



"Cornerstone of an African Gold Business"

Corporate Presentation February 2010

www.chalicegold.com.au

### Snapshot

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- Key asset: 80%-owned Zara Gold Project,
   Eritrea (East Africa)
- Definitive Feasibility Study due mid-2010
- JORC resource 944,000oz @ 5.8g/t Au
- Targeting initial high-margin production of 110,000oz pa
- Forecast US\$424/oz cash operating costs
- Substantial exploration upside
- Extensive strategic footprint in emerging Arabian-Nubian gold & base metal province





#### Corporate



#### Snapshot

- Shares on issue 137.4M
- Options on Issue 10.075M
- Cash (Dec'09) \$7.3M

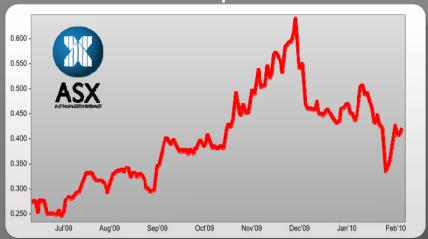
#### Board

- Tim Goyder (Executive Chairman)
- Dr Doug Jones (Managing Director)
- Mike Griffiths (Executive Director)
- Anthony Kiernan (Non-Executive Director)

#### Substantial Shareholders

- Tim Goyder 14.5%
- Anvil Mining6.1%

#### 6 month share price





#### Zara - Project Location

- Emerging gold & base metal province
- Gold endowment >20Moz numerous deposits and mines dating back to ancient times
- Minimal modern exploration
- New world-class projects being developed:
  - 13Moz Sukari Gold Mine (Egypt) in production (Centamin)
  - Bisha Gold & Base Metal Mine (Eritrea), 1Moz gold, 750Mlbs copper, 1Blbs zinc, 9Moz silver – under construction (Nevsun)



# Zara – Project Location



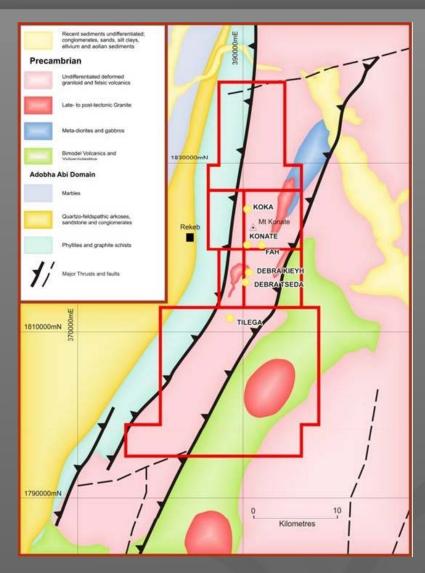




## Zara Project – Regional Setting

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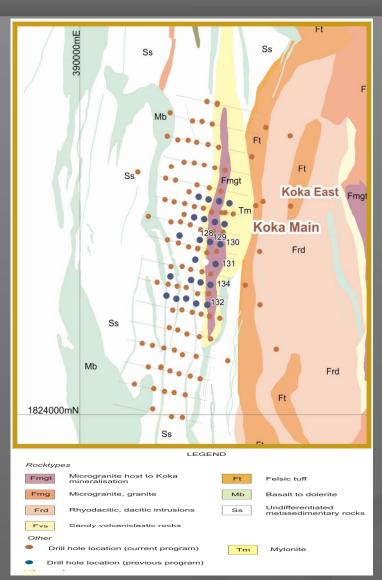
- Major regional structural corridor controls gold occurrences
- Granted tenements cover 50km strike on this corridor (~600km²)
- Numerous prospects identified from artisanal gold workings
- Koka Deposit has been main focus of exploration to date



