

# Integrated Annual Report Mineral Resources & Mineral Reserves



To be the global leader in  
sustainable gold mining

14 April 2011



**GOLD FIELDS**

# Group Overview

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## Forward looking statement

Certain statements in this document constitute “forward looking statements” within the meaning of Section 27A of the US Securities Act of 1933 and Section 21E of the US Securities Exchange Act of 1934.

Such forward looking statements involve known and unknown risks, uncertainties and other important factors that could cause the actual results, performance or achievements of the company to be materially different from the future results, performance or achievements expressed or implied by such forward looking statements. Such risks, uncertainties and other important factors include among others: economic, business and political conditions in South Africa, Ghana, Australia, Peru and elsewhere ; decreases in the market price of gold and/or copper; hazards associated with underground and surface gold mining; labour disruptions; availability terms and deployment of capital or credit, changes in government regulations, particularly environmental regulations; and new regulation affecting mining and mineral rights; changes in exchange rates; currency devaluations; inflation and other macro-economic factors, industrial action, temporary stoppages of mines for safety and unplanned maintenance reasons; and the impact of the AIDS crisis in South Africa.

These forward looking statements speak only as of the date of this document.

The company undertakes no obligation to update publicly or release any revisions to these forward looking statements to reflect events or circumstances after the date of this document or to reflect the occurrence of unanticipated events.





# Group Overview 2010 Mineral Resources & Mineral Reserves (31 December 2010)



To be the global leader in  
sustainable gold mining

Market Presentation

14 April 2011



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# Integrated Annual Report – Risk-based reporting

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## To Be The Global Leader In Sustainable Gold Mining

- This Vision compels us to take a long-term view of our investment and integrate sustainable development considerations into all our activities
- Sustainability implies that operations can achieve sustained performance over time for the benefit of all stakeholders
- Key aspects of sustainability:
  - Financial sustainability
  - Safety & Wellbeing
  - Economic value-added contribution
  - Environmental performance
- Our approach to sustainability ensures the longevity of our operations
- The 2010 Integrated Annual Report is a baseline against which to measure our integrated performance



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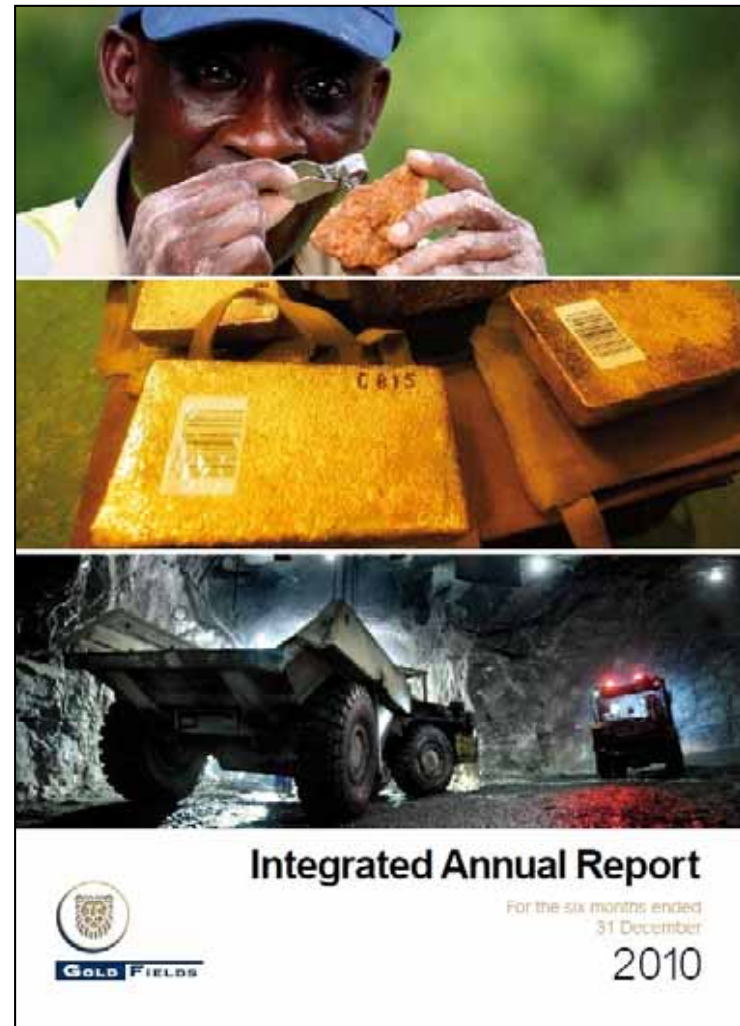
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**Providing stakeholders with long-term certainty**

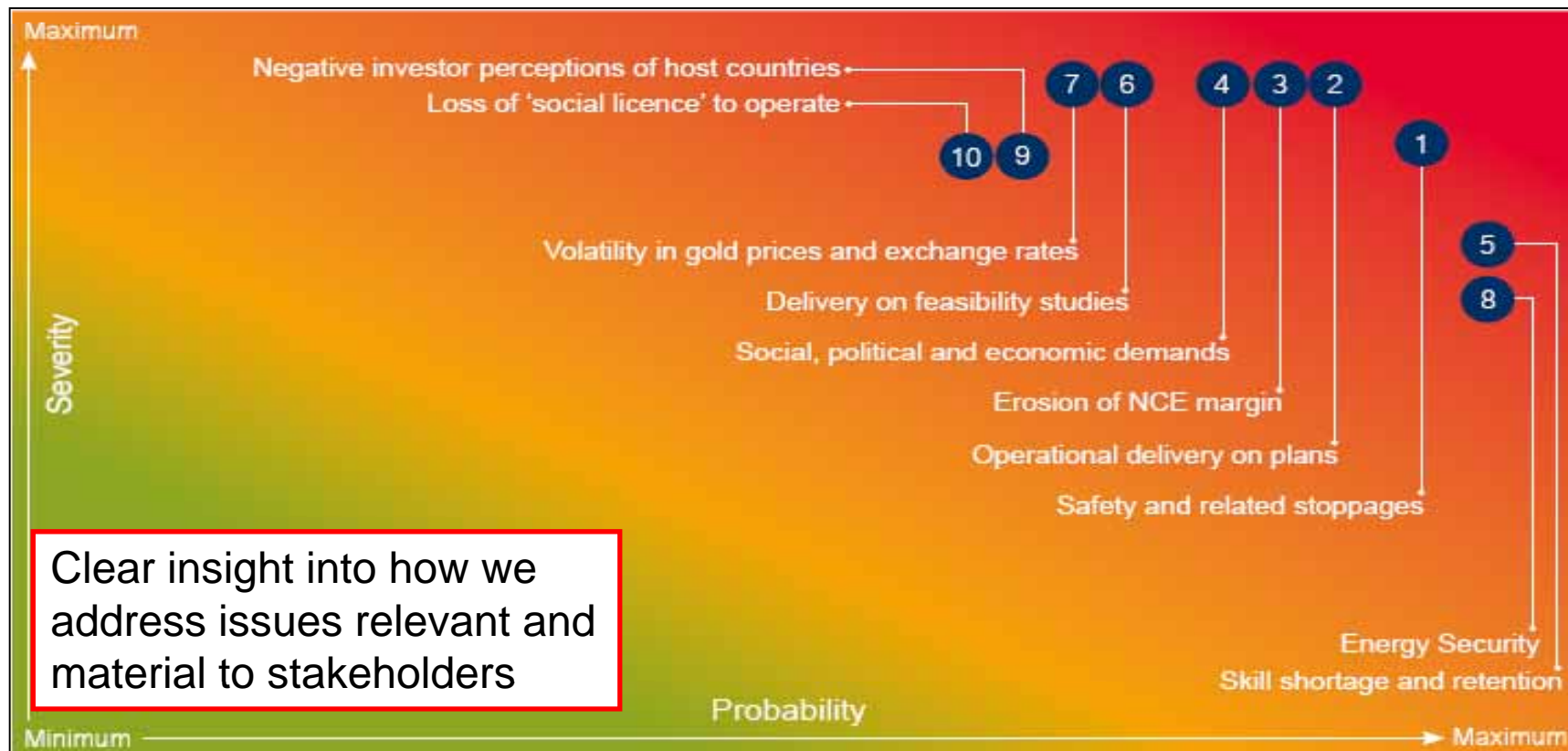
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# Integrated Annual Report – Key components

