



**Breakaway  
Research**

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### Company Information

ASX Code	AOU
Share Price	A\$0.09
Ord Shares	34.5m
Escrowed & Partly Paid	46.8m
<b>Diluted Market Cap</b>	<b>A\$7.3m</b>
Cash (Est. June 13)	A\$2.7m
Total Debt	A\$0m
<b>Enterprise Value</b>	<b>A\$4.5m</b>

### Directors

Non-Executive Chairman	Glenn Whiddon
Managing Director	Dean Cunningham
Non-Executive Director	Jan Nelson

### Top 5 Shareholders

Pan African Resources	42.0%
Dean Cunningham	2.4%
Matthew Norton	0.7%
Mimo Strategies	0.7%
Rowan Hall Pty Ltd	0.6%

Source: Bloomberg

### Company Details

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Phone	+618 9486 4036
Web	www.aurochminerals.com

### 1 Year Price Chart



Source: Bloomberg

# Auroch Minerals (AOU)

*Defining a near term pathway to production*

**Recommendation: Speculative BUY**

## Company Update

### Key Points

- **JORC Resource of ~50Mt @ 1.83g/t Au for ~3Moz of gold**
- **Scoping Study indicates robust economics based on 720,000tpa operation over 7 years, treating non-refractory mineralisation**
- **Targeting production of ~40koz p.a. @ cash operating costs of US\$ \$642/oz**
- **Recent drilling is likely to lead a JORC resource upgrade**
- **Processing of non-refractory ore first provides cash flow to support CAPEX requirement for potentially larger refractory operation**
- **Additional 14 targets identified for follow up exploration providing exploration upside**
- **Mining Concession granted and valid for 25 years**

*Auroch Minerals has now bedded down the acquisition of the 3Moz Manica gold project and is steadily advancing towards its first production target of early 2015. A recently completed scoping study indicates attractive economics centred around initially mining the non-refractory and transition zones of the deposit to produce ~40,000oz gold per annum.*

### Investment Thesis

The Manica Gold Project is an advanced gold exploration play with an established JORC Resource of ~50Mt @ 1.83g/t Au for ~3Moz of gold at three deposits with mineralisation reported to be open at depth and along strike. Approximately ~85% of the resource is hosted within sulphide ore zones (refractory) while the remaining ~15% of the resource is hosted within free milling, transitional or oxide ore zones (non-refractory). The 42km<sup>2</sup> granted mining licence is valid for 25 years and is well serviced by existing infrastructure such as telecommunications, local airport, roads, rail, power and water.

Auroch Minerals recently completed a Scoping Study assessing the technical economic viability of initially mining and processing the non-refractory and transitional component of the resource (~5Mt @ 2.23g/t for 380koz Au). The Scoping Study indicates robust economics based on a 720,000tpa plant processing ore at an average head grade of 2.23g/t Au for ~40koz p.a. Cash operating costs have been estimated at ~US\$ 643/oz (excluding CAPEX and before tax, depreciation and royalties) against a current gold price ~US\$1,220.

The company is now set to embark on a Definitive Feasibility Study and is targeting first production as early as Q1 2015.



## Investment Review

### The Manica Gold Project 3Moz resource with significant exploration potential

The Manica Gold Project is located in central Mozambique, approximately 4km north of the town of Manica and ~270km from the port city of Beira. The surrounding area, including Zimbabwe, is well known for hosting gold mines such as Penhalonga, Rezende, Monarch and Old West mines, which have historically produced over 2.5Moz of gold. The project is well serviced by nearby infrastructure including local airport, sealed roads, rail, water, power and telecommunications.

#### Project Location

Manica is well serviced by existing infrastructure



Source: TNV

2.97Moz Resource

Mining Right valid for 25 years

South African based Pan African Resources (PAR) originally acquired the project in 2002 and spent \$25m on exploration programs including extensive drilling campaigns (13,595m of RC and 21,941m of diamond), geophysical programs, and technical reports (including a concept study) focusing on a select portion of the 'Southern Shear'. This work led to the delineation of a **JORC Resource of 50Mt @ 1.83g/t Au for 2.97Moz** and the granting of a 'Mining Concession' (valid for 25 years).



### Manica Gold Project: Total JORC Resource

Category	Prospect	Mining Method	Cut-off grade (g/t)	Tonnage (Mt)	Grade (g/t)	Contained gold (oz)
Measured	Fair Bride	OC	0.5	11.56	1.73	642,000
			Sub total	11.56	1.73	642,000
Indicated	Fair Bride	OC	0.5	7.46	1.49	359,000
			UG	1.0	3.33	1.97
	Guy Fawkes	UG	1.25	2.15	2.44	170,000
			Sub total	12.95	1.77	740,000
Inferred	Fair Bride	OC	0.5	2.71	1.34	116,000
			UG	0.5	21.89	1.89
	Dot's Luck	UG	1.0	0.48	3.25	50,000
			1.25	0.62	2.81	60,000
	Boa Esperanza	UG	1.25	0.33	2.94	30,000
			Sub total	26.03	1.89	1,589,000
<b>Grand Total</b>				<b>50.53</b>	<b>1.83</b>	<b>2,971,000</b>

