broader 'strategic alliance' area where both Harmony and Newcrest operate as JV partners.

The tenement package encompasses the Wafi-Golpu and Hidden Valley projects and is a key strategic holding in the Morobe goldfields. Prospecting and mining activities date back to the early 1900s and, since then, the metal endowment of the district (past production and known resources) has grown to over 38Moz of gold, 9Mt of copper and 106Moz of silver. This growth is relatively recent and largely attributable to discovering extensions of the world-class Golpu copper-gold deposit in 2010, affirming the view that this tenement holding is underexplored and remains highly prospective for significant new high-grade epithermal gold and copper-gold porphyry deposits.

The underlying strategy of the MMJV exploration programme is threefold:

- Wafi-Golpu:
  - Drilling and project development to advance Wafi-Golpu into a second mining operation for the MMJV
  - Brownfields and greenfields (Wafi transfer) exploration to discover additional resources to expand Wafi-Golpu into a mineral district
- Hidden Valley: brownfields exploration in a 10km radius of the Hidden Valley plant to develop resources to replace mining depletion and supplement mill feed with high grade ore
- Regional greenfields exploration – develop a project pipeline capable of delivering additional quality resources and sustaining future growth and operations in the province.

Harmony's 50% share of exploration expenditure on the Morobe JV tenements for FY13 was AUD43.1 million. This included 61 900m of diamond drilling and 2 956 surface samples. Although the 2013 work programme was weighted heavily to developing orebody knowledge for the Wafi-Golpu pre-feasibility study, exploration for satellite resources around Hidden Valley and regionally continued, with drill programmes conducted on five separate prospects as detailed below.

As noted, the MMJV tenement remains underexplored, with significant potential for discovering multimillion-ounce gold deposits.

Whisky rig drilling WR423, December 2012

WAFI-GOLPU PROJECT

Resource definition and brownfields exploration

Almost 90% of MMJV's FY13 drill programme (54 000m) took place at Wafi-Golpu to develop orebody knowledge for the Golpu deposit and the broader mineralised system to inform various pre-feasibility studies and development concepts.

The Wafi-Golpu deposits were developed as part of an intrusive complex localised in the Wafi transfer structure. The intrusive complex has a footprint of roughly 2.5x2.5km, centred on a diatreme breccia. Golpu represents a zoned multiphase porphyry copper-gold deposit off the northeastern margin of the diatreme. The potassic core (K feldspar-biotite-magnetite-bornite-chalcopyrite) of the mineralised porphyry grades outwards into propylitic alteration (chlorite-epidote-pyrite +/- hematite). Wafi represents a high-sulphidation epithermal gold deposit. The main gold zones defined to date are located on the southern margin of the diatreme breccia (figure 2) However, the epithermal gold mineralisation and its associated alteration zones are widespread, and partly overprint the upper levels of the mineralised Golpu porphyry.

At Golpu, drilling has demonstrated better continuity of the mineralised porphyries in the upper portions of the deposit and extended the known high-grade zones. Results from this work included:

- WR459 615.8m at 0.57g/t Au, 0.54% Cu from 490m
- WR474 752m at 0.48g/t Au, 0.91% Cu from 118m
- WR476 566m at 0.70g/t Au, 1.37% Cu from 548m
- WR479 1421.5m at 0.64g/t Au, 1.14% Cu from 114m
- WR484 538m at 0.53 g/t Au, 1.26% Cu from 179m

Drilling in the lower portions of the deposit to better define high-grade porphyry architecture within the broader mineralised envelope is ongoing.

Away from Golpu, step-out drill testing of the Wafi epithermal gold system has provided several highly significant drill intercepts with potential to develop into new high-grade gold opportunities for the project. Off the northern margin of the diatreme, WR483 intersected 124m at 3.1g/t Au from 272m. In the 'bridge zone' between Golpu and Wafi gold resource, WR457 returned 66m at 2.56g/t Au from 114m. Both zones were poorly tested and have the potential to develop into Link zone (5.57Mt at 6.37g/t Au for 1.14Moz) style resources.

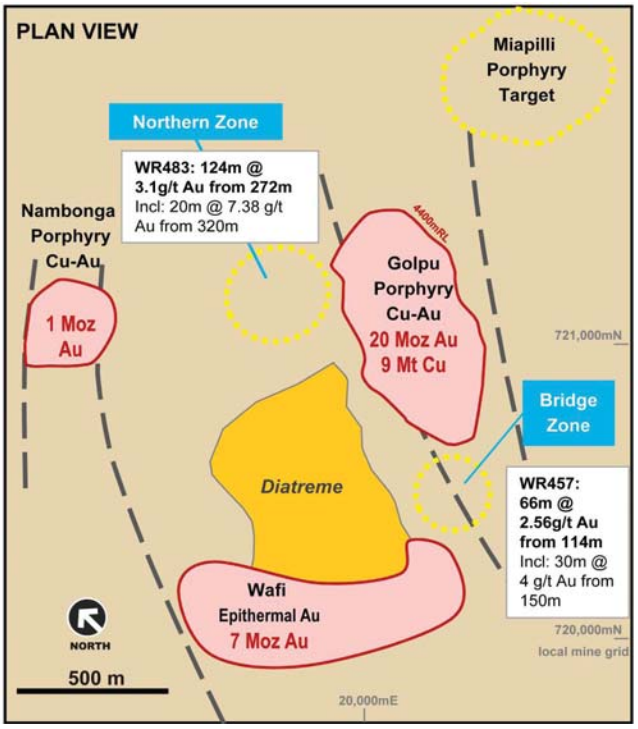


Figure 2: The Wafi Golpu project area showing deposit locations and high-grade gold drill intercepts. System is contained within 2.5km² and managed by a dedicated project team. Exploration outside the square is managed by the exploration group.

The combined Wafi-Golpu resource is 1.2 billion tonnes at 0.76g/t gold and 0.78% copper, giving 28.5Moz gold and 9.1Mt copper (100% basis). Full details of project resources are tabulated in section 64 of this report.

The drill scope for FY14 comprises around 30 000m and caters for project requirements including infrastructure/ orebody access, hydrogeological and geotechnical work. However, a significant component of the planned programme remains focused on orebody knowledge and brownfields exploration to expand existing resources.

Pre-feasibility study and project development

In August 2012, a completed pre-feasibility study led to an updated Golpu probable mineral reserve estimate containing 12.4Moz gold and 5.4Mt copper.

Subsequently, the key driver behind studies and early works activities in FY12 was the definition and positioning of Wafi-Golpu as a future production asset. Drill work undertaken was to support an improved understanding of the structural framework of the porphyry copper-gold system, and to test the potential for additional high-grade mineralisation.

In parallel, key early-works site activities were strategically progressed to mitigate project schedule risk to first production. These activities included ongoing improvements to site access roads, construction of river-crossing bridges, expansion of construction camp facilities and support services, environmental permitting and community affairs.

The pre-feasibility study presented a development approach that was considered capital intensive, restricted by a long payback period, and a high residual risk profile. These key elements were considered unfavourable to the owners and potential investors in the current and near-term economic climate.

Given the high capital intensity of the proposed project, a three-phase study validation and optimisation process was initiated. Starting in October 2012, phase 1 focused on addressing key risks, opportunities and recommendations made by the pre-feasibility study competent independent review panel.

Phase 2 began in April 2013 when Harmony and Newcrest issued a project development brief, in which the capital intensity and execution strategy was to be reconsidered and improved by considering alternative staged mine development options. This initiative considered and evaluated 22 potential options, from which four potential business cases were determined.

The options were evaluated in the context of a reduced start-up mine production rate, reduced scope requirements to achieve first production, and reconsidering the design specification, all key drivers in reducing the overall capital intensity of the project and the time to first production. In addition, a deconstruction of project drivers, success criteria, commercial strategy, and base cost of capital aided the assessment of alternative development options.

This has resulted in a new way of project thinking geared towards defining options that maximise investor returns and the requirements to improve overall earned value. As such, the envisaged development schedule is no longer a key driver of the project, and the delivery strategy and execution plans have been reconsidered, with all unnecessary procurement, commitments and contracting initiatives either being scaled down or terminated.

Phase 2 culminated in a forward work plan and recommendations to advance the project as follows:

- Long term (4+ years) – pursue the lean development of Golpu
- Medium term (2 – 4 years) – it is considered critical to gain orebody access and initiate a feasibility study based on an optimised pre-feasibility study
- Short term (<2 years) – recommended a body of work to address key risks for the Golpu business cases:
  - Validate the scoping targets of the lean development approach
  - Validate lower-cost execution strategies and methods
  - Conduct further targeted resource definition and risk mitigation drilling in the lower mine zone and selected upper mine zones
  - Identify potential project and third-party infrastructure funding sources, aligning an execution and contracting strategy
  - Progress underground access studies through pre-feasibility and feasibility studies
  - Progress minor site works to support underground orebody access requirements
  - Optimise the pre-feasibility study as a foundation for a definitive feasibility study.

GREENFIELDS EXPLORATION

Wafi transfer structure

The Wafi structural corridor is outlined by the faulted contact between the Babwaf conglomerate and the Owen Stanley metamorphics. It comprises over 17km of strike with a number of prospects defined by high-tenor gold and copper-gold geochemistry in stream sediment sampling. The entire corridor ranks as a high-priority target for major mineralised gold and porphyry copper-gold systems similar to Wafi-Golpu.

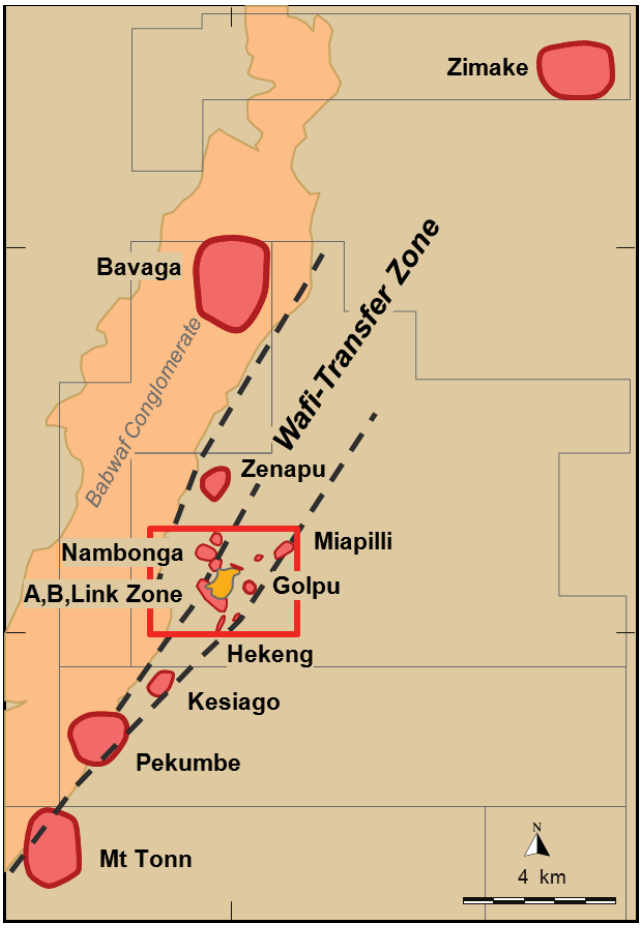
Drill programmes were undertaken at the Kesiago, Zimake and Mt Tonn prospects in FY13, with ongoing target generation throughout the year.

Kesiago prospect (EL1103)

The Kesiago prospect lies around 5km south-west of Wafi-Golpu on the Wafi transfer structure. Final results were received from a nine-hole drilling programme and interpretation was completed.

Results indicate multiple phases of alteration and mineralisation similar to Wafi-Golpu. The widespread alteration and mineralisation events seen in drill core are interpreted as an extension of the Wafi-Golpu system over 3km to the south. The area between Wafi and Kesiago was highlighted for further work in FY14.

Figure 7: Wafi transfer zone showing prospect locations



Zimake (EL1590)

The Zimake target is a circular magnetic anomaly of some 5x6km, roughly 12km north-east of Wafi-Golpu. In FY12, surface geochemical sampling outlined a 1.5km area with elevated copper and gold up to 0.2% Cu, 0.5g/t Au and an initial drill programme began, with two holes completed by year end.

A third hole, ZIMDH003 comprising 674m, was drilled in 2013 to complete first-pass drill testing at the Zimake prospect. This did not encounter economic mineralisation, and outlined long intervals of unaltered hornblende diorite. Minor chalcopyrite occurs as vein infill, with very weak epidote alteration. The presence of chalcopyrite may explain the surface geochemical anomaly, however further drilling is targeting the potassic altered hornfelsed margin of the diorite, which may be a focus for mineralisation.

Mt Tonn (EL1316)

The Mt Tonn prospect lies some 7.5km along strike to the south-east of Wafi-Golpu on the Wafi transfer structure. Previous geochemical sampling programmes identified several high-order copper-gold anomalies coincident with magnetic anomalies.

Two holes were drilled to test this anomaly for a total of 783m. Drilling outlined a thrusted sequence of propylitic altered conglomerates and metasediments thrusted over the unaltered pliocene clastic sediments of the Babwaf conglomerate. Results are currently being interpreted in the context of a regional structural model for the Wafi transfer.

Hidden Valley brownfields exploration

Brownfields exploration in a 10km radius of Hidden Valley was undertaken to develop new high-grade feedstock for the mine with two main focus areas:

- Surface geochemical sampling to test a series of north-west trending structures, parallel to the Upper Watut fault (953 samples)
- Follow-up drilling at Kerimenge (2 987.5m).

In addition to target development work, some drilling was completed at the Limestone project to follow up on FY12 mapping results.

11 Peg (EL 497)

Results received for the 11 Peg prospect have been highly encouraging; a major new Au target has been developed only 1.5km south of the historical Wau gold mine. The target was generated as part of a regional programme to test the Escarpment fault system which is a major north-west trending structural zone that runs parallel with the Hidden Valley-Upper Watut fault system.

Surface soil sampling has outlined a gold soil anomaly >0.1g/t coincident with a 1x1km zone of argillic alteration. Selective rock chip sample results were also encouraging, ranging up to 15.1g/t Au. The anomaly remains open, and alteration footprint could potentially extend to the Wau mine for a system of over 3km of strike.

Geology mapped in the area comprises highly oxidised and mineralised breccia (being mined by locals), intense argillic altered (kaolinite, illite, sericite, quartz, pyrite) porphyry and metasediment, including black shale and phyllites.

Kerimenge (EL497)
The Kerimenge prospect is some 6km east of the Hamata processing plant. Exploration dates back to the late 1980s, after RGC discovered a zone of low-grade epithermal gold mineralisation through float mapping and stream sediment sampling. Historically, some 19 300m have been completed at the prospect. However, although some narrow intervals of high-grade mineralisation have been obtained, the mineralised stockwork vein array remains sub-economic.

During the year, a small programme comprising six holes for 2987.5m was undertaken. Drilling was designed to test at depth below the main resource and its strike extensions, and to collect new material for modern metallurgical testwork.

Best results included:

QD148:	56m at 0.74g/t Au from 23m
QD150:	111m at 1.84g/t Au from 102m
QD151:	26m at 2.7g/t Au from 191m
QD152:	34.5m at 1.15g/t Au from 52.7m
	38m at 1.3g/t Au from 104m

Longitudinal section through the prospect confirms a flat to moderately dipping sill of low-grade mineralised porphyry. In the absence of a high-grade driver or step-change in the geological understanding of the deposit, no further work is planned at this stage.

Limestone project (EL497)
In FY12, limestone bodies immediately north of the ML boundary at nearby Hikinangowe and Mungowie were mapped to define a hard-rock limestone source at the site. The work outlined a continuous limestone body over a 4km strike, ranging from several to tens of metres thick.

In FY13, nine drill holes were completed for a total of 997.5m. Drilling tested the limestone to a maximum depth of 200m and outlined an open-ended resource area with a strike length of 850m and width of 450m. This potential limestone resource area could be expanded with additional drilling.

MOROBE REGIONAL EXPLORATION

Regional generative exploration was scaled back during the year, with several tenement applications withdrawn and existing tenement project areas under review. On this basis, regional work focused on the Garawaria prospect on EL1629.

Garawaria (EL1629)
The Garawaria prospect is some 60km south south-east of Wau and the Hidden Valley mine. The prospect was discovered and developed by the MMJV exploration team in 2012, where an open-ended bedrock gold target with over 600m of strike was defined with +1g/t values in surface trenching.

Drill testing at Garawaria comprised four holes for 1793.7m. The drilling was designed as a first-pass programme to test below the structures and mineralised intervals observed in surface trenches. Results were encouraging, with broad zones of anomalous Au geochemistry (+0.1g/t Au) obtained in all drill holes. Significant intercepts greater than 1g/t Au include:

ALNDH002:	16m at 1.27g/t Au from 26m
	12m at 1.3g/t Au from 63m
ALNDH003:	24m at 1.85g/t Au from 112m
	6m at 2.62g/t Au from 189m

Au mineralisation is also accompanied by elevated levels of arsenic up to 0.26%.

Geology has outlined a sequence of interbedded limestone and metasediments. The sequence is faulted and intruded by a number of late feldspar porphyries with disseminated pyrite and pervasive sericite alteration. Several narrow mineralised breccia zones were also intersected that correlate with mineralised intercepts (eg ALNDH003; 6m at 2.62g/t from 189m).

Integration of surface mapping, geochemistry, drill and ASD data indicates potential for high-grade structurally controlled Au-Ag-As mineralisation to the south-east of the existing drill pattern and follow-up drilling is planned for FY14.

100% HARMONY PNG TENEMENTS FY13

A total of AUD15.4 million (K31.8 million) was spent on greenfields exploration outside of the Morobe JV on Harmony-owned projects in FY13. During the year Harmony's greenfields exploration portfolio was reduced 24% to 3 693km^2 of tenure following a decision to withdraw from the Mt Hagen project. Work is now focused on two key projects:

- Amanab: Located in Sandaun province some 160km north of the OK Tedi copper-gold mine, this project encompasses a significant alluvial goldfield with exploration targeting vein stockwork gold mineralisation

Mineral resources and mineral reserves

EXPLORATION AND PROJECTS PNG CONTINUED

Highly oxidised and silicified breccia outcrop from the 11 Peg area with clasts of altered and mineralised porphyry and hornfelsed metasediment. Locals have opened up the area with pits, prospecting for gold.

- Tari: In the Southern Highlands province 50km south-west of Porgera where new exploration licences encompass several magnetic targets with excellent potential for porphyry copper-gold mineralisation and Porgera-style epithermal gold.

Amanab project (Harmony 100%)

The Amanab project covers 464km^2 and encompasses the Amanab alluvial goldfield. The hard-rock source for the gold has never been drill tested and the area remains prospective for large-scale structurally controlled mesothermal vein lode deposits (+2Moz).

Regional geology includes cretaceous metamorphic (phyllites, slates, marble and volcanics) intruded by younger metadiorites and there is a major anomalous stream sediment footprint. Magnetic anomalies at Amanab may reflect intrusions at depth.

Surface sampling and mapping concentrated on the Yup River east prospect, which was identified by previous explorers. A total of 485 rock chip samples and 247 soil samples were collected and 41 line kilometres of mapping completed.

Results have outlined a 2km^2 gold soil anomaly. Although a significant portion of the anomaly is due to gold associated with reworked cover sequences and recent alluvials, primary gold mineralisation was observed in the underlying Amanab metadiorite, evident as high-grade mesothermal gold-silver telluride veins.

Mineral resources and mineral reserves

EXPLORATION AND PROJECTS PNG CONTINUED

Planned work in FY14 includes reprocessing magnetics and identifying structural intersections or extensional zones below cover to target opportunities to develop vein stockwork zones with bulk tonnage potential.

Tari project (Harmony 100%)

The Tari project comprises two granted exploration licences, namely EL 1786 (Hirane) and EL1785 (Tari), which encompass 2 568km^2 of tenure in the Southern Highlands. Regional data assessment identified the tenements as being highly prospective for an Ok Tedi-style copper-gold system. Key porphyry-epithermal gold targets have been identified at Kopiago and Parero Creek on the Porgera transfer structure some 30km south-west of Mount Kare.

Geologically the tenements are located in miocene carbonates, intruded by late miocene/pliocene dioritic to monzonitic intrusions in the Papuan fold belt. The Lake Kopiago magnetic target is conspicuous as being intensely fractured by dominant north-east trending fault systems, similar to the Porgera north-east trending transfer.

Drilling started during the year on EL1786 with 1 967m completed in four holes (KPDD001-4). Drilling was designed to test potential for porphyry/epithermal mineralisation below outcropping skarn mineralisation and limestone and shallow lake sediment cover at Lake Kopiago. Multiple styles of alteration and mineralisation have been observed in drill core to date including:

- Skarn sulphide alteration with anomalous gold and copper assays in pyrrhotite skarn zoning into high-grade massive sulphide mineralisation much like Ok Tedi
- Hydrothermal breccias with disseminated pyrite
- Epithermal coliform banding and brecciated base-metal-carbonate veining.

Core processing and assays are currently under way.

Mineralised quartz vein exposed in the Yup River, Sandaun province. Individual assays up to 99.6g/t Au were obtained from rock chip sampling this outcrop.

Mineral resources and mineral reserves

EXPLORATION AND PROJECTS PNG CONTINUED

Mt Hagen project

The Mt Hagen project in the Western Highlands formed a contiguous block of tenure over 661km^2. However, the company is withdrawing from the project after a tollgate review concluded that potential for an economic orebody was unlikely.

Harmony's exploration programme was focused on the porphyry copper-gold potential of the Kurunga intrusive complex, and follow-up of high-order copper-gold stream sediment anomalies outlined by past explorers.

In FY13, follow-up drill programmes were completed at the Penamb and Penamb East prospects for a total of 3 281m. Reconnaissance exploration activities were also undertaken at Maramp prospect 23km east of Kurunga.

Penamb prospect (EL1596)

Drilling to 1 744m was completed in two drill holes at Penamb to test the eastern extension of the Penamb West porphyry system. These drill holes intersected zones of elevated copper mineralisation, increasing the strike of copper mineralisation to 800m. This zone of low-grade copper mineralisation remains open along strike and at depth, but drilling to date suggests that an economic copper-gold orebody within 800m of the surface is unlikely.

Penamb East prospect (EL1611)

Drilling comprising 1 536m in three drill holes at Penamb East prospect was undertaken to test a surface gold anomaly of +100ppb gold which extended from Penamb prospect to the north-east. Results indicated only patchy development of gold mineralisation associated with structural zones in the drill core and no further work is recommended.

Heliportable drill rig set up on KPDD002 at Lake Kopiago in the Southern Highlands.

Mineral resources and mineral reserves

EXPLORATION AND PROJECTS PNG CONTINUED

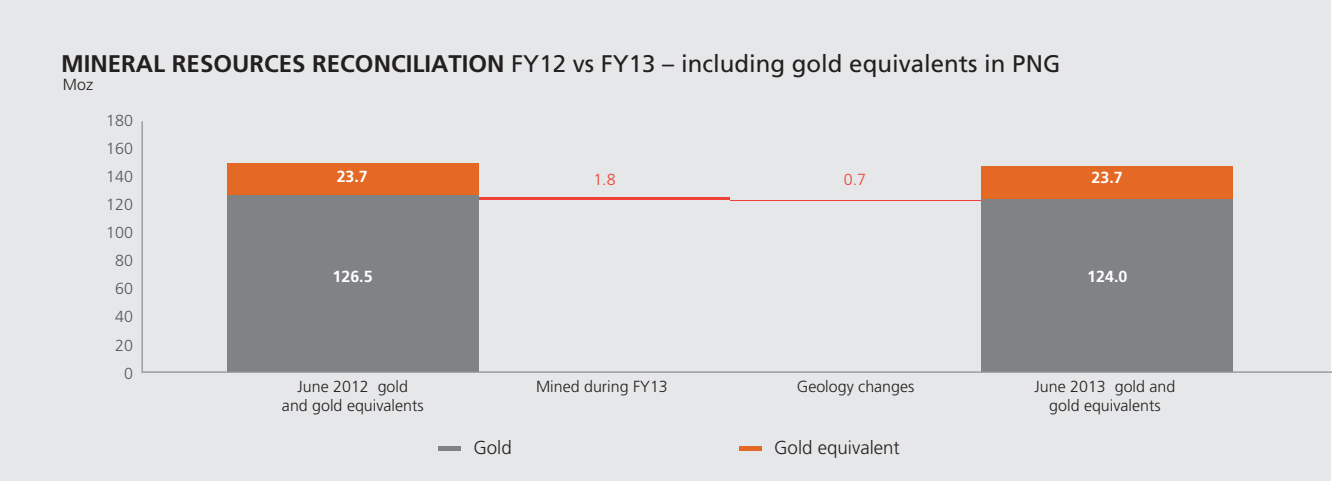
Maramp prospect EL1864

A reconnaissance soil and rock chip sampling programme and mapping programme was completed to test a coincident copper-zinc stream sediment anomaly underlain by a magnetic intrusive. A total of 189 soil samples were collected together with detailed geological mapping over the anomaly. Results indicated a 1km long anomaly with elevated copper and molybdenum similar in size and tenor to the Penamb prospect. On this basis, and in the absence of gold anomalism, no further work was recommended.

Heliportable drill rig set up on PNDD010 at Lake Kopiago in the Southern Highlands.

Mineral resources

As at 30 June 2013, attributable gold equivalent mineral resources are 147.7Moz, down from 150.2Moz in 2012. The following graph shows the year-on-year reconciliation of the mineral resources.



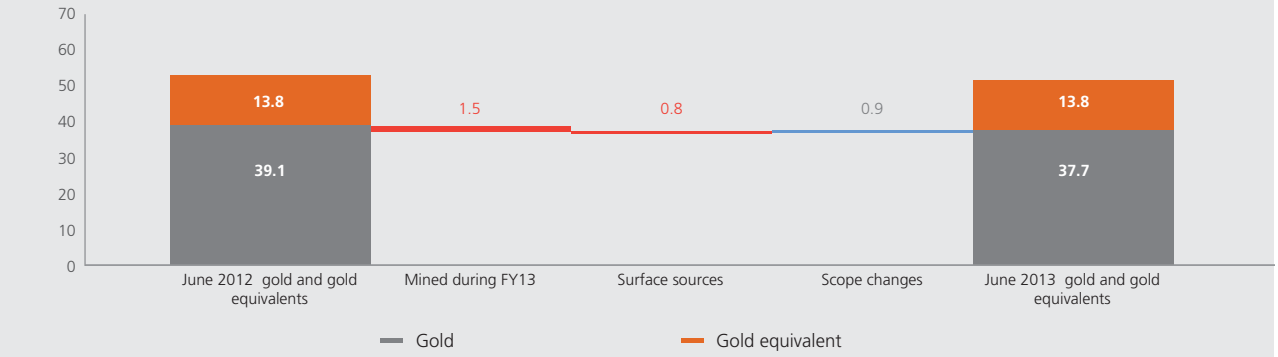
Gold equivalent mineral resources reconciliation – FY12 to FY13

	Gold (tonnes)	Gold (Moz)
June 2012 – gold and gold equivalents	**4 672**	**150.2**
Reductions		
Mined during FY13	(56)	(1.8)
Geology changes	(22)	(0.7)
June 2013 – gold and gold equivalents	**4 594**	**147.7**

Mineral reserves

As at 30 June 2013, Harmony's attributable gold equivalent mineral reserves amounted to 51.5Moz, down from 52.9Moz in 2012. The year-on-year mineral reserves reconciliation is shown in the following graph.

