

# crusader

# Precious Metals Summit September 2016





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#### **Competent Person Statement**

The information in this report that relates to Juruena Gold Project exploration results, Posse Iron Ore Project exploration results and Borborema Gold Project exploration results released after 1 December 2013, is based on information compiled or reviewed by Mr. Robert Smakman who is a full time employee of the company and is a Fellow of the Australasian Institute of Mining and Metallurgy. The information in this report that relates to Mineral Resources at the Juruena Gold Project is based on information compiled or reviewed by Mr. Lauritz Barnes and Mr. Aidan Platel who are independent consultants to the company and Members of the Australasian Institute of Mining and Metallurgy. Each of Mr. Smakman, Mr. Barnes and Mr. Platel have sufficient experience that is relevant to the type of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Smakman, Mr. Barnes and Mr. Platel consent to the inclusion in the report of the matters based on this information in the form and context in which it appears. The information in this report that relates to:

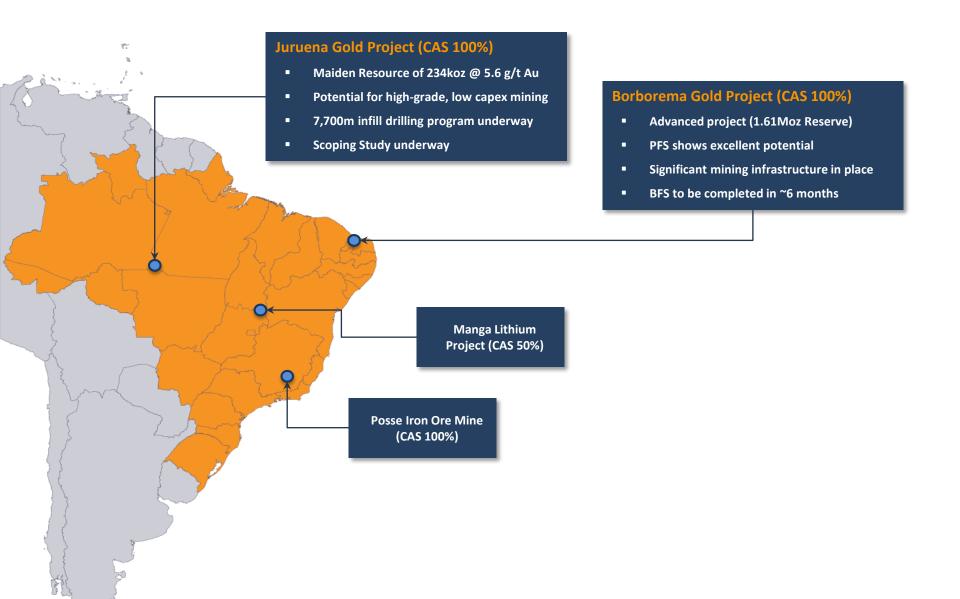
- a) Borborema Gold Project and Posse Iron Ore Project Exploration Results released prior to 1 December 2013 is based on information compiled or reviewed by Mr Robert Smakman who is a full time employee of the company;
- b) Borborema Gold Mineral Resources is based on information compiled by Mr Lauritz Barnes and Mr Brett Gossage, independent consultants to the company;
- c) Borborema Gold Ore Reserves is based on information compiled by Mr Linton Kirk, independent consultant to the company;
- d) Posse Fe Mineral Resources is based on and accurately reflects, information compiled by Mr Bernardo Viana who is a full time employee of Coffey Mining Pty Ltd,

and who are all Members of the Australasian Institute of Mining and Metallurgy (Rob Smakman and Linton Kirk being Fellows), and who all have sufficient experience that is relevant to the type of mineralisation and type of deposit under consideration, and to the activity which they are 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. Each of Mr Smakman, Mr Lauritz Barnes, Mr Kirk, Mr Viana and Mr Brett Gossage consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

This information was prepared and disclosed under the JORC Code 2004. It has not been updated since to comply with JORC Code 2012 on the basis that the information has not materially changed since it was last reported..