### **Koka Gold Deposit**

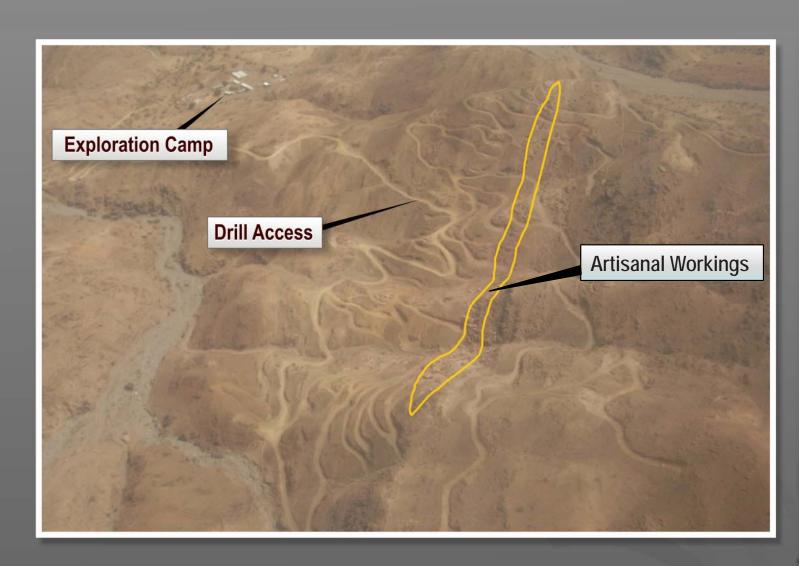
- JORC compliant resource of 5.04Mt
   @ 5.8 g/t Au for 944,000oz
- Based on results from 109 diamond drill holes (~18,000m drilled)
- 600m strike length, 20-30m wide and open at depth
- Only drilled to 250m below surface
- Bulk of resource shallower than
   150m

Category	Lower grade cut- off (g/t)	Tonnes (Mt)	Gold (g/t)	Metal (Koz)
Indicated	1.2	4.55	5.9	867
Inferred	1.2	0.49	4.9	77
TOTAL	1.2	5.04	5.8	944