MINERAL RESERVES RECONCILIATION FY12 vs FY13 – including gold equivalents in PNG



Gold equivalent mineral reserves reconciliation – FY12 to FY13

	Gold (tonnes)	Gold (Moz)
June 2012 – gold and gold equivalents	**1 645**	**52.9**
Reductions		
Mined during FY13	(46)	(1.5)
Surface sources	(25)	(0.8)
Increase		
Scope changes	28	0.9
June 2013 – gold and gold equivalents	**1 602**	**51.5**

Mineral resources and mineral reserves

RELATIONSHIP BETWEEN HARMONY'S MINERAL RESOURCES AND MINERAL RESERVES ACCORDING TO THE SAMREC CODE

South Africa underground

Underground

Increasing level of geoscientific knowledge and confidence

Mineral resources (total)

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
386.0	7.68	2 965	95 317

Reported as in situ mineralisation estimates

Mineral reserves (total)

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
120.5	5.87	708	22 754

Reported as mineable production estimates

Inferred

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
190.7	7.07	1 348	43 337

Indicated ⟷ Probable

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
98.2	8.33	818	26 296

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
66.8	5.83	390	12 531

Measured ⟷ Proved

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
97.0	8.23	799	25 684

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
53.7	5.93	318	10 223

Consideration of mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors)

South Africa surface

Surface (including Kalgold)

Increasing level of geoscientific knowledge and confidence

Mineral resources (total)

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
1 170.5	0.30	357	11 466

Reported as in situ mineralisation estimates

Mineral reserves (total)

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
765.5	0.28	217	6 993

Reported as mineable production estimates

Inferred

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
107.6	0.64	69	2 205

Indicated ⟷ Probable

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
680.6	0.25	172	5 518

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
393.9	0.27	107	3 439

Measured ⟷ Proved

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
382.3	0.30	116	3 743

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
371.7	0.30	111	3 554

Consideration of mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors)

Mineral resources and mineral reserves

RELATIONSHIP BETWEEN HARMONY'S MINERAL RESOURCES AND MINERAL RESERVES ACCORDING TO THE SAMREC CODE CONTINUED

South Africa total

Increasing level of geoscientific knowledge and confidence

Mineral resources (total)

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
1 556.4	3 321	106 783

Reported as in situ mineralisation estimates

Mineral reserves (total)

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
886.0	925	29 747

Reported as mineable production estimates

Inferred

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
298.3	1 417	45 542

Indicated ⟷ **Probable**

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
778.8	990	31 814

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
460.7	497	15 970

Measured ⟷ **Proved**

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
479.4	915	29 427

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
425.3	428	13 777

Consideration of mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors)

Papua New Guinea – equity attributable gold

Increasing level of geoscientific knowledge and confidence

Mineral resources (total)

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
651.5	0.83	539	17 313

Reported as in situ mineralisation estimates

Mineral reserves (total)

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
256.8	0.96	248	7 963

Reported as mineable production estimates

Inferred

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
129.7	0.71	92	2 970

Indicated ⟷ **Probable**

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
521.1	0.85	445	14 317

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
256.2	0.96	247	7 937

Measured ⟷ **Proved**

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
0.7	1.17	1	26

Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
0.6	1.23	1	26

Consideration of mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors)

Mineral resources and mineral reserves

RELATIONSHIP BETWEEN HARMONY'S MINERAL RESOURCES AND MINERAL RESERVES ACCORDING TO THE SAMREC CODE CONTINUED

Total Harmony underground and surface – excluding gold equivalents

Increasing level of geoscientific knowledge and confidence

Mineral resources (total)

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
2 207.9	3 860	124 096

Reported as in situ mineralisation estimates

Inferred

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
428.0	1 509	48 512

Mineral reserves (total)

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
1 142.8	1 173	37 710

Reported as mineable production estimates

Indicated ⟷ **Probable**

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
1 299.8	1 435	46 131

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
716.9	744	23 907

Measured ⟷ **Proved**

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
480.1	916	29 453

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
426.0	429	13 803

Consideration of mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors)

Total Harmony underground and surface – including gold equivalents

Increasing level of geoscientific knowledge and confidence

Mineral resources (total)

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
2 207.9	4 594	147 691

Reported as in situ mineralisation estimates

Inferred

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
428.0	1 638	52 675

Mineral reserves (total)

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
1 142.8	1 601	51 466

Reported as mineable production estimates

Indicated ⟷ **Probable**

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
1 299.8	2 039	65 555

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
716.9	1 171	37 657

Measured ⟷ **Proved**

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
480.1	916	29 460

Tonnes (Mt)	Gold (000kg)	Gold (000oz)
426.0	429	13 809

Consideration of mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors)

Mineral resources and mineral reserves

MINERAL RESOURCES STATEMENT (METRIC)

GOLD

Operations	Measured resources			Indicated resources			Inferred resources			Total mineral resources		
	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)	Tonnes (Mt)	Grade (g/t)	Gold (000kg)
SA UNDERGROUND												
Free State Region												
Bambanani	2.7	15.41	42	0.04	25.72	1	–	–	–	2.8	15.55	43
Joel	4.8	7.42	36	7.3	7.20	53	7.6	4.72	36	19.8	6.30	124
Masimong	15.6	6.79	106	9.2	6.18	57	74.7	6.12	457	99.4	6.23	619
Phakisa	7.3	8.24	60	19.1	10.30	197	26.9	8.20	220	53.2	8.96	477
Target 1	9.4	7.30	69	10.1	7.57	77	2.4	5.20	12	22.0	7.20	158
Target 2	0.05	14.00	1	0.1	15.52	2	–	–	–	0.2	15.14	3
Target 3	11.4	7.93	90	9.6	7.43	71	5.1	5.96	30	26.1	7.36	192
Freddies 9	–	–	–	6.0	10.61	64	29.6	8.09	239	35.6	8.51	303
Tshepong	19.7	10.51	207	5.5	9.58	53	13.1	9.22	120	38.3	9.94	380
Unisel	11.0	5.91	65	7.0	6.15	43	8.4	5.34	45	26.4	5.79	153
Total Free State underground	**82.1**	**8.24**	**676**	**74.0**	**8.33**	**617**	**167.7**	**6.92**	**1 160**	**323.8**	**7.58**	**2 453**
West Rand Region												
Doornkop	4.8	4.56	22	6.7	6.60	44	19.8	7.96	157	31.2	7.15	223
Kusasalethu	10.2	9.87	101	17.5	8.98	157	3.3	9.29	31	31.0	9.31	288
Total West Rand underground	**15.0**	**8.18**	**122**	**24.2**	**8.32**	**201**	**23.1**	**8.15**	**188**	**62.2**	**8.22**	**511**
Total SA underground	**97.0**	**8.23**	**799**	**98.2**	**8.33**	**818**	**190.7**	**7.07**	**1 348**	**386.0**	**7.68**	**2 965**
SA SURFACE												
Kalgold	22.9	0.77	18	29.4	0.85	25	62.3	0.84	52	114.5	0.83	95
Free State Region – surface												
Free State (Phoenix)	101.1	0.32	32	–	–	–	–	–	–	101.1	0.32	32
Free State (St Helena)	258.3	0.26	66	–	–	–	–	–	–	258.3	0.26	66
Free State (Other): Waste rock dumps	–	–	–	4.6	0.48	2	29.8	0.44	13	34.5	0.45	15
Slimes dams	–	–	–	646.5	0.22	145	15.5	0.19	3	662.0	0.22	147
Total Free State Region	**359.5**	**0.27**	**99**	**651.2**	**0.23**	**147**	**45.3**	**0.36**	**16**	**1 056.0**	**0.25**	**262**
Total SA surface	**382.3**	**0.30**	**116**	**680.6**	**0.25**	**172**	**107.6**	**0.64**	**69**	**1 170.5**	**0.30**	**357**
Total SA (underground and surface)	**479.4**		**915**	**778.8**		**990**	**298.3**		**1 417**	**1 556.4**		**3 321**
PAPUA NEW GUINEA[1]												
Hidden Valley	0.7	1.17	1	56.2	1.46	82	3.4	1.11	4	60.2	1.44	87
Hamata	0.02	1.40	0.03	3.2	1.90	6	0.1	1.65	0.2	3.3	1.89	6
Wafi	–	–	–	56.7	1.72	98	11.3	1.30	15	68.1	1.65	113
Golpu	–	–	–	405.0	0.64	259	95.0	0.61	58	500.0	0.63	317
Nambonga	–	–	–	–	–	–	19.9	0.79	16	19.9	0.79	16
Total Papua New Guinea	**0.7**	**1.17**	**1**	**521.1**	**0.85**	**445**	**129.7**	**0.71**	**92**	**651.5**	**0.83**	**539**
Harmony total	**480.1**		**916**	**1 299.8**		**1 435**	**428.0**		**1 509**	**2 207.9**		**3 860**

Mineral resources and mineral reserves

MINERAL RESOURCES STATEMENT (METRIC) CONTINUED

GOLD EQUIVALENTS[1]

	Measured resources		Indicated resources		Inferred resources		Total mineral resources	
Silver	Tonnes (Mt)	Au eq (000kg)	Tonnes (Mt)	Au eq (000kg)	Tonnes (Mt)	Au eq (000kg)	Tonnes (Mt)	Au eq (000kg)
Hidden Valley	0.7	0.2	56.2	27	3.4	2	60.2	29
Total	**0.7**	**0.2**	**56.2**	**27**	**3.4**	**2**	**60.2**	**29**
Copper								
Golpu	–	–	405.0	577	95.0	121	500.0	698
Nambonga	–	–	–	–	19.9	7	19.9	7
Total	**–**	**–**	**405.0**	**577**	**114.9**	**128**	**519.9**	**705**
Total silver and copper as gold equivalents	**0.7**	**0.2**	**461.2**	**604**	**118.3**	**129**	**580.1**	**734**
Total PNG including gold equivalents	**0.7**	**1**	**521.1**	**1049**	**129.7**	**222**	**651.5**	**1 272**
Total Harmony including gold equivalents	**480.1**	**916**	**1299.8**	**2 039**	**428.0**	**1 638**	**2 207.9**	**4 594**

Other metals

PAPUA NEW GUINEA[1]

	Measured resources			Indicated resources			Inferred resources			Total mineral resources		
Silver	Tonnes (Mt)	Grade (g/t)	Ag (000kg)	Tonnes (Mt)	Grade (g/t)	Ag (000kg)	Tonnes (Mt)	Grade (g/t)	Ag (000kg)	Tonnes (Mt)	Grade (g/t)	Ag (000kg)
Hidden Valley	0.7	19.08	13	56.2	27.26	1 531	3.4	25.46	86	60.2	27.07	1 630
Golpu	–	–	–	405.0	1.13	459	95.0	1.04	99	500.0	1.11	557
Nambonga	–	–	–	–	–	–	19.9	2.87	57	19.9	2.87	57
Total	**0.7**	**19.08**	**13**	**461.2**	**4.31**	**1 990**	**118.3**	**2.05**	**242**	**580.1**	**3.87**	**2 244**
Copper	**Tonnes (Mt)**	**Grade (%)**	**Cu (000t)**	**Tonnes (Mt)**	**Grade (%)**	**Cu (000t)**	**Tonnes (Mt)**	**Grade (%)**	**Cu (000t)**	**Tonnes (Mt)**	**Grade (%)**	**Cu (000t)**
Golpu	–	–	–	405.0	0.92	3 746	95.0	0.80	761	500.0	0.90	4 507
Nambonga	–	–	–	–	–	–	19.9	0.22	43	19.9	0.22	43
Total	**–**	**–**	**–**	**405.0**	**0.92**	**3 746**	**114.9**	**0.70**	**804**	**519.9**	**0.88**	**4 550**
Molybdenum	**Tonnes (Mt)**	**Grade (ppm)**	**Mo (000t)**	**Tonnes (Mt)**	**Grade (ppm)**	**Mo (000t)**	**Tonnes (Mt)**	**Grade (ppm)**	**Mo (000t)**	**Tonnes (Mt)**	**Grade (ppm)**	**Mo (000t)**
Golpu	–	–	–	405.0	100.49	41	95.0	74.89	7	500.0	95.62	48

SOUTH AFRICA

Uranium	Tonnes (Mt)	Grade (kg/t)	U3O8 (Mkg)	Tonnes (Mt)	Grade (kg/t)	U3O8 (Mkg)	Tonnes (Mt)	Grade (kg/t)	U3O8 (Mkg)	Tonnes (Mt)	Grade (kg/t)	U3O8 (Mkg)
Free State underground												
Masimong	–	–	–	8.7	0.29	2	74.3	0.19	14	83.0	0.20	17
Tshepong	6.4	0.19	1	15.4	0.22	3	16.5	0.13	2	38.3	0.17	7
Phakisa	7.3	0.17	1	19.1	0.15	3	26.9	0.07	2	53.2	0.11	6
Total	**13.7**	**0.18**	**2**	**43.2**	**0.20**	**9**	**117.6**	**0.15**	**18**	**174.5**	**0.17**	**29**
Total SA underground	**13.7**	**0.18**	**2**	**43.2**	**0.20**	**9**	**117.6**	**0.15**	**18**	**174.5**	**0.17**	**29**
Free State surface	–	–	–	317.6	0.08	25	–	–	–	317.6	0.08	25
Grand total	**13.7**	**0.18**	**2**	**360.8**	**0.09**	**34**	**117.6**	**0.15**	**18**	**492.1**	**0.11**	**55**

[1] Total attributable
Gold equivalent ounces are calculated assuming a US$1 400/oz Au. US$3.10/lb Cu and US$23.00/oz Ag with 100% recovery for all metals
NB Rounding of numbers may result in slight computational discrepancies
Note: 1 tonne = 1 000kg = 2 204lb

Mineral resources and mineral reserves

MINERAL RESOURCES STATEMENT (IMPERIAL)

GOLD

Operations	Measured resources			Indicated resources			Inferred resources			Total mineral resources		
	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)	Tons (Mt)	Grade (oz/t)	Gold (000oz)
SA UNDERGROUND												
Free State Region												
Bambanani	3.0	0.450	1 355	0.04	0.747	32	–	–	–	3.1	0.454	1 387
Joel	5.3	0.216	1 147	8.1	0.210	1 696	8.4	0.138	1 160	21.8	0.184	4 003
Masimong	17.2	0.198	3 407	10.1	0.180	1 827	82.3	0.178	14 678	109.6	0.182	19 912
Phakisa	8.0	0.240	1 934	21.0	0.300	6 319	29.6	0.239	7 080	58.7	0.261	15 333
Target 1	10.4	0.213	2 216	11.2	0.221	2 471	2.6	0.512	399	24.2	0.210	5 086
Target 2	0.1	0.399	20	0.1	0.451	67	–	–	–	0.2	0.438	87
Target 3	12.6	0.231	2 905	10.6	0.217	2 298	5.6	0.174	979	28.8	0.215	6 182
Freddies 9	–	–	–	6.6	0.309	2 045	32.6	0.236	7 690	39.2	0.248	9 735
Tshepong	21.8	0.307	6 670	6.0	0.279	1 688	14.4	0.269	3 872	42.2	0.290	12 230
Unisel	12.2	0.172	2 095	7.7	0.179	1 383	9.2	0.156	1 440	29.1	0.169	4 918
Total Free State underground	**90.5**	**0.240**	**21 749**	**81.6**	**0.243**	**19 826**	**184.8**	**0.202**	**37 298**	**356.9**	**0.221**	**78 873**
West Rand Region												
Doornkop	5.3	0.133	699	7.4	0.192	1 420	21.8	0.232	5 053	34.4	0.208	7 172
Kusasalethu	**11.2**	**0.288**	**3 236**	**19.3**	**0.262**	**5 050**	**3.6**	**0.271**	**986**	**34.2**	**0.271**	**9 272**
Total West Rand underground	**16.5**	**0.239**	**3 935**	**26.7**	**0.243**	**6 470**	**25.4**	**0.238**	**6 039**	**68.6**	**0.240**	**16 444**
Total SA underground	**107.0**	**0.240**	**25 684**	**108.3**	**0.243**	**26 296**	**210.2**	**0.206**	**43 337**	**425.5**	**0.224**	**95 317**
SA SURFACE												
Kalgold	25.2	0.023	569	32.4	0.025	800	68.6	0.025	1 688	126.2	0.024	3 057
Free State Region – surface												
Free State (Phoenix)	111.5	0.009	1 037	–	–	–	–	–	–	111.5	0.009	1 037
Free State (St Helena)	284.8	0.008	2 137	–	–	–	–	–	–	284.8	0.008	2 137
Free State (Other): Waste rock dumps	–		–	5.1	0.014	72	32.9	0.013	423	38.0	0.013	495
Slimes dams	–		–	712.7	0.007	4 646	17.0	0.006	94	729.7	0.006	4 740
Total Free State Region	**396.3**	**0.008**	**3 174**	**717.8**	**0.007**	**4 718**	**49.9**	**0.010**	**517**	**1 164.0**	**0.007**	**8 409**
Total SA surface	**421.4**	**0.009**	**3 743**	**750.2**	**0.007**	**5 518**	**118.6**	**0.019**	**2 205**	**1 290.2**	**0.009**	**11 466**
Total SA (underground and surface)	**528.4**		**29 427**	**858.4**		**31 814**	**328.8**		**45 542**	**1 715.7**		**106 783**
PAPUA NEW GUINEA[1]												
Hidden Valley	0.7	0.034	25	61.9	0.043	2 645	3.7	0.032	121	66.4	0.042	2 791
Hamata	0.02	0.046	1	3.5	0.055	193	0.1	0.049	6	3.6	0.055	200
Wafi	–	–	–	62.5	0.050	3 146	12.5	0.038	475	75.0	0.048	3 621
Golpu	–	–	–	446.4	0.019	8 333	104.7	0.018	1 863	551.2	0.018	10 196
Nambonga	–	–	–	–	–	–	21.9	0.023	505	21.9	0.023	505
Total Papua New Guinea	**0.8**	**0.034**	**26**	**574.4**	**0.025**	**14 317**	**143.0**	**0.021**	**2 970**	**718.1**	**0.024**	**17 313**
Harmony total	**529.2**		**29 453**	**1 432.8**		**46 131**	**471.8**		**48 512**	**2 433.8**		**124 096**

Mineral resources and mineral reserves

MINERAL RESOURCES STATEMENT (IMPERIAL) CONTINUED

GOLD EQUIVALENTS[1]

	Measured resources		Indicated resources		Inferred resources		Total mineral resources	
Silver	Tons (Mt)	Au eq (000oz)	Tons (Mt)	Au eq (000oz)	Tons (Mt)	Au eq (000oz)	Tons (Mt)	Au eq (000oz)
Hidden Valley	0.7	7	61.9	879	3.7	49	66.4	936
Total	**0.7**	**7**	**61.9**	**879**	**3.7**	**49**	**66.4**	**936**
Copper								
Golpu	–	–	446.4	18 545	104.7	3 904	551.2	22 449
Nambonga	–	–	–	–	21.9	210	21.9	210
Total	**–**	**–**	**446.4**	**18 545**	**126.7**	**4 114**	**573.1**	**22 659**
Total silver and copper as gold equivalents	**0.7**	**7**	**508.3**	**19 424**	**130.4**	**4 163**	**639.5**	**23 595**
Total PNG including gold equivalents	**0.8**	**33**	**574.4**	**33 741**	**143.0**	**7 133**	**718.1**	**40 908**
Total Harmony including gold equivalents	**529.2**	**29 460**	**1 432.8**	**65 555**	**471.8**	**52 675**	**2 433.8**	**147 691**

Other metals

PAPUA NEW GUINEA[1]

	Measured resources			Indicated resources			Inferred resources			Total mineral resources		
Silver	Tons (Mt)	Grade (oz/t)	Ag (000oz)	Tons (Mt)	Grade (oz/t)	Ag (000oz)	Tons (Mt)	Grade (oz/t)	Ag (000oz)	Tons (Mt)	Grade (oz/t)	Ag (000oz)
Hidden Valley	0.7	0.56	408	61.9	0.80	49 225	3.7	0.74	2 765	66.4	0.79	52 398
Golpu	–	–	–	446.4	0.03	14 746	104.7	0.03	3 177	551.2	0.03	17 923
Nambonga	–	–	–	–	–	–	21.9	0.08	1 836	21.9	0.08	1 836
Total	**0.7**	**0.56**	**408**	**508.3**	**0.13**	**63 971**	**130.4**	**0.06**	**7 778**	**639.5**	**0.11**	**72 157**
Copper	Tons (Mt)	Grade (%)	Cu (Mlb)	Tons (Mt)	Grade (%)	Cu (Mlb)	Tons (Mt)	Grade (%)	Cu (Mlb)	Tons (Mt)	Grade (%)	Cu (Mlb)
Golpu	–	–	–	446.4	0.839	8 258	104.7	0.727	1 677	551.2	0.818	9 936
Nambonga	–	–	–	–	–	–	21.9	0.196	95	21.9	0.196	95
Total	**–**	**–**	**–**	**446.4**	**0.839**	**8 258**	**126.7**	**0.635**	**1 772**	**573.1**	**0.794**	**10 031**
Molybdenum	Tons (Mt)	Grade (lb/t)	Mo (Mlb)	Tons (Mt)	Grade (lb/t)	Mo (Mlb)	Tons (Mt)	Grade (lb/t)	Mo (Mlb)	Tons (Mt)	Grade (lb/t)	Mo (Mlb)
Golpu	–	–	–	446.4	0.201	90	104.7	0.150	16	551.2	0.191	105

SOUTH AFRICA

Uranium	Tons (Mt)	Grade (lb/t)	U3O8 (Mlb)	Tons (Mt)	Grade (lb/t)	U3O8 (Mlb)	Tons (Mt)	Grade (lb/t)	U3O8 (Mlb)	Tons (Mt)	Grade (lb/t)	U3O8 (Mlb)
Free State underground												
Masimong	–	–	–	9.6	0.571	5	81.9	0.380	31	91	0.400	37
Tshepong	7.0	0.381	3	17.0	0.435	7	18.1	0.253	5	42	0.348	15
Phakisa	8.0	0.336	3	21.0	0.297	6	29.6	0.145	4	59	0.226	13
Total	**15.1**	**0.357**	**5**	**47.7**	**0.401**	**19**	**129.6**	**0.308**	**40**	**192**	**0.335**	**65**
Total SA underground	**15.1**	**0.357**	**5**	**47.7**	**0.401**	**19**	**129.6**	**0.308**	**40**	**192**	**0.335**	**65**
Free State surface	–	–	–	350.1	0.160	56	–	–	–	350.1	0.160	56
Grand total	**15.1**	**0.357**	**5**	**397.7**	**0.189**	**75**	**129.6**	**0.308**	**40**	**542.4**	**0.222**	**120**

[1] Total attributable
Gold equivalent ounces are calculated assuming a US$1 400/oz Au. US$3.10/lb Cu and US$23.00/oz Ag with 100% recovery for all metals
NB Rounding of numbers may result in slight computational discrepancies
Note: 1 troy ounce = 32,1507g
1 ton = 907kg = 2 000lb

Mineral resources and mineral reserves

MINERAL RESERVES STATEMENT (METRIC)

GOLD

Operations	Proved reserves			Probable reserves			Total mineral reserves		
	Tonnes (Mt)	Grade (g/t)	Gold[2] (000kg)	Tonnes (Mt)	Grade (g/t)	Gold[2] (000kg)	Tonnes (Mt)	Grade (g/t)	Gold[2] (000kg)
SA UNDERGROUND									
Free State Region									
Bambanani	2.3	11.08	26	–	–	–	2.3	11.08	26
Joel	1.6	5.60	9	3.9	5.39	21	5.6	5.45	30
Masimong	5.8	4.77	28	2.4	4.71	11	8.3	4.76	39
Phakisa	4.9	6.18	30	15.3	7.31	112	20.2	7.04	142
Target 1	4.4	4.88	21	4.5	5.57	25	8.9	5.23	46
Target 3	2.5	6.87	17	4.2	5.32	22	6.7	5.89	39
Tshepong	18.6	5.45	101	3.4	5.06	17	21.9	5.39	118
Unisel	2.0	4.36	9	0.8	4.14	3	2.9	4.30	12
Total Free State underground	**42.2**	**5.73**	**242**	**34.5**	**6.15**	**212**	**76.7**	**5.92**	**454**
West Rand Region									
Doornkop	2.7	4.19	11	5.0	5.42	27	7.6	4.99	38
Kusasalethu	8.8	7.39	65	27.4	5.51	151	36.2	5.97	216
Total West Rand underground	**11.5**	**6.64**	**76**	**32.3**	**5.50**	**178**	**43.8**	**5.80**	**254**
Total SA underground	**53.7**	**5.93**	**318**	**66.8**	**5.83**	**390**	**120.5**	**5.87**	**708**
SA SURFACE									
Kalgold	12.2	0.97	12	11.9	1.00	12	24.1	0.99	24
Free State Region – surface									
Free State (Phoenix)	101.1	0.32	32	–	–	–	101.1	0.32	32
Free State (St Helena)	258.3	0.26	66	–	–	–	258.3	0.26	66
Free State (Other): Waste rock dumps	–	–	–	4.1	0.51	2	4.1	0.51	2
Slimes dams	–	–	–	377.9	0.25	93	377.9	0.25	93
Total Free State Region	**359.5**	**0.27**	**99**	**382.0**	**0.25**	**95**	**741.5**	**0.26**	**194**
Total SA surface	**371.7**	**0.30**	**111**	**393.9**	**0.27**	**107**	**765.5**	**0.28**	**217**
Total SA (underground and surface)	**425.3**		**428**	**460.7**		**497**	**886.0**		**925**
PAPUA NEW GUINEA[1]									
Hidden Valley	0.6	1.22	1	28.9	1.71	49	29.5	1.70	50
Hamata	0.02	1.40	0.03	2.3	2.10	5	2.3	2.09	5
Golpu	–	–	–	225.0	0.86	193	225.0	0.86	193
Total Papua New Guinea	**0.6**	**1.23**	**1**	**256.2**	**0.96**	**247**	**256.8**	**0.96**	**248**
Harmony total	**426.0**		**429**	**716.9**		**744**	**1 142.8**		**1 173**

Mineral resources and mineral reserves

MINERAL RESERVES STATEMENT (METRIC) CONTINUED

GOLD EQUIVALENTS[1]

	Proved reserves		Probable reserves		Total mineral reserves	
Silver	Tonnes (Mt)	Au eq[2] (000kg)	Tonnes (Mt)	Au eq[2] (000kg)	Tonnes (Mt)	Au eq[2] (000kg)
Hidden Valley	0.6	0.2	28.9	15	29.5	15
Total	**0.6**	**0.2**	**28.9**	**15**	**29.5**	**15**
Copper						
Golpu	–	–	225.0	413	225.0	413
Total	**–**	**–**	**225.0**	**413**	**225.0**	**413**
Total silver and copper as gold equivalents	**0.6**	**0.2**	**253.9**	**428**	**254.5**	**428**
Total PNG including gold equivalents	**0.6**	**1**	**256.2**	**675**	**256.8**	**676**
Total Harmony including gold equivalents	**426.0**	**429**	**716.9**	**1 171**	**1 142.8**	**1 601**

Other metals

PAPUA NEW GUINEA[1]

	Proved reserves			Probable reserves			Total mineral reserves		
Silver	Tonnes (Mt)	Grade (g/t)	Ag[2] (000kg)	Tonnes (Mt)	Grade (g/t)	Ag[2] (000kg)	Tonnes (Mt)	Grade (g/t)	Ag[2] (000kg)
Hidden Valley	0.6	20.37	13	28.9	31.75	918	29.5	31.51	931
Golpu	–	–	–	225.0	1.36	307	225.0	1.36	307
Total	**0.6**	**20.37**	**13**	**253.9**	**4.82**	**1 225**	**254.5**	**4.86**	**1 238**
Copper	Tonnes (Mt)	Grade (%)	Cu[2] (000t)	Tonnes (Mt)	Grade (%)	Cu[2] (000t)	Tonnes (Mt)	Grade (%)	Cu[2] (000t)
Golpu	–	–	–	225.0	1.21	2 718	225.0	1.21	2 718
Molybdenum	Tonnes (Mt)	Grade (ppm)	Mo[2] (000t)	Tonnes (Mt)	Grade (ppm)	Mo[2] (000t)	Tonnes (Mt)	Grade (ppm)	Mo[2] (000t)
Golpu	–	–	–	225.0	81.00	18	225.0	81.00	18

SOUTH AFRICA

Uranium	Tonnes (Mt)	Grade (kg/t)	U3O8[2] (Mkg)	Tonnes (Mt)	Grade (kg/t)	U3O8[2] (Mkg)	Tonnes (Mt)	Grade (kg/t)	U3O8[2] (Mkg)
Free State underground									
Masimong	–	–	–	4.9	0.18	1	4.9	0.18	1
Tshepong	10.0	0.10	1	10.9	0.11	1	20.9	0.11	2
Phakisa	4.9	0.13	1	15.3	0.10	2	20.2	0.11	2
Total SA underground	**14.9**	**0.11**	**2**	**31.1**	**0.12**	**4**	**45.9**	**0.12**	**5**
Grand total	**14.9**	**0.11**	**2**	**31.1**	**0.12**	**4**	**45.9**	**0.12**	**5**