#### A Gold Development Company in Brazil





Section 1

**Company Overview** 



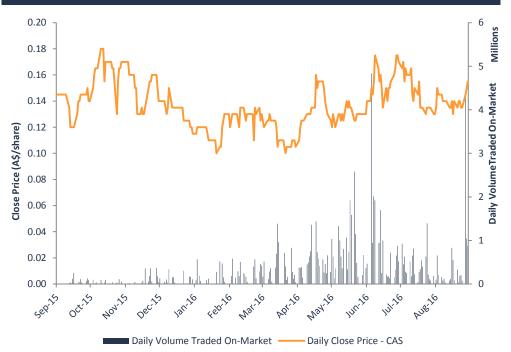
#### ASX: CAS

Total Ordinary Shares on Issue	238.1m
Options on issue <sup>1</sup>	49.4m
Cash (as at 30 June 2016) <sup>2</sup>	\$2.1m
Debt (as at 30 June 2016) <sup>3</sup>	US\$3m
Market Capitalisation (at 16.5cps)	A\$39m

- 1. Volume weighted exercise price of 32.1cps
- 2. Includes restricted cash of \$0.5m
- 3. Debt facility with Macquarie Bank repayable before 31 December 2016

Shareholders	
Stephen Copulos	23.77%
Farjoy Pty Ltd	10.26%
International Finance Corp (IFC)	5.79%
Other directors	~2.5%

#### Share Trading Data



### **Board & Management**



<b>Stephen Copulos</b> Non Executive Chairman	Over 30 years' experience in business & investments in a wide range of industries, and many years' experience as a company Director for both listed and unlisted companies. Major shareholder of Crusader for many years. Aligned to improving shareholder returns.
Rob Smakman Managing Director	Highly experienced Geologist & Manager with over 20 years' Australian & international experience. Founding director of Crusader & has played integral part in shaping the company. Rob is based in Brazil (+10 yrs) and fluent in Portuguese. Fellow – AusIMM.
Paul Stephen Executive Director	Founding director of Crusader, with over 20 years' experience in the resources and financial services industries. Has held senior positions and directorships at Integrated Fuel Services Pty Ltd, Montague Stockbrokers, Patersons Securities and Macquarie Bank.
<b>Jim Rogers</b> Non Executive Director	Globally respected investment expert, fund manager and author. Co-founded the highly successful Quantum Fund. Former guest professor of finance at the Columbia Business School in New York. Author of multiple best-selling finance books.
Mauricio Ferreira Non Executive Director	More than 35 years in resources/energy sectors. Highly educated and experienced manager. Ex Vale executive. Has been involved in the exploration and development of three Brazilian gold projects. Mauricio is a Brazilian national.
John Evans Non Executive Director	Experienced Director & Chartered Accountant. Over 15 years in private sector finance executive roles, including listed Companies. Currently Principal of a Business Broking & Corporate Advisory Practice. Chairman of Crusader's Audit & Remuneration Committees.
<b>Julio Nery</b> COO - Brazil	Mr Nery is a Brazilian Mining Engineer with 35 years' experience in mining, mine planning and environmental management. Julio has built and operated a number of large Brazilian mines and had a high level of involvement liaising with the Brazilian authorities regarding permitting, environmental issues and community relations.

Section 2

#### **Borborema Gold Project**

#### **Borborema Gold Project**



- Advanced gold project in an excellent part of Brazil
- Proven gold exploration and project development track record
- All major exploration expenses complete no additional drilling required
- PFS complete and shows strong economics
- **7** CAS will seek to complete a BFS (A\$2M) and proceed to a decision to mine
- ↗ Large, 100% owned, open-pit gold mine:
  - Mineral Resource: 68.6Mt @ 1.10g/t Au for 2.43Moz Au
  - Ore Reserve: 42Mt @ 1.20g/t for 1.61Moz Au
- Orebody has two lenses and the shallow lens contains most of the Reserve:
  - 26Mt @ 1.14 g/t for 970koz Au
- Strong exploration potential orebody open and grades increase at depth

# **Excellent PFS at Borborema**

- Crusader has completed a Pre-Feasibility
  Study (PFS) on a development at Borborema
- The PFS was announced to ASX on 15
  September 2011
- Borborema was studied as an open pit mine with straightforward CIL processing
- Subsequently CAS has completed the majority of items required for a full BFS
- Given changes in the construction market since 2011, there is potential to make significant savings on capital and operating costs
- CAS hopes to deliver a BFS in a short timeframe (~6 months)

