



## Crusader Resources SPECULATIVE BUY

16 September 2011

Current Price: **\$1.20**

Ticker: **CAS**  
Sector: **Materials**

Shares on Issue (m): **110.1**  
Market Cap (\$m): **132.2**  
Cash (\$m): **20.0**  
Enterprise Value (\$m): **112.2**

52 wk High/Low: **\$1.50 \$0.49**  
12m Av Daily Vol (m): **0.16**

### Directors:

David Archer Non-Executive Chairman  
Rob Smakman Managing Director  
Paul Stephen Executive Director  
Murray Hodges Non-Executive Director  
Justin Evans Non-Executive Director  
David Netherway Non-Executive Director

### Substantial Shareholders:

Copulos Group 19.0%  
Dundee Corporation 15.0%  
Directors 8.0%

### Share Price Graph



Analysts:  
Patrick Chang  
Troy Irvin  
Tim Serjeant

## Positive PFS

### Pre-Feasibility Results:

Emerging gold and iron ore developer Crusader Resources (CAS) has released positive Pre-Feasibility Study (PFS) results for the Borborema Gold Project in northeast Brazil.

Initial studies were based on an open pit mining operation utilising a 3Mtpa conventional gravity plus CIL processing plant. Preliminary optimisation work resulted in an "in-pit Resource" containing 63% of the current Indicated and Inferred 44Mt @ 1.3g/t for 1.9Moz.

Key study numbers: US\$169m capital expenditure (including 15% contingency), ~130kozpa production, 1.4g/t head grade, 96% metallurgical recovery, US\$558/oz cash costs (excluding royalties) and a 9 year mine life.

Although the PFS was managed by CAS, numerous independent consultants included:

- Mineral Resource model – Mitchell River Group
- Mine design and production schedule – AMC Consultants
- Metallurgical testwork and process route definition – Testwork Desenvolvimentos
- Plant design and infrastructure – Onix Engenharia

### Impact:

Positive

Argonaut's updated valuation is \$2.10 assuming US\$1,100/oz long term gold, 127kozpa production, 1.4g/t head grade, US\$190m capital expenditure, and US\$600/oz cash costs. Good local infrastructure (roads, water, power) has supported the case for modest capex.

Next steps at Borborema include:

- September – Completion of deeper extensional drilling
- October – Resource upgrade, which incorporates ~13,000m of additional drilling
- October – Commencement of a Bankable Feasibility Study

### View:

Positive

CAS is managed by an experienced, in country team, and has capitalised well on favourable but under-explored geology. While the PFS has outlined a base case production scenario, scope exists for mine life and production increase from potential exploration success in the 1300km<sup>2</sup> regional tenement.

### Recommendation:

Spec Buy

Argonaut has updated its valuation to \$2.10 (was \$2.07).

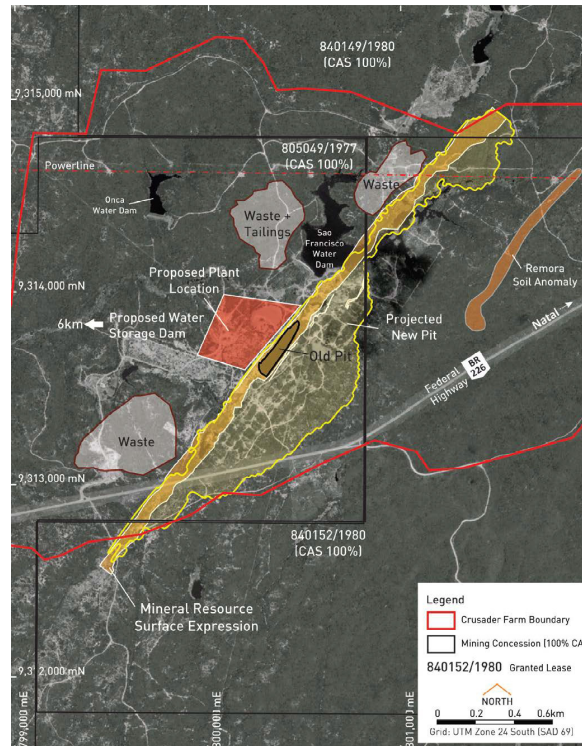
### Positive PFS

**3Mtpa open pit operation...**

Initial studies completed were based on an open pit mining operation (Figure 1) utilising a 3Mtpa conventional gravity plus CIL processing plant (Figure 2). Preliminary pit optimisation work resulted in an "in-pit resource" containing 63% of the current Indicated and Inferred 44Mt @ 1.3g/t for 1.9Moz Resource.