[1] Total attributable
Gold equivalent ounces are calculated assuming a US$1 400/oz Au. US$3.10/lb Cu and US$23.00/oz Ag with 100% recovery for all metals

[2] Metal figures are fully inclusive of all mining dilutions and gold losses. and are reported as mill delivered tonnes and head grades. Metallurgical recovery factors have not been applied to the reserve figures.
NB Rounding of numbers may result in slight computational discrepancies

Mineral resources and mineral reserves

MINERAL RESERVES STATEMENT (IMPERIAL)

GOLD

Operations	Proved reserves			Probable reserves			Total mineral reserves		
SA UNDERGROUND	Tons (Mt)	Grade (oz/t)	Gold[2] (000oz)	Tons (Mt)	Grade (oz/t)	Gold[2] (000oz)	Tons (Mt)	Grade (oz/t)	Gold[2] (000oz)
Free State Region									
Bambanani	2.6	0.323	836	–	–	–	2.6	0.323	836
Joel	1.8	0.163	296	4.3	0.157	677	6.1	0.159	973
Masimong	6.4	0.139	897	2.7	0.137	367	9.1	0.139	1 264
Phakisa	5.4	0.180	972	16.8	0.213	3 590	22.2	0.205	4 562
Target 1	4.8	0.142	684	5.0	0.162	805	9.8	0.153	1 489
Target 3	2.7	0.200	549	4.6	0.155	719	7.4	0.172	1 268
Tshepong	20.5	0.159	3 257	3.7	0.148	546	24.2	0.157	3 803
Unisel	2.2	0.127	285	0.9	0.121	109	3.1	0.125	394
Total Free State underground	**46.5**	**0.167**	**7 776**	**38.0**	**0.179**	**6 813**	**84.5**	**0.173**	**14 589**
West Rand Region									
Doornkop	3.0	0.122	362	5.5	0.158	862	8.4	0.145	1 224
Kusasalethu	9.7	0.215	2 085	30.2	0.161	4 856	39.9	0.174	6 941
Total West Rand underground	**12.6**	**0.194**	**2 447**	**35.7**	**0.160**	**5 718**	**48.3**	**0.169**	**8 165**
Total SA underground	**59.1**	**0.173**	**10 223**	**73.7**	**0.170**	**12 531**	**132.8**	**0.171**	**22 754**
SA SURFACE									
Kalgold	13.4	0.028	379	13.1	0.029	384	26.5	0.029	763
Free State Region – surface									
Free State (Phoenix)	111.5	0.009	1 037	–	–	–	111.5	0.009	1 037
Free State (St Helena)	284.8	0.008	2 137	–	–	–	284.8	0.008	2 137
Free State (Other): Waste rock dumps	–	–	–	4.5	0.015	66	4.5	0.015	66
Slimes dams	–	–	–	416.6	0.007	2 989	416.6	0.007	2 989
Total Free State Region	**396.3**	**0.008**	**3 175**	**421.1**	**0.007**	**3 055**	**817.3**	**0.008**	**6 230**
Total SA surface	**409.7**	**0.009**	**3 554**	**434.2**	**0.008**	**3 439**	**843.9**	**0.008**	**6 993**
Total SA (underground and surface)	**468.8**		**13 777**	**507.8**		**15 970**	**976.7**		**29 747**
PAPUA NEW GUINEA[1]									
Hidden Valley	0.7	0.036	25	31.9	0.050	1 589	32.6	0.050	1 614
Hamata	0.02	0.046	1	2.5	0.061	154	2.5	0.061	155
Golpu	–	–	–	248.0	0.025	6 194	248.0	0.025	6 194
Total Papua New Guinea	**0.7**	**0.037**	**26**	**282.4**	**0.028**	**7 937**	**283.1**	**0.028**	**7 963**
Harmony total	**469.5**		**13 803**	**790.2**		**23 907**	**1 259.8**		**37 710**

Mineral resources and mineral reserves

MINERAL RESERVES STATEMENT (IMPERIAL) CONTINUED

GOLD EQUIVALENTS[1]

	Proved reserves		Probable reserves		Total mineral reserves	
Silver	Tons (Mt)	Au eq[2] (000oz)	Tons (Mt)	Au eq[2] (000oz)	Tons (Mt)	Au eq[2] (000oz)
Hidden Valley	0.7	7	31.9	485	32.6	492
Total	**0.7**	**7**	**31.9**	**485**	**32.6**	**492**
Copper						
Golpu	–	–	248.0	13 265	248.0	13 265
Total	**–**	**–**	**248.0**	**13 265**	**248.0**	**13 265**
Total silver and copper as gold equivalents	**0.7**	**7**	**279.9**	**13 750**	**280.6**	**13 756**
Total PNG including gold equivalents	**0.7**	**33**	**282.4**	**21 687**	**283.1**	**21 719**
Total Harmony including gold equivalents	**469.5**	**13 809**	**790.2**	**37 657**	**1 259.8**	**51 466**

Other metals

PAPUA NEW GUINEA[1]

	Proved reserves			Probable reserves			Total mineral reserves		
Silver	Tons (Mt)	Grade (oz/t)	Ag[2] (000oz)	Tons (Mt)	Grade (oz/t)	Ag[2] (000oz)	Tons (Mt)	Grade (oz/t)	Ag[2] (000oz)
Hidden Valley	0.7	0.594	409	31.9	0.926	29 515	32.6	0.919	29 924
Golpu	–	–	–	248.0	0.040	9 864	248.0	0.040	9 864
Total	**0.7**	**0.594**	**409**	**279.9**	**0.141**	**39 379**	**280.6**	**0.142**	**39 788**
Copper	Tons (Mt)	Grade (%)	Cu[2] (Mlb)	Tons (Mt)	Grade (%)	Cu[2] (Mlb)	Tons (Mt)	Grade (%)	Cu[2] (Mlb)
Golpu	–	–	–	248.0	1.096	5 992	248.0	1.096	5 992
Molybdenum	Tons (Mt)	Grade (lb/t)	Mo[2] (Mlb)	Tons (Mt)	Grade (lb/t)	Mo[2] (Mlb)	Tons (Mt)	Grade (lb/t)	Mo[2] (Mlb)
Golpu	–	–	–	248.0	0.162	40	248.0	0.162	40

SOUTH AFRICA

Uranium	Tons (Mt)	Grade (lb/t)	U3O8[2] (Mlb)	Tons (Mt)	Grade (lb/t)	U3O8[2] (Mlb)	Tons (Mt)	Grade (lb/t)	U3O8[2] (Mlb)
Free State underground									
Masimong	–	–	–	5.4	0.361	2	5.4	0.361	2
Tshepong	11.0	0.195	2	12.1	0.226	3	23.0	0.211	5
Phakisa	5.4	0.265	1	16.8	0.210	4	22.2	0.223	5
Total SA underground	**16.4**	**0.218**	**4**	**34.2**	**0.239**	**8**	**50.6**	**0.232**	**12**
Grand total	**16.4**	**0.218**	**4**	**34.2**	**0.239**	**8**	**50.6**	**0.232**	**12**

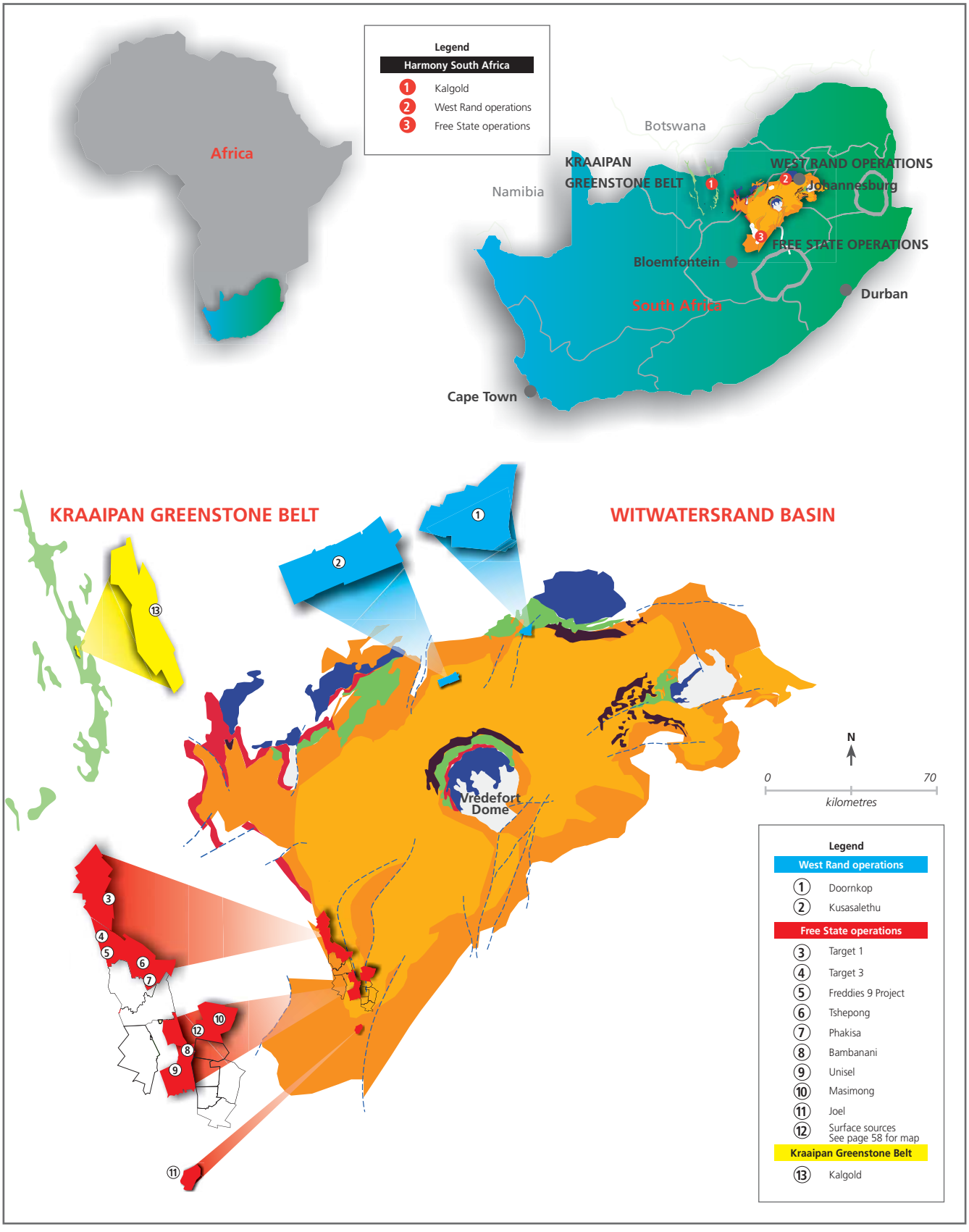
[1] Total attributable
Gold equivalent ounces are calculated assuming a US$1 400/oz Au, US$3.10/lb Cu and US$23.00/oz Ag with 100% recovery for all metals

[2] Metal figures are fully inclusive of all mining dilutions and gold losses, and are reported as mill delivered tonnes and head grades. Metallurgical recovery factors have not been applied to the reserve figures.

NB Rounding of numbers may result in slight computational discrepancies

Note: 1 ton = 907kg = 2 000lb
1 troy ounce = 32.1507 grams

Harmony South African operations



Mineral resources and mineral reserves
WEST RAND REGION

DOORNKOP ①
The structure of the West Rand goldfield is dominated by the Witpoortjie and Panvlakte Horst blocks, which are superimposed over broad folding associated with the south-east plunging West Rand syncline. At Doornkop mine, both the Kimberley Reef and South Reef are exploited.

The Doornkop shaft lease area is bounded by and lies to the south-east of the major north-easterly striking Roodepoort fault, which dips to the south and constitutes the southern edge of the Witpoortjie Horst block or gap. This Horst block comprises the stratigraphically older sediments of the West Rand Group, the overlying Central Rand Group sediments having been removed by erosion. A number of other faults, forming part of and lying south-east of the Roodepoort fault, including the Saxon fault, also constitute conspicuous structural breaks. A second major fault, the Doornkop fault, which trends in an east-west direction, occurs toward the southern portion of the lease area. This fault dips to the south and has an up-throw to the north.

Nearly the entire upper Witwatersrand section is present in the lease area and therefore all the major zones are present, though due to the distance of the area from the primary source of gold, the number of economic bands and their payability is limited. Eight of the well-known reefs are present in the area, but only the Kimberley Reef and South Reef are considered viable at this stage.

The Kimberley Reef is contained in the Vlakfontein member of the Westonaria formation. This reef, also known as the K9 Reef horizon, rests on an unconformity and is a complex multi-pulse conglomerate, which can be separated into four facies or cycles. All four cycles consist on average of an upper conglomerate and a lower quartzite. The characteristics of every cycle are area-dependent and the grades are variable within each cycle.

The South Reef is some 900m below the current Kimberley Reef mining, and between 7.5 and 60m above the Main Reef horizon. The hanging wall to the South Reef consists of siliceous quartzites with non-persistent bands of 'blue-shot' grit and thin argillite partings. The footwall to the South Reef is a light coloured and fairly siliceous quartzite. Secondary conglomerate bands and stringers in the hanging wall and footwall of the South Reef may contain sporadic gold values.

The general strike of the reef is east-west, with a dip from 10 to 20 degrees.

KUSASALETHU ②
Kusasalethu is situated in the West Wits Basin and is mining Ventersdorp Contact Reef (VCR) as its main orebody. The VCR rests unconformably on the quartzites of the Witwatersrand (WWR) Supergroup.

These WWR quartzites belong to the Mondeor Formation in the western part of the lease area and the Elsburgs Quartzite Formation in the eastern part of the lease area. The unconformity angle becomes more perceptible towards the east. The average dip of the VCR is 25 degrees to the south-east and the VCR has an average strike of N72 degrees east.

The VCR is generally a clast supported conglomerate of small sub-angular and milky (top 20cm unit) with sub-rounded milky and smoky (60:40 respectively) quartz pebbles. The matrix is dark grey and medium-grained and comprises mostly quartzite, separating the two units as internal quartzites. It is mineralised by some pyrhotite, chalcopyrite and, in rare instances, by some carbon flyspecks. Sometimes there are changes to the reef appearance in the form of thickness and, to some degree, elimination. These changes are brought about by either erosion (lava erosion channels – lava appearing at different elevations, with resultant undulations of the reef), or flat faulting (as evidenced by the presence of mylonite at the top contact of the reef).

The VCR facies model at Kusasalethu is based on the Palaeotopographic or Slope and Terrace model. Nine facies types have been recognised at Kusasalethu, eight sedimentological and one structural. Four of the facies are thick, high-grade, geologically distinct reef terraces separated from one another by thin low-grade slope reef. The sand-filled channel is a thick low-grade facies. Sandy Terrace Complex (TC2) is found on the same elevation as Terrace Complex but is essentially a pebbly quartzite with no grade. The Mondeor conglomerates have been identified sub-cropping against the VCR in stopes on the 36, 37, 38, 39 and 40 lines and have been delineated as a separate facies in these areas.

Mineral resources and mineral reserves

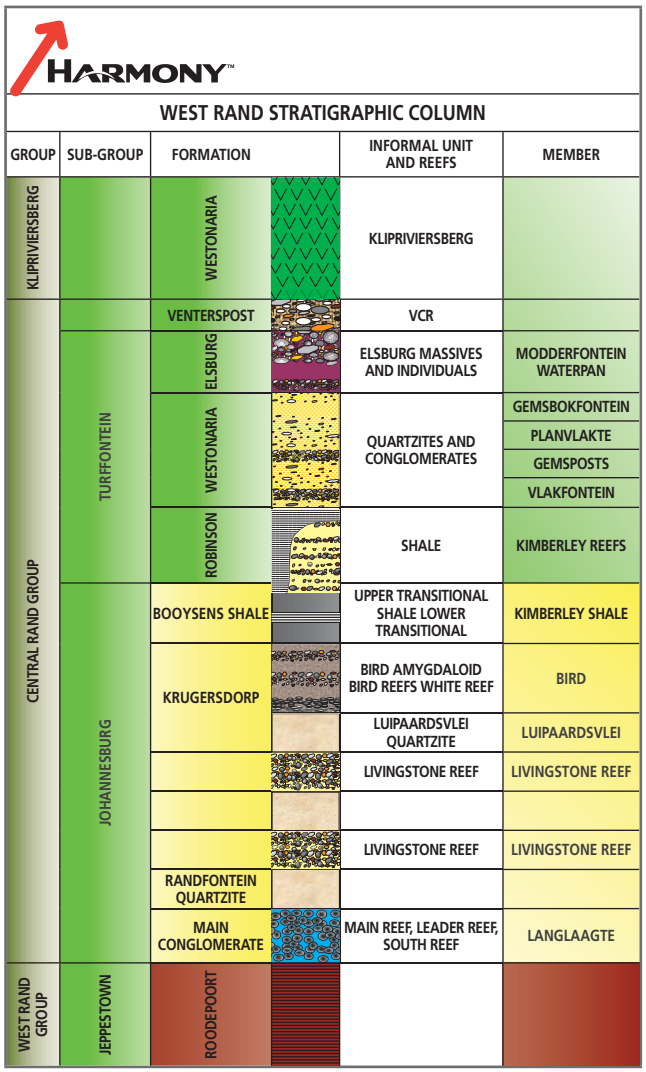
WEST RAND REGION CONTINUED

The Elsburgs conglomerates are found on the western side of Kusasalethu, forming the footwall to the VCR. The Elsburgs are part of the Turffontein Supergroup. It is a predominantly polymictic matrix supported conglomerate of well-packed and moderately sorted, sub-rounded smoky (80%), black/grey (15%) quartz pebbles, chert (3%) and some elongated shale pebbles (2%). The matrix is pale yellow to light green and medium-grained, also, pyritic in places.

The VCR is overlain by the Ventersdorp Lava. The lava belongs to the Ventersdorp Supergroup. It is light to mid-grey in colour and fine crystalline, seldom containing phenocrysts. In places it is amygdaloidal with quartz and pyrite mineralisation. Flow structures are also present at the base of the lava. It breaks into very angular fragments due to weak jointing and the flow banding – it would appear to be andesitic in composition.

Geological discontinuities observed at Kusasalethu include faults, dykes and sills. Sills may occur in the footwall in many areas adjacent to certain dykes. Flat bedding plane faulting also occurs and results in reef duplication, elimination and brecciation. Faults and dykes are classified according to their relative geologic ages, and are as follows: Pre-VCR structures, Ventersdorp structures, Platberg structures, Bushveld structures and Pilanesberg structures.

Kusasalethu is mining in blocky ground created by structures in the form of dykes and faults. The dykes are fairly basic in composition and they tend to strike north-north-east and south-south-west with a general dip of 75 degrees. The faults, however, have a strike mostly of east-south-east and west-north-west with a few exceptions. Generally, faults here are normal faults with the accompanied loss of ground with varying throws, from a throw of mere centimetres to a massive 60m throw (Kittims and De Twem Fault).



West Rand operations

DOORNKOP

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Doornkop South Reef	2.0	7.49	15	491	5.1	7.94	41	1 310	19.8	7.96	157	5 053	26.9	7.92	213	6 854
Doornkop Kimberley Reef	2.7	2.37	6	208	1.6	2.19	3	110	–	–	–	–	4.3	2.31	10	318
Grand total	**4.8**	**4.56**	**22**	**699**	**6.7**	**6.60**	**44**	**1 420**	**19.8**	**7.96**	**157**	**5 053**	**31.2**	**7.15**	**223**	**7 172**

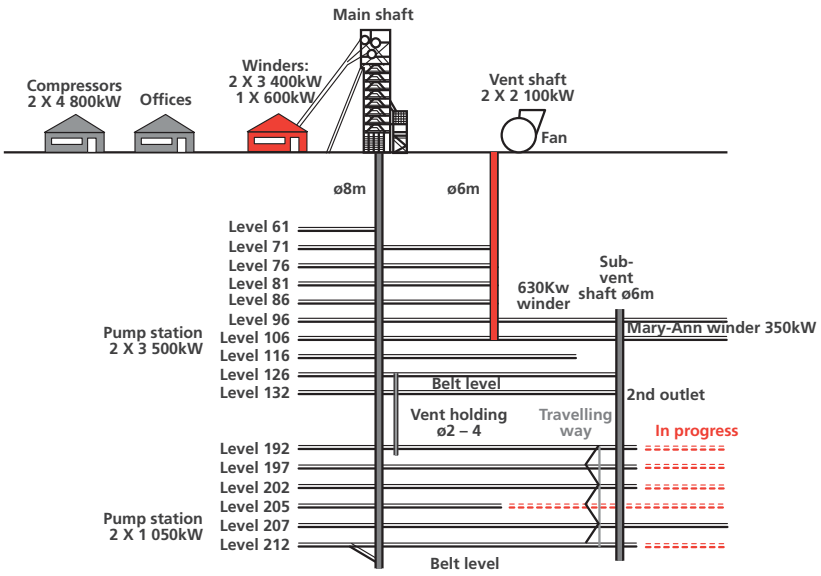
Modifying factors

Underground operations	MCF (%)	SW (cm)	MW (cm)	PRF (%)
Doornkop South Reef	82	121	153	96
Doornkop Kimberley Reef	96	411	433	96

Gold – Mineral reserves

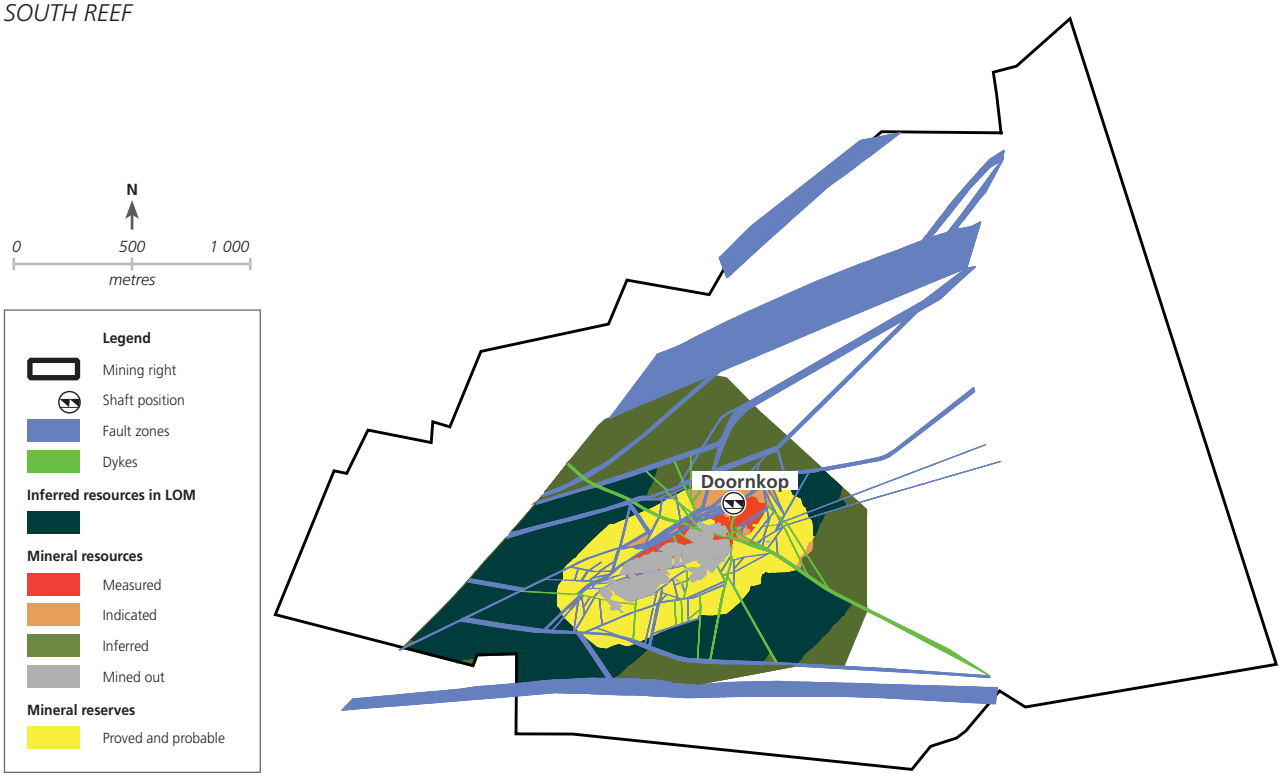
	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Doornkop South Reef	1.8	5.34	9	301	4.9	5.44	27	859	6.7	5.42	36	1 160
Doornkop Kimberley Reef	0.9	2.04	2	61	0.04	2.50	0.1	3	1.0	2.06	2	64
Grand total	**2.7**	**4.19**	**11**	**362**	**5.0**	**5.42**	**27**	**862**	**7.6**	**4.99**	**38**	**1 224**

SCHEMATIC DIAGRAM: DOORNKOP MINE



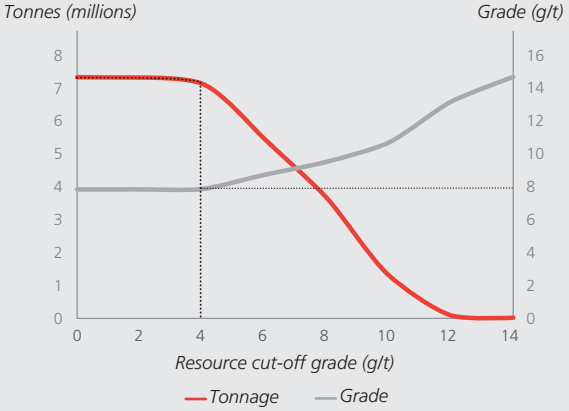
West Rand operations continued

DOORNKOP MINE
SOUTH REEF



MEASURED AND INDICATED MINERAL RESOURCES
– grade tonnage curve

DOORNKOP *SOUTH REEF*



West Rand operations continued

KUSASALETHU

Gold – Mineral resources

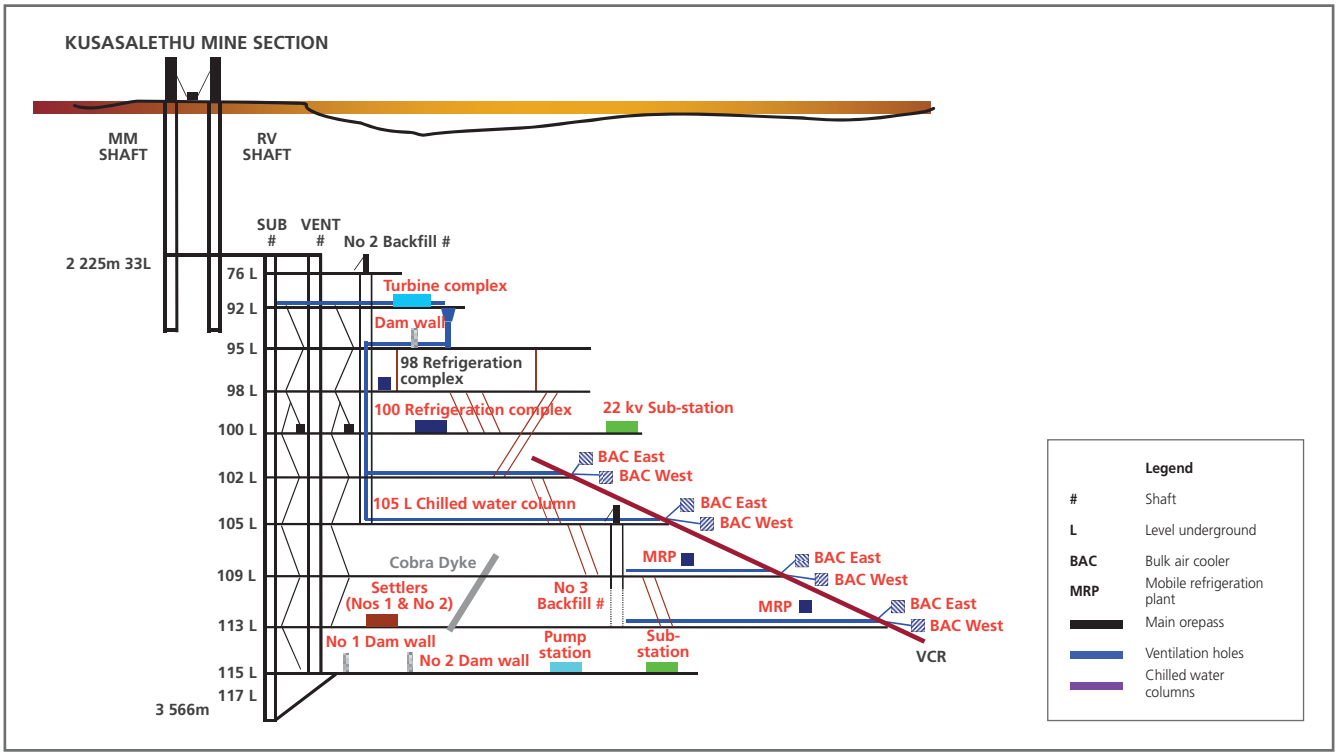
	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Kusasalethu	10.2	9.87	101	3 236	17.5	8.98	157	5 050	3.3	9.29	31	986	31.0	9.31	288	9 272
Grand total	10.2	9.87	101	3 236	17.5	8.98	157	5 050	3.3	9.29	31	986	31.0	9.31	288	9 272