PFS Summary Outcomes <sup>1</sup>	
In-Pit recoverable resource <sup>2, 3</sup>	27Mt @ 1.39g/t for 1.18Moz
Mining throughput rate	3Mtpa
Mine Life	9 years
Strip Ratio (LOM)	4.23:1
Metallurgical recovery	96%
Annual production	Up to 180kozpa (avg. 131kozpa)
Capital cost <sup>4</sup>	US\$169m
Operating expense (opex)	US\$558/oz
Total operating costs (incl depn)	US\$735/oz

- 1. Refer to ASX announcement dated 15 September 2011 'Positive Pre-Feasibility at Borborema'. This document contained all the relevant disclosures at the time of PFS
- 2. At the time of the PFS, the in-pit resource included Indicated Resources of 17.6Mt @ 1.33g/t for 750koz and Inferred Resources 9.4Mt @ 1.56g/t for 475koz. The in-pit resource assumed a gold price of US\$1,150/oz
- 3. Maiden Reserve subsequently announced on 16 November 2012 as shown on the following slide of this presentation
- 4. Capex assumes owner operated mining and includes 15% contingency. Does not include sustaining capex



Borborema Gold Project – Mineral Resource by Multiple Indicator Kriging (MIK)								
CategoryCut-off gradeTonnes (Mt)Grade (Au g/t)Contained (Moz)								
Measured	0.50	8.2	1.22	0.32				
Indicated	0.50	42.8	1.12	1.55				
Total Measured + Indicated	0.50	51.0	1.14	1.87				
Inferred	0.50	17.6	1.00	0.57				
Total Mineral Resource	0.50	68.6	1.10	2.43				

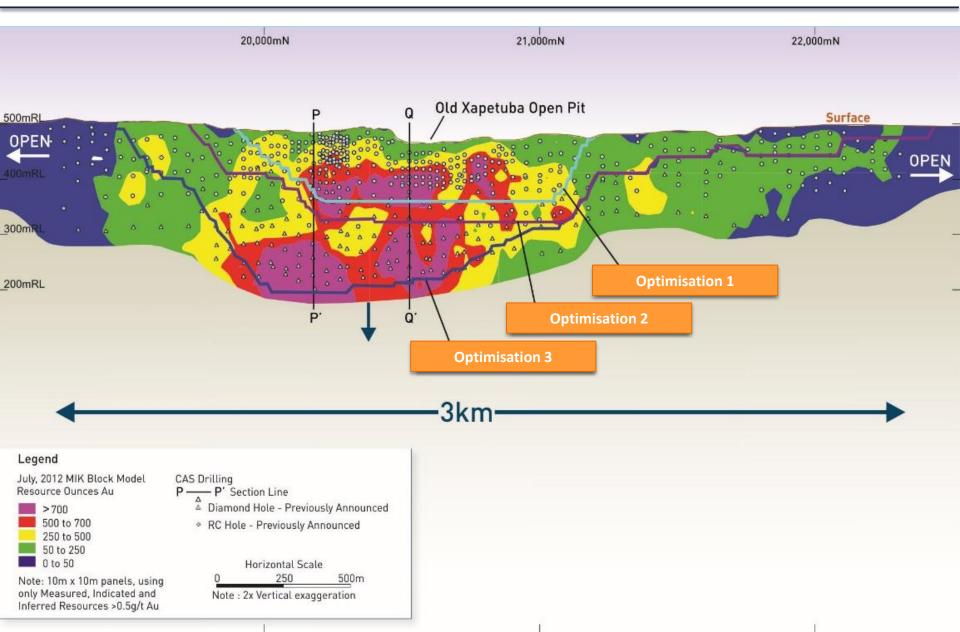
July 2012 Mineral Resource Summary Table, reported at a 0.5 g/t cut-off. Parent Block 25mE x 25mN x 5mRL. Selective Mining Unit 5mE x 6.25mN x 2.5mRL. Note, appropriate rounding has been applied, subtotals may not equal total figure.