- Tracking our Sustainable Development performance and gaining a greater understanding of key SD elements
- Report contains commentary on operational, financial and SD performance – they are not isolated from one another
- This integration is mirrored in the Regional and Operational sections
- Integrated performance data, combining operational, financial and SD statistics
- Corporate governance has been aligned with King III
- Risk-based methodology underpins our reporting (next slide)



# Integrated Annual Report – Risk-based reporting



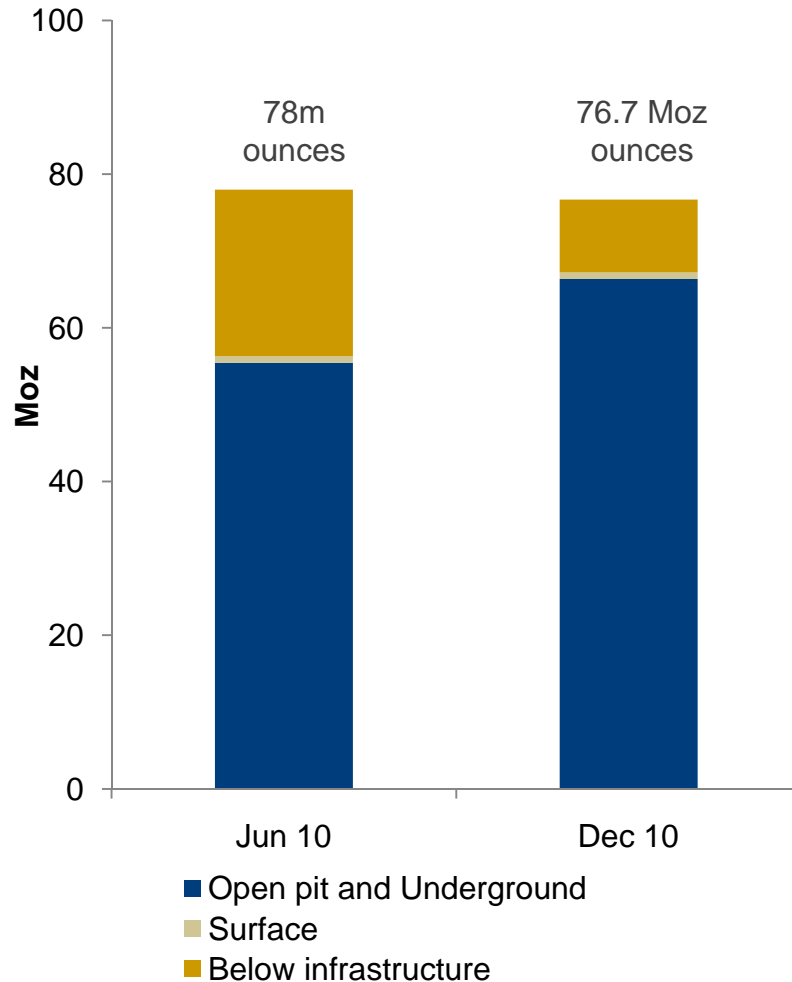
- Risks are identified at all levels of the business
- Strategic plans are included in Group, Regional and Operational strategies
- Mitigating strategies developed and audited





# Mineral Resources & Mineral Reserves

## Group Attributable Mineral Reserves



- Robust metal prices used to determine reserves
  - US\$1,000/oz (Dec 10) from US\$925/oz (Jun 10)
  - R265,000/kg from R240,000/kg
  - A\$1,225/oz from A\$1,100/oz
- South Deep reserves increased to 34.5 Moz (Dec 10) from 29.3 Moz (Jun 10)
- KDC reserves below infrastructure reduced to 3.7 Moz (Dec 10) from 9 Moz (Jun 10)
- Near-mine opportunities provide potential growth and/or life extensions at our international operations
- Business Process Re-engineering can underpin the sustainability of our ore bodies



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**Quality reserve base**

# Growth Projects (Attributable Mineral Resource)

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- Chucapaca (51%); Peru - 2.9 Moz Au-Eq
  - Drilling programme in progress to define an Indicated Mineral Resource
- Arctic Platinum (100%); Finland - 12.6 Moz (2PGE + Au)
  - Hydro-metallurgical testwork in progress



- Yanfolila (85%); Mali – 0.6 Moz
  - Exploration continues testing 7 priority targets with goal of 2 Moz Mineral Resource within radius of 20km
- FSE (60% option); Philippines
  - Large high-grade copper gold porphyry
  - Extensive drilling programme underway



- Damang Pit extension
  - North and South extension (Juno and Huni pits)
  - Potential for growth and life extension



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**Spreading throughout the globe**

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# Group Overview 2010 Mineral Resources & Mineral Reserves (31 December 2010)



To be the global leader in  
sustainable gold mining

14 April 2011



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# Group Overview

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## Agenda

- Introduction
- Australasia Region
- South Africa Region
- South America Region
- West Africa Region
- Projects
- Conclusion



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**Robust Mineral Resource and Mineral Reserve base**

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# Introduction

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## Corporate Governance

Transparency, materiality and integrity are paramount

Compliance with all relevant regulatory codes:

- SAMREC 2007
- JSE listing requirements
- US SEC
- SOX.