Modifying factors

Underground operations	MCF (%)	SW (cm)	MW (cm)	PRF (%)
Kusasalethu	86	125	164	96

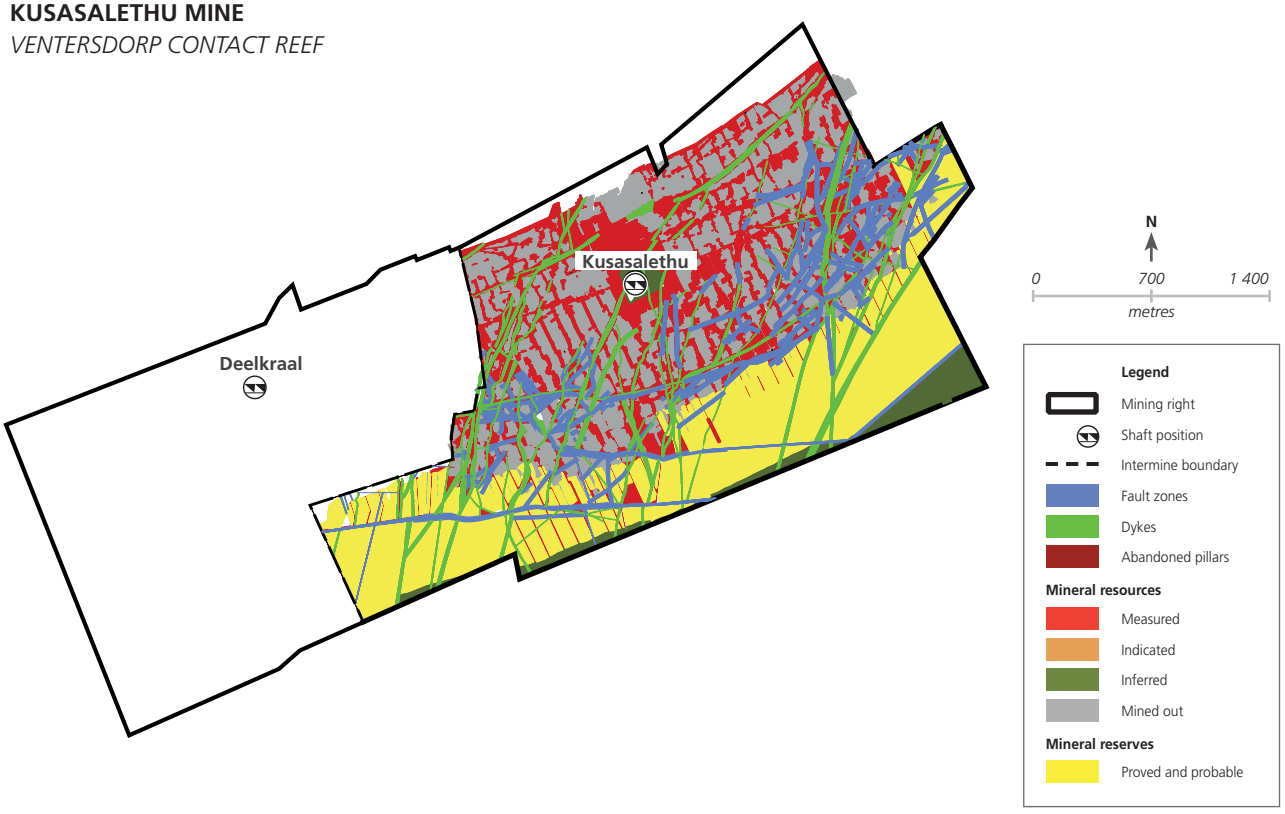
Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Kusasalethu	8.8	7.39	65	2 085	27.4	5.51	151	4 856	36.2	5.97	216	6 941
Grand total	8.8	7.39	65	2 085	27.4	5.51	151	4 856	36.2	5.97	216	6 941



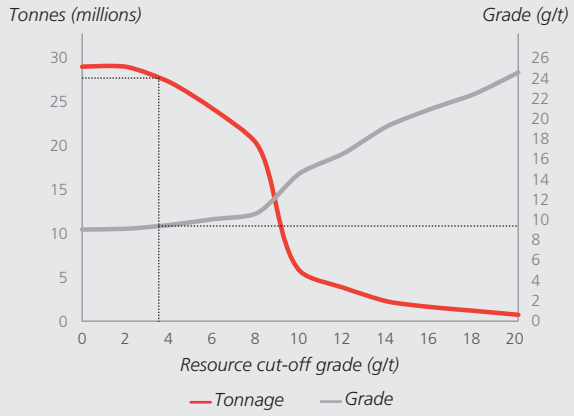
West Rand operations continued

KUSASALETHU MINE
VENTERSDORP CONTACT REEF



MEASURED AND INDICATED MINERAL RESOURCES
– grade tonnage curve

KUSASALETHU *VCR REEF*



Free State operations

FREE STATE REGION ③–⑫

The Harmony Free State operations are located on the south-western corner of the Witwatersrand Basin, between the towns of Allanridge, Welkom, Theunissen and Virginia. The basin, situated on the Kaapvaal Craton, has been filled by a 6km thick succession of sedimentary rocks, which extends laterally for hundreds of kilometres.

The Free State goldfield is divided into two sections, cut by the north-south striking De Bron fault. This major structure has a downward vertical displacement of about 1 500m in the region of Bambanani, as well as a lateral shift of 4km. This lateral shift can allow a reconstruction of the orebodies of Unisel to the west of the De Bron and Masimong to the east. A number of other major faults (Stuirmanspan, Dagbreek, Arrarat and Eureka) lie parallel to the De Bron fault.

To the west of the De Bron fault, current operating mines are Target, Tshepong, Phakisa, Unisel, Bambanani and Joel. Dips of the reef are mostly towards the east, averaging 30 degrees but become steeper approaching the De Bron fault. To the east of the fault lies Masimong mine. These reefs mostly dip towards the west at 20 degrees, although Masimong is structurally complex and dips of up to 40 degrees have been measured. Between these two blocks lie the uplifted Horst block of West Rand Group sediments with no reef preserved.

The western margin area is bound by synclines and reverse thrust faults and is structurally complex. Towards the south and east, reefs sub-crop against overlying strata, eventually cutting out against the Karoo to the east of the lease area.

Most of the mineral resource tends to be concentrated in reef bands located on one or two distinct unconformities. A minority of the mineral resource is located on other unconformities. Mining that has taken place is mostly deep-level underground mining, exploiting the narrow, generally shallow dipping tabular reefs.

The Basal Reef is the most common reef horizon and is mined at all shafts except Target 1 and Joel. It varies from a single pebble lag to channels of more than 2m thick. It is commonly overlain by shale, which thickens northwards. Tshepong has resorted to undercutting its mining panels to reduce the effect of shale dilution.

The second major reef is the Leader Reef, 15m to 20m above the Basal Reef. This is mined at Unisel to the south. Further north, it becomes poorly developed with erratic grades. The reef consists of multiple conglomerate units, separated by thin quartzitic zones, often totalling up to 4m thick. A selected mining cut on the most economic horizon is often undertaken.

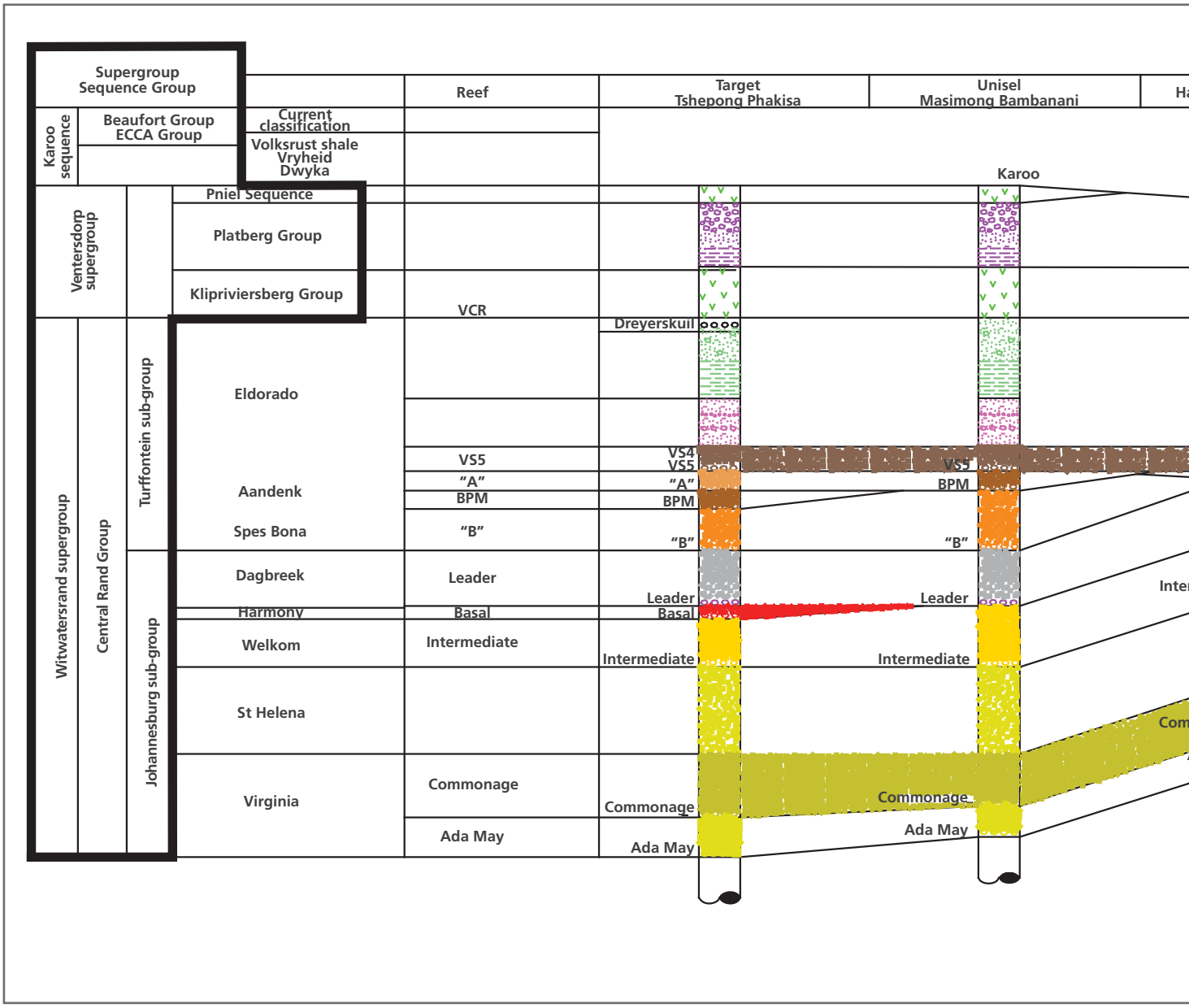
The B Reef is a highly channelised orebody located 140m stratigraphically above the Basal Reef. Because of its erratic nature, it has only been mined at Masimong, Tshepong, Target 2 and Target 3 shafts. Within the channels, grades are excellent, but this reduces to almost nothing outside the channels. Consequently, these shafts have undertaken extensive exploration to locate these pay channels.

The A Reef is also a highly channelised reef, located some 40m above the B Reef and is only mined at Target 3 shaft, within an extensive channel that lies along the western margin from Nyala to Lorraine. It consists of multiple conglomerate bands of up to 4m thick and a selected mining cut is usually required to optimise the orebody.

Joel mine, 30km south of Welkom, is the only Harmony Free State operation to mine the Beatrix Reef. This reef varies from a single-pebble lag to a multiple conglomerate, often showing mixing of the reef with some of the overlying lower-grade VS5 (mixed pebble conglomerate) material. None of the other reefs are present this far south, having sub-cropped against the Beatrix Reef.

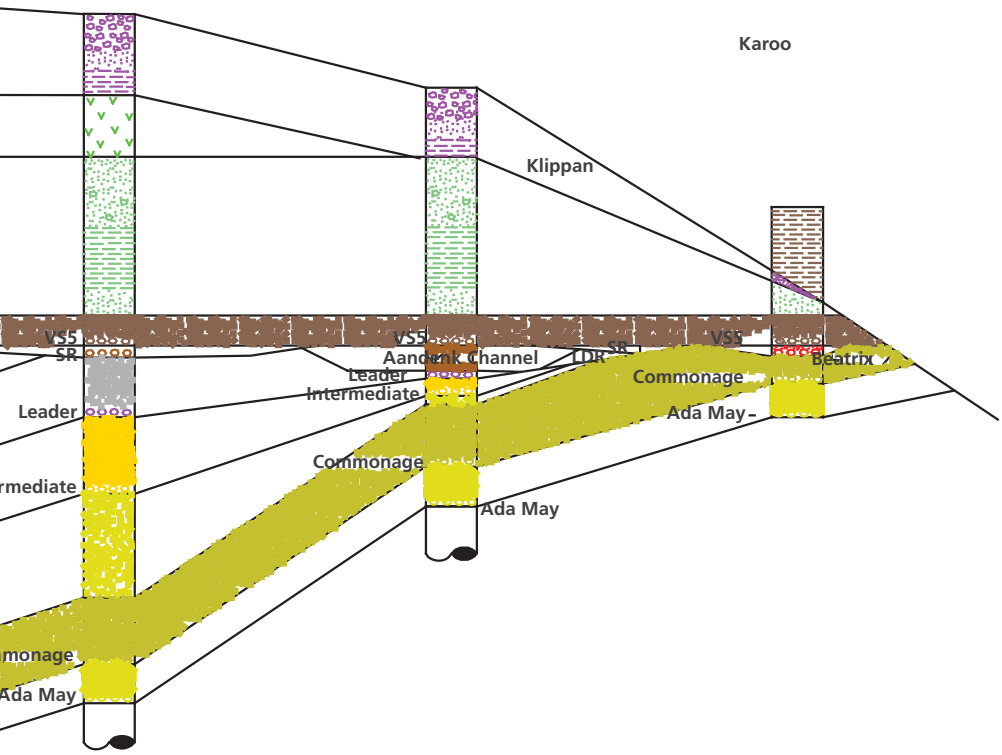
The Target operations are at the northern extent of the Free State goldfields, some 20km north of Welkom. The reefs currently exploited are the Elsburg-Dreyerskuil conglomerates, which form a wedge-shaped stacked package, comprising 35 separate reef horizons, often separated by quartzite beds. The Elsburg Reefs are truncated by an unconformity surface at the base of the overlying Dreyerskuil member. Below the sub-crop, the Elsburg dips steeply to the east, with dips becoming progressively shallower down dip. Close to the sub-outcrop, the thickness of the intervening quartzites reduces, resulting in the Elsburg Reefs coalescing to form composite reef packages that are exploited by massive mining techniques at Target mine. The Dreyerskuil also consists of stacked reefs dipping shallowly to the east. These reefs tend to be less numerous, but more laterally extensive than the underlying Elsburg Reefs.

Free State operations continued



Free State operations continued

North – South
centralised FS stratigraphic
column



Free State operations continued

TARGET 1

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Target 1	9.4	7.30	69	2 216	10.1	7.57	77	2 471	2.4	5.20	12	399	22.0	7.20	158	5 086
Grand total	9.4	7.30	69	2 216	10.1	7.57	77	2 471	2.4	5.20	12	399	22.0	7.20	158	5 086

Modifying factors

Underground operations	MCF (%)	SW (cm)	MW (cm)	PRF (%)
Target 1 (massives)	103	–	–	96

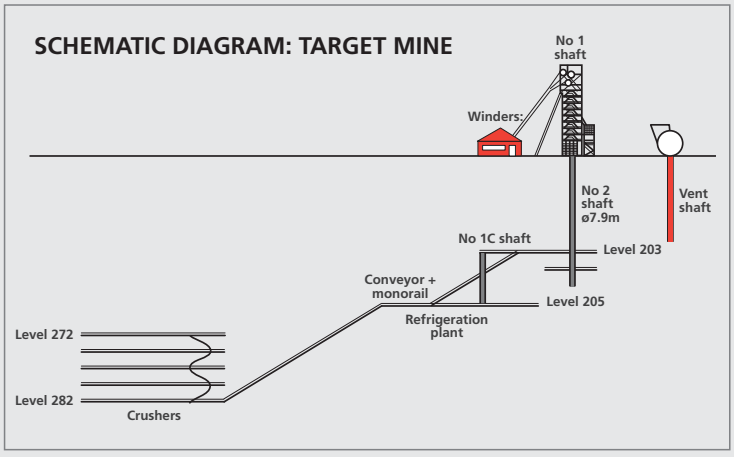
Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Target 1	4.4	4.88	21	684	4.5	5.57	25	805	8.9	5.23	46	1 489
Grand total	4.4	4.88	21	684	4.5	5.57	25	805	8.9	5.23	46	1 489

TARGET 2

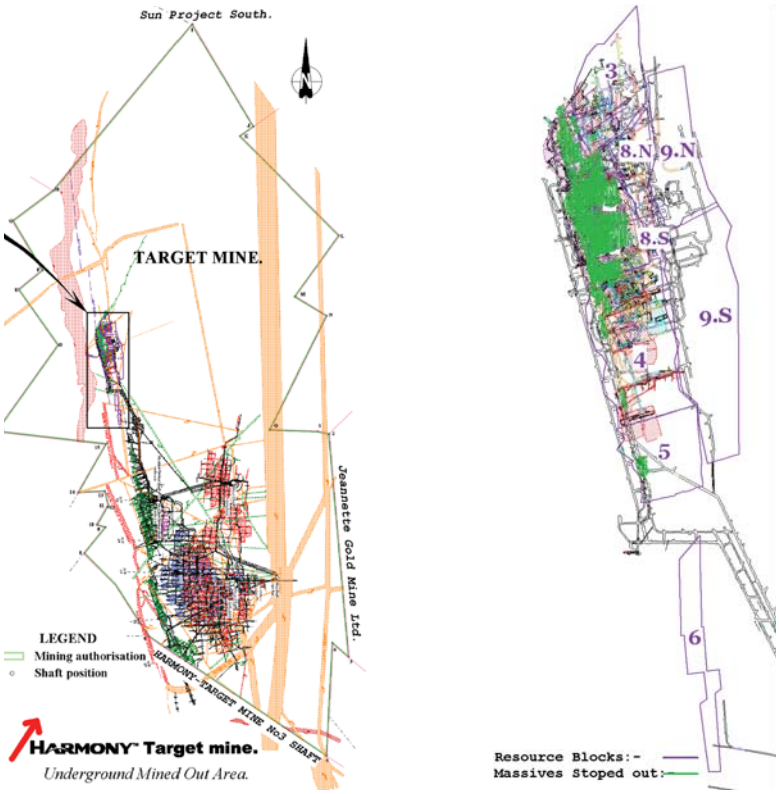
Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Target 2	0.05	14.00	1	20	0.1	15.52	2	67	–	–	–	–	0.2	15.14	3	87
Grand total	0.05	14.00	1	20	0.1	15.52	2	67	–	–	–	–	0.2	15.14	3	87

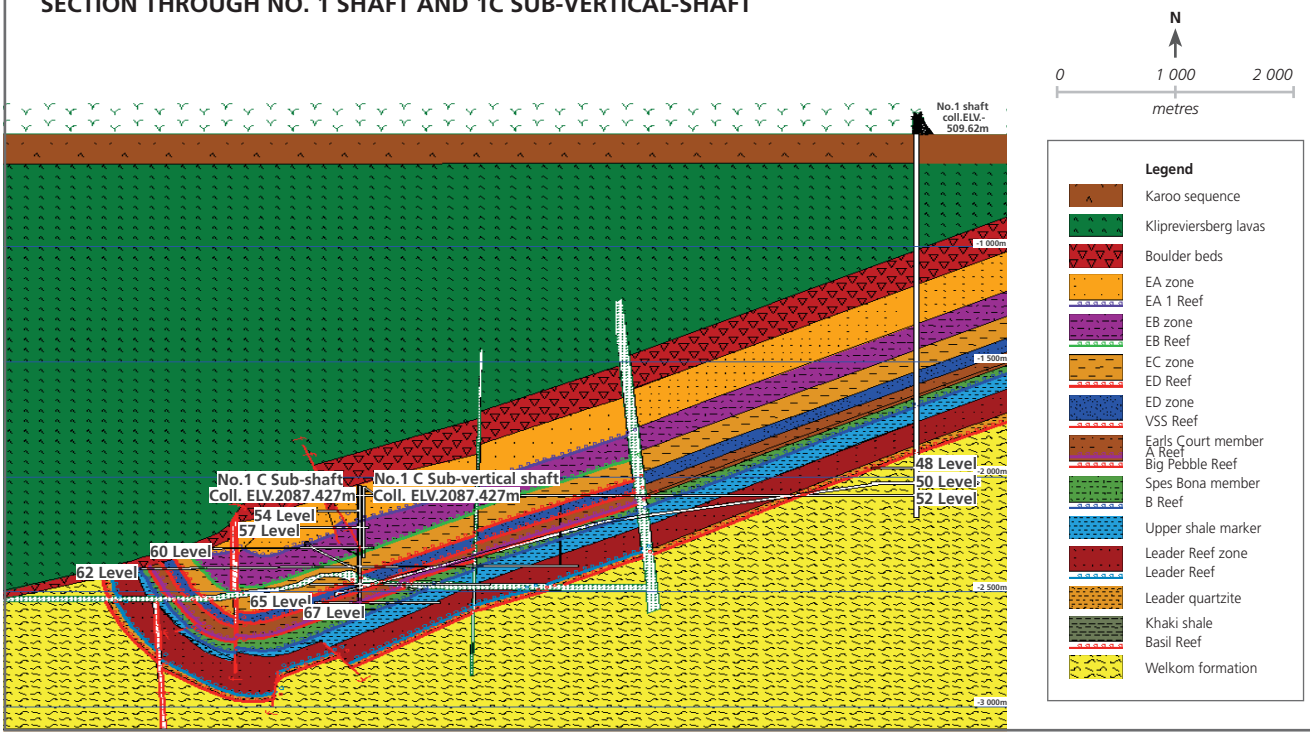


Free State operations continued

TARGET MINE



SECTION THROUGH NO. 1 SHAFT AND 1C SUB-VERTICAL-SHAFT



Free State operations continued

TARGET 3

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Target 3	11.4	7.93	90	2 905	9.6	7.43	71	2 298	5.1	5.96	30	979	26.1	7.36	192	6 182
Grand total	**11.4**	**7.93**	**90**	**2 905**	**9.6**	**7.43**	**71**	**2 298**	**5.1**	**5.96**	**30**	**979**	**26.1**	**7.36**	**192**	**6 182**

Modifying factors

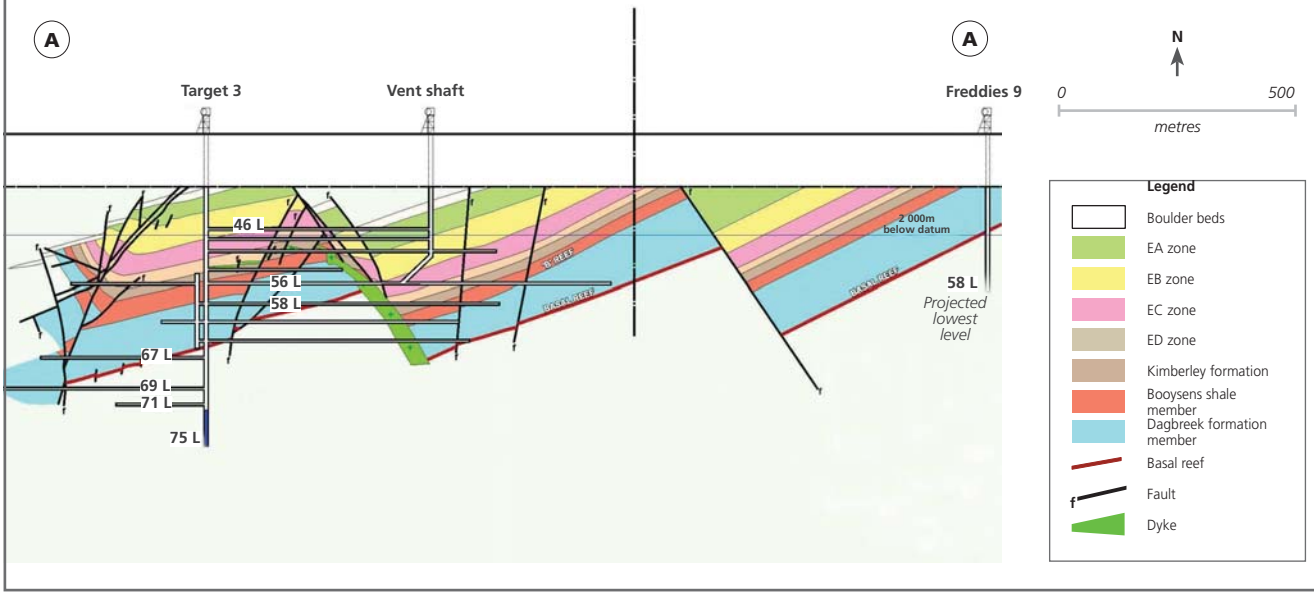
Underground operations	MCF (%)	SW (cm)	MW (cm)	PRF (%)
Target 3	78	122	141	96

Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Target 3	2.5	6.87	17	549	4.2	5.32	22	719	6.7	5.89	39	1 268
Grand total	**2.5**	**6.87**	**17**	**549**	**4.2**	**5.32**	**22**	**719**	**6.7**	**5.89**	**39**	**1 268**

HARMONY TARGET 3 SHAFT

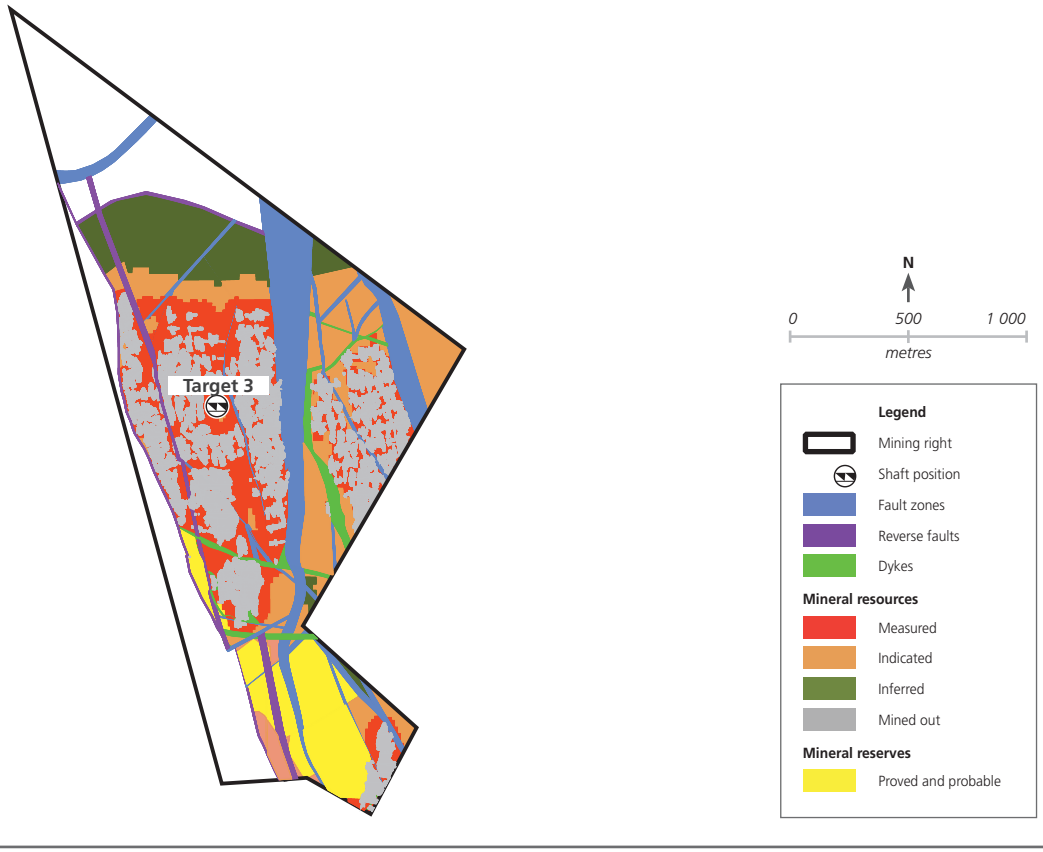
SECTION THROUGH NOS 3 AND 9 SHAFTS LOOKING NORTH