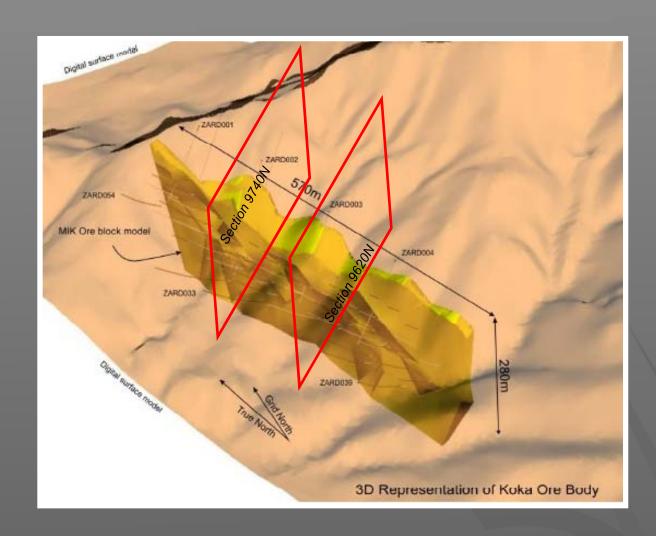
## Koka Gold Deposit – Looking North



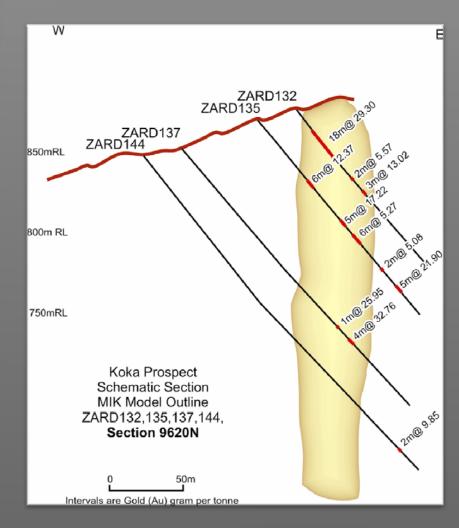


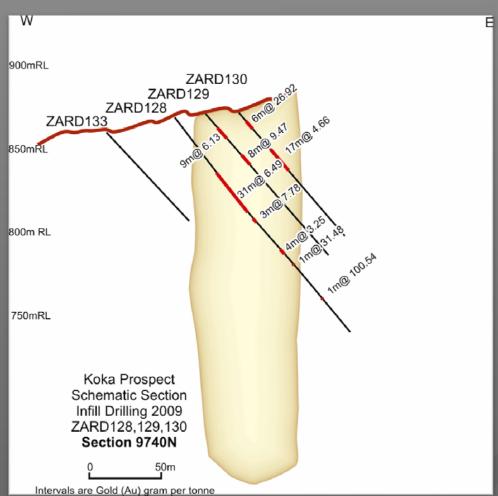
## Koka Gold Deposit – 3D Model





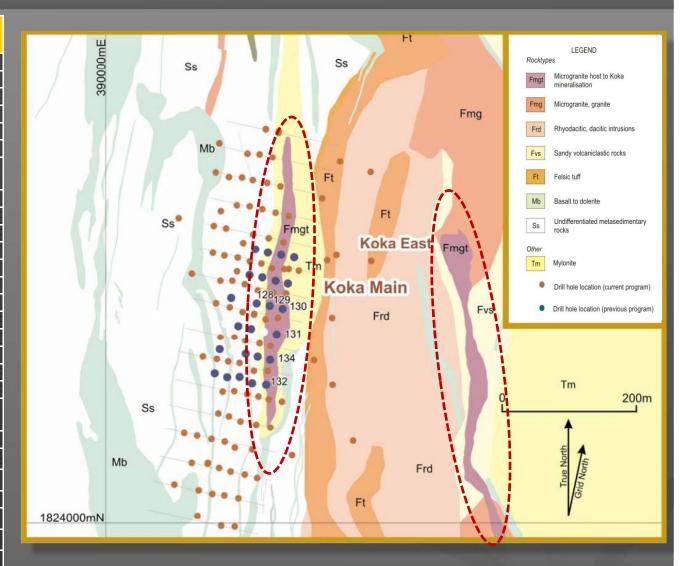
## Koka Gold Deposit - Cross Sections Recent Drilling





Koka Gold Deposit – In-fill Drilling	<b>J</b>

Hole	From (m)	To (m)	Interval (m)	Gold (g/t)
ZARD128	44	75	31	6.48
including	44	46	2	38.22
including	52	55	3	18.68
	79	82	3	7.78
	104	108	4	3.25
	116	117	1	31.48
	143	144	1	100.5 4
ZARD 129	10	19	9	6.13
	32	40	8	9.47
ZARD 130	6	12	6	26.92
	<sup>+++</sup> 29 <sup>+++</sup>	46	17	4.66
ZARD 131	17	20	4	5.15
	23	29	6	3.17
	42	53	11	4.68
	68	69	1	11.02
	,,,90,,,,	92	2	27.78
ZARD 132	9	27	18	29.30
including	9	11	2	49.14
including	14	15	1	71.28
including	18	19	1	188.2 5
including	24	27	3	45.15
	41	43	2	5.57
	50	53	3	13.02
ZARD 134	5.70	12	6.30	9.93
	23	24	1	21.70
	38	39	1	20.25
	45	56	11	8.29



### Koka Gold Deposit – Mineralisation





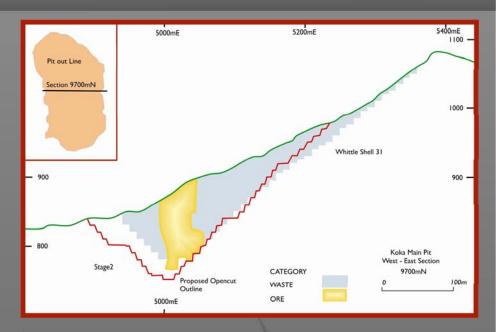
- Quartz-carbonate-sulphide stockwork veins cutting microgranite – similar in style to Sukari gold mineralisation
- Visible gold & high gold values associated with sulphides in quartz-carbonate veins
- Sulphides overall less than 2% no impact on metallurgy free milling

### Koka Gold Deposit – Metallurgy

- Metallurgical testwork at AMMTEC Perth completed
- Laboratory master composite prepared from 104 intervals representative of deposit
- Initial test work indicates ore is metallurgically benign:
  - ~60% of gold recoverable by gravity
  - Overall recoveries 95-97% for grind sizes of 80% passing 150 to 75μ respectively
  - Low reagent consumptions <0.5 kg/t for both lime and cyanide
  - Ore has medium competency Bond Work Index (15-18kWhrs/t)
  - Abrasion index of 0.3
- Allows simple processing route conventional ball mill followed by gravity and CIL recovery

## Scoping Study – Key Parameters

Parameter			
Average gold production	~110,000 oz per annum		
Life of mine	~ 6 years		
Total capital costs	US\$97.8 million		
Total cash costs	US\$424 per oz		
Total gold mined	712,000 oz		
Gold recoveries	95%		
Gold produced	677,000 oz		
Plant capacity	500,000 tpa		
Mining costs	US\$241 per oz		
Processing costs	US\$169 per oz		
G&A costs	US\$14 per oz		
Total mined	45.3 million tonnes		
Ore milled	3.4 million tonnes		
Strip ratio	12.4		

