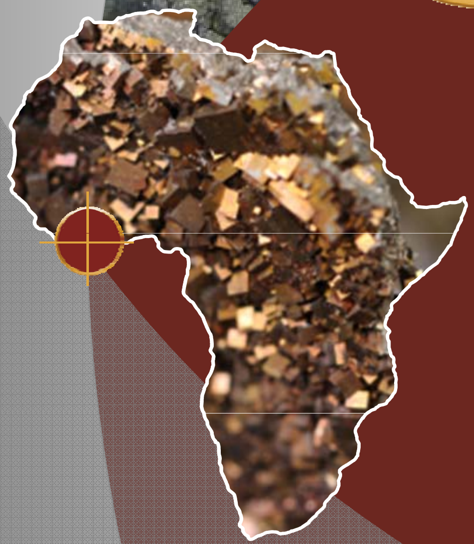
Perseus Mining Limited

ASX/TSX: PRU www.perseusmining.com



Emerging Gold Producer

Africa Down Under

September 2010

Mark Calderwood

Managing Director

Competent Person’s Statement

Information in this presentation that relates to exploration results, mineral resources or ore reserves is based on information compiled by Mr Mark Calderwood, who is a Member of The Australasian Institute of Mining and Metallurgy. Mr Calderwood is a Director and full-time employee of the Company. Mr Calderwood has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’ and as a Qualified Person for the purposes of National Instrument 43-101 of the Canadian Securities Administrators. Mr Calderwood consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

Forward-Looking Statement

Statements in this presentation regarding the Company’s plans with respect to its mineral properties are or may be forward-looking statements. There can be no assurance that the plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that the Company will be able to convert Inferred resources to Indicated resources or Indicated resources to Measured resources, that any mineralisation will prove to be economic, or that a mine will successfully be developed on any of the Company’s mineral properties.

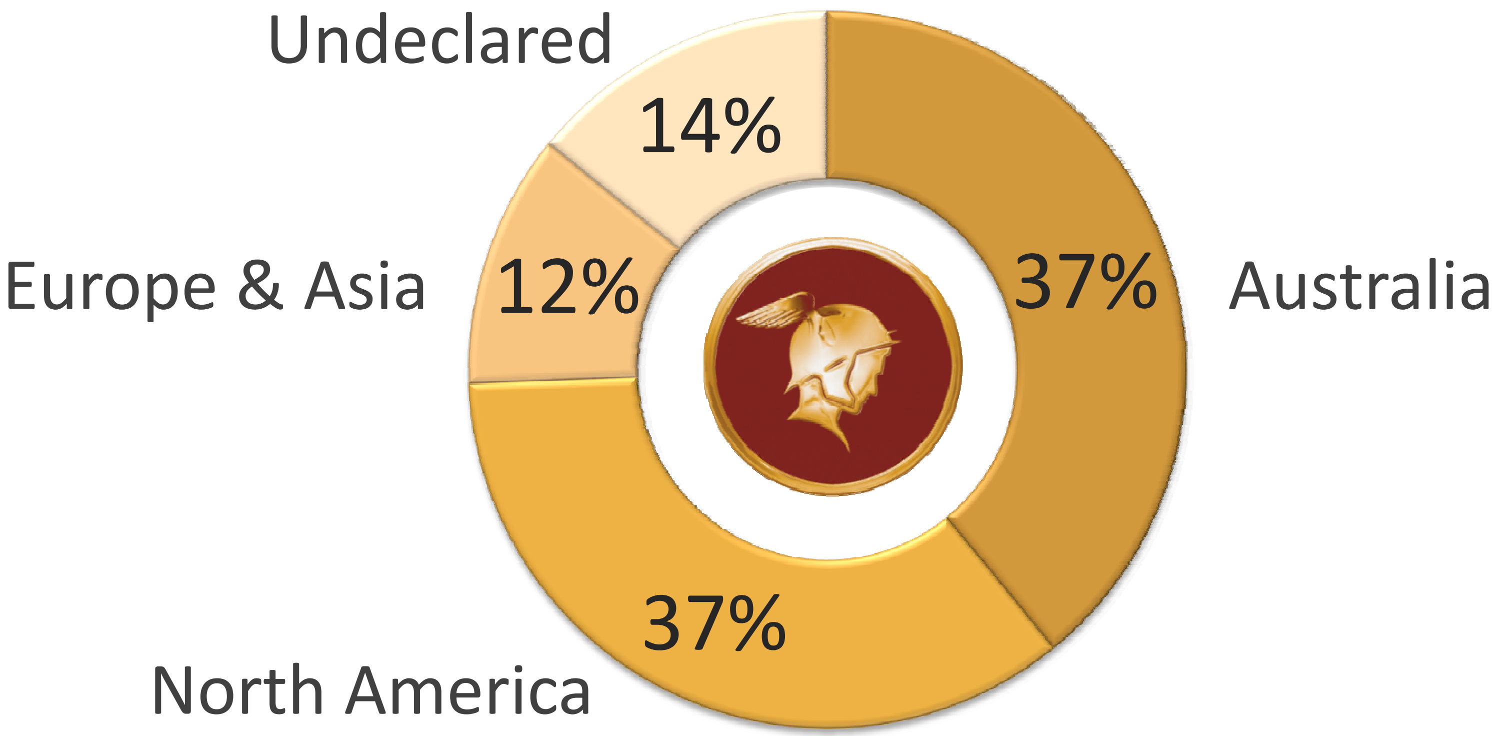
PRU Snapshot

Capital Structure

Ordinary Shares (PRU)	421.3M
Unlisted Options (avg. $1.33)	8.8M
Market capitalisation ($2.60 undiluted)	A$1,095M
Net Cash June 30 2010	A$186M
CAGP Capex to June 30 2010	US$48.5M
Finance Facility (undrawn)	US$85M