Mineral resources and mineral reserves

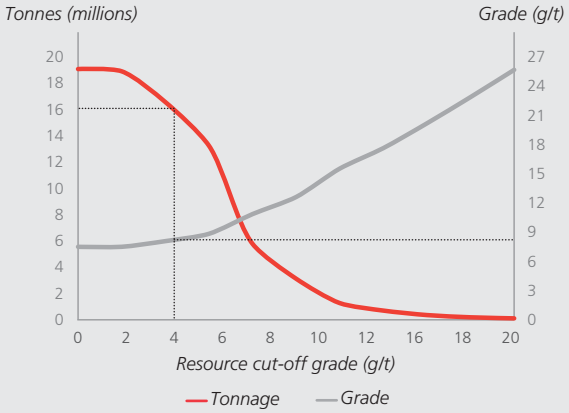
Free State operations continued

TARGET 3 MINE
BASAL REEF



MEASURED AND INDICATED MINERAL RESOURCES
– grade tonnage curve

TARGET 3 *BASAL REEF*



Free State operations continued

FREDDIES 9 PROJECT

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Freddies 9	–	–	–	–	6.0	10.61	64	2 045	29.6	8.09	239	7 690	35.6	8.51	303	9 735
Grand total	–	–	–	–	6.0	10.61	64	2 045	29.6	8.09	239	7 690	35.6	8.51	303	9 735

TSHEPONG

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Tshepong	19.7	10.51	207	6 670	5.5	9.58	53	1 688	13.1	9.22	120	3 872	38.3	9.94	380	12 230
Grand total	19.7	10.51	207	6 670	5.5	9.58	53	1 688	13.1	9.22	120	3 872	38.3	9.94	380	12 230

Modifying factors

Underground operations	MCF (%)	SW (cm)	MW (cm)	PRF (%)
Tshepong	71	105	130	96

Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Tshepong	18.6	5.45	101	3 257	3.4	5.06	17	546	21.9	5.39	118	3 803
Grand total	18.6	5.45	101	3 257	3.4	5.06	17	546	21.9	5.39	118	3 803

Free State operations continued

Uranium – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)
Underground																
Tshepong	6.4	0.19	1	3	15.4	0.22	3	7	16.5	0.13	2	5	38.3	0.17	7	15
Grand total	6.4	0.19	1	3	15.4	0.22	3	7	16.5	0.13	2	5	38.3	0.17	7	15

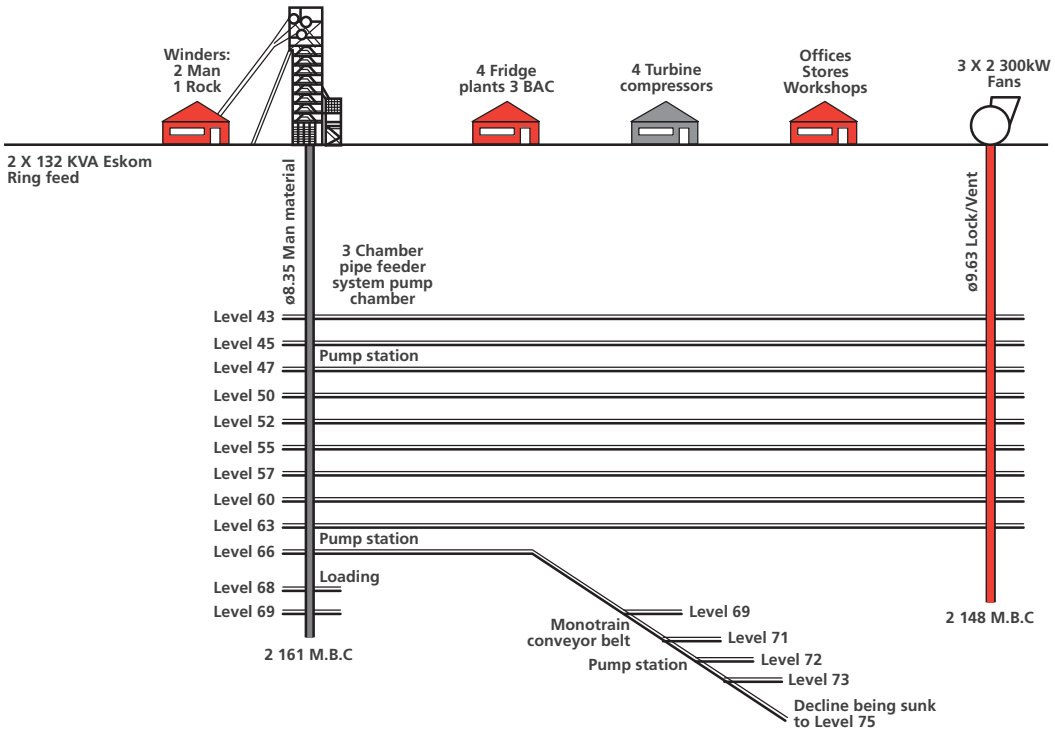
Modifying factors

Underground operations	PRF (%)
Tshepong	80

Uranium – Mineral reserves

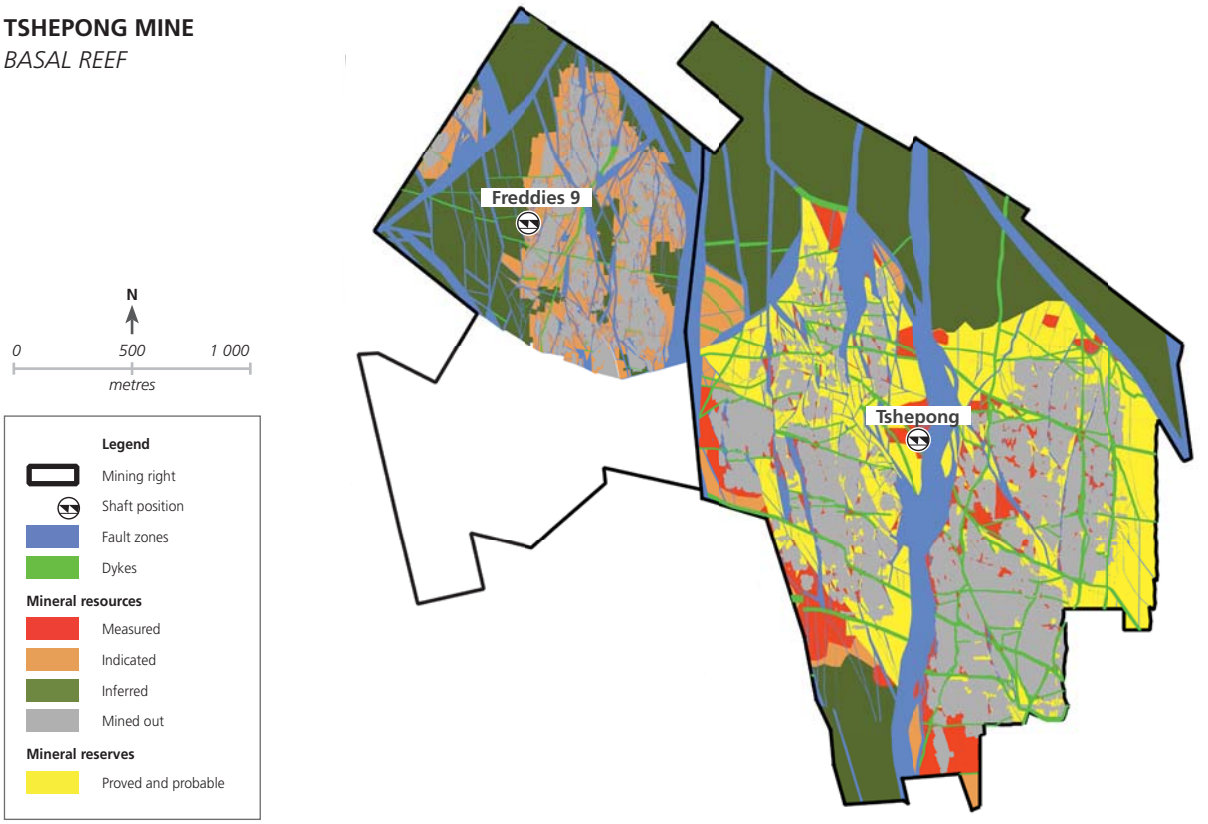
	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Tshepong	10.0	0.10	1	2	10.9	0.11	1	3	20.9	0.11	2	5
Grand total	10.0	0.10	1	2	10.9	0.11	1	3	20.9	0.11	2	5

SCHEMATIC DIAGRAM: TSHEPONG MINE



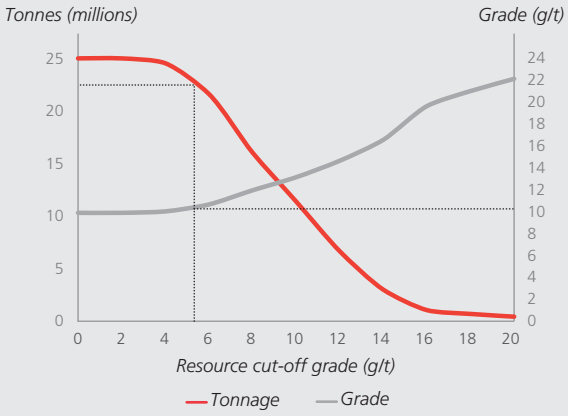
Free State operations continued

TSHEPONG MINE
BASAL REEF



MEASURED AND INDICATED MINERAL RESOURCES
– grade tonnage curve

TSHEPONG *BASAL REEF*



Free State operations continued

PHAKISA

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Phakisa	7.3	8.24	60	1 934	19.1	10.30	197	6 319	26.9	8.20	220	7 080	53.2	8.96	477	15 333
Grand total	7.3	8.24	60	1 934	19.1	10.30	197	6 319	26.9	8.20	220	7 080	53.2	8.96	477	15 333

Modifying factors

Underground operations	MCF (%)	SW (cm)	MW (cm)	PRF (%)
Phakisa	80	120	146	96

Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Phakisa	4.9	6.18	30	972	15.3	7.31	112	3 590	20.2	7.04	142	4 562
Grand total	4.9	6.18	30	972	15.3	7.31	112	3 590	20.2	7.04	142	4 562

Uranium – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)
Underground																
Phakisa	7.3	0.17	1	3	19.1	0.15	3	6	26.9	0.07	2	4	53.2	0.11	6	13
Grand total	7.3	0.17	1	3	19.1	0.15	3	6	26.9	0.07	2	4	53.2	0.11	6	13

Modifying factors

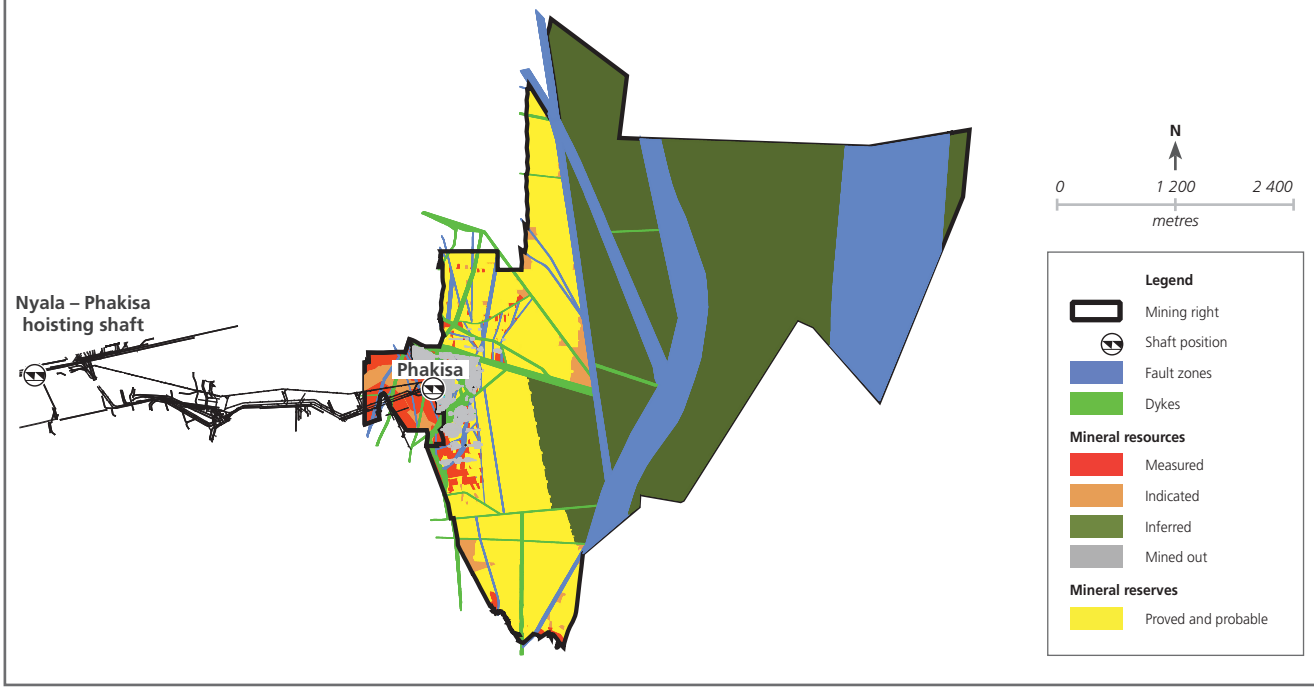
Underground operations	PRF (%)
Phakisa	80

Uranium – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Phakisa	4.9	0.13	1	1	15.3	0.10	2	4	20.2	0.11	2	5
Grand total	4.9	0.13	1	1	15.3	0.10	2	4	20.2	0.11	2	5

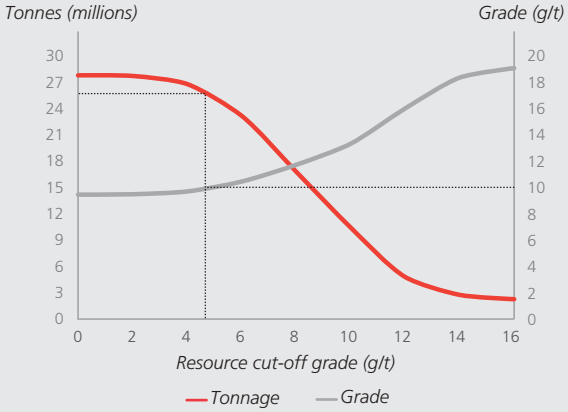
Free State operations continued

PHAKISA MINE
BASAL REEF

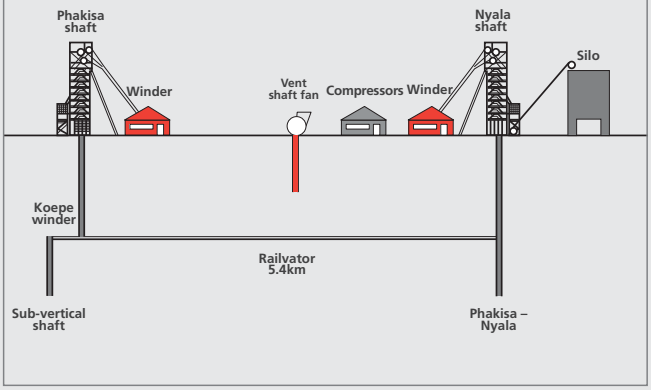


MEASURED AND INDICATED MINERAL RESOURCES
– grade tonnage curve

PHAKISA *BASAL REEF*



SCHEMATIC DIAGRAM: PHAKISA AND NYALA MINE SHAFTS (SECTION LOOKING SOUTH)



Free State operations continued

BAMBANANI

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Bambanani	2.7	15.41	42	1 355	0.04	25.72	1	32	–	–	–	–	2.8	15.55	43	1 387
Grand total	2.7	15.41	42	1 355	0.04	25.72	1	32	–	–	–	–	2.8	15.55	43	1 387

Modifying factors

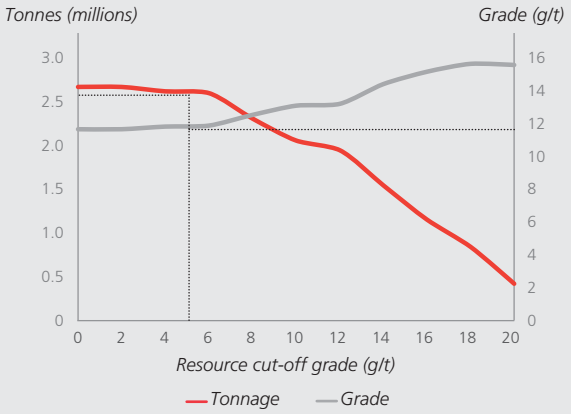
Underground operations	MCF (%)	SW (cm)	MW (cm)	PRF (%)
Bambanani	92	212	255	96

Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Bambanani	2.3	11.08	26	836	–	–	–	–	2.3	11.08	26	836
Grand total	2.3	11.08	26	836	–	–	–	–	2.3	11.08	26	836

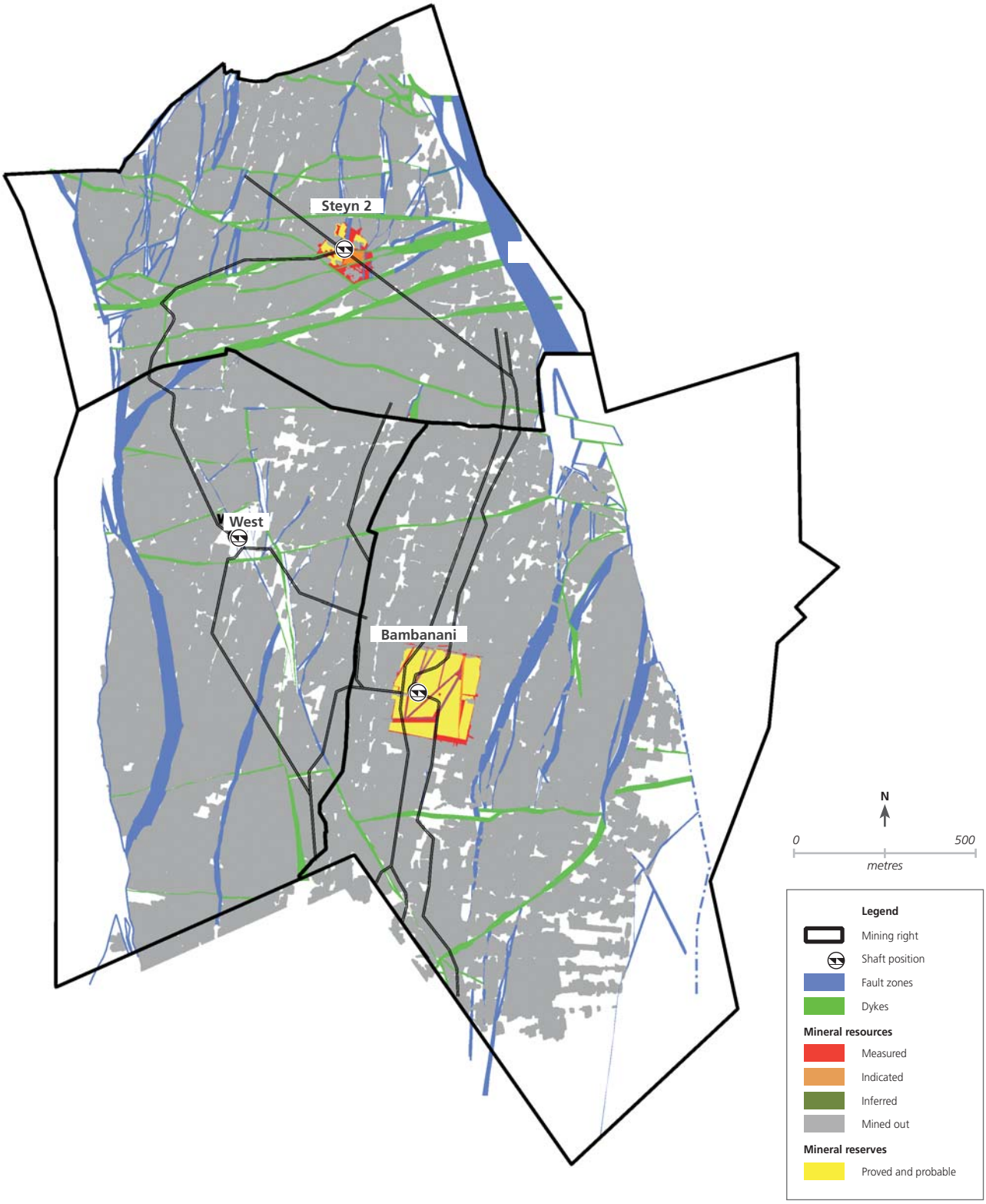
MEASURED AND INDICATED MINERAL RESOURCES
– grade tonnage curve

BAMBANANI *BASAL REEF*



Free State operations continued

BAMBANANI MINE
BASAL REEF



Free State operations continued

UNISEL

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Unisel	11.0	5.91	65	2 095	7.0	6.15	43	1 383	8.4	5.34	45	1 440	26.4	5.79	153	4 918
Grand total	11.0	5.91	65	2 095	7.0	6.15	43	1 383	8.4	5.34	45	1 440	26.4	5.79	153	4 918

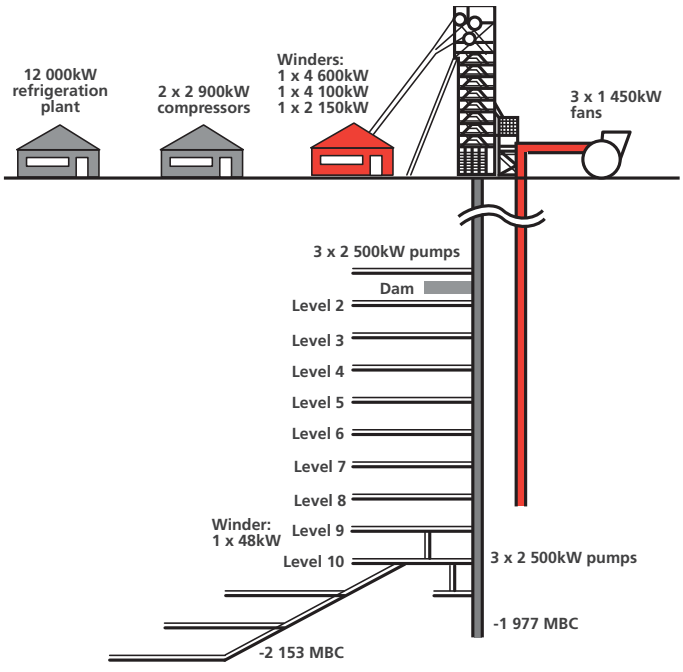
Modifying factors

Underground operations	MCF (%)	SW (cm)	MW (cm)	PRF (%)
Unisel	75	187	200	96

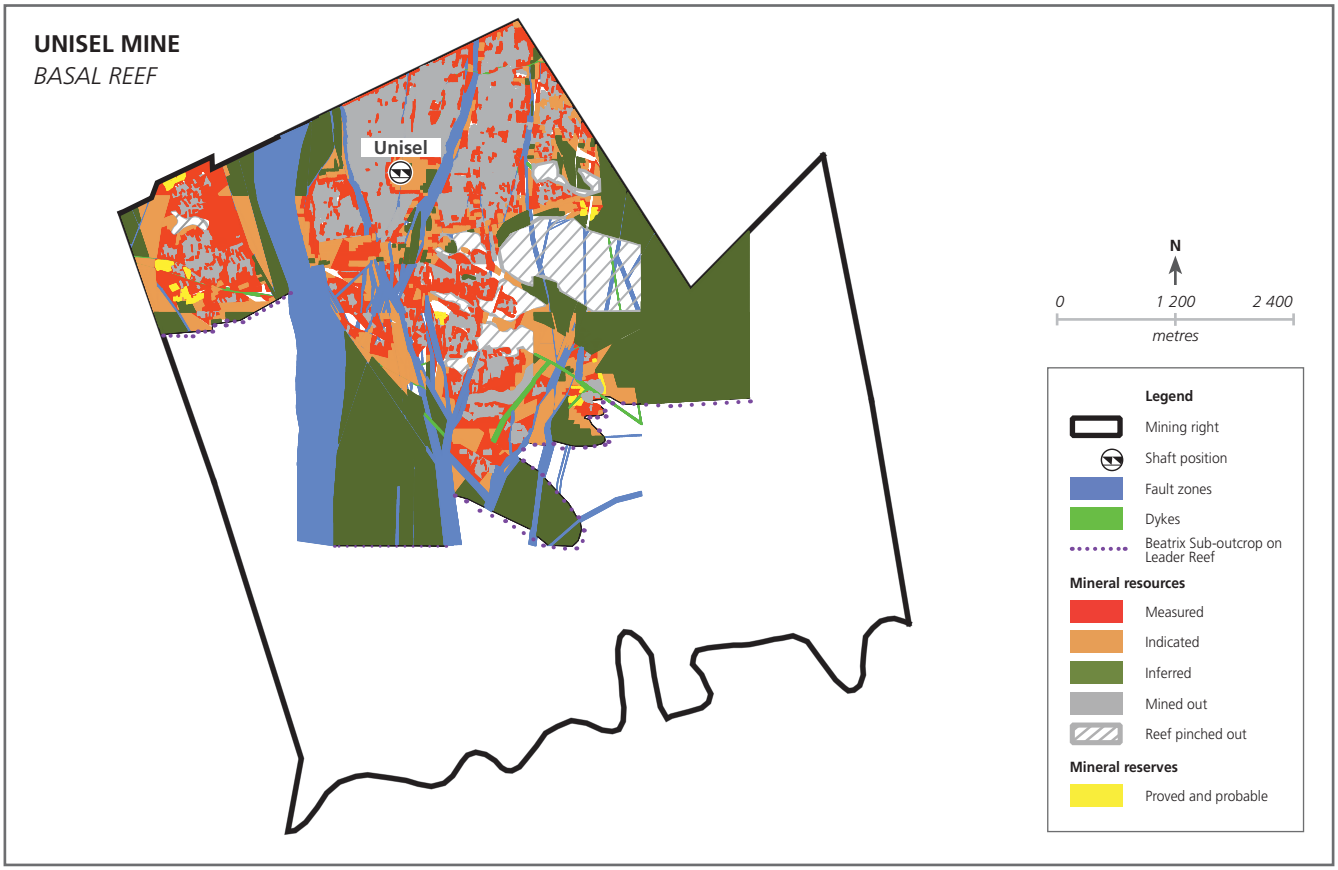
Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Unisel	2.0	4.36	9	285	0.8	4.14	3	109	2.9	4.30	12	394
Grand total	2.0	4.36	9	285	0.8	4.14	3	109	2.9	4.30	12	394

SCHEMATIC DIAGRAM: UNISEL MINE

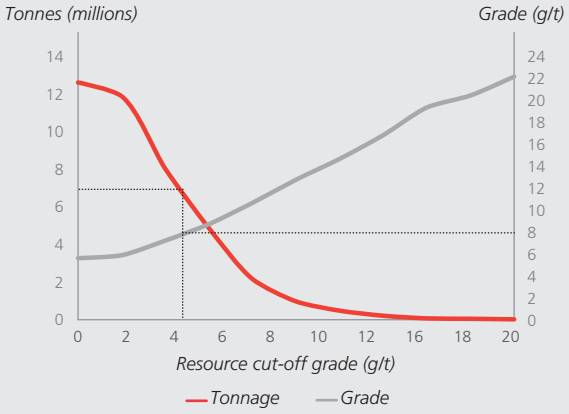


Free State operations continued



MEASURED AND INDICATED MINERAL RESOURCES
– grade tonnage curve

UNISEL *BASAL REEF*



Free State operations continued

MASIMONG

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Masimong	15.6	6.79	106	3 407	9.2	6.18	57	1 827	74.7	6.12	457	14 678	99.4	6.23	619	19 912
Grand total	**15.6**	**6.79**	**106**	**3 407**	**9.2**	**6.18**	**57**	**1 827**	**74.7**	**6.12**	**457**	**14 678**	**99.4**	**6.23**	**619**	**19 912**