South Deep continued developing and enhancing the resource models and as a consequence has now designed & scheduled 100% of the declared Mineral Reserve



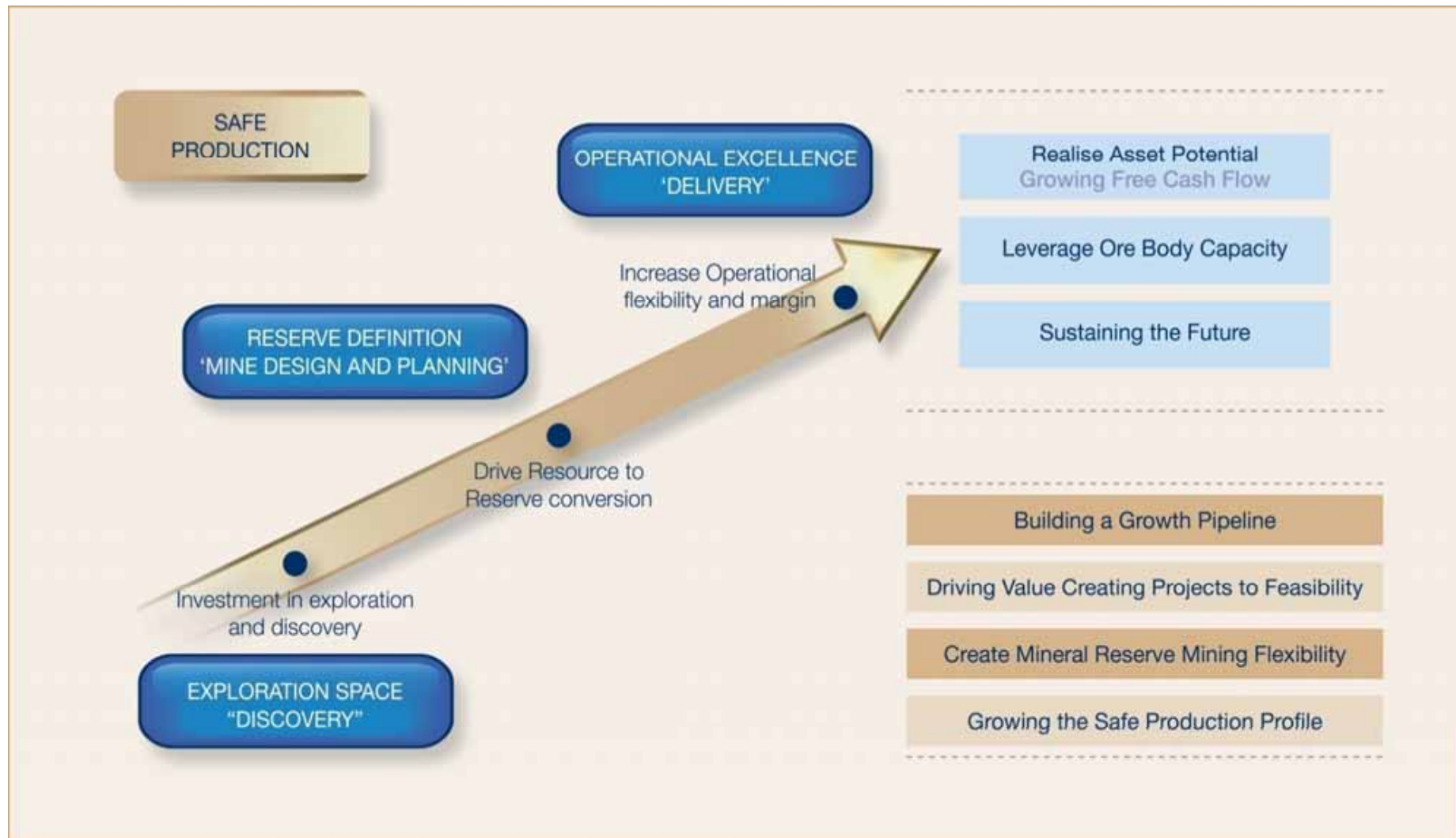
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**Externally audited**

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# Mineral Resources & Mineral Reserves - Strategy



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**Clear focus on key drivers**



# Introduction

## Metal Price

		31 December 2010		30 June 2010	
Location	Units	Reserve	Resource	Reserve	Resource
West Africa / South America	Au - US\$/oz	1,000	1,100	925	1,000
	Cu - US\$/lb	2.72	3.00	2.40	2.75
Australia	Au - A\$/oz	1,225	1,350	1,100	1,375
South Africa	Au - ZAR/kg	265,000	290,000	240,000	285,000
Growth Projects	Au - US\$/oz	-	1,150	-	1,150
	Cu - US\$/lb	-	3.00	-	3.00
	U <sub>3</sub> O <sub>8</sub> – US\$/lb	-	75 <sup>1</sup>	-	75
	Mo – US\$/lb	-	15	-	15
	Ag – US\$/lb	-	17	-	17

<sup>1</sup> In this cycle of reporting a uranium price of US\$/lb 75 was retained



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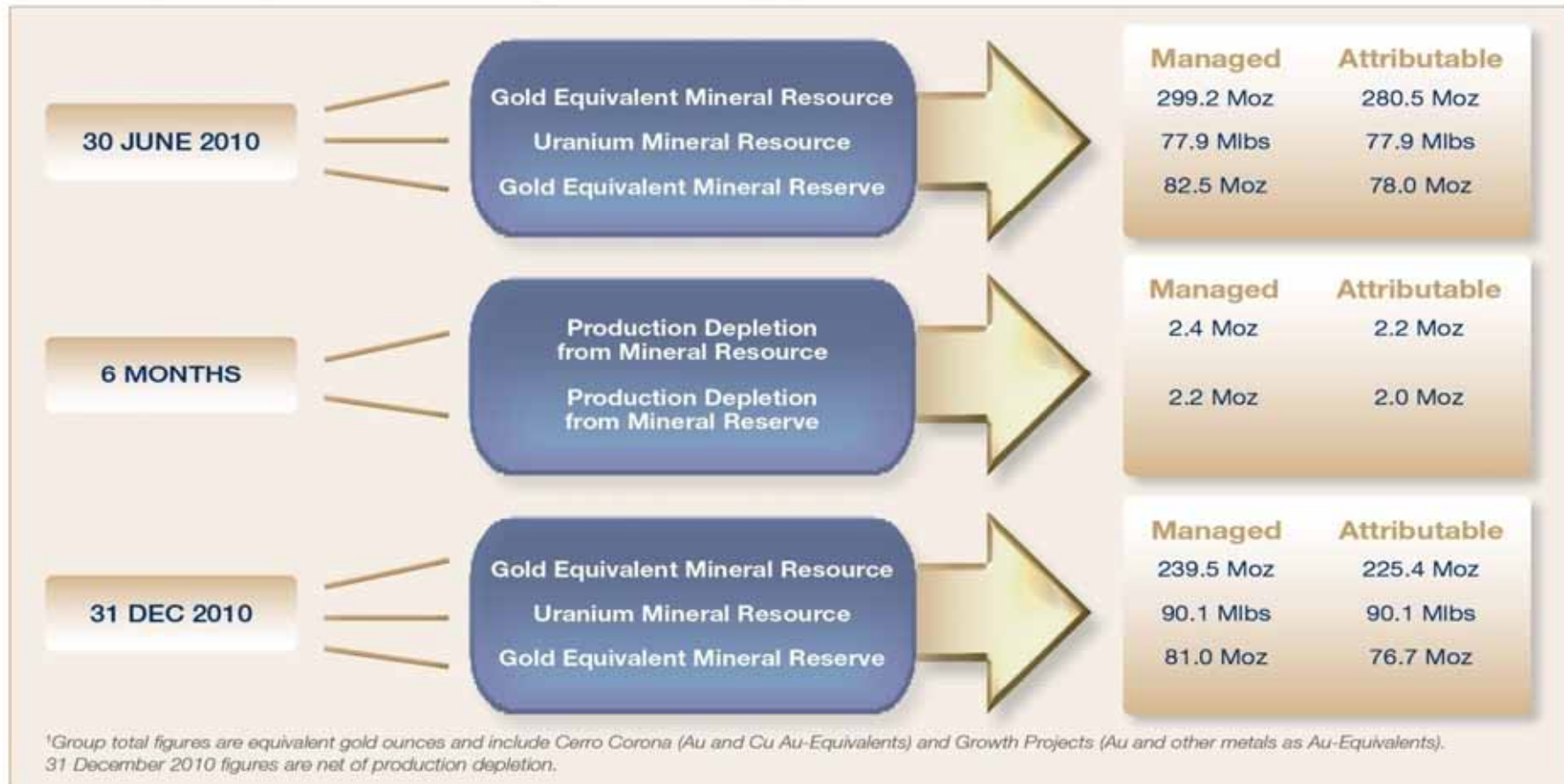
**Conservative price assumptions**