PRU Snapshot

Share holding geographically



Introduction

“West African emerging gold producer”

2.1Moz
in Reserves (55.5Mt at 1.2g/t)

\+

2.1Moz
in M&I Resources (52.2Mt at1.3g/t)

\+

3.0Moz
in Inferred Resources (92.7Mt at 1.0g/t)

Introduction

Mission

Significant gold producer by 2012
(>200koz/ann)

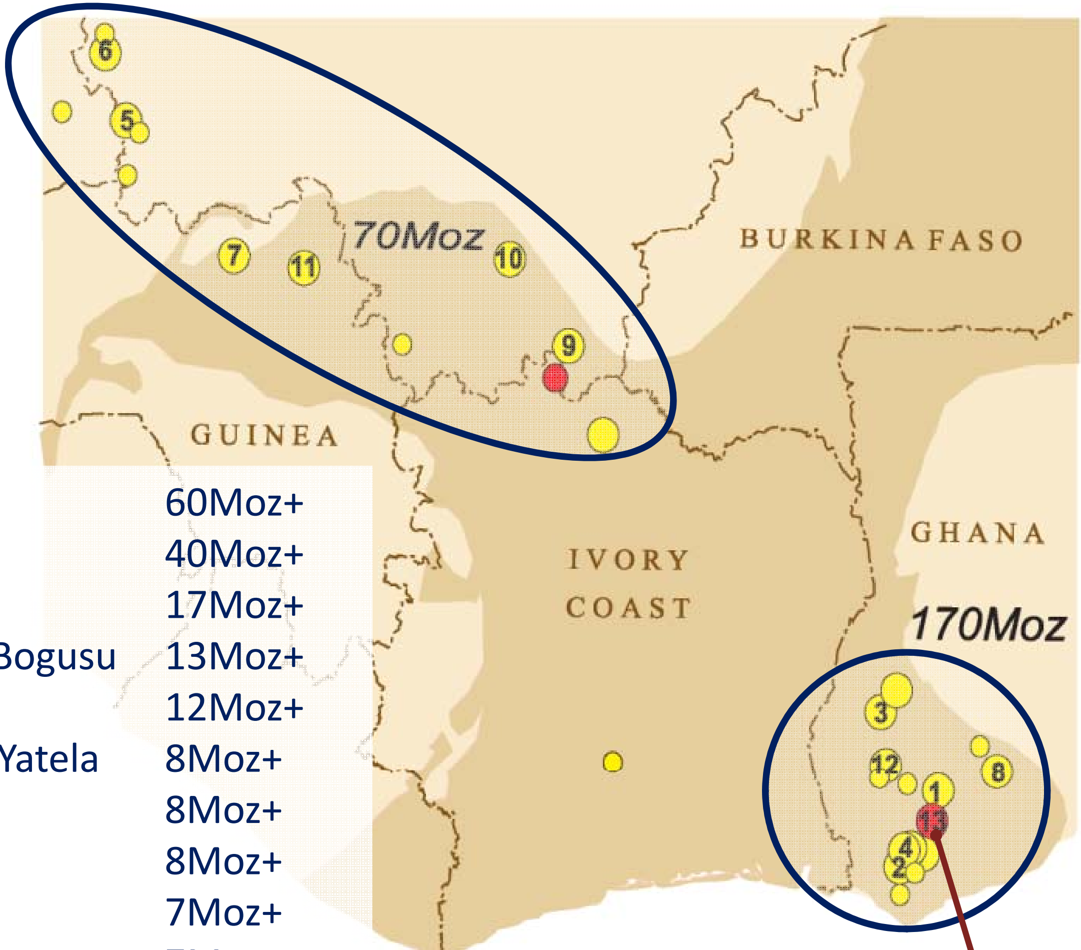
Multi-mine gold producer by 2013
(>400koz/ann)

Strategy

Active phased mine development

Continued rapid reserve/resource growth

"Elephant Country"



1.	Obusai	60Moz+
2.	Tarkwa	40Moz+
3.	Ahafo	17Moz+
4.	Prestia-Bogusu	13Moz+
5.	Loulo	12Moz+
6.	Sadiola-Yatela	8Moz+
7.	Lero	8Moz+
8.	Akyem	8Moz+
9.	Syama	7Moz+
10.	Morila	7Moz+
11.	Siguiri	7Moz+
12.	Bibiani	7Moz+

13. CAGP-Ayanfuri : 5Moz+

“Elephant Country”