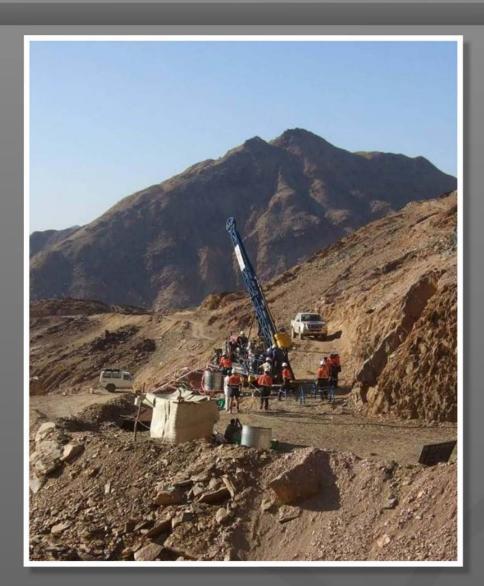




#### **Development Program**



- Lycopodium to complete
   Feasibility Study by mid-2010:
  - 5,000m of diamond drilling to upgrade resource completed
  - Hydrological drilling initial holes indicate adequate water supply
  - Metallurgical test work complete
  - Geotech drilling completed
  - Socio-economic studies & EIS ongoing
- 2,500m of exploration drilling planned on currently identified 'near-mine' targets
- Expanded regional exploration

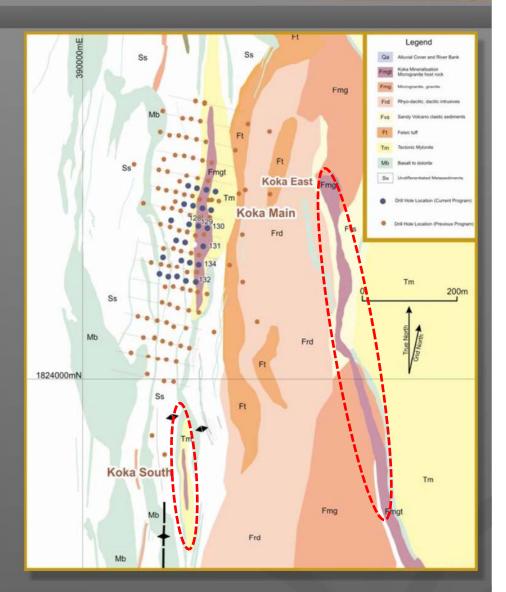


### Koka Exploration – Near Mine

90LD 9

- Exploration to date has focused on Koka Main Zone

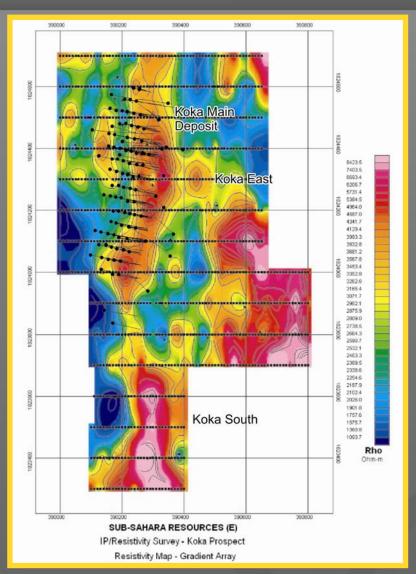
   very little drilling outside this target
- Other targets identified in immediate vicinity include:
  - Koka South Extension –
     IP resistivity anomaly
  - Koka East artisanal workings on high-grade quartz veins



#### **Koka South**

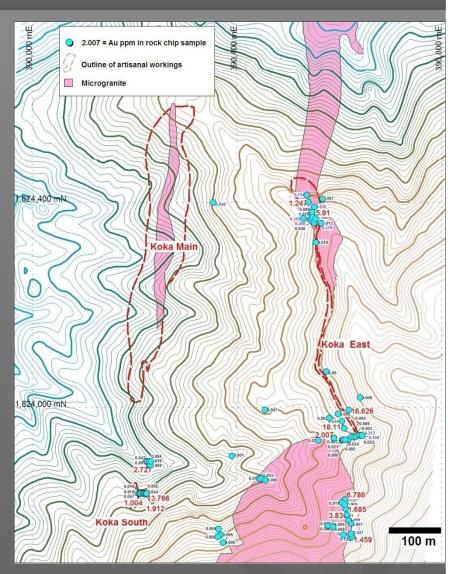
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- Strong IP resistivity anomaly identified 500m to the south of Koka
- Ground follow-up confirmed zone of silicasericite altered microgranite
- Limited drilling confirmed Koka-style mineralization up to 92g/t over 1m
- Potential 'blind' system open down plunge to south