# Introduction

## Headline numbers<sup>1</sup>

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31 December 2010 Mineral Reserve Gold price of US\$1,000/oz



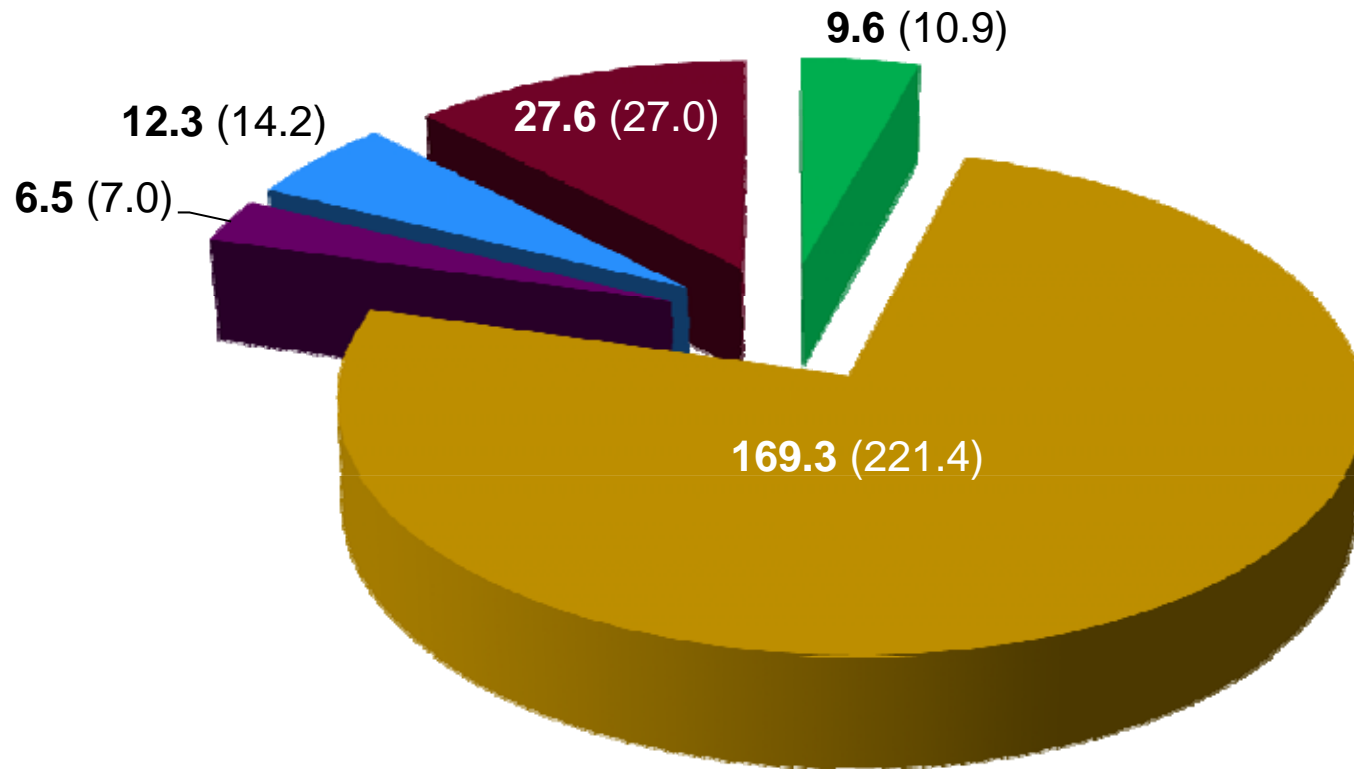
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**Increase in Mineral Reserves pre depletion**

# Introduction

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## Attributable Mineral Resources (million Au-Eq oz)



■ Australasia ■ South Africa (Exc. TSF Au) ■ South America ■ West Africa ■ Growth Projects (Inc. TSF Au)