Figure 1: Proposed Site Layout

**...1.2Moz of "in-pit Resource"...**



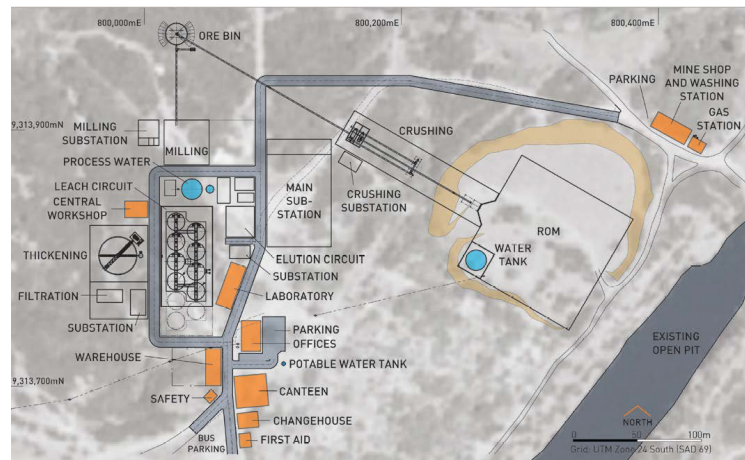
**...served by existing infrastructure...**

Source: CAS

Key study numbers: US\$169m capital expenditure (including 15% contingency), ~130koz pa production, 1.4g/t head grade, 96% metallurgical recovery, US\$558/oz cash costs (excluding royalties) and a 9 year mine life.

**...processed by conventional gravity and CIL plant**

Figure 2: Proposed Plant Design



Source: CAS

## Valuation revision

**The contained oz could sustain a 9 year mine life at ~130kozpa**

Based on the PFS parameters, Argonaut has updated its valuation for CAS.

The current contained ounces (optimised for a US\$1150/oz gold price, 10% diluted) could sustain a 9 year mine life, averaging ~130kozpa.

Given the local infrastructure, modest capex is expected. Under the study, grid power will be supplied via a 30km 138kv powerline to be constructed from the town of Santa Cruz. A water storage facility will be constructed 7.3km downstream from the plant, and should capture sufficient water for the project.

Table 1: CAS Valuation

Key Project Assumptions				
		Borborema		Posse
Ownership	%	100	%	100
Ore milled	Mtpa	3	Mtpa	1
Head Grade (diluted)	g/t Au	1.4	Fe %	41
Recovery	%	92%	Weight %	51
Production	Au koz	127	kt	512
Mine Life	yrs	9	yrs	8
Capex	US\$m	190	US\$m	10
Cash Costs - uninflated*	US\$/oz	600	US\$/t	30
Long Term Pricing				
Gold price	US\$/oz			1100
Iron Ore price	US\$/t			50
Exchange rate	A\$:US\$			0.80
Fiscal				
Government royalty	%	2.0	%	5.0
Tax Rate	%			34.0
Discount Rate	%			10.0
*Denotes average over life of mine				
Summary Valuation				
Crusader Resources		A\$m		\$ps
Borborema		169		1.54
Posse		32		0.29
Corporate		-10		-0.09
Cash Estimate		20		0.18
Exploration		20		0.18
Debt		0		0.00
<b>Total @ 10.0% Discount Rate</b>		<b>231</b>		<b>2.10</b>

**...low average cash cost of \$600/oz...**

**...undiluted valuation of \$2.10**

Source: Argonaut

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