Source: Auroch Minerals

Majority of resource located at Fair Bride

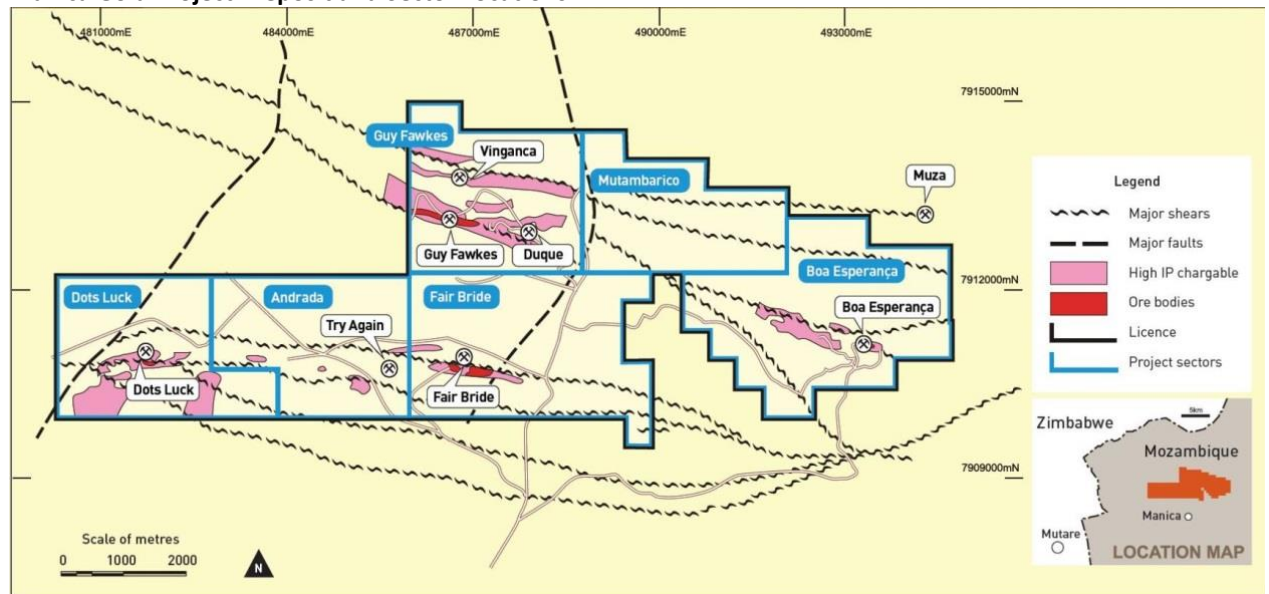
Auroch Minerals took control of the project in 2012 and since then the company has continued to advance to project towards production.

Auroch envisage mining non refractory ore first

The Manica Gold Project hosts a sizable JORC Resource of ~50Mt @ 1.83g/t Au for ~3Moz, however, a large proportion this (~85%) occurs as refractory sulphide mineralisation. Conceptual studies undertaken by the company indicate the mining of a higher grade component of the 3Moz resource (in the order of ~1Moz @ +4g/t Au) could support the addition of a refractory processing circuit (such as bio-oxidation, pressure oxidation or ultra-fine grind).

While there is clearly an opportunity to process the refractory ore, it is the non-refractory, near surface ore at Fair Bride, Guy Fawkes and Dot's Luck which provides the potential for the initial low cost, rapid pathway to production.

### Manica Gold Project: Deposit and Sector Locations



Source: Auroch Minerals



## Scoping Study

Auroch Minerals recently completed a Scoping Study aimed at assessing the technical and economic viability of initially **mining the non-refractory and transitional ore zones** from three deposits within the Manica project area. The table below summarises the contained gold from these deposits:

*~380koz of contained gold in non-refractory ore zones*

### Contained gold from non-refractory and transitional ore zones

Deposit	Cut-off grade	Type of Ore	Measured (oz)	Indicated (oz)	Inferred (oz)	Total (oz)
Fair Bride	0.5	Non-refractory	73,000	10,000	2,000	<b>85,000</b>
	0.5	Transitional	38,000	2,000	2,000	<b>42,000</b>
Guy Fawkes	1.25	Non-refractory		170,000	60,000	<b>230,000</b>
Dot's Luck	1.00	Non-refractory			25,000	<b>25,000</b>
<b>Total</b>			<b>111,000</b>	<b>182,000</b>	<b>89,000</b>	<b>382,000</b>

Source: Auroch Minerals

Based on the current JORC Resource 2.9Moz of contained gold, ~380koz is estimated to occur as free-milling, oxide and transitional ore zones. JP Mining Consulting has used the ore estimates from these zones as the basis for the scoping study.