Modifying factors

Underground operations	MCF (%)	SW (cm)	MW (cm)	PRF (%)
Masimong	68	135	153	96

Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Masimong	5.8	4.77	28	897	2.4	4.71	11	367	8.3	4.76	39	1 264
Grand total	**5.8**	**4.77**	**28**	**897**	**2.4**	**4.71**	**11**	**367**	**8.3**	**4.76**	**39**	**1 264**

Uranium – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)
Underground																
Masimong	–	–	–	–	8.7	0.29	2	5	74.3	0.19	14	31	83.0	0.20	17	37
Grand total	–	–	–	–	**8.7**	**0.29**	**2**	**5**	**74.3**	**0.19**	**14**	**31**	**83.0**	**0.20**	**17**	**37**

Modifying factors

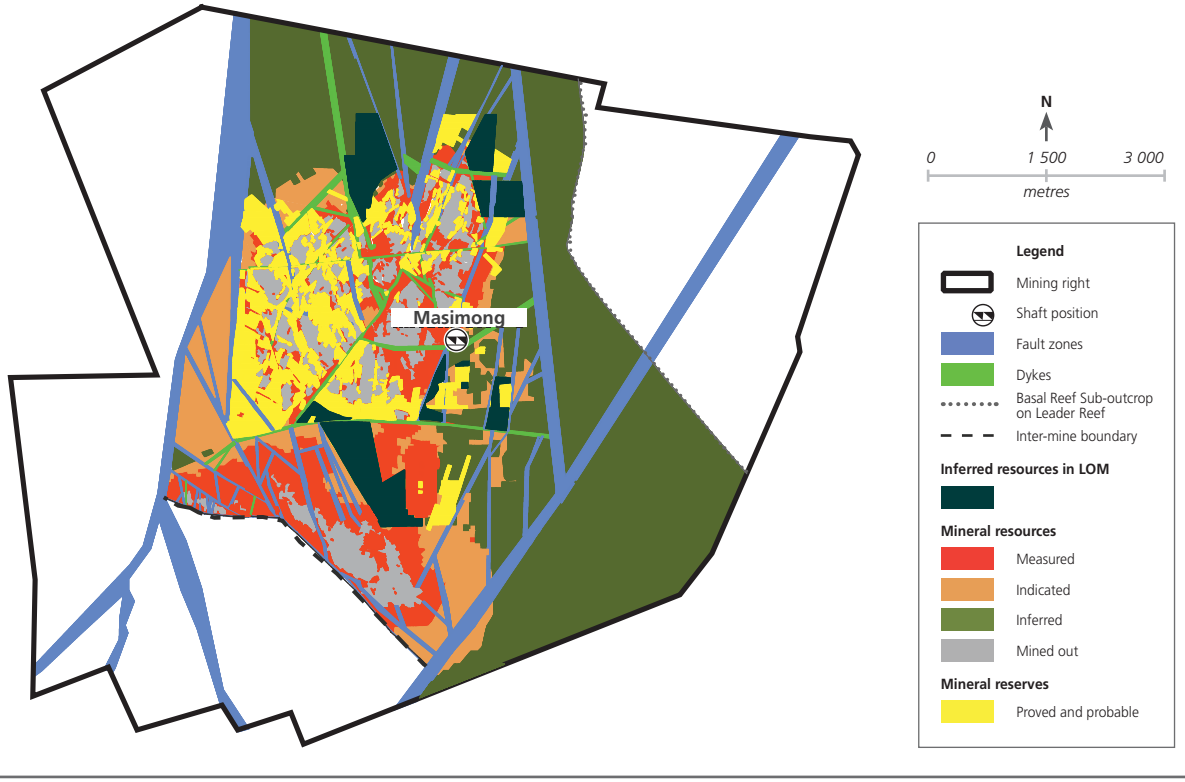
Underground operations	PRF (%)
Masimong	80

Uranium – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Masimong	–	–	–	–	4.9	0.18	1	2	4.9	0.18	1	2
Grand total	–	–	–	–	**4.9**	**0.18**	**1**	**2**	**4.9**	**0.18**	**1**	**2**

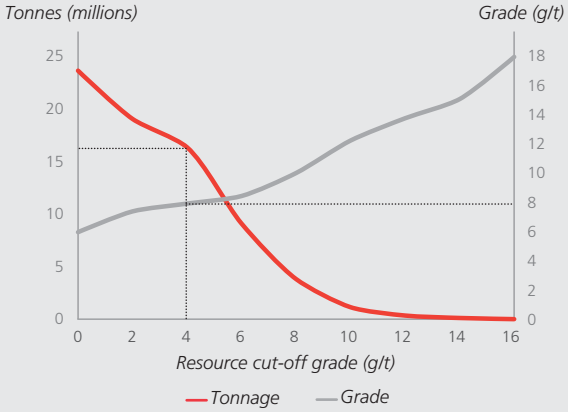
Free State operations continued

MASIMONG MINE
BASAL REEF



MEASURED AND INDICATED MINERAL RESOURCES
– grade tonnage curve

MASIMONG *BASAL REEF*



Free State operations continued

JOEL

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground																
Joel	4.8	7.42	36	1 147	7.3	7.20	53	1 696	7.6	4.72	36	1 160	19.8	6.30	124	4 003
Grand total	4.8	7.42	36	1 147	7.3	7.20	53	1 696	7.6	4.72	36	1 160	19.8	6.30	124	4 003

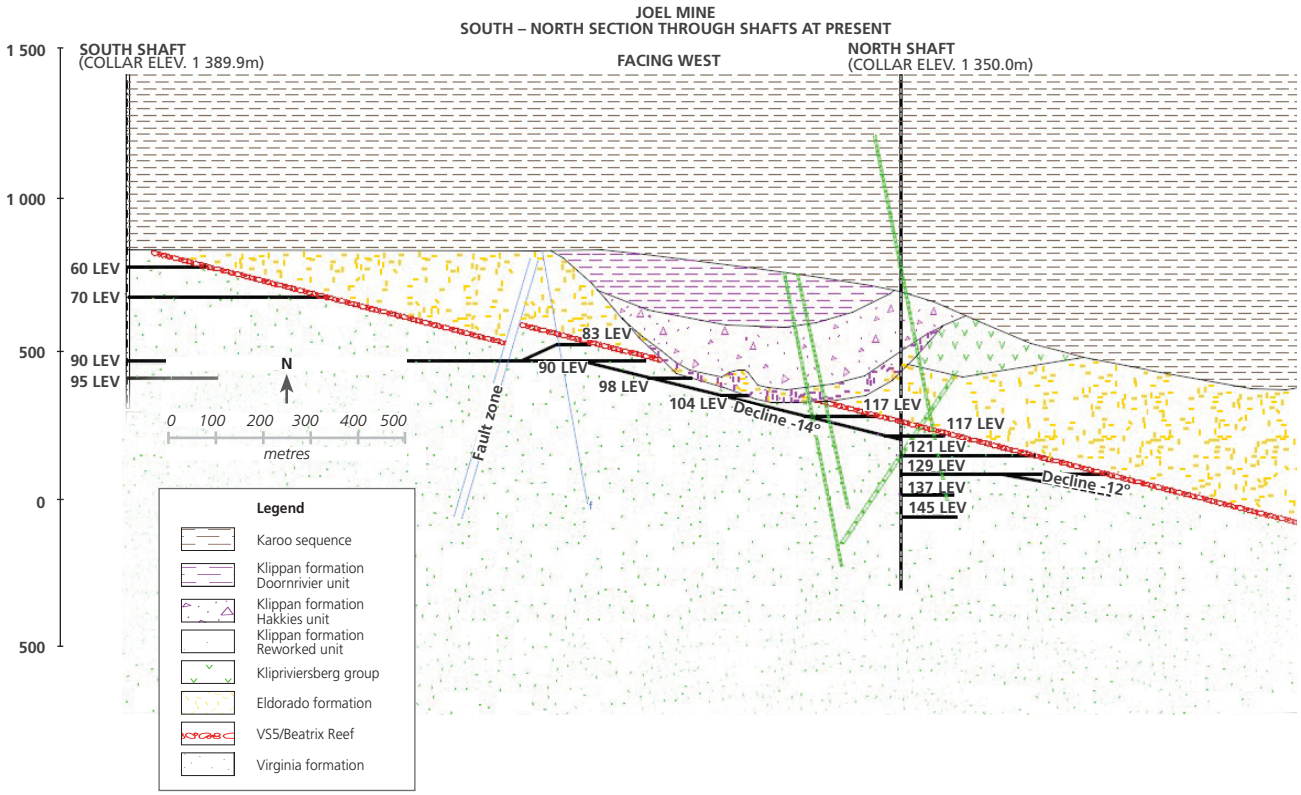
Modifying factors

Underground operations	MCF (%)	SW (cm)	MW (cm)	PRF (%)
Joel	83	162	195	96

Gold – Mineral reserves

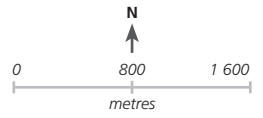
	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Underground												
Joel	1.6	5.60	9	296	3.9	5.39	21	677	5.6	5.45	30	973
Grand total	1.6	5.60	9	296	3.9	5.39	21	677	5.6	5.45	30	973

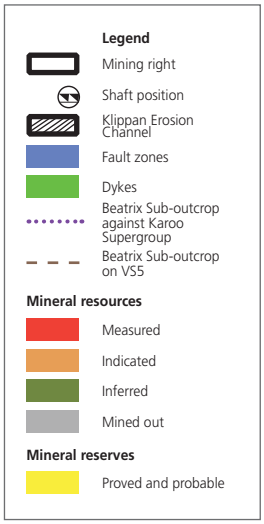
SCHEMATIC DIAGRAM: JOEL MINE

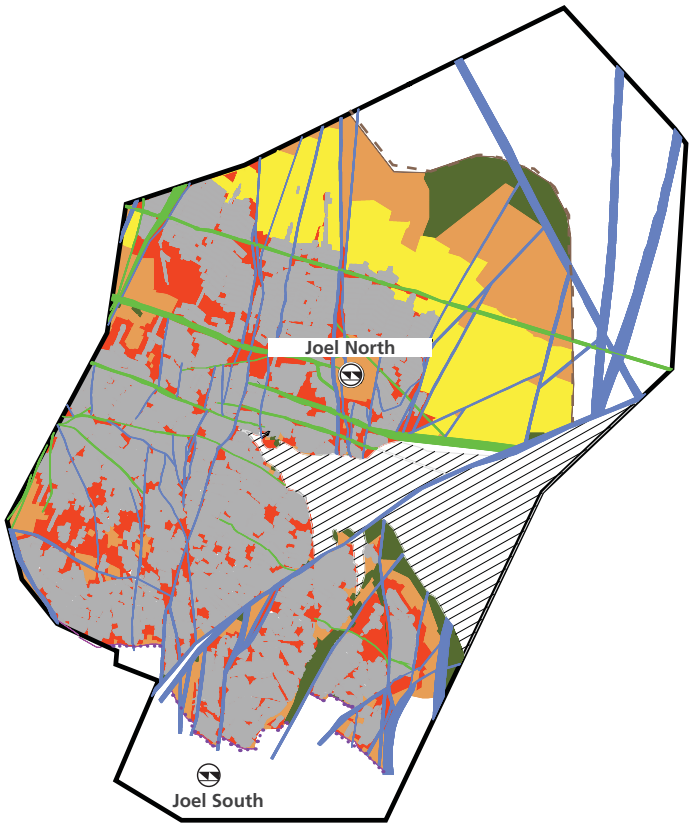


Free State operations continued

JOEL MINE
BEATRIX REEF

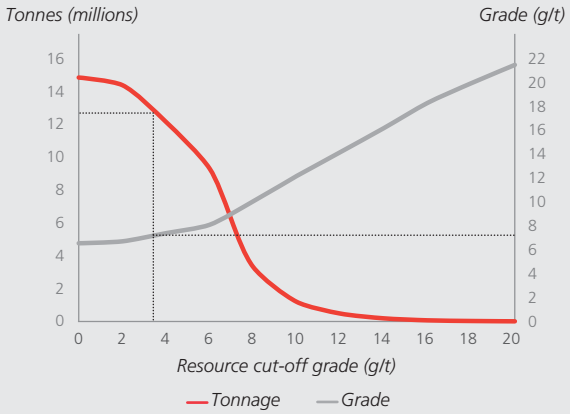






MEASURED AND INDICATED MINERAL RESOURCES
– grade tonnage curve

JOEL *BEATRIX REEF*



Free State operations continued

SURFACE SOURCES

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Surface																
Free State (Phoenix)	101.1	0.32	32	1 037	–	–	–	–	–	–	–	–	101.1	0.32	32	1 037
Free State (St Helena)	258.3	0.26	66	2 137	–	–	–	–	–	–	–	–	258.3	0.26	66	2 137
Free State (Other): Waste rock dumps	–	–	–	–	4.6	0.48	2	72	29.8	0.44	13	423	34.5	0.45	15	495
Slimes dams	–	–	–	–	646.5	0.22	145	4 646	15.5	0.19	3	94	662.0	0.22	147	4 740
Subtotal	–	–	–	–	651.2	0.23	147	4 718	45.3	0.36	16	517	696.5	0.23	163	5 235
Total	**359.5**	**0.27**	**99**	**3 174**	**651.2**	**0.23**	**147**	**4 718**	**45.3**	**0.36**	**16**	**517**	**1 056.0**	**0.25**	**262**	**8 409**
Grand total	**359.5**	**0.27**	**99**	**3 174**	**651.2**	**0.23**	**147**	**4 718**	**45.3**	**0.36**	**16**	**517**	**1 056.0**	**0.25**	**262**	**8 409**

Modifying factors

Surface operations	MCF (%)	PRF (%)
Free State (Phoenix)	100	45
Free State (St Helena)	100	45
Free State (Other)	100	53

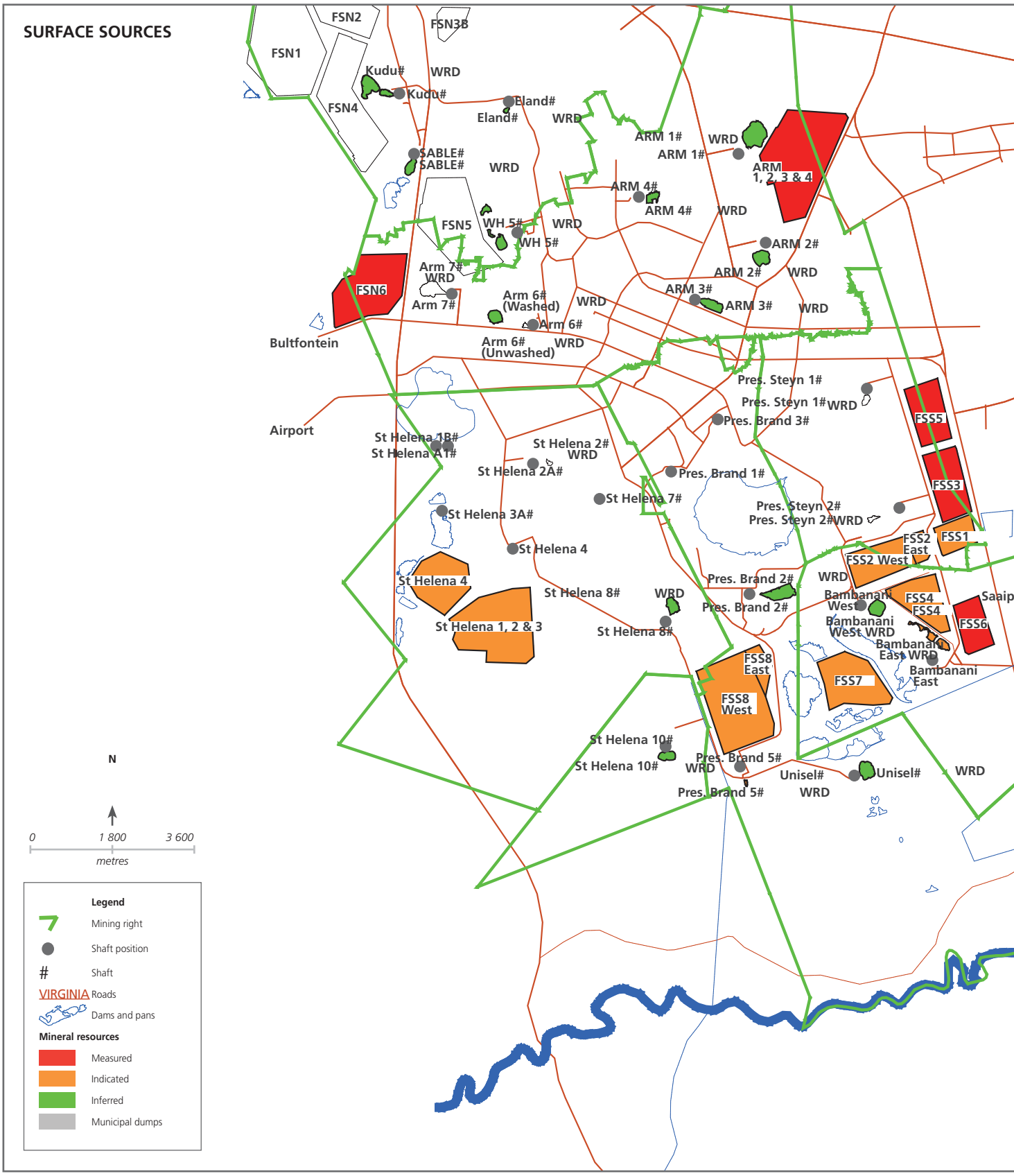
Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Surface												
Free State (Phoenix)	101.1	0.32	32	1 037	–	–	–	–	101.1	0.32	32	1 037
Free State (St Helena)	258.3	0.26	66	2 137	–	–	–	–	258.3	0.26	66	2 137
Free State (Other): Waste rock dumps	–	–	–	–	4.1	0.51	2	66	4.1	0.51	2	66
Slimes dams	–	–	–	–	377.9	0.25	93	2 989	377.9	0.25	93	2 989
Subtotal	–	–	–	–	382.0	0.25	95	3 055	382.0	0.25	95	3 055
Total	359.5	0.27	99	3 175	382.0	0.25	95	3 055	741.5	0.26	194	6 230
Grand total	**359.5**	**0.27**	**99**	**3 175**	**382.0**	**0.25**	**95**	**3 055**	**741.5**	**0.26**	**194**	**6 230**

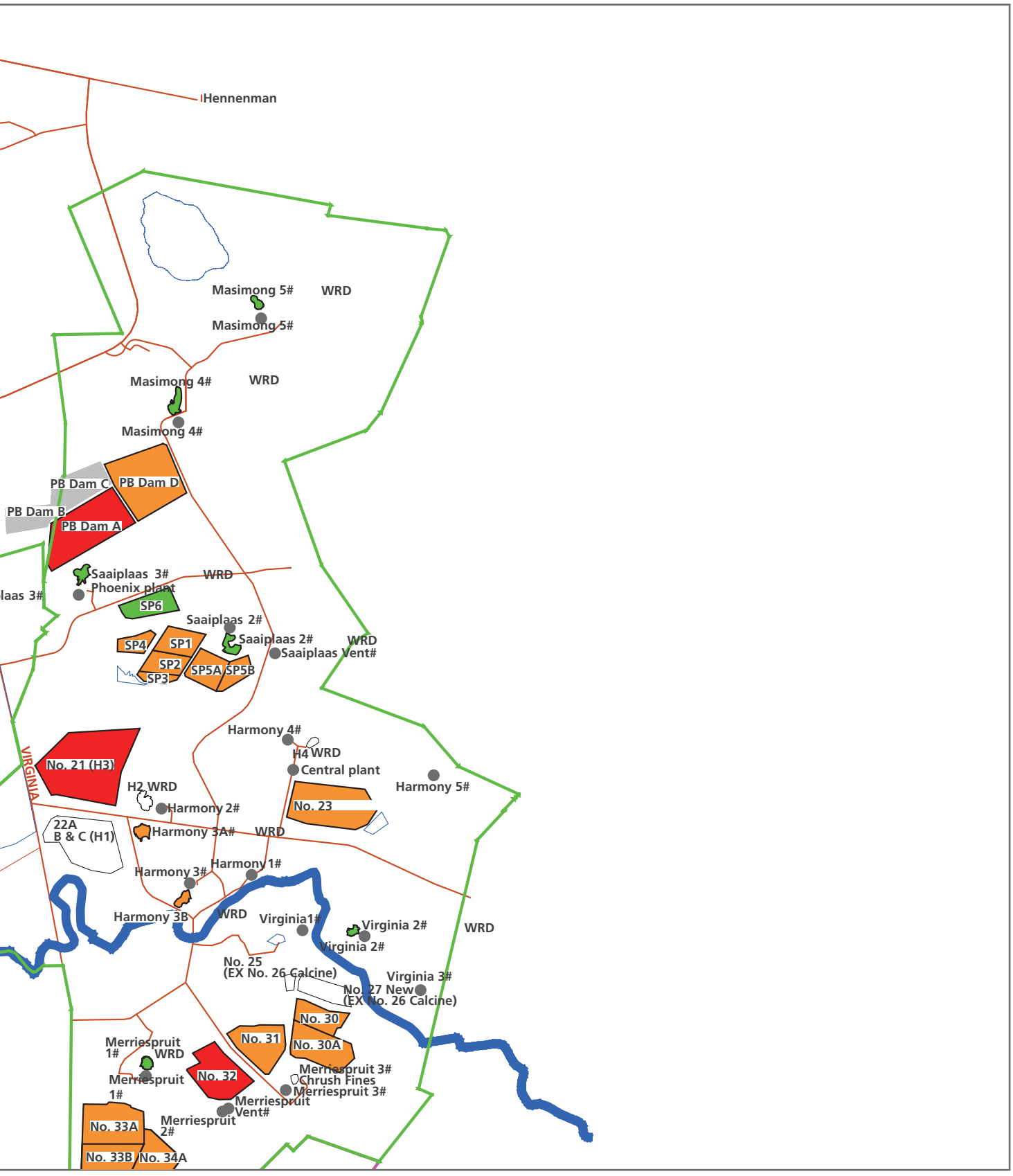
Uranium – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)	Tonnes (Mt)	kg/t	U3O8 (Mkg)	U3O8 (Mlb)
Surface																
Total	–	–	–	–	317.6	0.08	25	56	–	–	–	–	317.6	0.08	25	56
Grand total	–	–	–	–	**317.6**	**0.08**	**25**	**56**	–	–	–	–	**317.6**	**0.08**	**25**	**56**

Free State operations continued



Free State operations continued



Kraaipan Greenstone Belt

KALGOLD ⑬

Locality

The Kalgold operation is located within the Kraaipan Greenstone Belt, 60km south of Mahikeng. This is part of the larger Amalia-Kraaipan Greenstone terrain, consisting of north-trending linear belts of Archaean meta-volcanic and metasedimentary rocks, separated by granitoid units. Mineralisation occurs in shallow dipping quartz veins, which occur in clusters or swarms, within the steeply dipping magnetite-chert banded iron formation. Disseminated sulphide mineralisation, dominated mostly by pyrite, occurs around and between the shallow dipping quartz vein swarms.

The D zone is the largest orebody encountered and has been depleted. Mineralisation has also been found in the Mielie Field zone (adjacent to the D zone), the A zone, Watertank and Windmill areas to the north of the A zone. Current operations are focused on mining the Watertank and A zone open pits.

Pit geology

A zone pit

The A zone consists of two units, the main orebody, Main A zone (MAZ) and a smaller unit A zone west (AZW). The entire orebody stretches along a strike length of approximately 6.5km N–S and has a variable width of 15 to 45m. The orebodies are characterised by a hanging wall comprising meta-pelitic rocks, meta-greywacke and conglomerates. The footwall to the orebodies comprises mafic schist, which consists of meta-basaltic rocks. In the A zone, the massive Banded Iron Formation (BIF) consists of two units that are associated with the MAZ and AZW orebodies respectively. The Banded Iron Formations in this zone are separated by an approximately 50m thick alternating sequence of chloritic and argillaceous meta-pelites.

The A zone deposit consists of a number of mineralised cherty banded iron formation units that are interbedded with schist and shale and also consists of banded iron formation rich in silica. The A zone has an overall strike of 850m and comprises individual zones of mineralisation which are steeply dipping and have strike lengths from 200 to 500m. Reef widths range between 15 and 70m. The intercalated shale and schist Banded Iron Formations and Banded Iron Formation with silica of the oxides has recorded lower grade than that of the sulphides.

Watertank pit

Watertank is a long narrow deposit hoisted by cherty banded iron formation which has a similar stratigraphic position to the D zone and A zone and planned to be mined-out in January 2013. The top 40 metres of the mining is in oxidised material followed by deeper sulphide mineralisation. The oxidised BIF has recorded lower grade than that of the sulphides. Intersecting the ore (mineralised BIF) at deeper levels has shown an increase in the grade. The orebody at Watertank is steeply dipping at 75° and has a strike length of 950m and an average width of 45m. The mineralised zones within this unit range between 2 and 12m in width.