Borborema Gold Project – Maiden Ore Reserve (announced to ASX on 16 November 2012)							
Category	Ore Type Tonnes (Mt) Grade (Au g/t)						
Proven	Oxide	0.65	0.80	17			
	Fresh	7.26	1.25	292			
Probable	Oxide	1.68	0.70	38			
	Fresh	32.82	1.20	1,260			
Total		42.41	1.18	1,610			

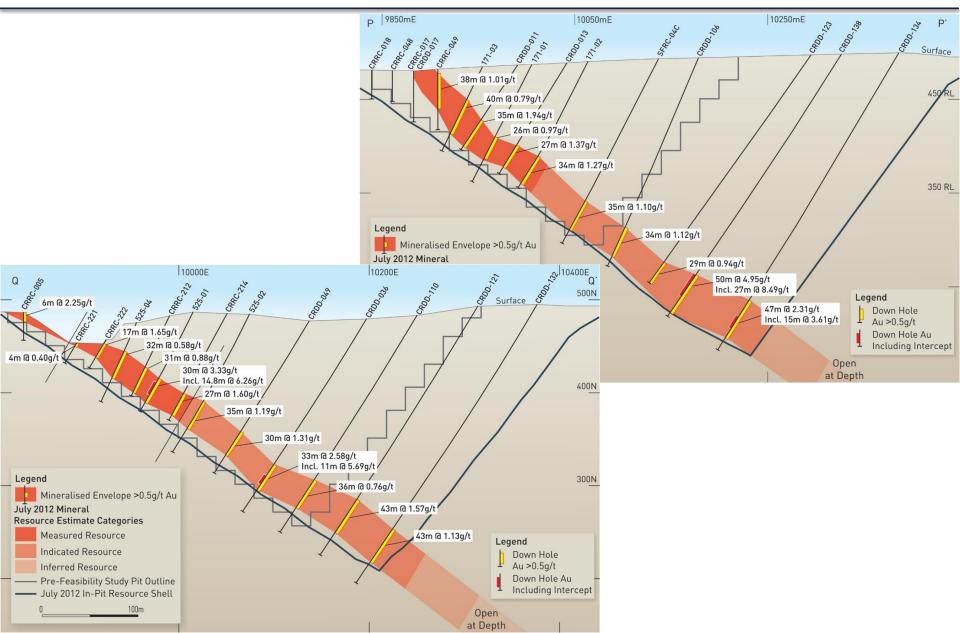
#### Ore Reserve estimate for the Borborema Gold Project.

Reported at a 0.4 g/t cut-off for oxide and 0.5g/t cut-off for fresh material. The cut-off grades have been based on the latest throughput costs, gold price of US\$1350/oz, metallurgical recovery of 95% and then rounded up. Note, appropriate rounding has been applied, subtotals may not equal total figures.

# **Significant In-Pit Expansion Potential**



### Cross Sections P – P' and Q – Q'



# Ideal Local Infrastructure

- Borborema is in an ideal location for a mine development, and has no competing land use
- High level of existing support infrastructure:
  - Bitumen highway from mine gate (BR226), 140km to city (and port) of Natal
  - Grid power lines traverse Crusader's tenements
  - 25km from mining town of Currais Novos
- Mining-friendly regulatory environment:
  - Sudene tax concessions<sup>1</sup> may be available (overall tax rate of 15.25%)
  - Low government mineral royalties<sup>2</sup> currently 1%
- Efficient logistics, labour and power infrastructure can significantly reduce project development and execution risk



<sup>2</sup>The current rate of government royalty is 1% of sales revenue. There is also a 0.5% royalty payable to the landowners. Note that Crusader owns a number of farms in the immediate area including the one that covers the central part of the ore body.

<sup>&</sup>lt;sup>1</sup>A federal government economic stimulus scheme, called Sudene, provides significant benefits for businesses operating in the north east of Brazil, including Rio Grande do Norte. The scheme was introduced to boost economic activity in a relatively impoverished area of Brazil. Company tax rates are reduced from 34% to 15.25% for a period of 10 years. Other benefits include reduction in the rates of taxes such as goods and services taxes, sales taxes and import duties.