The key outcomes of the study are summarised in the table below:

### Scoping Study outcomes

*Operating costs of US\$642/oz*

Parameter	Scoping Study Outcome
Mining Method	Open pit with shallow depth underground at Guy Fawkes
Mill Capacity	720,000tpa
Average Grade	2.23g/t Au
Annual gold production	~40,000oz p.a.
Estimated CAPEX	\$31.6M
Avg. total operating costs per tonne milled	\$39.30/t
Avg. operating costs per oz produced (before tax, depreciation and royalties)	US\$642
Estimated LOM (excluding refractory zones)	7 years
Estimated LOM production	~275,000oz
Long term gold price assumption	US\$1,200/oz

Source: Auroch Minerals

The Scoping Study estimates a 7 year Life of Mine (LOM) is achievable based on a 720,000tpa mining operation. Assuming the estimated head grade of 2.23g/t Au, annual gold production of ~40oz is achievable with operating costs of ~US\$643/oz.

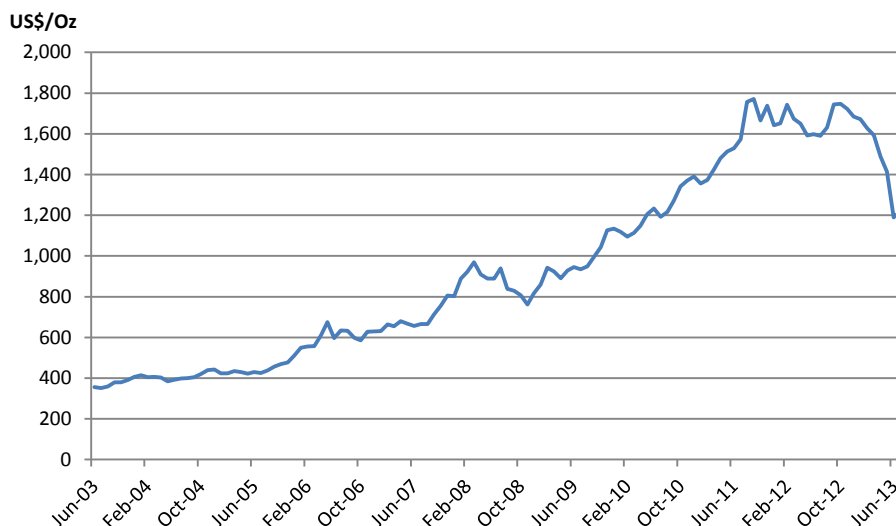
## Gold Price

The gold price has been in sharp focus in recent months following the sharp pull back from ~US\$ 2,000/oz to current levels of ~US\$ 1,200/oz. The following chart shows a 10 year perspective of the gold price and demonstrates the longer term upward trend.



## 10 year gold price

*Longer term upward trend in gold price*



Source: Indexmundi

Assuming the current gold price of US\$1,220, steady state production of 40,000oz p.a. and an average operating cost of US\$642, Auroch has potential to generate a pre-tax operating surplus of around ~US\$ 23M p.a.

## Additional exploration potential

Auroch Minerals has completed an active exploration program during 2012/2013 including ~7,445m from 33 diamond drill holes, primarily targeting mineralisation around the Guy Fawkes deposit.

Highlights from drilling at Guy Fawkes include:

- 5.00m @ 5.77 g/t Au from 5.10m, including 1.24m @ 18.86 g/t Au;
- 1.02m @ 3.13 g/t Au from 121m;
- 9.40m @ 2.92 g/t Au from 0m, including 1m @ 20.49 g/t Au; and
- 0.40m @ 10.83 g/t Au from 27.60m.

*Potential for modest JORC Resource upgrade in coming months*

The drilling campaign was successful in identifying additional shallow, high grade non refractory mineralisation which falls outside of the current JORC Resource. An infill drill program is now planned which will likely lead to modest size and category upgrades in the coming months.

At least 14 additional targets within the granted Mining Concession have also been earmarked for follow up exploration in due course.

## Future Work Program

Following the positive outcomes of the Scoping Study, Auroch Minerals is now focused on advancing the Manica Gold Project into production, with first gold targeted as early as Q1 2015.

*DFS underway*

A Definitive Feasibility Study (DFS) targeting the non-refractory zones and transitional zones of Guy Fawkes, Dot's Luck and Fair Bride deposits is now underway. This will initially focus on infill drilling programs, metallurgical test work environmental permitting, followed by detailed mine design and project engineering.



### **Analyst Verification**

We, Grant Craighhead and Andrew McLeod, as the Research Analysts, hereby certify that the views expressed in this research accurately reflect our personal views about the subject securities or issuers and no part of analyst compensation is directly or indirectly related to the inclusion of specific recommendations or views in this research.

### **Disclosure**

Breakaway Investment Group (AFSL 290093) may receive corporate advisory fees, consultancy fees and commissions on sale and purchase of the shares of Auroch Minerals and may hold direct and indirect shares in the company. It has also received a commission on the preparation of this research note.

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