15 new gold mines in 5 years

2005

Loulo	370k
Chirano	170k
Wassa CIL	

2006

Ahafo	520k
Gluelb	85k

2007

Taparko	100k
Tasiast	230k

2008

Mana	130k
Bonikro	140k
Youga	70k
Hwini-Butre	160k

2009

Syama	250k
Tabakoto	100k
Kalsaka	60k
Sabodala	160k

2010

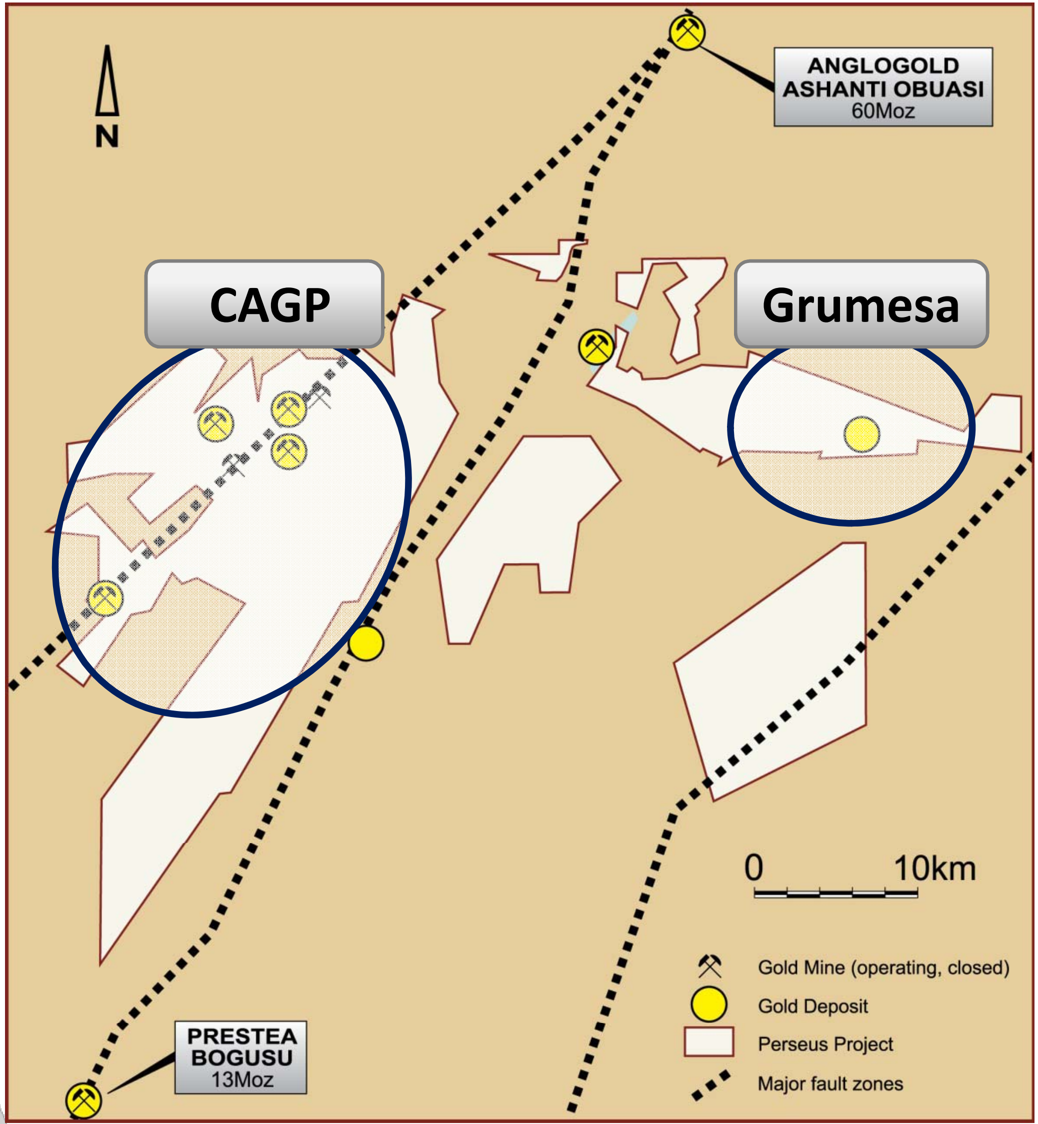
Tongon	265k
Essakane	320k
Inata	100k

2011+

Pipeline

Nzema	120koz
CAGP	200koz
Akyem	500koz
Tengrela	?
Gounkoto	?
Agbaou	?
OJVG	?
Massawa	?
Esaase	?
Wa	?