#### **Current Program at Borborema**



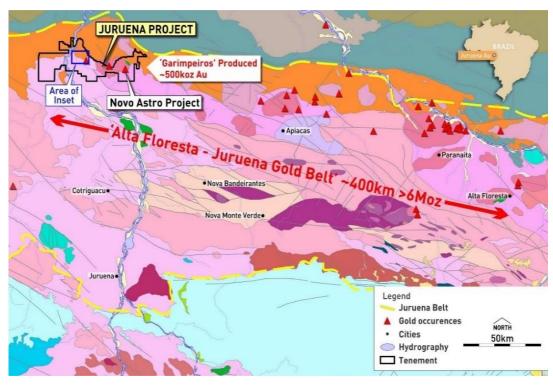
- All drilling for the BFS is complete
- Permitting and environmental approvals are significantly advanced
- The following items remain to finalise a BFS:
  - Detailed metallurgical sampling program drilling complete with samples being transported to Perth (ISO lab standards)
  - Complete detailed project water balance and water resources options
  - Review capital and operating costs (significant reductions in capital and operating costs have occurred since 2011)
  - Final engineering

Section 3

Juruena Gold Project

#### Juruena Gold Project

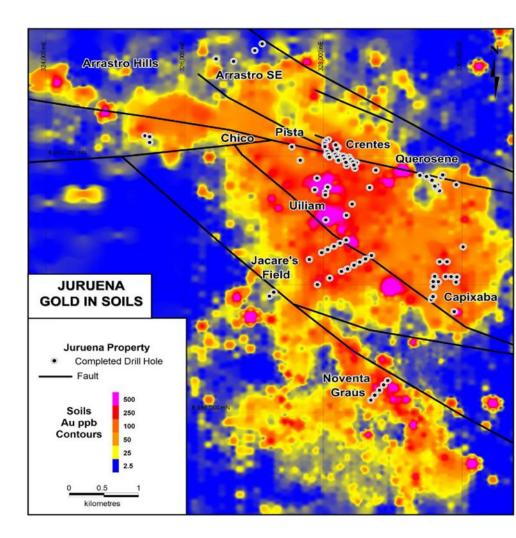
- Opportunistic acquisition in May 2014 for \$600k and milestone scrip payments
- Located in the Alta Floresta Gold Belt in Central Brazil
  - Extensive granite/felsic volcanic belt stretching ~400km east-west with multiple intrusive & extrusive events identified
  - 7Moz produced between 1979 and 1997 from 40 documented gold discoveries (DNPM)
- CAS controls 100% of 2 key areas which have produced 500koz historically
- Juruena Gold Project:
  - High grade resource defined
  - Only 4 of 16 targets tested
  - Large garimpeiro presence
- Novo Astro Gold Project:
  - 5km wide circular soil anomaly
  - Ultra high grade rock chips
  - Significant scale potential





### Juruena – Gold District

- Near-surface, high-grade gold mineralisation identified at Querosene, Dona Maria, Tomate and others
- Juruena gold soil anomaly is 'giant', >8km
  long & 4km wide >50ppb
  - Footprint size suggests district of gold projects- Crusader Systematically testing each area
  - Multi-element geochemistry completed on sampling, refined targeting using Cu, Ag, Bi, Mo, Fe trace elements
- Structurally controlled regional mapping identified multiple untested controlling structures (e.g. Uiliam, Mauro, Tomate)