*Note: excludes TTP Uranium and underground uranium. June 2010 are in brackets*



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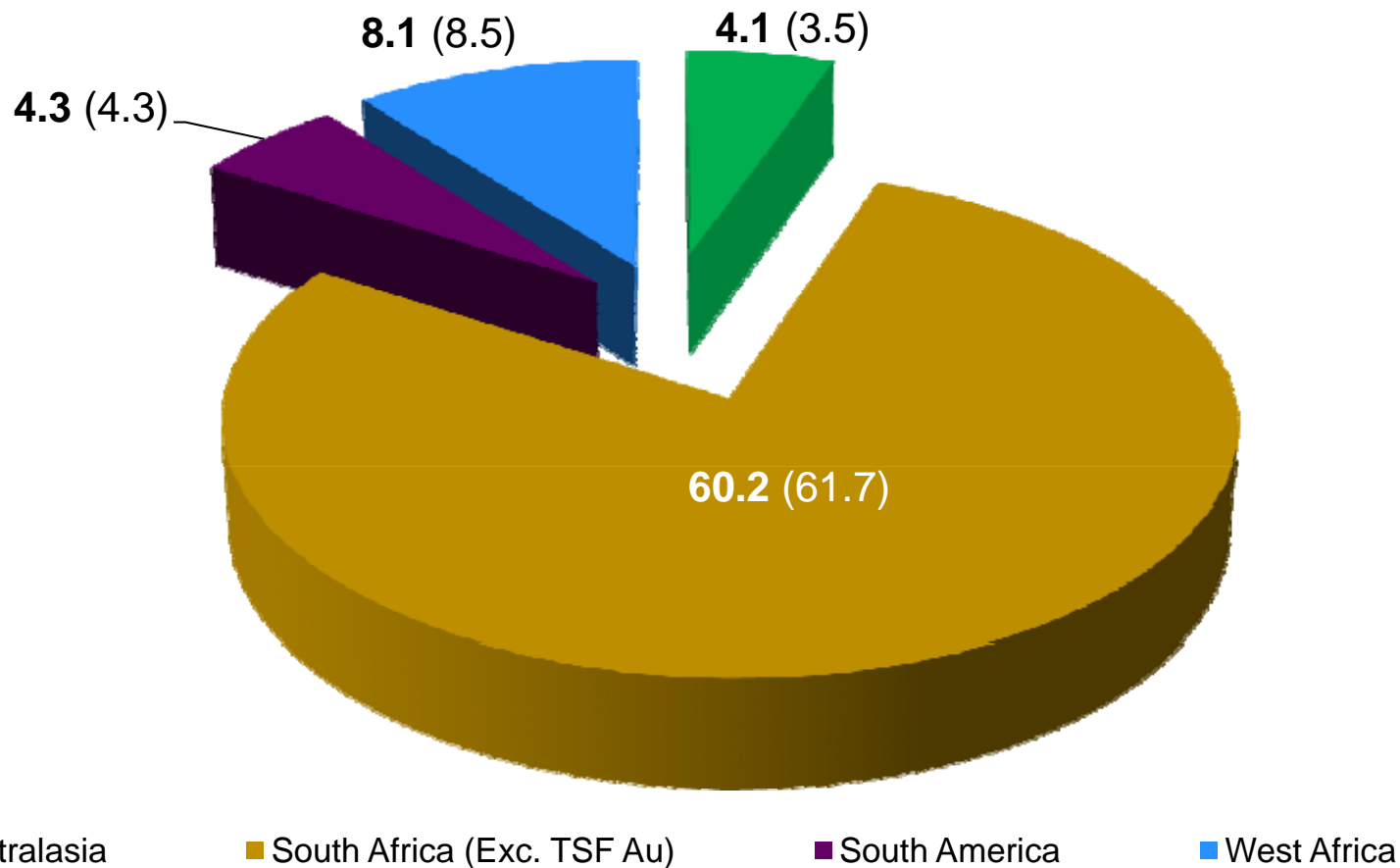
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## Mineral Resources by Region

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# Introduction

## Attributable Mineral Reserves (million Au-Eq oz)



*June 2010 figures are in brackets*



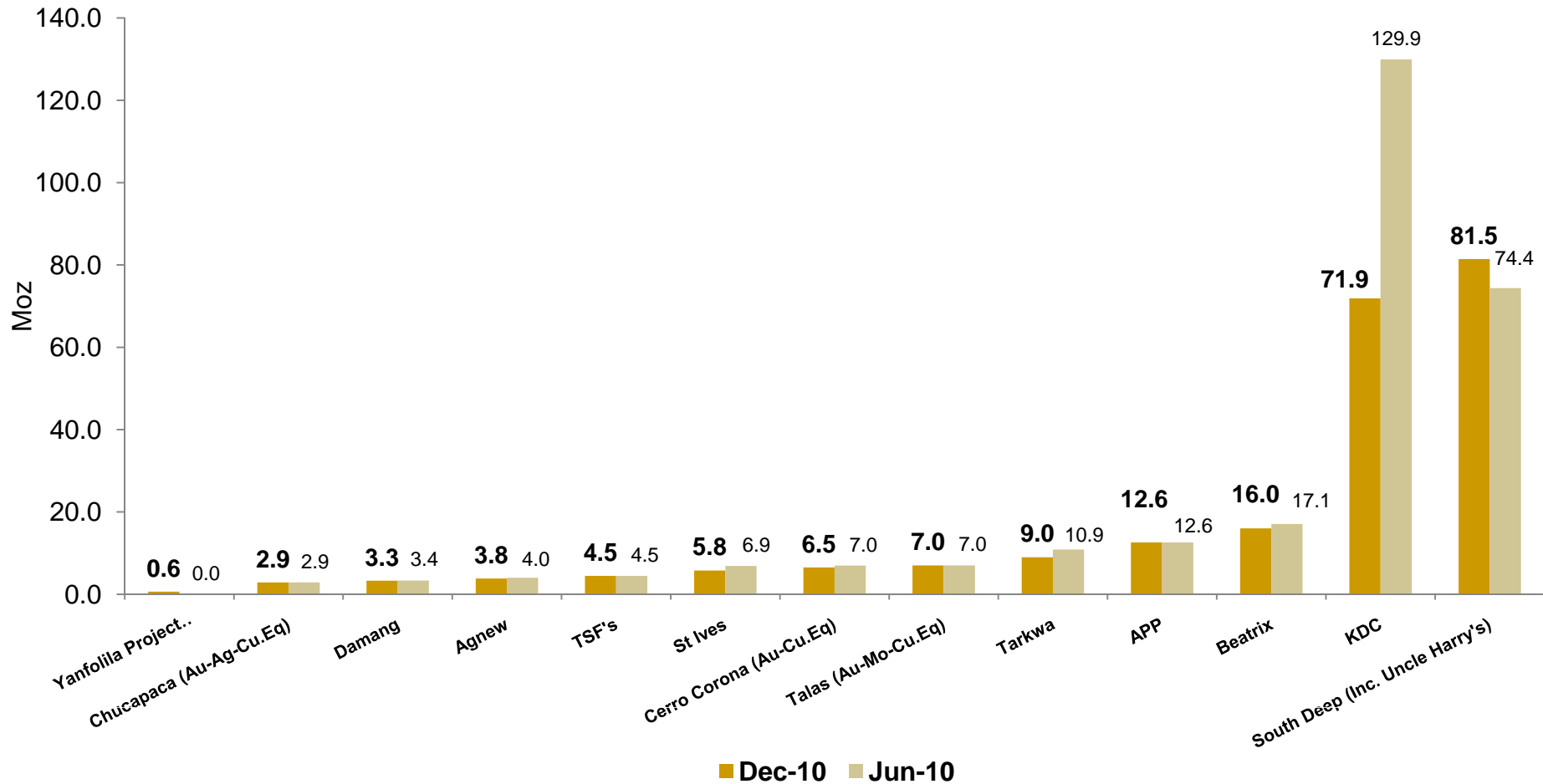
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## Mineral Reserves by Region