Perseus Ghana: Ashanti Belt Projects



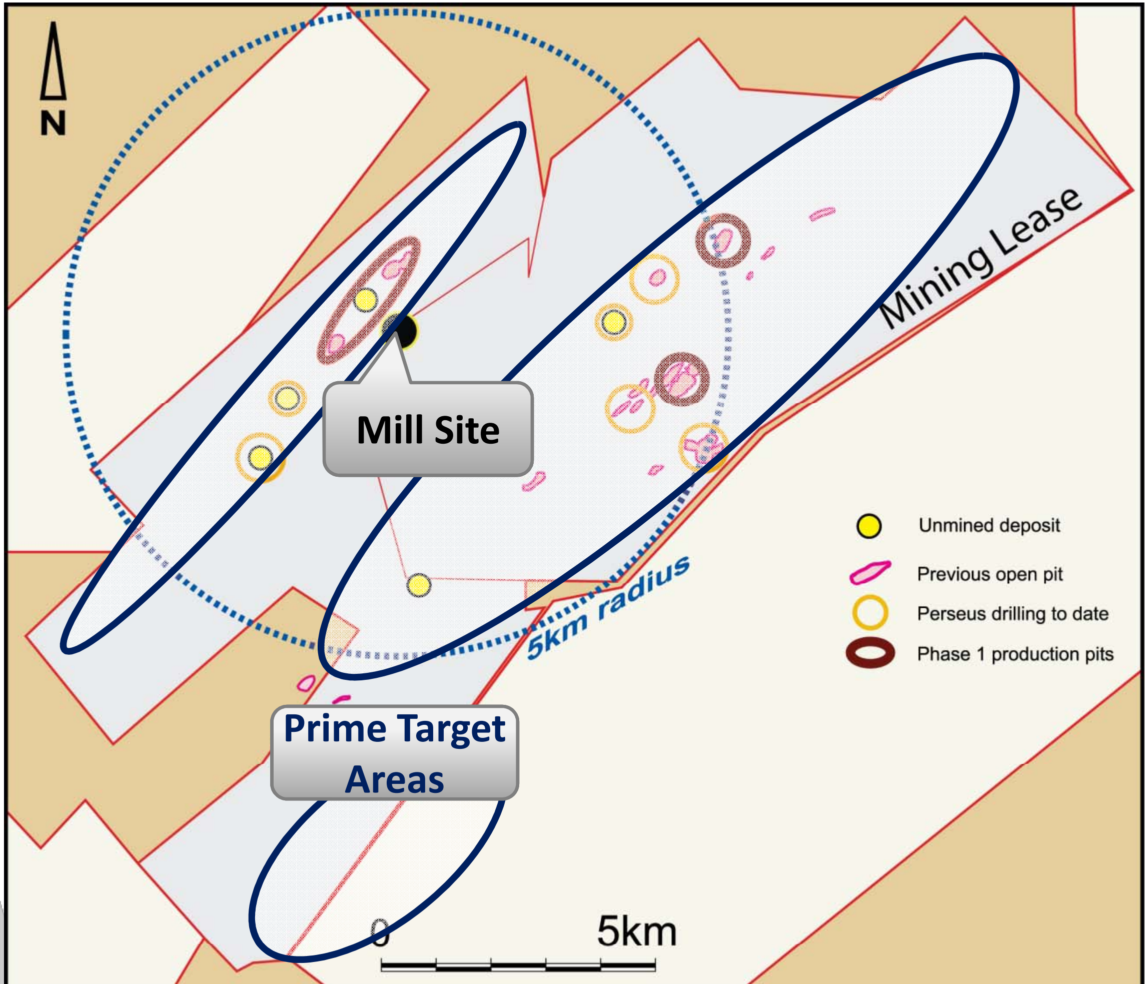
CAGP

M&I	3.2Moz incl;
Proven & Prob.	2.1Moz
Inferred	2.1Moz
Next update Q4 2010	

Grumesa

M&I	0.2Moz
Next update Q4 2010	

CAGP (Ayanfuri)



Targets

Reserves

✓	2009	2Moz
	2010	3Moz
	2011	4Moz

Production

Phase 1: 2011
+200,000ozpa

Phase 2: 2013
+300,000ozpa

Exploration

1 discovery p.a.

Key Parameters of CAGP Feasibility

Gold Production (Phase 1 only)

Year 1	230,000 oz
Reserves P&P	2.14 Moz

Earnings Capability (EBITDA)	**First 3 years**	**Total 10 years**
@ US$850/oz	US $334M	US $758M
@ US$1,200/oz	US $500M	US $1,295M

Capital and Operating Costs

Initial Capital Cost	US$160M (incl. larger mill equipment)
Plant Capacity	5.5 million tpa
IRR (at US$1,050)	80%
Cash Operating Cost	US$409/oz (Year 1) US$512/oz (10 years) (incl. 5% Royalty)

Definitive Feasibility Study 2009

Key Parameters of CAGP Feasibility

Timing

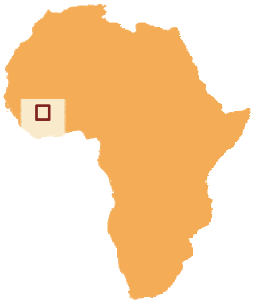
Construction start	Q2 2010
Gold Production	Q3 2011
Payback	1yr 8mths (at US$850), 1yr 1mths (at US$1,050)
IRR	60% (at US$850), 80% (at US$1,050)