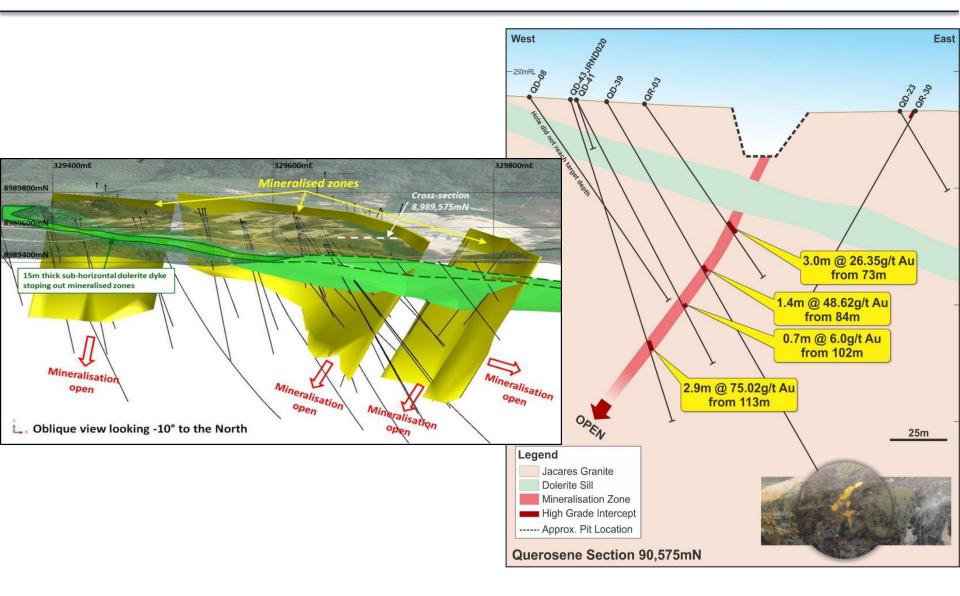


#### Juruena Project Development

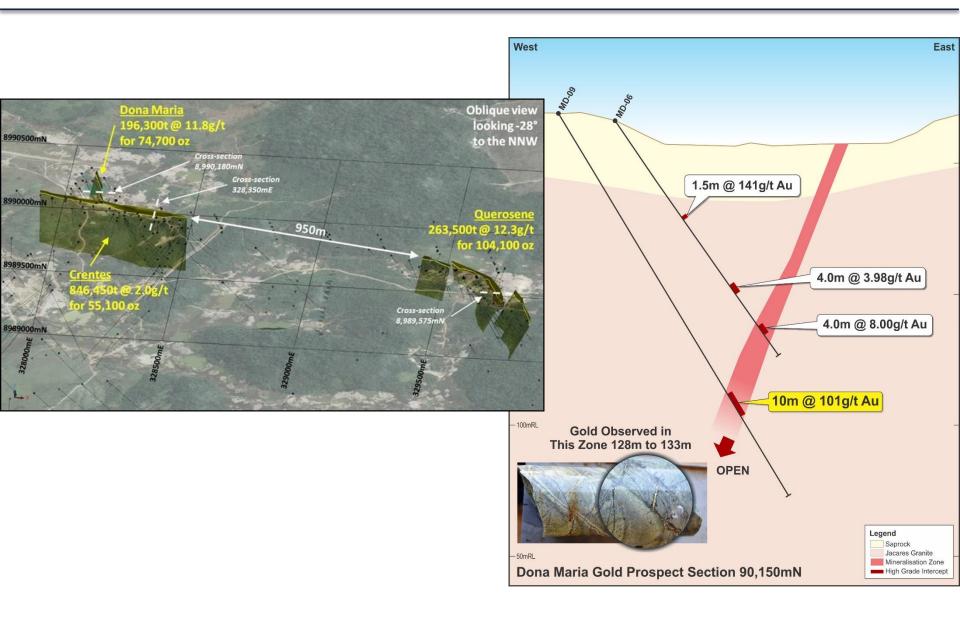
- Since 1980's: Garimpeiros produced ~500koz from shallow workings
- Pre-Crusader: +US\$30M spent on project development (mainly deep drilling)
- **2014:** Crusader acquires 100% for \$650k plus milestone scrip payments
- 2015: 10,000m diamond and RC drilling. Metallurgical testwork +90% recoveries for gold using standard leaching
- **2015:** Maiden JORC Resource estimate calculated for 3 key prospects
  - Total of: 1.3Mt @ 5.6 g/t for 234koz Au
    - Querosene: 263,500t at 12.3 g/t for 104,100oz Au
    - Dona Maria: 196,300t @ 11.8 g/t for 74,700oz Au
    - Crentes: 846,450t @ 2.0 g/t for 55,100oz Au
- 2016: Major events include:
  - 7,700m Infill drilling program drilling complete
  - Resource upgrade Q4 2016
  - Scoping Study due Q4 2016



#### Querosene – First Production Decline Planned crusader



### Dona Maria – 2<sup>nd</sup> Production Asset



### First Pass Drilling in 2015

- After reviewing existing core CAS targeted four near-surface gold veins, targeting high-grade areas close to surface
- The CAS strategy was to allow for small, high margin start-up production
- A Scoping Study is underway
- Ongoing high-grade results expected as the project is progressed
- Low cost exploration and resource definition

Prospect Name	Resource Category	Lower Cut Off	Tonnes (Mt)	Grade (Au g/t)	Ounces (oz)
Dona Maria	Inferred	2.5 g/t	196,300	11.8	74,700
Querosene	Inferred	2.5 g/t	263,500	12.3	104,100
Sub Total High Grade Zone			459,800	12.1	178,800
Crentes	Inferred	1.0 g/t	846,450	2.0	55,100
Total Combined Resource			1,306,250	5.6	233,900

Note: Appropriate rounding applied. For further information, please see the section below: Summary of Resource Estimate and Reporting Criteria.