KALGOLD

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Surface operations																
Kalgold	22.9	0.77	18	569	29.4	0.85	25	800	62.3	0.84	52	1 688	114.5	0.83	95	3 057
Grand total	**22.9**	**0.77**	**18**	**569**	**29.4**	**0.85**	**25**	**800**	**62.3**	**0.84**	**52**	**1 688**	**114.5**	**0.83**	**95**	**3 057**

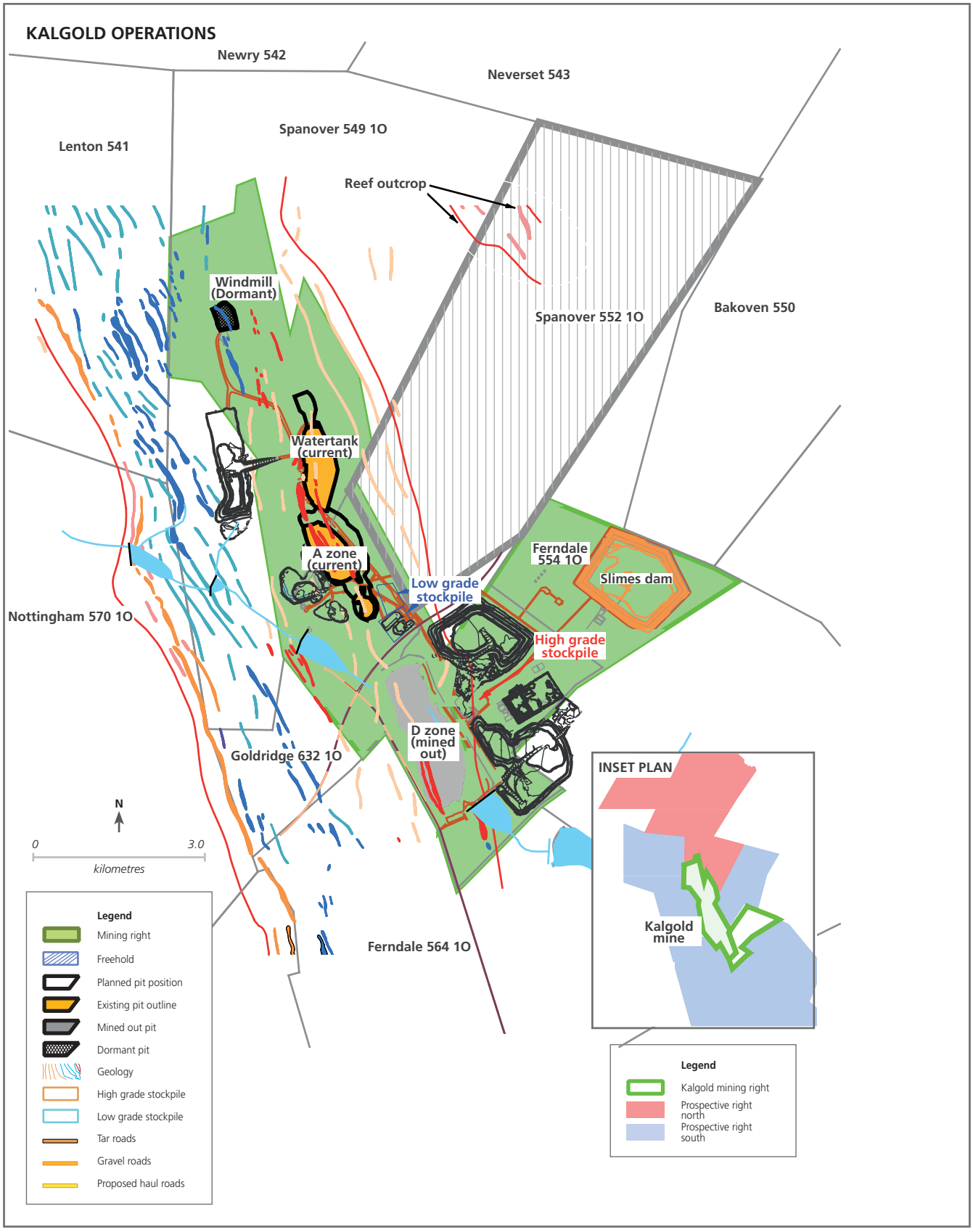
Modifying factors

Surface operations	MCF (%)	Dilution (%)	PRF (%)
Kalgold	100	3	85

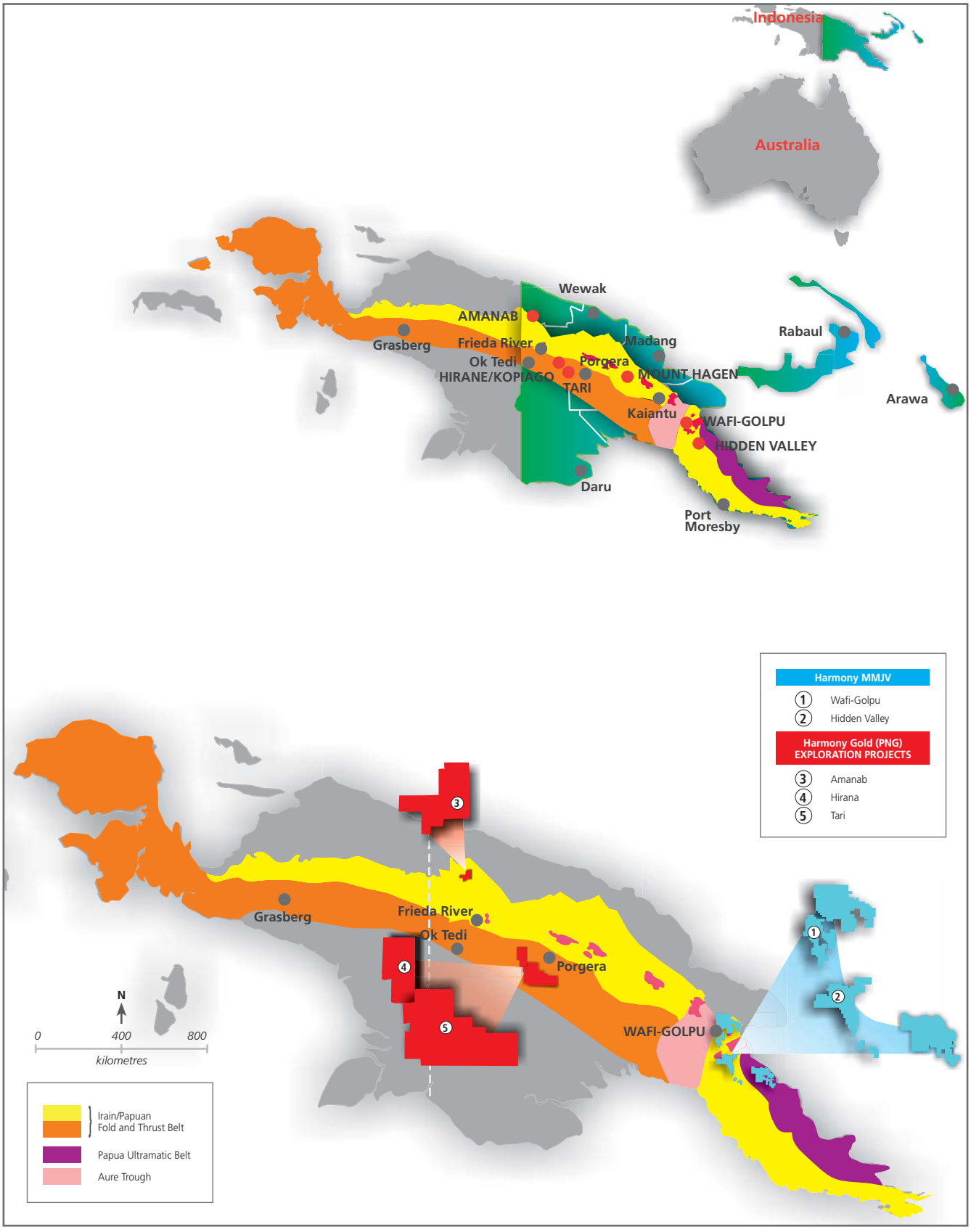
Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Surface operations												
Kalgold	12.2	0.97	12	379	11.9	1.00	12	384	24.1	0.99	24	763
Grand total	**12.2**	**0.97**	**12**	**379**	**11.9**	**1.00**	**12**	**384**	**24.1**	**0.99**	**24**	**763**

Kraaipan Greenstone Belt continued



Harmony Papua New Guinea operations



Harmony Papua New Guinea operations continued

Papua New Guinea (PNG) lies at the northern end of the Australian Plate and has three major components: a continental cratonic platform, an arc of volcanic islands and a central collisional fold belt, consisting of mesozoic sediments, ophiolite sequences, tertiary sediments and diorite intrusions. During collision, the Wau Graben, the host of major gold and silver deposits, was formed in the fold belt. It coincided with a phase of volcanic activity, resulting in precious and base metal deposits being formed. These include epithermal gold deposits at Hidden Valley, Hamata, Kerimenge and Wafi and porphyry-style copper deposits such as Golpu. Numerous other gold and copper-gold prospects, which are at various stages of exploration and evaluation, occur in Harmony's lease areas.

HIDDEN VALLEY AND HAMATA

The major gold-silver deposits of the Morobe Goldfield and the Hidden Valley project are hosted in the Wau Graben. The Wau Graben developed as a back-arc rift basin in the southern extension of the New Guinea Mobile Belt (Owen Stanley Foreland Thrust Belt) covering an area of approximately 850 square kilometres in which the Morobe Goldfield, including the Hidden Valley and Hamata deposits, are developed. Both the Hidden Valley and Hamata deposits are hosted within the Morobe Granodiorite batholith that is contained within the Graben structure.

The Hidden Valley and Hamata deposits are interpreted as low-sulphidation or adularia-sericite-type epithermal gold-silver deposits. The Hidden Valley deposit further forms part of the carbonate-base-metal-gold subgroup, with abundant carbonate vein-gangue. Discrete zones of intense stockwork fracture and mineralised veining comprise individual lodes. At the Hidden Valley deposit, gold and silver are related to the flat lying (Hidden Valley Zone, HVZ) and steeply dipping (Kaveroi Creek Zone, KCZ) sheeted vein swarms associated with an underlying shallow thrust. The Hamata gold deposit is a structurally controlled shallow dipping vein system and associated with sericite-pyrite alteration.

WAFI-GOLPU

The Wafi-Golpu project comprises porphyry and epithermal copper and gold systems within a 2.5km x 2.5km area that contains numerous diorite porphyry lodes, such as the Golpu copper-gold porphyry and the Nambonga gold-copper porphyry; and the Wafi epithermal gold lodes. The Wafi gold and Golpu porphyry mineralisation is hosted by sedimentary/volcanoclastic rocks of the Owen Stanley Formation which surrounds the intrusive Wafi Diatreme. Gold mineralisation occurs in the form of extensive high-sulphidation epithermal alteration overprinting porphyry mineralisation and epithermal style vein-hosted and replacement gold mineralisation with associated wall-rock alteration.

Harmony Papua New Guinea operations continued

Mineral resources and mineral reserves detailed in the following tables represent the MMJV 100% portion.

WAFI

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Projects	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Wafi	–	–	–	–	113.5	1.72	196	6 292	22.7	1.30	30	950	136.1	1.65	225	7 242
Grand total	**–**	**–**	**–**	**–**	**113.5**	**1.72**	**196**	**6 292**	**22.7**	**1.30**	**30**	**950**	**136.1**	**1.65**	**225**	**7 242**

GOLPU

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Projects	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Golpu	–	–	–	–	810.0	0.64	518	16 666	190.0	0.61	116	3 726	1 000.0	0.63	634	20 392
Grand total	**–**	**–**	**–**	**–**	**810.0**	**0.64**	**518**	**16 666**	**190.0**	**0.61**	**116**	**3 726**	**1 000.0**	**0.63**	**634**	**20 392**

Modifying factors

Projects	MCF (%)	PRF (%)
Golpu	100	61

Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Projects	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Golpu	–	–	–	–	450.0	0.86	385	12 388	450.0	0.86	385	12 388
Grand total	**–**	**–**	**–**	**–**	**450.0**	**0.86**	**385**	**12 388**	**450.0**	**0.86**	**385**	**12 388**

Silver – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Projects	Tonnes (Mt)	kg/t	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	kg/t	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	kg/t	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	kg/t	Ag (000kg)	Ag (000oz)
Golpu	–	–	–	–	810.0	1.1	917	29 492	190.0	1.0	198	6 354	1 000.0	1.1	1 115	35 846
Grand total	**–**	**–**	**–**	**–**	**810.0**	**1.1**	**917**	**29 492**	**190.0**	**1.0**	**198**	**6 354**	**1 000.0**	**1.1**	**1 115**	**35 846**

Modifying factors

Projects	MCF (%)	PRF (%)
Golpu	100	61

Harmony Papua New Guinea operations continued

Silver – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Projects	Tonnes (Mt)	(g/t)	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	(g/t)	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	(g/t)	Ag (000kg)	Ag (000oz)
Golpu	–	–	–	–	450.0	1.4	614	19 728	450.0	1.4	614	19 728
Grand total	**–**	**–**	**–**	**–**	**450.0**	**1.4**	**614**	**19 728**	**450.0**	**1.4**	**614**	**19 728**

Copper – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Projects	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)
Golpu	–	–	–	–	810.0	0.92	7 492	16 517	190.0	0.80	1 522	3 355	1 000.0	0.90	9 014	19 871
Grand total	**–**	**–**	**–**	**–**	**810.0**	**0.92**	**7 492**	**16 517**	**190.0**	**0.80**	**1 522**	**3 355**	**1 000.0**	**0.90**	**9 014**	**19 871**

Copper – Mineral resources as gold equivalents

	Measured	Indicated	Inferred	Total
Projects	(000oz)	(000oz)	(000oz)	(000oz)
Golpu	–	37 090	7 808	44 898
Grand total	**–**	**37 090**	**7 808**	**44 898**

Modifying factors

Projects	MCF (%)	PRF (%)
Golpu	100	92

Copper – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Projects	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)
Golpu	–	–	–	–	450.0	1.21	5 436	11 984	450.0	1.21	5 436	11 984
Grand total	**–**	**–**	**–**	**–**	**450.0**	**1.21**	**5 436**	**11 984**	**450.0**	**1.21**	**5 436**	**11 984**

Copper – Mineral reserves as gold equivalents

	Proved	Probable	Total
Projects	(000oz)	(000oz)	(000oz)
Golpu	–	26 529	26 529
Grand total	**–**	**26 529**	**26 529**

Harmony Papua New Guinea operations continued

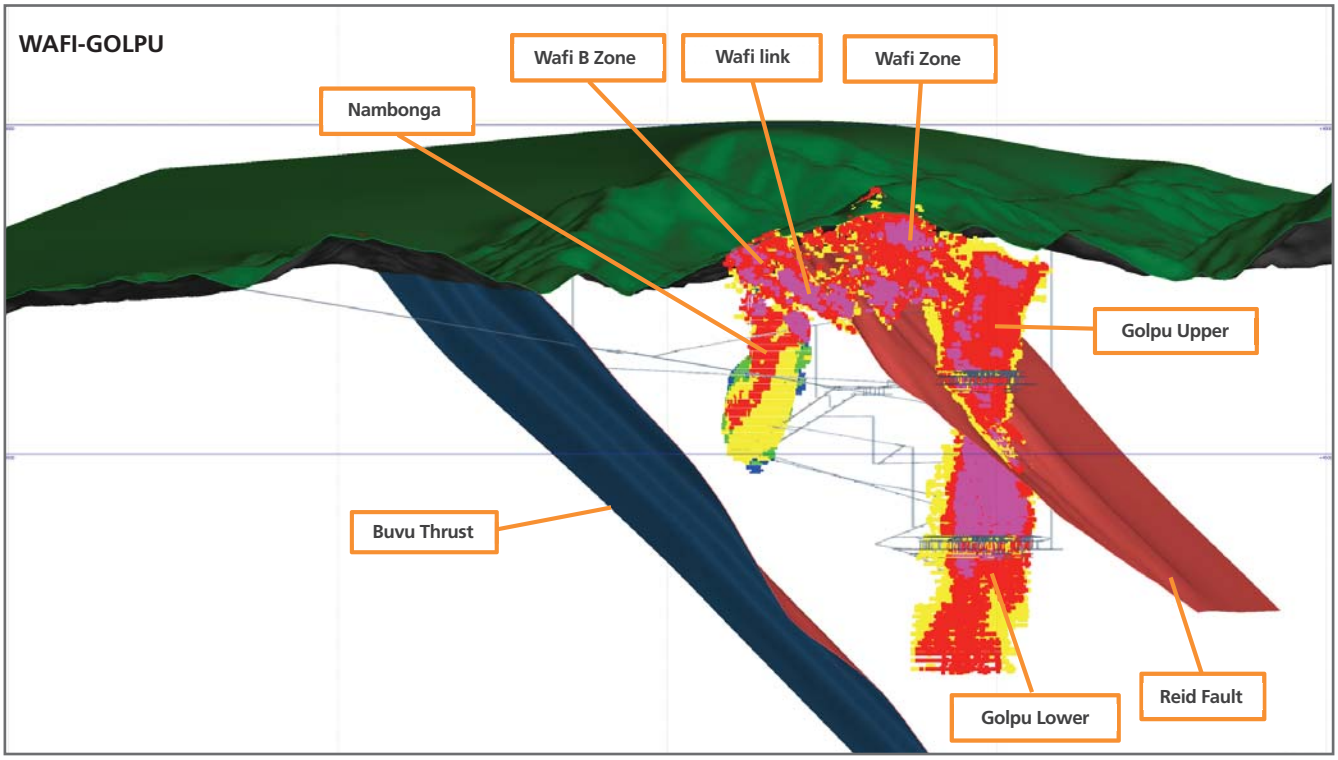


Figure 2. Wafi-Golpu Resources looking north-west showing Golpu (+0.5% Cu) coloured by per cent copper, Wafi (+0.8g/t Au) and Nambonga (+0.2g/t Au) coloured by g/t gold, with prefeasibility underground development.

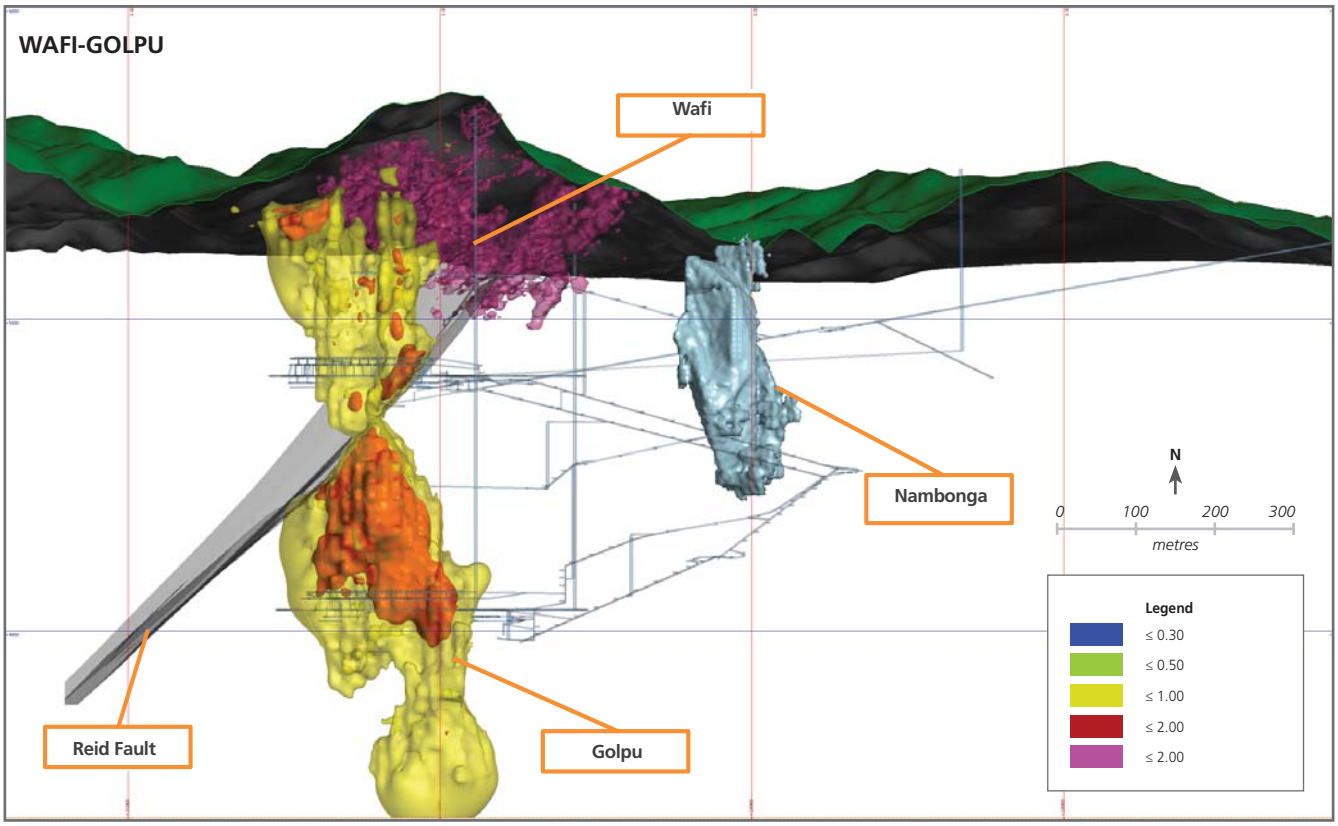


Figure 3. Wafi-Golpu project looking south showing Golpu (1% copper yellow shell and 2% copper orange shell), Wafi (1g/t gold purple shell) and Nambonga (0.2g/t blue gold shell) with pre-feasibility underground mine development.

Harmony Papua New Guinea operations continued

Molybdenum – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Projects	Tonnes (Mt)	(ppm)	Mo (Mkg)	Mo (Mlb)	Tonnes (Mt)	(ppm)	Mo (Mkg)	Mo (Mlb)	Tonnes (Mt)	(ppm)	Mo (Mkg)	Mo (Mlb)	Tonnes (Mt)	(ppm)	Mo (Mkg)	Mo (Mlb)
Golpu	–	–	–	–	810.0	100	81	179	190.0	75	14	31	1 000.0	96	96	211
Grand total	**–**	**–**	**–**	**–**	**810.0**	**100**	**81**	**179**	**190.0**	**75**	**14**	**31**	**1 000.0**	**96**	**96**	**211**

Modifying factors

Projects	MCF (%)	PRF (%)
Golpu	100	36

Molybdenum – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Projects	Tonnes (Mt)	(ppm)	Mo (Mkg)	Mo (Mlb)	Tonnes (Mt)	(ppm)	Mo (Mkg)	Mo (Mlb)	Tonnes (Mt)	(ppm)	Mo (Mkg)	Mo (Mlb)
Golpu	–	–	–	–	450.0	81	36	80	450.0	81	36	80
Grand total	**–**	**–**	**–**	**–**	**450.0**	**81**	**36**	**80**	**450.0**	**81**	**36**	**80**

Harmony Papua New Guinea operations continued

HIDDEN VALLEY AND HAMATA

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Hidden Valley	1.3	1.17	2	50	112.3	1.46	165	5 290	6.8	1.11	7	242	120.4	1.44	174	5 582
Hamata	0.04	1.40	0.1	2	6.3	1.90	12	386	0.2	1.65	0.4	12	6.6	1.89	12	400
Grand Total	**1.4**	**1.17**	**2**	**52**	**118.7**	**1.49**	**177**	**5 676**	**7.0**	**1.13**	**8**	**254**	**127.0**	**1.46**	**186**	**5 982**

Modifying factors

Operations	MCF (%)	Dilution (%)	PRF (%)
Hidden Valley	93	8	90
Hamata	100	10	90

Gold – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Hidden Valley	1.3	1.22	2	50	57.8	1.71	99	3 178	59.1	1.70	100	3 228
Hamata	0.04	1.40	0.1	2	4.6	2.10	10	308	4.6	2.09	10	310
Grand Total	**1.3**	**1.23**	**2**	**52**	**62.4**	**1.74**	**108**	**3 486**	**63.7**	**1.73**	**110**	**3 538**

Silver – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	kg/t	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	kg/t	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	kg/t	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	kg/t	Ag (000kg)	Ag (000oz)
Hidden Valley	1.3	19.1	25	816	112.3	27.3	3 062	98 450	6.8	25.5	172	5 530	120.4	27.1	3 260	104 796
Grand total	**1.3**	**19.1**	**25**	**816**	**112.3**	**27.3**	**3 062**	**98 450**	**6.8**	**25.5**	**172**	**5 530**	**120.4**	**27.1**	**3 260**	**104 796**

Silver – Mineral resources as gold equivalents

Operations	Measured (000oz)	Indicated (000oz)	Inferred (000oz)	Total (000oz)
Hidden Valley	15	1 758	99	1 871
Grand total	**15**	**1 758**	**99**	**1 871**

Harmony Papua New Guinea operations continued

Modifying factors

Operations	MCF (%)	Dilution (%)	PRF (%)
Hidden Valley	93	6	75

Silver – Mineral reserves

	Proved reserves				Probable reserves				Total mineral reserves			
Operations	Tonnes (Mt)	(g/t)	Ag (000kg)	Ag (000kg)	Tonnes (Mt)	(g/t)	Ag (000kg)	Ag (000kg)	Tonnes (Mt)	(g/t)	Ag (000kg)	Ag (000kg)
Hidden Valley	1.3	20.4	25	818	57.8	31.8	1 836	59 030	59.1	31.5	1 861	59 848
Grand total	**1.3**	**20.4**	**25**	**818**	**57.8**	**31.8**	**1 836**	**59 030**	**59.1**	**31.5**	**1 861**	**59 848**

Silver – Mineral reserves as gold equivalents

Operations	Proved (000oz)	Probable (000oz)	Total (000oz)
Hidden Valley	13	970	983
Grand total	**13**	**970**	**983**

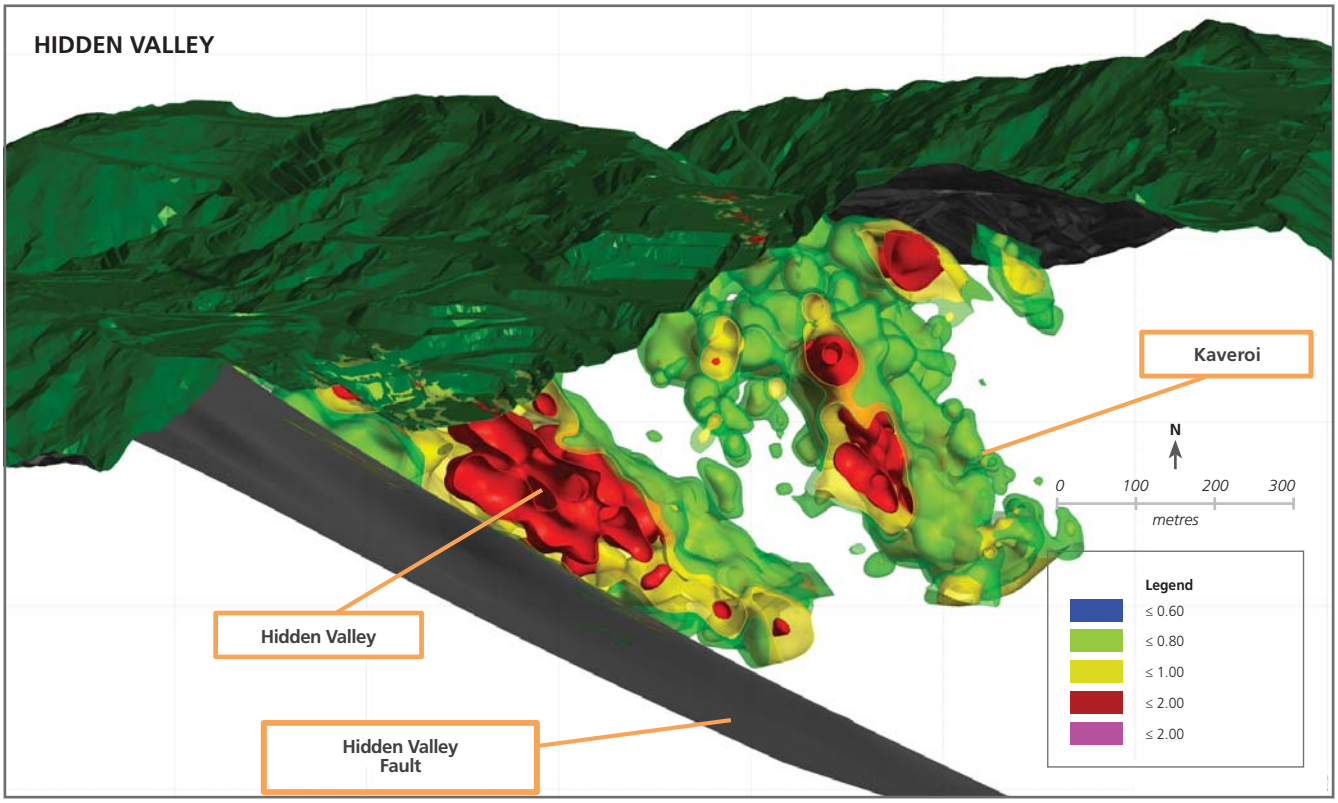


Figure 1. Hidden Valley – Kaveroi mine showing block model grades and end of July 2013 pit surface, looking north-west.

Harmony Papua New Guinea operations continued

NAMBONGA

Gold – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)	Tonnes (Mt)	(g/t)	Gold (000kg)	Gold (000oz)
Nambonga	–	–	–	–	–	–	–	–	39.8	0.79	31	1 010	39.8	0.79	31	1 010
Grand total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**39.8**	**0.79**	**31**	**1 010**	**39.8**	**0.79**	**31**	**1 010**

Silver – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	(g/t)	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	(g/t)	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	(g/t)	Ag (000kg)	Ag (000oz)	Tonnes (Mt)	(g/t)	Ag (000kg)	Ag (000oz)
Nambonga	–	–	–	–	–	–	–	–	39.8	2.9	114	3 672	39.8	2.9	114	3 672
Grand total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**39.8**	**2.9**	**114**	**3 672**	**39.8**	**2.9**	**114**	**3 672**

Copper – Mineral resources

	Measured resources				Indicated resources				Inferred resources				Total mineral resources			
Operations	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)	Tonnes (Mt)	%	Cu (Mkg)	Cu (Mlb)
Nambonga	–	–	–	–	–	–	–	–	39.8	0.22	86	190	39.8	0.22	86	190
Grand total	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**–**	**39.8**	**0.22**	**86**	**190**	**39.8**	**0.22**	**86**	**190**

Copper – Mineral resources as gold equivalents

	Measured	Indicated	Inferred	Total
Operations	(000oz)	(000oz)	(000oz)	(000oz)
Nambonga	–	–	420	420
Grand total	**–**	**–**	**420**	**420**

Harmony Papua New Guinea operations continued

Total mineral resources attributable to the MMJV: Gold and gold equivalents*

	Measured	Indicated	Inferred	Total
	(000oz)	(000oz)	(000oz)	(000oz)
Gold	52	28 634	5 940	34 626
Silver	15	1 758	99	1 871
Copper	–	37 090	8 228	45 318
Grand total	**67**	**67 482**	**14 266**	**81 815**

Total mineral reserves attributable to the MMJV: Gold and gold equivalents*

	Proved	Probable	Total
	(000oz)	(000oz)	(000oz)
Gold	52	15 874	15 926
Silver	13	970	983
Copper	–	26 528	26 529
Grand total	**65**	**43 373**	**43 438**

Mineral resources and mineral reserves detailed in the following tables represent the Harmony's PNG 50% attributable gold equivalent mineral resources and mineral reserves

Mineral Resources – gold equivalents*

	Tonnes (Mt)	Gold (000kg)	Gold (000oz)
Measured	1	1	33
Indicated	521	1 049	33 741
Inferred	130	222	7 133
Total	**651**	**1 272**	**40 908**

Mineral reserves – gold equivalents*

	Tonnes (Mt)	Gold (000kg)	Gold (000oz)
Proved	1	1	33
Probable	256	675	21 687
Total	257	676	21 719

*Gold equivalent ounces are calculated assuming a US$1 400/oz Au, US$3.10/lb Cu and US$23.00/oz Ag with 100% recovery for all metals

The following Harmony Standards and processes/procedures are being followed and adhered to at all the SA mines.