* Including hedging of 170koz at $1,241

CAGP Construction

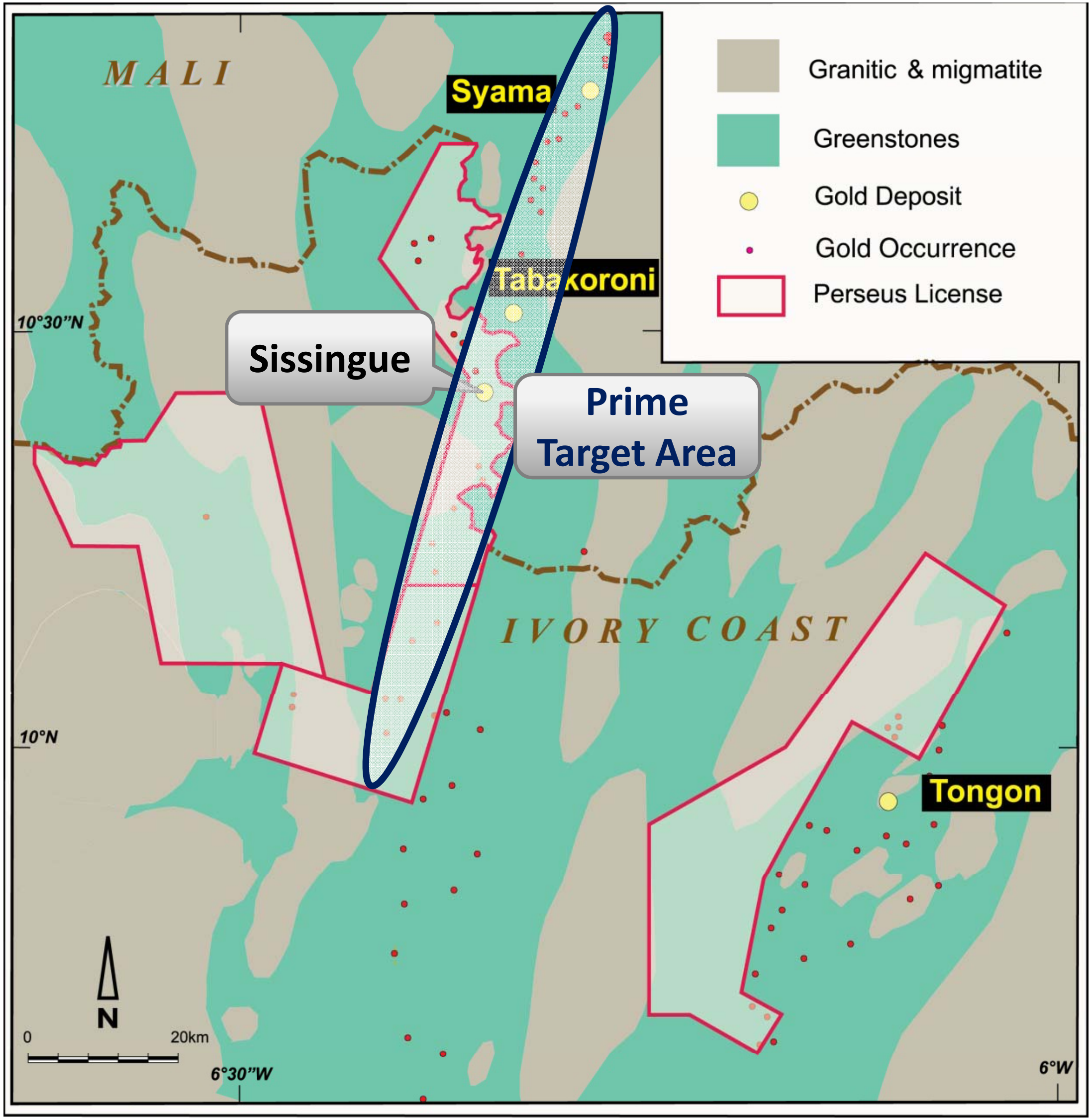
CAGP Construction

Perseus Ivory Coast



Sissingue

M&I	0.9Moz (15.2Mt)
Inferred	0.3Moz



Grade - Sissingue

Intercepts >400 Au gm (Past 12 months)	**Au gm x m**
6m at 476g/t	2,856
8m at 325g/t plus 36m* at 3.1g/t	2,712
6m at 429g/t plus 18m at 7.5g/t	2,709
22m at 72.1g/t	1,586
68m* at 21.3g/t	1,448
26m at 19.5g/t plus 18m at 4.9g/t	595
8m at 65.7g/t	526
110m* at 4.0g/t	440
14m at 28.7g/t	402