**Section 4** 

#### **Peer Analysis & Next Steps**

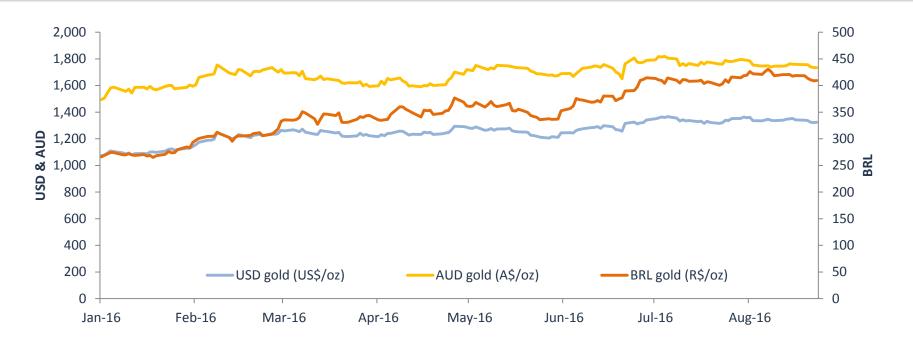
#### Peer Comparison

- There are relatively few ASX listed gold companies with development assets that are capable of +100kozpa production
- Crusader, with a relatively small market capitalisation, compares favourably against its peers

ASX Code	Project	Interest %	Location	Mine Type	Status	Production Start	LOM Avg. Prod	Reserve (Moz Au)	Resource (Moz Au)	Market Cap (A\$m)
GOR	Gruyere	100%	Australia	OP/UG	PFS	2018	265	3.2	6.2	521
DCN	Mt Morgans	100%	Australia	OP/UG	SS	2018	220	0.0	3.0	437
CAS	Borborema	100%	Brazil	ОР	PFS	2018	131	1.6	2.4	34
BLK	Wiluna	100%	Australia	OP/UG	DEVP	2016	100	0.5	4.8	244
GCY	Dalgaranga	80%	Australia	OP/UG	PFS	2018	100	0.4	0.8	159
AZM	Wa Gold	90%	Ghana	OP	FS	n/a	90	0.6	2.0	64
WAF	Tanlouka	100%	Burkina Faso	OP	PFS	2019	-	-	1.4	156
EGS	Davyhurst	100%	Australia	OP/UG	DEVP	2017	-	-	1.5	213



# Favourable Economic Dynamic in Brazil crusader



- It is important to remember that the Brazilian Real (BRL) creates a similar local gold price dynamic to that experienced by Australian Dollar (AUD) gold operations
- The BRL has depreciated against the USD in recent times
- Furthermore the local Brazilian mining industry has slowed, which creates an increase in availability and competition for engineering and construction services, and lower pricing

# **Upcoming Milestones**



There are a number of strong catalysts coming up, as shown below

Milestone	3Q 2016	4Q 2016	1Q 2017	2Q 2017	3Q 2017	4Q 2017
Borborema Gold Project						
Mining and Environmental Permits	$\checkmark$	$\checkmark$				
Metallurgical Testwork		$\checkmark$	$\checkmark$			
Final Engineering and Costing			$\checkmark$	$\checkmark$		
Bankable Feasibility Study			$\checkmark$	$\checkmark$		
Juruena Gold Project						
High Grade Resource Definition Drilling	✓	$\checkmark$				
Updated Resource estimate		$\checkmark$				
Scoping Study		$\checkmark$				
Mining and Environmental Permits			✓			
Final Investment Decisions			✓			
Potential Construction / Development				$\checkmark$	$\checkmark$	$\checkmark$

### Summary

- Borborema Gold Project
  - Significant gold development project
  - PFS shows excellent economics
  - BFS to be optimised and delivered within 6 months
  - Potential for cost savings from 2011 estimates
- Juruena Gold Project
  - Exceptional high-grade potential
  - 7,700m drilling program completed
  - Resource definition and scoping study underway
- Highly experienced board and management
- Expert at permitting, operating and mining successfully in Brazil



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