#### Koka East

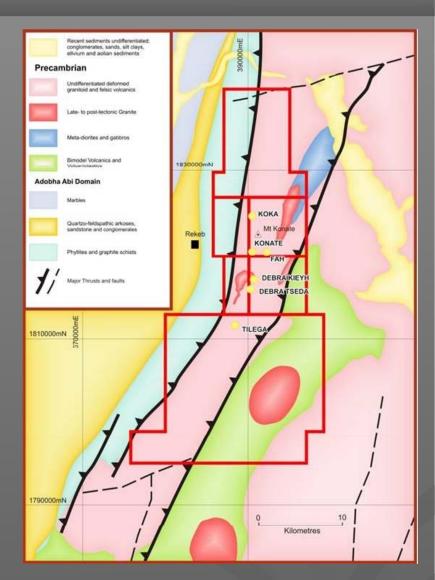
- Hangingwall of Koka Main Zone
- Artisanal workings and prospecting pits over 500m strike
- Koka-style alteration and quartz stockwork mineralisation in microgranite
- Outcrops over 50m width with rock chip samples up to 18 g/t
- Very little sampling to date
- First-pass drilling recently commenced



## Zara Project – Regional Potential

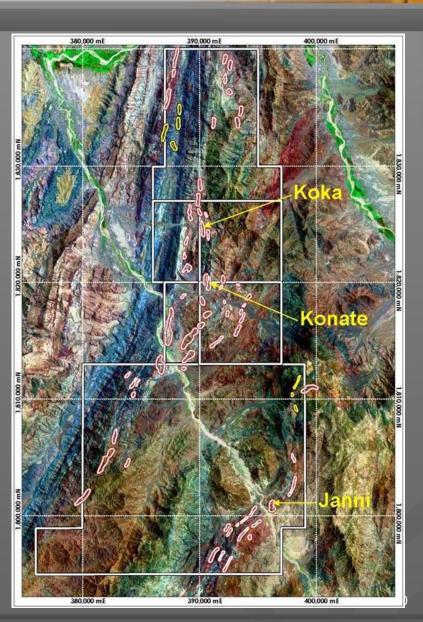
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- No exploration in district before
   1998 when Koka was discovered
- Koka geological setting extends throughout ~600km² tenement block
- Numerous prospects identified from artisanal gold workings
- Drainage BLEG geochemical anomalies identified – to be followed up
- Initial Landsat interpretation completed



### **Landsat Interpretation**

- Study covered ~38,000km²
- ~60 new targets identified within 615km² CHN tenement block
- Both gold (Koka-type) & VHMS (Bisha-type) base metal targets identified
- Field work has already validated some of the targets on the ground
- Regional structural interpretation underway to rank & prioritise targets
- Applications lodged for additional ground

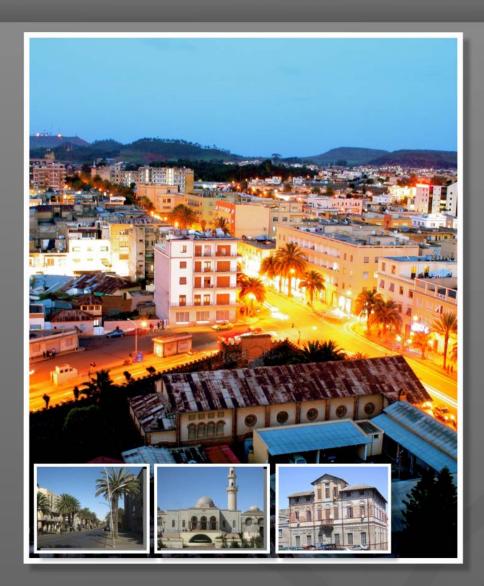


#### **Eritrea Overview**





- Stable operating and social environment
- Proactive Government stance on mining developments – "open for business"
- Modern Mining Code
- Increasing foreign exploration
   & mining investment 13
   groups now active in country



#### Summary

- Focused growth strategy via development of high-grade Koka Gold Deposit
- Targeting near-term production of ~110,000oz pa from current ~1Moz resource
- Feasibility Study due mid-2010
- Strategic ground position in emerging gold
   & base metal province
- Aggressive exploration programs underway to expand resource base
- Experienced Board and Management with extensive expertise in African gold sector





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- For further information about Chalice Gold Mines Limited, visit the website at www.chalicegold.com
- The information in this report that relates to Exploration Results is based on information compiled by Dr Doug Jones, a full-time employee and Director of Chalice Gold Mines Limited, who is a Member of the Australasian Institute of Mining and Metallurgy and is a Chartered Professional Geologist. Dr Jones has sufficient experience in the field of activity being reported to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, and consents to the release of information in the form and context in which it appears here.
- The Independent Resource Estimate for the Koka deposit was prepared by Mr Brian Wolfe whilst employed as a Specialist Resource Geologist for Coffey Mining Pty Ltd. Mr Wolfe, who is a Member of the Australasian Institute of Mining and Metallurgy, has sufficient experience in the field of Resource Estimation to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves, and consents to the release of information in the form and context in which it appears here.





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