SAMPLING STANDARD

A standard practice for the sampling of stopes and development ends is required to ensure quality of sampling information and safety in its collection. Such a document exists within Harmony, and all samplers and sampling crews are trained based on the rules of the sampling standard. The standard specifies all the steps and rules involved in the preparation of the face and the collection of samples, as well as all safety aspects of sampling. Particular attention is given to quality of information captured, and planned task observations are routinely carried out to ensure the standard is adhered to.

QUALITY ASSURANCE AND QUALITY CONTROL

Assessment of assaying accuracy and precision is carried out through the use of certified Standard Reference Materials (SRMs), blanks and duplicates. SRMs, blank samples and duplicate samples are added with the actual underground chip samples and drillhole samples sent to the assay laboratory. For analysis of Underground chip-samples, the total number of SRMs, blank samples and duplicate samples to be added to the daily underground samples will equal approximately 5% of the total underground samples submitted for that day. Generally, this equates to approximately 2% of each type of QAQC sample. For analysis of underground/surface drill-holes, QAQC is required to be more stringent in terms of numbers of SRMs, blank samples and duplicate samples submitted. One gold SRM, one uranium SRM, one duplicate and one blank is required for every 20 drill-hole samples assayed. In other words, QAQC material will equate to approximately 15% of the total drill-hole samples analysed. If the SRM or blank sample has been deemed to have failed, the entire batch of samples assayed with this failed QAQC sample must be identified. A request must then be sent to the laboratory requesting them to repeat the assay procedure on all samples within this batch. A second SRM or blank sample must be provided to the laboratory to include with the batch of samples. Should the batch of samples fail the QAQC standards again, these samples will be excluded from the sampling database (not captured in the sampling system), and the panel/drillhole will have to be resampled if necessary.

ASSAY LABORATORY

Fire assay

The fire assay is the oldest and, in most circumstances, still the best method for the determination of precious metals in ores and metallurgical products. Essentially, the method consists of two consecutive pyrochemical separations. The finely ground sample is fused with a suitable flux, under reducing conditions which promote the separation of the precious metals from the gangue, with simultaneous collection, normally as a lead alloy. Subsequently, the lead is removed by oxidising fusion (cupellation) and the precious metals, thus isolated, are available for measurement.

Samples are dried, crushed, pulverised and sorted once received at the Assay Laboratory. Pulverised samples (85% – 106 microns) are fused with a suitable flux. The flux combines with the gangue to form a fluid slag and the litharge in the flux is reduced to minute globules of lead. The rain of lead globules, falling through the molten mass, collects the particles of precious metal and coalesces into a button at the bottom of the crucible. For effective collection, the composition of the flux, the temperature and its rate of increase must be optimised. On cooling, the slag solidifies and is separated from the lead button containing the precious metals.

During cupellation, lead is oxidised to molten litharge, which wets the inner surface of the hot porous cupel and is absorbed. The molten precious metals are not absorbed because of their high surface tension, and because they do not oxidise. Parting is the separation of silver from gold alloys by acid dissolution of the silver. Where gold is not soluble, silver is readily soluble in hot nitric acid. The prill after parting, will have the black amorphous appearance of sponge gold which must be annealed at 800ºC. After annealing the gold will be seen to have contracted into the form of a coherent, malleable prill of the classic golden yellow colour. The mass of the prill is measured on an assay balance.

A Computerised Laboratory Application (VeriLIMS) system is currently operational to capture the relevant sample data and generate a report sheet, which is submitted to the client. The process begins whereby a worksheet is created in which the correct sample information is selected. A random sample mass is captured, the parted prill mass weighed and from this the computer calculates and generates a report.

To ensure that a high standard of analysis is maintained, each step of the analytical process and procedure, including the adherence to safety standards, is checked by a supervisor. Verification of data and quality control samples, is done by senior personnel.

Statistical methods are used for collecting, analysing and interpreting of data. The term precision is used to describe the reproducibility of results. However derived, precision is always expressed, quantitatively, either as the standard deviation or the variance of the data. A "check" sample is selected from the work for re-assay. The difference between the two results is a measure of the quality of the work and the reproducibility of the method. The term *accuracy* is used to denote the nearness of a result to the true or most probable value. For control of accuracy an in-house bulk standard as well as Certified Reference Materials are used. Blank analysis tests contamination in the assay process – a quartz (gold free) sample is processed daily.

Laboratory statistical control is deemed acceptable should standard reference materials be within two standard deviations of the recommended value. Investigative action is taken when reference materials returned exceed the standard deviation limit. In addition to the above, the laboratory partakes in a 'round robin' exercise which encompasses several gold mine analytical laboratories.

SAMPLE PREPARATION PLANT

A belt sample of up to 1 000kg is received at the plant from the shaft. The sample is first put through a 300mm screen prior to drying with infra-red heaters. Primary crushing to <70mm is then followed by a secondary crushing to <25mm, after which the sample is reduced. At the primary splitter 7/8 of the sample is discarded via a conveyor belt and 1/8 of the sample progress to final drying. Tertiary crushing to <6mm is then followed by secondary splitting. Again 7/8 of the sample is discarded and 1/8 of the sample is pulverised to 85% <106 micron. At final splitting all eight sub-samples are packaged and sent to the Laboratory for analyses.

The sample ticket with the necessary information from the shaft, accompanies the sample throughout the process. Empty bins are hosed out, whilst cleaning continues as part of the procedure to avoid contamination. At regular intervals grading analyses are done at the Assay Laboratory. A quartz sample is done to monitor any possible contamination.

To ensure that a high standard of preparation is maintained, each step of the process, which includes the adherence to safety standards, is checked by a supervisor.

Mineral resources and mineral reserves

APPENDIX

REPORTING CODE

Harmony uses the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (SAMREC Code), which sets out the internationally recognised procedures and standards for reporting mineral resources and ore/mineral reserves in South Africa. This code was developed by the South African Institute of Mining and Metallurgy and is the recommended guideline for reserve and resource reporting for companies listed on the JSE Limited. Harmony's reporting of its Australian and PNG mineral resources and mineral reserves also complies with the Australian Code for the Reporting of Mineral Resources and Mineral Reserves (JORC Code) of the Australian Institute of Mining and Metallurgy. This code is materially the same as the SAMREC Code. In reporting reserves, distinct cognisance has also been taken of Industry Guide 7 of the United States Securities Exchange Commission.

DEFINITIONS AS PER THE SAMREC CODE

Mineral resources

A **mineral resource** is a concentration (or occurrence) of material or economic interest in or on the earth's crust in such form, quality and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a mineral resource are known, estimated from specific geological evidence and knowledge, or interpreted from a well-constrained and portrayed geological model.

Mineral resources are sub-divided in order of increasing confidence in respect of geoscientific evidence into inferred, indicated and measured categories.

An **inferred mineral resource** is that part of a mineral resource for which tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and sampling, and assumed but not verified geologically and/or through analysis of grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that may be limited in scope or of uncertain quality and reliability.

An **indicated mineral resource** is that part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on exploration, sampling and testing of information from material gathered from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological and/or grade continuity but are spaced closely enough for continuity to be assumed.

A **measured mineral resource** is that part of a mineral resource for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable information from exploration, sampling and testing of material from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity.

Mineral reserves

A **mineral reserve** is the economically mineable material derived from a measured and/or indicated mineral resource. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a pre-feasibility study for a project, and a life-of-mine plan for an operation, must have been completed, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors). Such modifying factors must be disclosed.

A **probable mineral reserve** is the economically mineable material derived from a measured and/or indicated mineral resource. It is estimated with a lower level of confidence than a proved mineral reserve. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a pre-feasibility study for a project, and a life-of-mine plan for an operation, must have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.

Mineral resources and mineral reserves

APPENDIX

A **proved mineral reserve** is the economically mineable material derived from a measured mineral resource. It is estimated with a high level of confidence. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a pre-feasibility study for a project, and a life-of-mine plan for an operation, must have been carried out, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors. Such modifying factors must be disclosed.

HARMONY REPORTING IN COMPLIANCE WITH SAMREC

To meet the requirements of the SAMREC Code that the material reported as a mineral resource should have 'reasonable and realistic prospects for eventual economic extraction', Harmony has determined an appropriate cut-off grade which has been applied to the quantified mineralised body according to a process incorporating a long-term view on future economic modifying factors. In applying this process, Harmony uses a gold price of R580 000/kg to derive a cut-off grade to determine the mineral resources at each of its South African underground operations.

For the PNG JV operations, a gold price of US$1 250/oz, silver price of US$21/oz and a copper price of US$3.10/lb at an exchange rate of A$0.98 per US$.

Mineral resources have been estimated on the basis of geoscientific knowledge with input from the company's ore reserve managers, geologists and geostatistical staff. Each mine's mineral resources are categorised, blocked-out and ascribed an estimated value. At all our mines, computerised geostatistical estimation processes are used.

To define that portion of a measured and indicated mineral resource that can be converted to a proved and probable mineral reserve, Harmony applies the concept of a cut-off grade. At our underground South African mines, this is done by defining the optimal cut-off as the lowest grade at which an orebody can be mined such that the total profits, under a specified set of mining parameters, are maximised. The cut-off grade is determined using the company's Optimiser software, which requires the following as input: the database of measured and indicated resource blocks (per shaft section); an assumed gold price which, for this mineral reserve statement, was taken as R400 000/kg; planned production rates; the mine recovery factor (MRF) which is equivalent to the mine call factor (MCF) multiplied by the plant recovery factor (PRF); and planned cash operating costs (rand per tonne). Rand per tonne cash operating costs are historically based but take cognisance of distinct changes in the cost environment such as restructuring, right-sizing, and other cost-reduction initiatives, and for below-infrastructure ounces, an estimate of capital expenditure.

The block cave reserve at Golpu in PNG uses proprietary block cave optimisation software to define the optimal mine plan and sequencing. The open-pit reserve at Hidden Valley in PNG is using the Whittle optimisation programme to guide the most efficient mine design given the commodity prices and cost inputs assumed.

The mineral reserves represent that portion of the measured and indicated resources above cut-off in the life-of-mine plan and have been estimated after consideration of the factors affecting extraction, including mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors.

A range of disciplines, including geology, survey, planning, mining engineering, rock engineering, metallurgy, financial management, human resources management and environmental management, has been involved at each mine in the life-of-mine planning process and the conversion of resources into reserves.

The modifying factors related to the ore flow that are used to convert the mineral resources to mineral reserves through the life-of-mine planning process are stated for each shaft. For these factors, historical information is used, except if there is a valid reason to do otherwise. As a result of the depth at which mining occurs and the resulting rock engineering requirements at our South African underground mines, some shafts include stope support pillars into the design of their mining layouts which accounts for discounts of 7% to 10%. A further 15% discount is applied as a life-of-mine factor to provide for unpay and off-reef mining. In general, life-of-mine plan extraction factors do not exceed 85% and are reflected in the mineral reserves.

Glossary of geological terms	
Acidic	Descriptor for silica rich igneous rocks (containing greater than 65% silica) such as Rhyolite or Granite.
Alluvium	Relatively recent deposits of sedimentary material laid down in riverbeds, flood plains, lakes, or at the base of mountain slopes.
Alteration	Any physical or chemical change in a rock resulting from fluids moving through the rock.
Anticline	An arch or fold in layers of rock.
Assay	An analysis to determine the presence and concentration of one or more chemical components.
Basalt	An extrusive mafic volcanic rock.
Basic	Descriptor for silica poor igneous rocks such as Basalt or Gabbro.
Below infrastructure	That part of a company's mineral reserve that can only be accessed following certain capital expenditure which has yet to be approved.
Block caving	A mining method suited for large low grade orebodies that are unsuitable for open cut mining. In development a series of evenly spaced crosscuts are made at the bottom of the ore block from which raises are driven up into the ore. The ore block is then undercut so that it begins to collapse (or 'cave') into the raises. The weight of the material above provides the force to fracture and crush the underlying ore which is drawn from the drawpoints on the crosscuts. As ore is withdrawn the cave progresses up through the orebody.
Bornite	A copper iron sulphide that commonly defines the core of porphyry copper gold deposits.
Breccia	Fractured and broken rock that results from structural, volcanic or sedimentary processes.
Bulk mining	Any large-scale mechanised method of mining involving significant volumes of material being extracted on a daily basis.
Caldera	A large, basin shaped volcanic depression, more or less circular in form, that results from the collapse of the earth's surface into an exhausted magma chamber.
Chalcocite	A copper sulphide mineral common in zones of secondary enrichment.
Chalcopyrite	A copper iron sulphide that comprises the bulk of ore in many copper mines.
Concentrate	The product of the milling process that contains a high percentage of the valuable metals. The concentrate is commonly the final product produced onsite and is sent to a third party for separation or smelting.
Conglomerate	A sedimentary rock consisting of rounded, water worn pebbles or boulders cemented into a solid mass.
Contact	A geological term used to describe the line or plane along which two different rock types meet.
Contact metamorphism	Metamorphism of country rocks adjacent to an intrusion caused by heat and fluids from the intrusion.
Craton	A part of the earth's crust that has attained stability and has been little deformed for a long period of geological time.
Crosscut	An opening underground that is cut at right angles from the main level drive or shaft that generally links to and cuts the orebody, may also refer to a link between different drives.
Country rocks	The surrounding "Host" rocks into which an igneous intrusion or orebody is emplaced.

Glossary of geological terms	
Cut-off grade	The lowest grade of copper or gold ore that is considered economic to mine.
Decline	A tunnel below the horizontal that allows access to the orebody.
Deposit	A concentration of mineral matter, sedimentary or volcanic material, commonly refers to an accumulation of mineralised material that need not be economic to extract.
Diamond drilling	A method of obtaining samples of rock that utilises a diamond encrusted drill bit to cut long cylindrical sticks of core.
Diatreme	A long vertical pipe or plug filled with volcanic breccia formed by explosive release of energy from a gas-charged magma.
Dilution	Unmineralised rock that is by necessity removed along with ore during the mining process that effectively lowers the overall grade of the ore.
Diorite	Plutonic or intrusive rocks of intermediate composition between acidic and basic.
Dip	The angle at which a bed, stratum, or vein is inclined from the horizontal, measured perpendicular to the strike and in the vertical plane.
Disseminated ore	Ore carrying small distributed particles or valuable minerals distributed more or less uniformly through the rock.
Drawpoint	An underground opening at the bottom of the stope through which broken ore is extracted.
Dyke	A long and relatively thin body of igneous rock that, while in the molten state, intruded a fissure in older rocks.
Enrichment	The process of upgrading the concentrations of various elements into more concentrated deposits.
Epithermal deposit	A mineral deposit consisting of veins and replacement bodies containing precious metals or, more rarely, base metals; that form close to the earth's surface at high levels in the crust.
Exploration	Prospecting, sampling, mapping, drilling and other work involved in the search for ore.
Fault	A break in the continuity of a body of rock. It is accompanied by a movement on one side of the break relative to the other so that what were once parts of one continuous rock stratum or vein are now separated. The amount of displacement of the parts may range from a few inches to thousands of feet. Various descriptive names have been given to different kinds of faults, including but not limited to; closed fault, dip fault, dip-slip fault, distributive fault, flaw fault, gravity fault, heave fault, hinge fault, horizontal fault, longitudinal fault, normal fault, oblique fault, oblique slip fault, open fault, overthrust fault, parallel displacement fault, pivotal fault, reverse fault, rotary fault, step fault, strike fault, strike-slip fault, thrust fault, transcurrent fault, translatory fault, underthrust, vertical fault.
Felsic	An igneous rock having abundant light-coloured minerals and enriched in lighter elements such as silica and aluminium.
Flotation	A milling process in which valuable particles are induced to become attached to bubbles and float where they are more easily separated.
Fold	A curve or bend of a planar structure such as rock strata, bedding planes, foliation, or cleavage. A fold is usually a product of deformation, although its definition is descriptive and not genetic and may include primary sedimentary structures.
Gabbro	A dark, coarse-grained mafic igneous rock.

Mineral resources and mineral reserves

APPENDIX CONTINUED

Glossary of geological terms	
Gangue	The commercially worthless material that surrounds, or is closely mixed with, the ore.
Gold equivalent ounces	In instances where individual deposits may contain multiple valuable commodities with a reasonable expectation of being recovered; for example gold + copper in the one deposit, Harmony computes a Gold Equivalent to more easily assess the value of the deposit against gold only mines. Harmony does this by calculating the value of each of the deposits commodities then divides the product by the price of gold. For example ((gold ounces * gold price per ounce) + (copper pounds * copper price per pound)) / gold price per ounce; this will return the gold equivalent of a gold and copper deposit. All calculations are done using metal prices as stipulated in attached documentation. Harmony assumes a 100% metallurgical recovery in its calculations unless otherwise stated.
Graben	A block of rock bound by faults that has moved downward to form a depression between adjacent fault blocks.
Granite	A light coarse-grained felsic intrusive rock.
Granodiorite	A light coarse-grained intermediate intrusive rock.
Greenstone	A field term for any compact dark green altered or metamorphosed basic igneous rock that owes its colour to chlorite.
Head grade	The average grade of ore fed into the mill.
Horst	An elongate, relatively uplifted crustal unit or block that is bounded by faults, the opposite of a Graben. It is a structural form and may or may not be expressed geomorphologically.
Hydrothermal	Relating to hot fluids circulating in the earth's crust; generally the source of metals found in mineral deposits.
Igneous rock	Rocks formed by the solidification of molten material below the earth's crust.
Intrusive	A body of igneous rock formed by the consolidation of magma intruded into country rock, in contrast to lava which is extruded onto the earth's surface.
Lava	A general name for the molten rock ejected by volcanoes.
Mafic	An igneous rock composed chiefly of dark, ferromagnesium minerals and enriched in heavier elements such as iron.
Magma	The molten material within the earth from which igneous rocks are formed.
Maramuni arc	A part of the New Guinea Mobile Belt, an arc across the island of PNG within which a large portion of economic deposits are found.
Matrix	The finer-grained material between the larger particles of a rock or the material surrounding a fossil or mineral.
Metallurgy	The study of extracting metals from their ores.
Mesozoic	An era of geologic time, from the end of the Paleozoic to the beginning of the Cenozoic, or from about 225 million years to about 65 million years ago.
Mine call factor	Is the ratio, expressed as a percentage, which the specific product accounted for in "recovery plus residue" bears to the corresponding product "called for" by the mine's measuring and valuation methods.
MW	Milling width is a calculated width expressing the relationship between the total reef area excavated and the total tonnes milled from underground sources.
New Guinea Mobile belt	A belt of folded and mountainous terrain that defines the core of the island of Papua New Guinea, considered to define the leading edge of the Australian content where it is in collision with the Pacific Ocean plate.

Glossary of geological terms	
Non-refractory	Gold or copper ore that is easily extracted using standard and well tested mill and plant technologies.
Ophiolite	A section of the earth's oceanic crust and the underlying mantle that has been uplifted and often emplaced (or obducted) onto the edge of a continental plate; commonly the product of subduction systems. The material comprises mafic and ultramafic rocks and minerals.
Ore	A mixture of minerals and gangue from which at least one of the minerals can be extracted at a profit.
Orogeny	A period of mountain building characterised by compression and folding within the earth's crust.
Oxidation	Generically refers to a chemical reaction of the rock when exposed to oxygen and surface water, resulting in oxide material in a mining environment.
Plunge	The inclination and orientation of a fold axis or other linear feature, measured in the vertical plane.
Porphyry	An igneous rock of any composition that contains conspicuous phenocrysts in a fine-grained groundmass that has intruded into the upper crust rapidly. A rock name descriptive of the groundmass composition usually precedes the term; eg, diorite porphyry.
Porphyry copper	A specific deposit type associated with the intrusion of multiple phases of porphyry. The heat and associated fluids commonly carry and precipitate metals such as gold, copper, molybdenum and silver.
PRF	Plant recovery factor is the ratio, expressed as a percentage, of the mass of the specific mineral product actually recovered from ore treated at the plant to its total specific mineral content before treatment.
Pyrite	Iron sulphide that usually occurs in veins, as magmatic segregation, as an accessory in igneous rocks, and in metamorphic rocks, in sedimentary rocks including coal seams; It is commonly associated with gold.
Quartzite	A very hard metamorphosed sandstone, consisting chiefly of quartz grains that are so completely cemented with secondary silica that the rock breaks across or through the grains rather than around them.
Raise	Any tunnel having an inclination above the horizontal in the direction of workings.
Recovery	The percentage of valuable metal in the ore that can be recovered by metallurgical treatment.
Refractory	Ore type that contains gold or copper that is 'locked up' and difficult to extract without specialised processing equipment.
Resource	The estimated amount of material in a mineral deposit, based on limited drilling but considered to be available for eventual economic extraction.
Rhyolite	A fine-grained extrusive igneous rock with the same chemical composition as granite.
Schist	A foliated metamorphic rock that has undergone sufficient strain so as to align all the mineral components into a roughly parallel arrangement.
Shaft	A vertical or inclined excavation in rock for the purpose of accessing the orebody, usually equipped with a hoist and winder to move miners and materials between the surface and various levels underground.
Silica	Fine grained silicon dioxide (such as quartz).
Siliceous	An alteration type where a large portion of the original rock has been replaced by silica. Also spelled silicious.

Glossary of geological terms	
Skarn	Lime-bearing silicates of any geologic age derived from nearly pure limestone or dolomite with the introduction of large amounts of Silica, Aluminium, Iron and Magnesium.
Stockwork	A mineral deposit in the form of a network of veinlets diffused in the country rock.
Stope	An excavation in a mine from which ore is, or has been, removed.
Strike	The bearing from north of a geological structure such as a bed, fault or orebody, defined as a horizontal line measured across the surface perpendicular to the dip.
Strip	To remove the overburden and waste to reveal the ore underneath.
Stripping ratio	The ratio of ton of waste removed to tons of ore recovered in an open pit mine.
Subduction	The process in plate tectonics whereby a portion of one of the earth's plates is drawn down below another.
Sublevel	A level in an underground mine between two main working levels.
Sub-outcrop	A rock stratum that unconformably underlies another rock stratum.
Syncline	Concave fold in stratified rock, in which strata dip down to meet in a trough.
Tailings	Material rejected from the milling process from which much of the economic material has been removed.
SW	Stoping width is the width of the excavation made during stoping operations.
TSF	Tailings Storage Facility (or tailings pond) – where the tailings are stored until the end of mining when the facility is capped and rehabilitated.
Unconformity	The structural relationship between rock strata in contact, characterised by a lack of continuity in deposition due to a period of non-deposition, weathering, or erosion prior to the deposition of the younger beds. An unconformity is often marked by absence of parallelism between the strata where the younger overlying stratum does not conform to the dip and strike of the older underlying rocks.
Volcanic	Derived from volcanoes.
Waste	Unmineralised or low-grade material that cannot be mined at a profit.
Winze	Any tunnel having an inclination below the horizontal in the direction of workings.

HARMONY GOLD MINING COMPANY LIMITED

Corporate office
Randfontein Office Park
PO Box 2, Randfontein, 1760
South Africa
Corner Main Reef Road and Ward Avenue
Randfontein, 1759
South Africa
Telephone: +27 11 411 2000
Website: www.harmony.co.za

DIRECTORS

PT Motsepe* (chairman)
M Motloba*^ (deputy chairman)
GP Briggs (chief executive officer)
F Abbott (financial director)
HE Mashego (executive director)
FFT De Buck*^ (lead independent director)
JA Chissano*[1]^
KV Dicks*^
Dr DS Lushaba*^
KT Nondumo*^
VP Pillay*^
C Markus*^
M Msimang*^
J Wetton*^
AJ Wilkens*

* Non-executive
^ Independent
[1] Mozambican

INVESTOR RELATIONS

E-mail: harmonyIR@harmony.co.za
Henrika Basterfield
Investor Relations Manager
Telephone: +27 11 411 2314
Fax: +27 11 692 3879
Mobile: +27 82 759 1775
E-mail: henrika@harmony.co.za
Marian van der Walt
Executive: Corporate and Investor Relations
Telephone: +27 11 411 2037
Fax: +27 86 614 0999
Mobile: +27 82 888 1242
E-mail: marian@harmony.co.za

COMPANY SECRETARY

Riana Bisschoff
Telephone: +27 11 411 6020
Fax: +27 11 696 9734
Mobile: +27 83 629 4706
E-mail: riana.bisschoff@harmony.co.za

TRANSFER SECRETARIES

Link Market Services South Africa (Proprietary) Limited
(Registration number 2000/007239/07)
13th Floor, Rennie House, Ameshoff Street, Braamfontein
PO Box 4844
Johannesburg, 2000
South Africa
Telephone: +27 86 154 6572
Fax: +27 86 674 4381

ADR DEPOSITARY

Deutsche Bank Trust Company Americas
c/o American Stock Transfer and Trust Company
Peck Slip Station
PO Box 2050
New York, NY 10272-2050
E-mail queries: db@amstock.com
Toll free: +1-800-937-5449
Int: +1-718-921-8137
Fax: +1-718-921-8334

SPONSOR

JP Morgan Equities Limited
1 Fricker Road, corner Hurlingham Road
Illovo, Johannesburg, 2196
Private Bag X9936, Sandton, 2146
Telephone: +27 11 507 0300
Fax: +27 11 507 0503

TRADING SYMBOLS

JSE Limited: HAR
New York Stock Exchange, Inc: HMY
Euronext, Brussels: HMY
Berlin Stock Exchange: HAM1
Registration number: 1950/038232/06
Incorporated in the Republic of South Africa
ISIN: ZAE 000015228

FORWARD-LOOKING STATEMENTS

Private Securities Litigation Reform Act

Safe Harbour Statement

This report contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended, and 21E of the Securities Exchange Act of 1934, as amended, that are intended to be covered by the safe harbour created by such sections. These statements may be identified by words such as "expects", "looks forward to", "anticipates", "intends", "believes", "seeks", "estimates", "will", "project" or words of similar meaning. All statements other than those of historical facts included in this report are forward-looking statements, including, without limitation, (i) estimates of future earnings, and the sensitivity of earnings to the gold and other metals prices; (ii) estimates of future gold and other metals production and sales, (iii) estimates of future cash costs; (iv) estimates of future cash flows, and the sensitivity of cash flows to the gold and other metals prices; (v) statements regarding future debt repayments; (vi) estimates of future capital expenditures; and (vii) estimates of reserves, and statements regarding future exploration results and the replacement of reserves. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward-looking statements are subject to risks, uncertainties and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to, gold and other metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, project cost overruns, as well as political, economic and operational risks in the countries in which we operate and governmental regulation and judicial outcomes. For a more detailed discussion of such risks and other factors (such as availability of credit or other sources of financing), see the Company's latest Annual Report on Form 20-F which is on file with the Securities and Exchange Commission, as well as the Company's other SEC filings. The Company does not undertake any obligation to release publicly any revisions to any "forward-looking statement" to reflect events or circumstances after the date of this report, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

BASTION GRAPHICS

HARMONY™

www.harmony.co.za