# Introduction

## Attributable Mineral Resource Ounces per Mine / Project



Note: excludes Uranium contained in TTP and underground



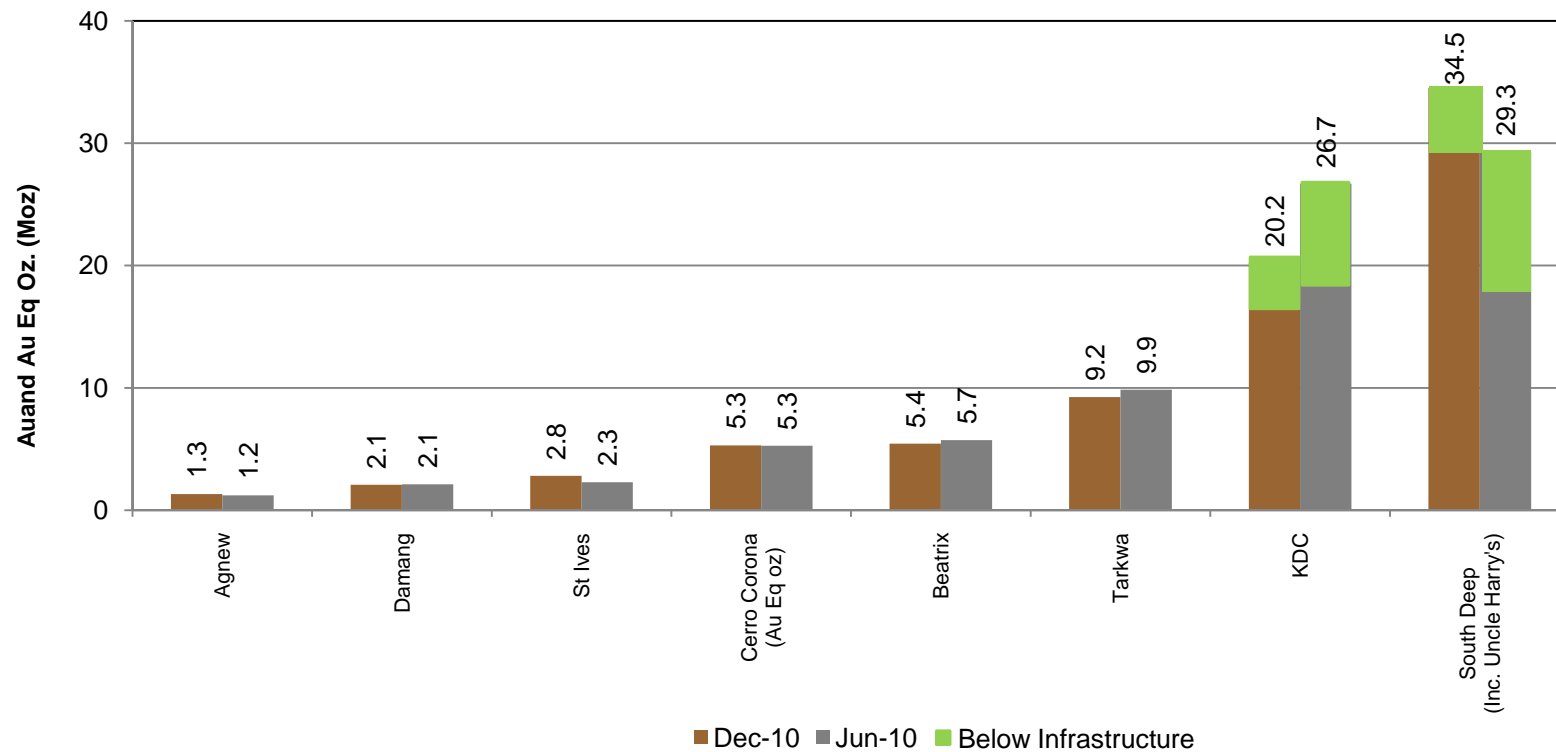
**GOLD FIELDS**

## June 2010 – December 2010 Mineral Resource Comparison

# Introduction

## Attributable Mineral Reserve Ounces per Mine / Project

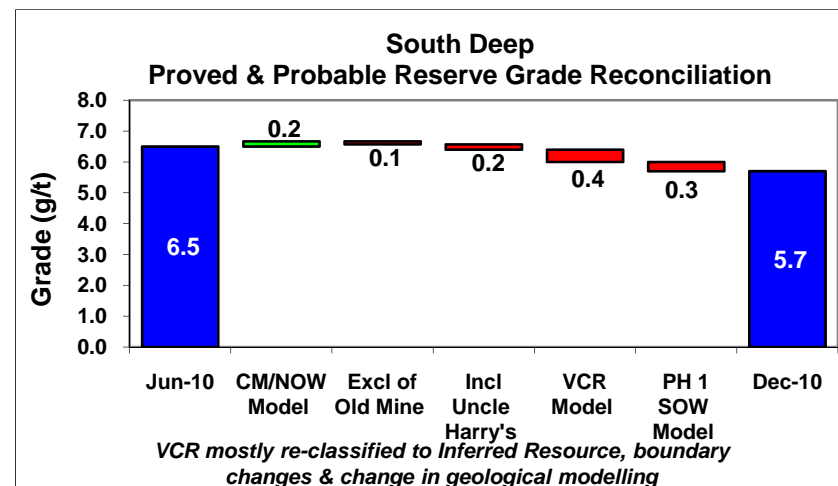
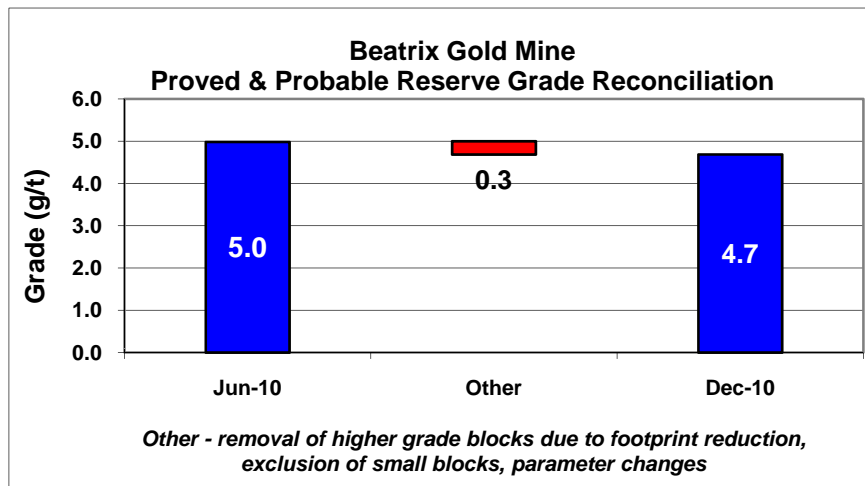
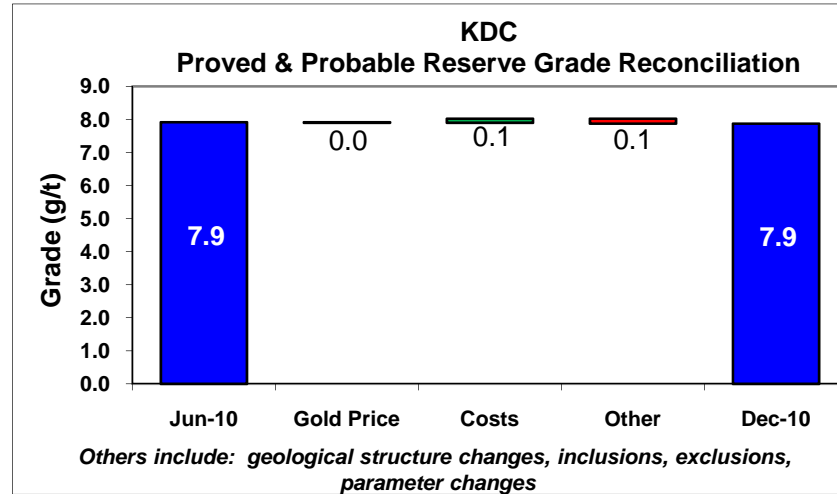
Managed Mineral Reserves