Growth - Ivory Coast

Targets

Reserves

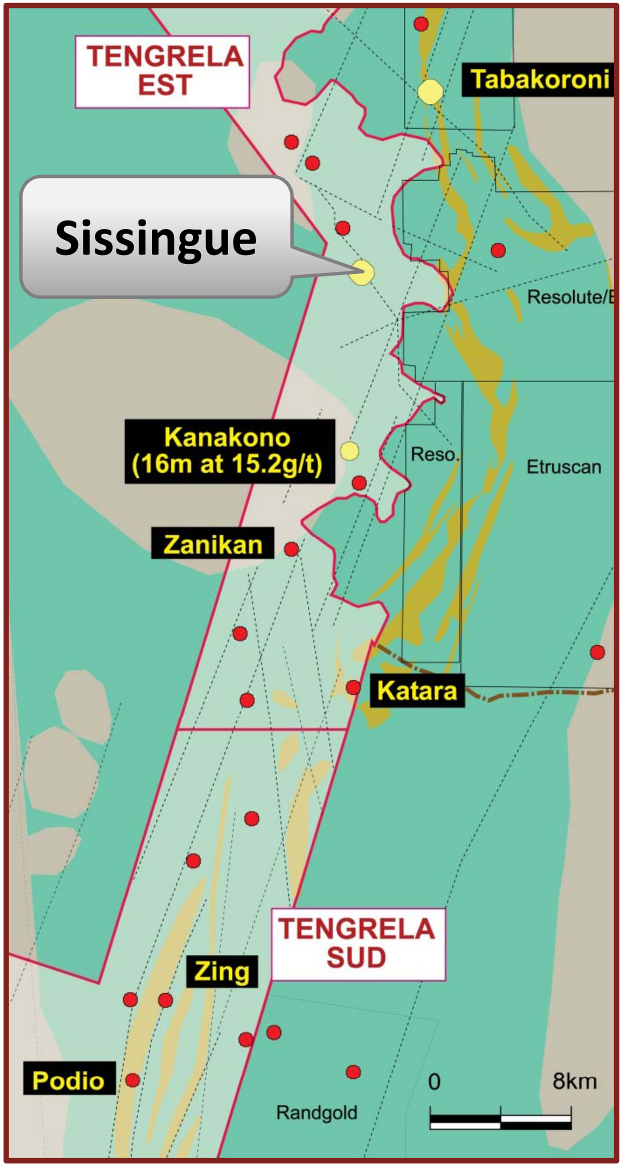
2010	0.7Moz
2012	1.5Moz

Production

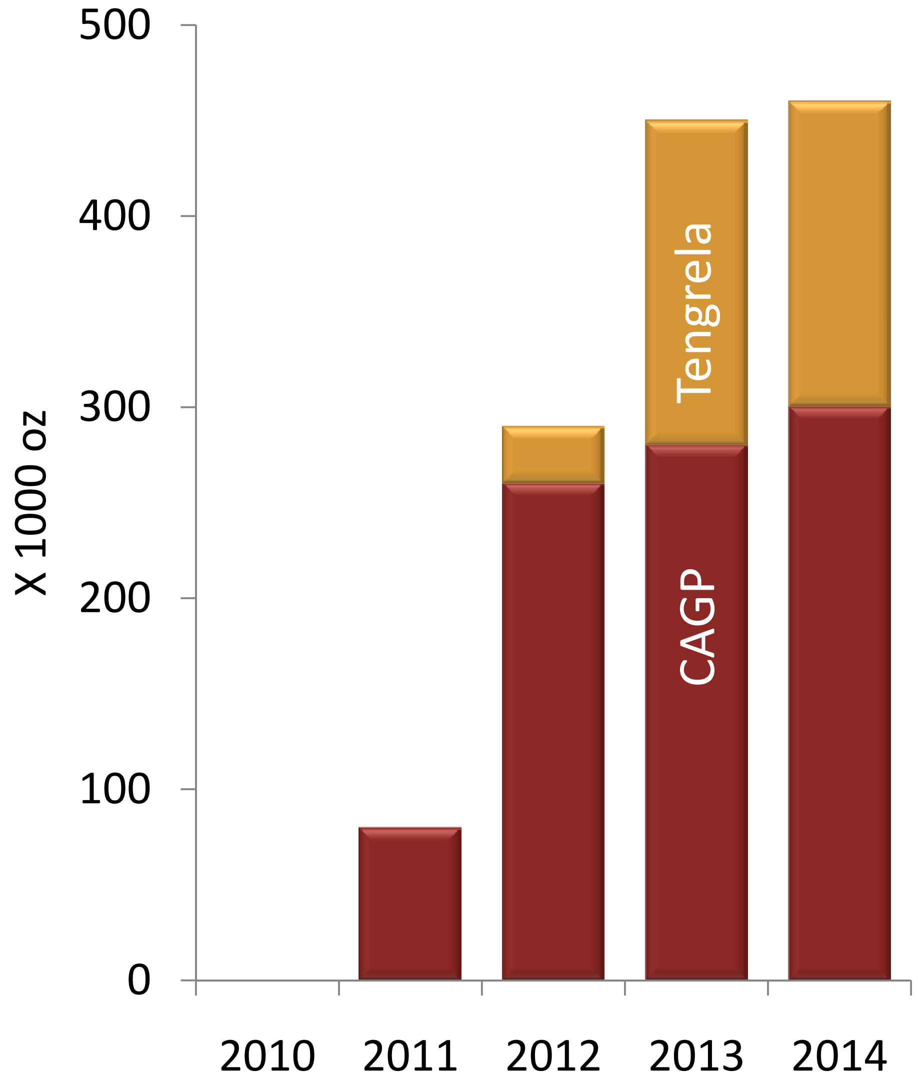
Phase 1: Q4 2012
>150,000ozpa

Exploration

New Discoveries



Production Strategy



Cash cost & capex targets

2011-12	US$520/oz
2013-15	US$450/oz
Capex*	US$100/oz

* total start up and sustaining capital

News Flow 2010

Drilling 25,000m/month

DFS and Reserve for Tengrela (Oct 2010)

CAGP Construction updates

CAGP Reserve updates (Sep-Dec 2010)

Value and Growth

Rapid resource/reserve growth

Near term production + growth

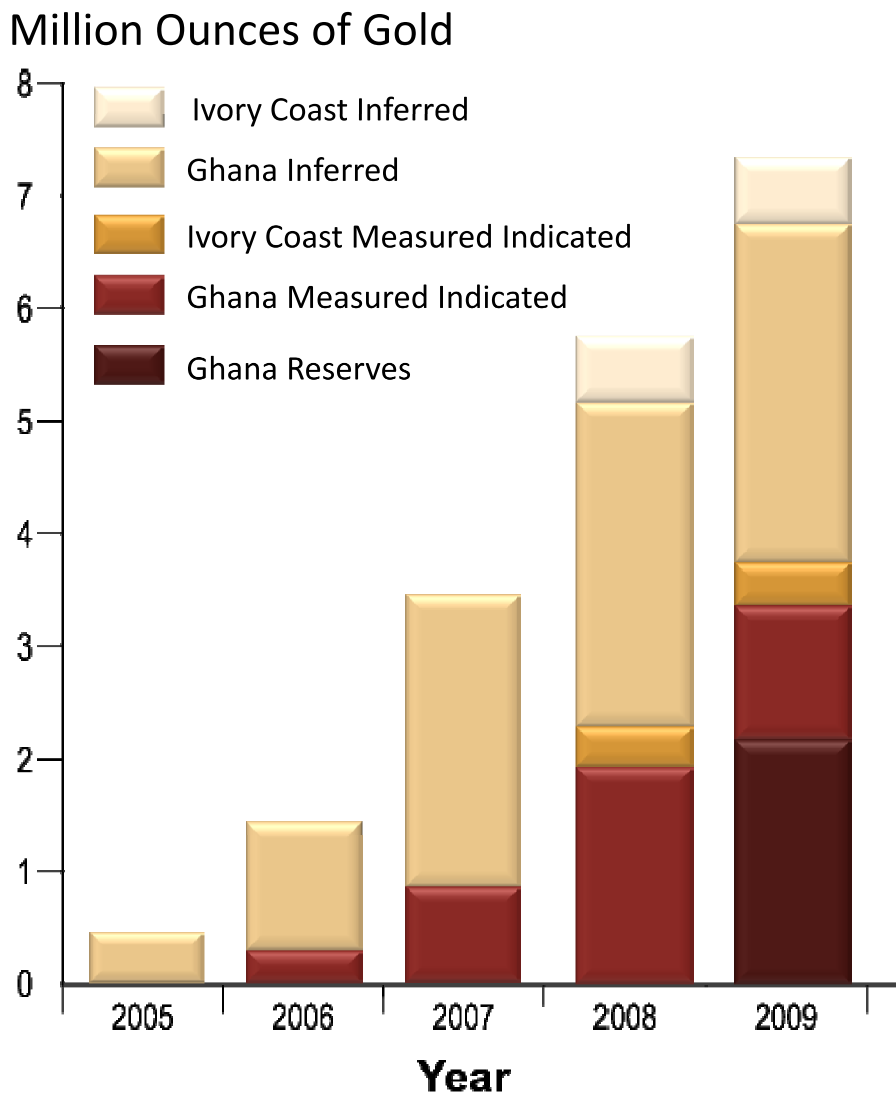
2013 Target - 450koz per annum

@ US$450/oz cash cost

Fully funded

Strong news flow

(S&P ASX 200)