## June 2010 – December 2010 Mineral Reserve Comparison

# Introduction

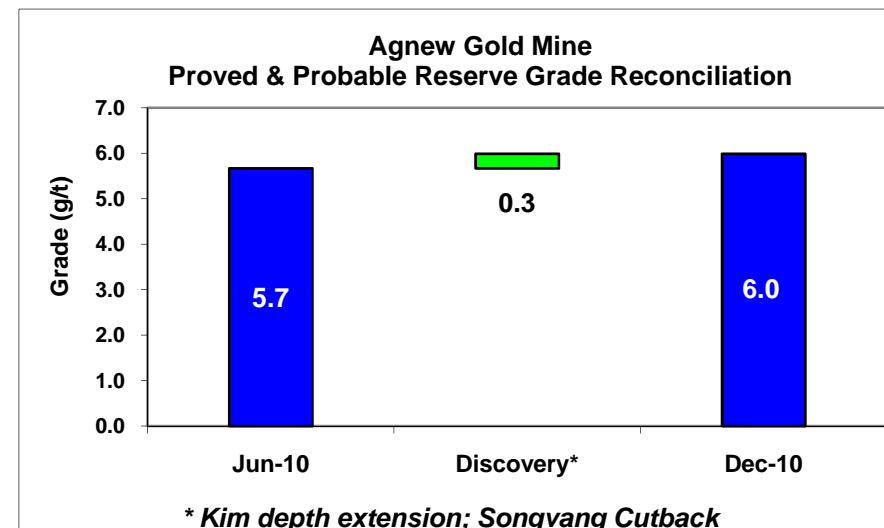
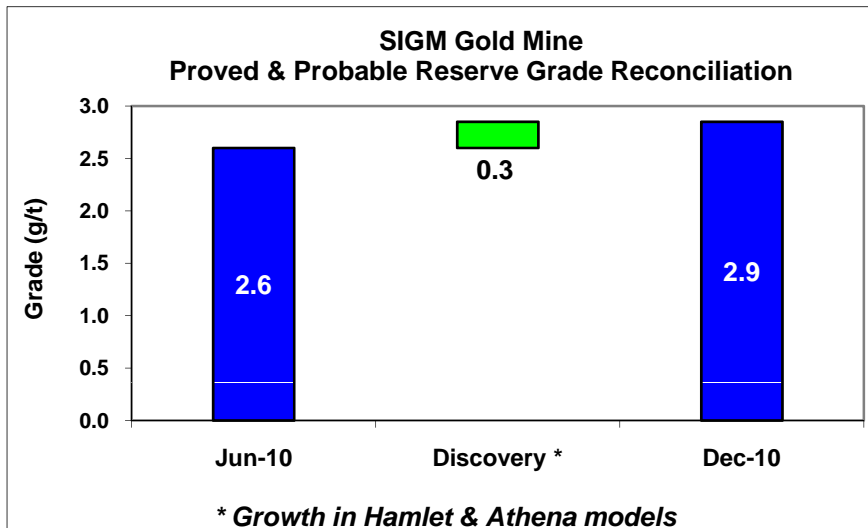
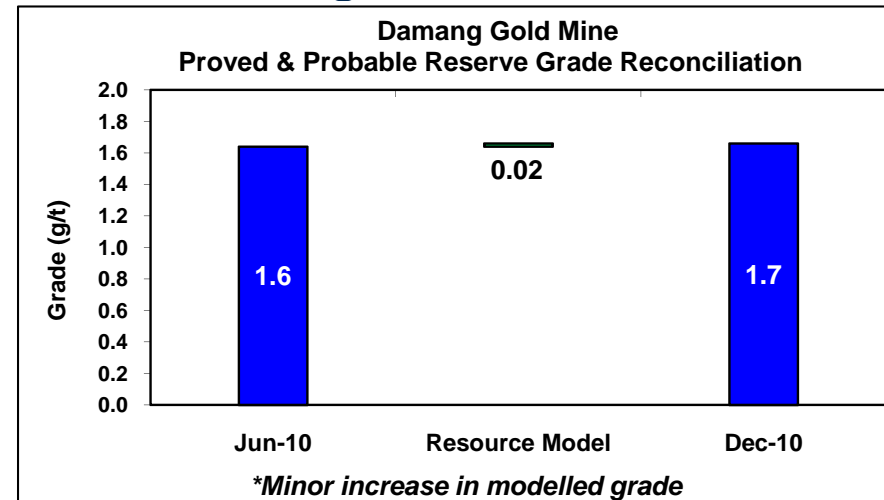
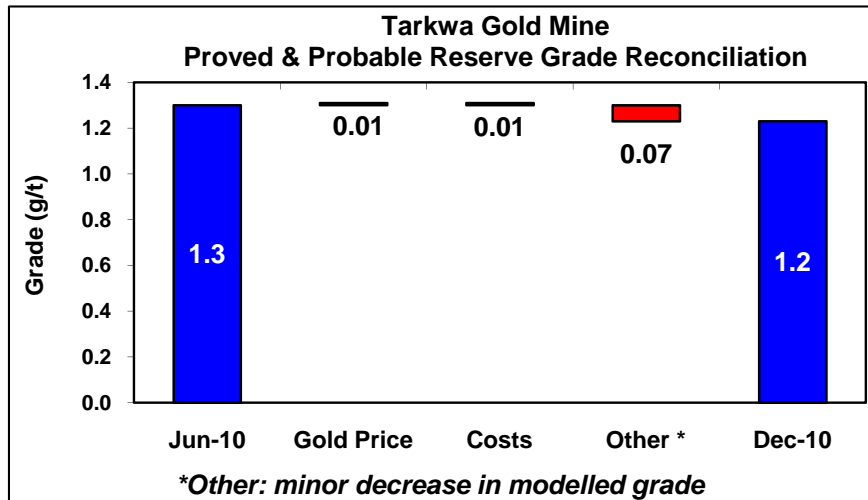
## Grade reconciliation – South Africa Region



**Above infrastructure figures – excludes surface rock dumps**

# Introduction

## Grade reconciliation – West Africa and Australasia Regions



Excludes surface stockpiles



# Australasia Region



## Overview

- Mineral Resources 88.6 Mt @ 3.4 g/t for 9.6 Moz
  - - 12% on ounces post depletion (-1.3 Moz)
- Mineral Reserves 39.6 Mt @ 3.3 g/t for 4.1 Moz
  - +18% on ounces post depletion (+0.6 Moz)
- St Ives - Mineral Resource pipeline developed with major growth at Hamlet and Neptune

## R & R Strategy

- Agnew - Main Lode depth extension and potential bulk mining options
- Fast track Mineral Resource to Mineral Reserve conversion – Hamlet, Athena, Open Pits
- Capital investment for Athena and Hamlet
- Near-mine pipeline development and exploration