Broker Recommendations

Date (2010)	Institution	Author	Target	Recommendation
20/08	BGF	Warwick Grigor	A$4.00	Strong Buy
20/07	CIBC	Cosmos Chiu	C$3.50 (A$3.85)	Sector Outperform
19/07	RBS	Sam Berridge	A$2.53	Buy
21/06	Clarus Securities	Nana Sangmuah	C$4.15 (A$4.56)	Buy
19/06	Rodman & Renshaw	Alka Singh	C$4.00 (A$4.40)	Market Outperform
17/06	Cormark	Mike Kozak	C$3.50 (A$3.85)	Strong Buy
11/03	Ambrian	Julian Emery	A$2.08	Buy

Other Assets

Perseus Mining Limited

BUREY GOLD

20%

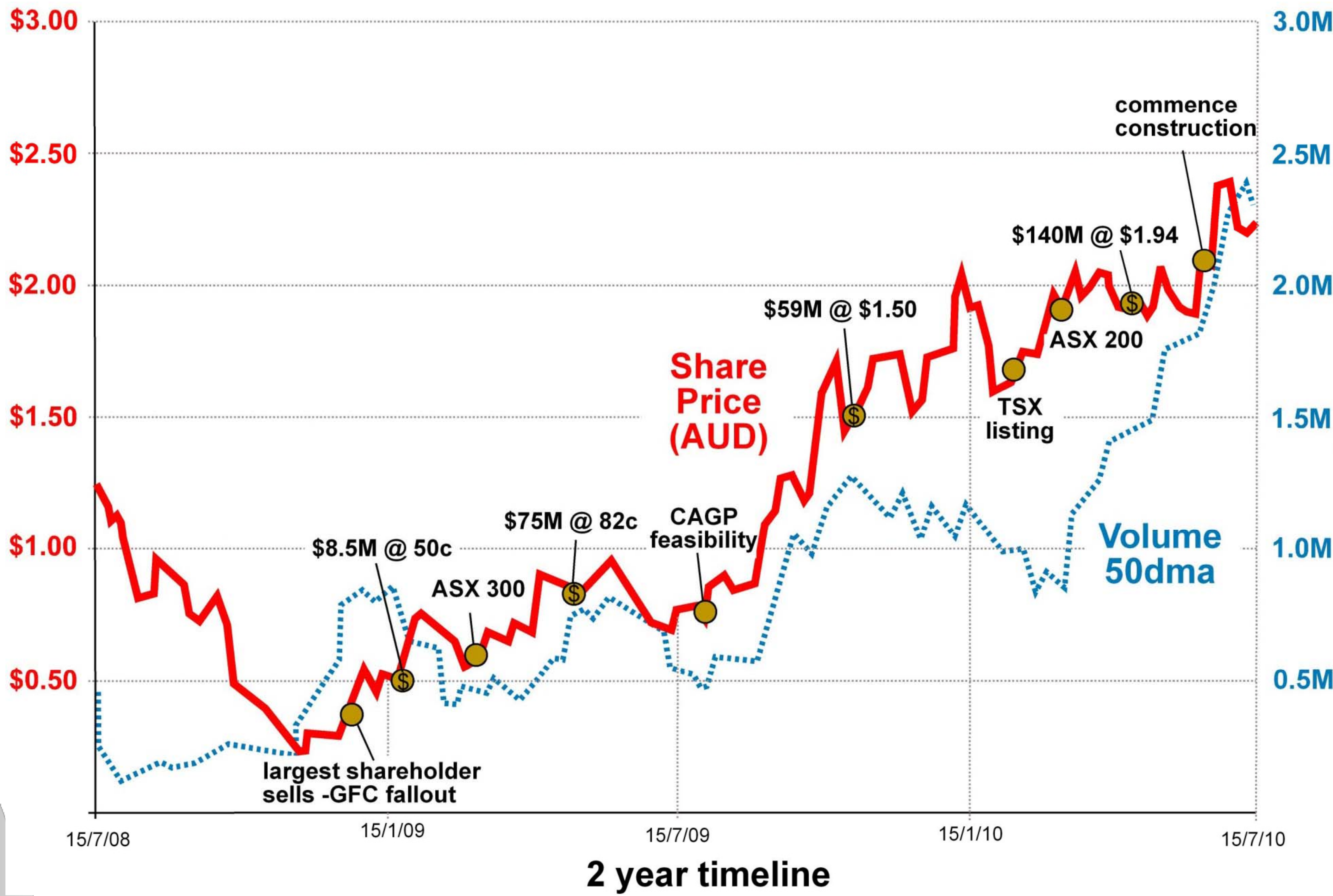
(1.08Moz Gold)

MANAS RESOURCES

28%

(1.13Moz Gold)