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**Regional objective ~1 Moz per annum by 2015**

# Australasia Region



## Agnew

- Increase in Mineral Reserve of 8% post depletion since June 2010, LoM now till 2017
- Sub level caving to be explored as alternative mining method during 2011
- Songvang open pit cut back included in LoM
- Exploration for new near surface deposits ongoing
- Mineral Reserves increased by 599 koz since June 2009



## St Ives

- Mineral Reserves increased by 23% post depletion since June 2010, LoM now till 2017
- Mineral Reserves increased by 799 koz pre-depletion since June 2010
- Exploration drilling will be focussed on resource conversion and upgrading classification
- Targeting extensions at Cave Rock and Argo underground plus Leviathan open pit



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**Mine development at Athena continues ahead of schedule**

# South Africa Region



## Overview

- Mineral Resource (655.9 Mt @ 8.0 g/t for 169.3 Moz)
  - -25% change post depletion (-55.8 Moz)
- Mineral Reserve (330.5 Mt @ 5.7 g/t for 60.2 Moz)
  - -2% change post depletion (-1.5 Moz)
- Conversion to new order mining rights of all the SA Operations
- Enhanced in-house resource classification
- Accounts for 53% of GFI's current attributable gold output
- Designed and scheduled 100% of the declared Mineral Resource and Mineral Reserve at South Deep

## R & R Strategy

- Leverage commerciality of new Business Units (KDC)
- Complete Old Mine Resource Models (South Deep)
- Complete KDC D5 Shaft decline feasibility study
- Reduce surface footprint across the Region
- Accelerate Ore Reserve development for flexibility



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**Robust long life assets**

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# South Africa Region



## Beatrix

- Develop West Section as a higher grade steady state operation
- Reduce mining footprint (2 Shaft)
- Underground exploration to increase resource definition

## Kloof - Driefontein Complex (KDC)

- Change to in-house Mineral Resource classification major shift from Mineral Resource to Inventory (~30 Moz)
- New BU's to improve operational efficiencies and cost saving
- Pilot testing "Python" gravity plant (low grade milling plant)
- Long life quality asset (30 years)

## South Deep

- Uncle Harry's Prospecting Right converted and included into Mining Right (+5.7Moz)
- Exclusions: Old Mine (~1 Moz), VCR (~3.0 Moz)
- Long LoM (54 years)



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**“If we cannot mine safely, we will not mine”**



# South America Region (Cerro Corona)



## Overview

- Mineral Resources
  - 154.1 Mt for 8.1 Moz (Au-Eq) -0.55 Moz post depletion (-6%)
- Mineral Reserves
  - 86.3 Mt for 5.3 Moz (Au-Eq) +0.01 Moz post depletion (+0.3%)
- Tailings Storage Facility capacity increased from 94 Mt to 99 Mt



## R & R Strategy

- Feasibility study for oxide plant to be completed during 2011
- Alternatives to increase Tailings and Waste Storage Facility capacities are being investigated
- Phase 2 infill drilling campaign has commenced



**GOLD FIELDS**

**Regional target of ~1 Moz per annum by 2015**

# West Africa Region



## Overview

- Mineral Resource (342.7 Mt @ 1.6 g/t for 17.3 Moz)
  - -14% post depletion (-2.8 Moz)
- Mineral Reserve (275.8 Mt @ 1.3 g/t for 11.3 Moz)
  - -5% post depletion (-0.7 Moz)
- Tarkwa is Africa's largest open pit gold mine by production
- Increase of higher grade fresh ore via new secondary crusher at Damang

## R & R Strategy

- Greater Damang complex has potential to increase operational footprint
- Current focus is to maximise the NCE margin whilst growing production
- Tarkwa plans to upgrade it's 1 million tonne per month CIL plant – including the installation of a secondary crusher



**GOLD FIELDS**

**Regional target of ~1 Moz per annum by 2015**



# West Africa Region



## Damang

- Accelerated exploration programme to maintain pipeline of quality projects
- Current LoM extends to 2019 (9 years)
- 8% and 14% increase in Mineral Resource and Mineral Reserve respectively since June 2009 (18 months)
- Extensive capital strip programme to increase flexibility



## Tarkwa

- LoM to 2022 (12 years)
- 13% decrease in Mineral Reserves since June 2009 mostly due to depletion
- Robust long life Mineral Resource asset to anchor growth within the Region
- Installing larger crushers at the North Heap Leach facility



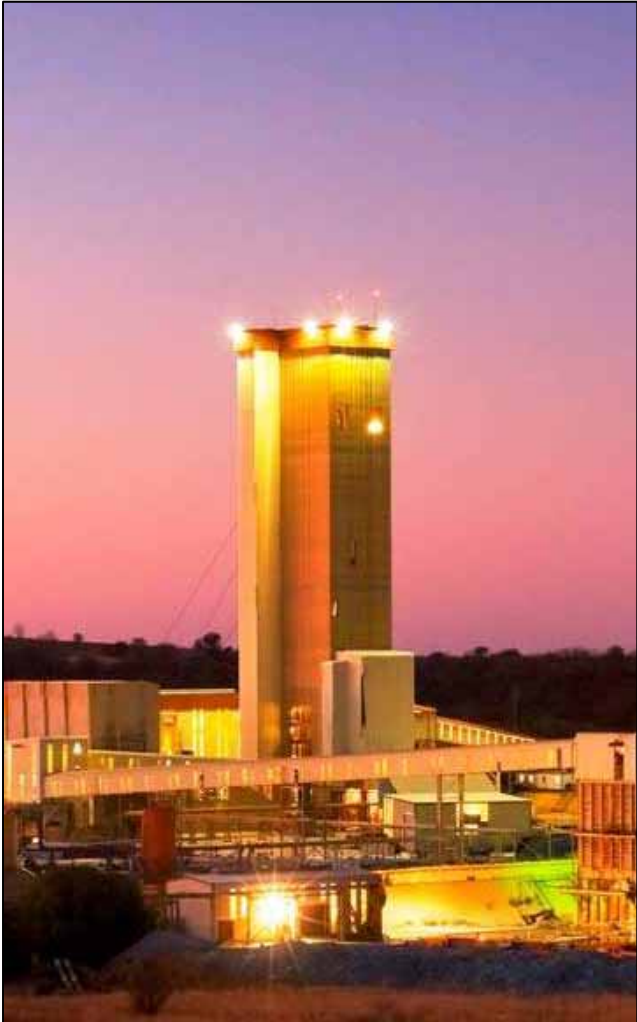
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**Attractive near-mine exploration targets at Damang**

# Group Overview

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## Conclusion



- Successful exploration resulted in increased Mineral Reserves (post-depletion) over 18 months at:
  - St Ives, Agnew, South Deep, Damang
- Overall a positive reporting period where Mineral Reserves increased marginally pre-depletion by 0.7 Moz
- Successful greenfields and near-mine exploration
- Strong potential future growth pipeline



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**Towards 5 million ounces**

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# Questions



To be the global leader in sustainable gold mining

14 April 2011



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