Share Price


$3.00
$2.50
$2.00
$1.50
$1.00
$0.50
3.0M
2.5M
2.0M
1.5M
1.0M
0.5M
Share Price (AUD)
Volume 50dma
largest shareholder sells -GFC fallout
$8.5M @ 50c
ASX 300
$75M @ 82c
CAGP feasibility
$59M @ $1.50
TSX listing
ASX 200
$140M @ $1.94
commence construction
15/7/08
15/1/09
15/7/09
15/1/10
15/7/10
2 year timeline

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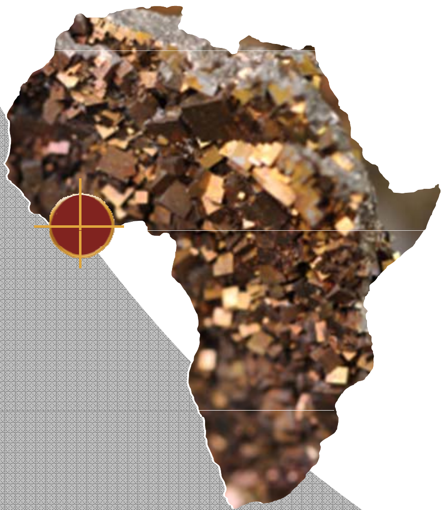

Booth 86

Mark Calderwood
Managing Director
+61 8 9240 6344

Nathan Ryan
Investor Relations
+61 420 582 887

Appendix 2: Board of Directors

Reg Gillard
22yrs director / chairman, public companies

Non Executive Chairman

Executive Directors

Mark Calderwood
24yrs exploration and corporate management

Colin Carson
23yrs in public company management

Rhett Brans
35yrs in feasibilities and engineering

Non Executive Directors

Neil Fearis
30yrs as commercial lawyer

Sean Harvey
21yrs in investment banking and public company management

Michael Bohm
23yrs as mining engineer with project, operational & corporate management

Appendix 3: Construction & Operations

Rhett Brans (Executive Director)

A civil engineer with 35 years' experience in the design and construction of mineral treatment facilities, most recently for Straits Resources – General Manager Engineering & Construction.

Garrick Allen (Project Manager)

38 years' experience across five continents in the management of engineering, design, procurement, construction, quality assurance, planning, contract administration, estimating, cost control etc.

Stephen Osei-Bempah (Senior Mining Engineer)

A mining engineer with 18 years' experience from mine planning and management to general manager for Billiton, Cluff, Ashanti and Goldfields in Ghana and Burkina Faso.

Paul Criddle (Principal Metallurgist)

10 years' experience in metallurgical design, development and operations for gold mines in Australia and Africa.

Grant Pierce (General Manager of Opt)

A mining engineer with 23 years' experience in operations and mine management including 10 years on African gold and base metal mines.

Paul Hug (Commercial Manager - Ghana)

An accountant with 24 years' experience commercial and financial management with 10 years' experience in Africa.

Michael Bourguignon (Principal Project Engineer)

13 years project engineering & management including Ayanfuri tender process.

Experienced Ghanaians being Recruited for Senior Management positions

Administration	OH&S
Environmental	Social

~200 years' combined relevant experience

Appendix 5: CAGP (Ayanfuri) History

History	• Mined in 1990s by Cluff-Ashanti • 23 shallow pits produced 300,000oz 1994-2001 • May 06 Perseus gained control of 180,000oz resource
Location	• 30kms from Anglogold's +60Moz Obuasi Mine • 45kms from Prestea-Bogusu project
Exploration	• Perseus A$40m, >200km of drilling in 3 years • Resource 5.3 Moz in Mar-09 from 8 deposits • Still large exploration upside
Geology	• Granite with quartz stock-works ~80m wide
Proposed Operation	• Low strip ratio, bulk open pit mining • Low cost coarse grind. Gravity/float/CIL. Free milling

Reserves

Mineral Reserves (Gold)

Deposit	Proven			Probable			Total		
	Tonnes (million)	g/t Au	Ounces Au	Tonnes (million)	g/t Au	Ounces Au	Tonnes (million)	g/t Au	Ounces Au
CAGP- (Ayanfuri) >0.5g/t (1)	18.4	1.4	828,000	37.2	1.1	1,313,000	55.5	1.2	2,141,000

Notes:
(1) Last updated on 30-07-2009

Resources

Mineral Resources (Gold)

Deposit (cutoff g/t Au)	Measured & Indicated			Inferred		
	Tonnes (million)	g/t Au	Ounces Au	Tonnes (million)	g/t Au	Ounces Au
CAGP-(Ayanfuri) >0.8g/t [(1)]	15.8	1.5	764,000	30.2	1.5	1,423,000
CAGP-(Ayanfuri) 0.4g/t - 0.8g/t [(1)]	14.1	0.6	267,000	31.9	0.7	691,000
Grumesa Sth >0.4 / 0.6g/t [(3)]	7.1	0.9	195,000	1.9	0.8	46,000
Grumesa Nth >0.4g/t [(4)]				21.4	0.8	573,000
Tengrela[(2)] >1.0g/t	9.8	2.5	783,000	3.5	1.7	185,000
Tengrela[(2)] 0.5-1.0g/t	5.4	0.8	132,000	3.8	0.7	90,000
Totals >0.8g/t (1.0g/t Tengrela)	25.6	1.9	1,547,000	33.7	1.5	1,608,000
Totals >0.4g/t (0.5g/t Tengrela)	52.2	1.3	2,141,000	92.7	1.0	3,008,000

Notes:
(1) Last updated on 30-07-2009 (2) Last updates July 2010 (3) Last updated on 30-4-07
(4) Last updated on 29-9-2006 (5) The company holds 90% of Ayanfuri, 90% of Grumesa and 80% of Tengrela after allowing for Government equity at mining stage.