

Austmine 2015  
Mining Innovator  
of the Year



**CARBINE RESOURCES**  
LIMITED

**Mount Morgan Gold & Copper Project**

Middle East Investor Roadshow

February 2016

# DISCLAIMER

## Mineral Resources

The Indicated and Inferred Resources referred to in this presentation were presented by Norton Gold Fields Limited at the Mining 2009 Resource Convention (Brisbane). The presentation was released to the ASX on 28 October 2009 and is available for viewing on the Norton Gold Fields website ([www.nortongoldfields.com.au](http://www.nortongoldfields.com.au)). The resources were stated to have been prepared in accordance with the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code") by Competent Person Troy Lowien, Resource Geologist, of consultants Coffey Mining Pty Ltd.

## Exploration Targets

Carbine has identified an Exploration Target at the site comprising low grade mullock dumps, slag dumps and retreated tailings from previous operations. In the Exploration Target table of this presentation a range of approximate tonnage and grade has been compiled from extensive review of historic reports and studies by previous owners. Carbine has not yet completed any exploration activity on the Exploration Target. The potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource, and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The basis for the estimates of tonnage and grade include historic production records, various topographic and volume surveys, drilling by various methods, grab and channel sampling and small scale bulk sampling. Carbine proposes to further evaluate the Exploration Target during the next year by drilling and possible bulk testing to provide material for additional metallurgical test work and to verify tonnage and grade.

## Competent Person Statements

The information in this report that relates to the recently completed exploration results is based on and fairly represents information compiled by Dr Marat Abzalov, who is a geological consultant to Carbine Resources Limited. Dr Abzalov is a Fellow of The Australasian Institute of Mining and Metallurgy (FAusIMM) and he has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and the activity he is undertaking 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". Dr Abzalov consents to the inclusion in the report of the matters based on information in the form and context in which it appears. Previous results were released to the ASX on 16 March and 20 April 2015 and have not materially changed since last reported.

The information in this report that relates to the Exploration Target is based on information compiled by Lance Govey, a Competent Person who is a Member of The Australasian Institute of Mining and Metallurgy. Lance Govey is an independent geological consultant and has no association with Carbine Resources Limited other than being engaged for services in relation to the preparation of parts of this report. Lance Govey has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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'. Lance Govey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. This was initially release to the ASX on 13 November 2014 and has not materially changed since it was last reported.

The information in this report that relates to the Mineral Resources of the Mount Morgan Mine project was prepared in accordance with the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' ("JORC Code") by Troy Lowien, Resource Geologist, of consultants Coffey Mining Pty Ltd, who is a Member of The Australasian Institute of Mining and Metallurgy ("AusIMM") and has a minimum of five years of experience in the estimation, assessment and evaluation of Mineral Resources of this style and is the Competent Person as defined in the JORC Code. Troy Lowien conducted the geological modelling, statistical analysis, variography, grade estimation, and report preparation. This report accurately summarises and fairly reports his estimations and he has consented to the resource report in the form and context in which it appears. This information was prepared and first disclosed under the JORC Code 2004. It has not been updated to comply with the JORC Code 2012 on the basis that the information has not materially changed since last reported on 28 October 2009.

# INVESTMENT OPPORTUNITY

Targeting development of one of the lowest cost gold operations in Australia



## **SIGNIFICANT RESOURCES**

*Up to 1,000,000oz gold  
& 80,000t copper*

*Currently 8.4Mt JORC Resources  
(<30% of gold mineralisation)*



## **LOW COST OPERATION**

*US\$234/oz All-In Sustaining Costs  
(life of mine)*

*A\$1,350/oz operating margin at  
current US\$1,200 gold price*



## **BINDING OFFTAKES**

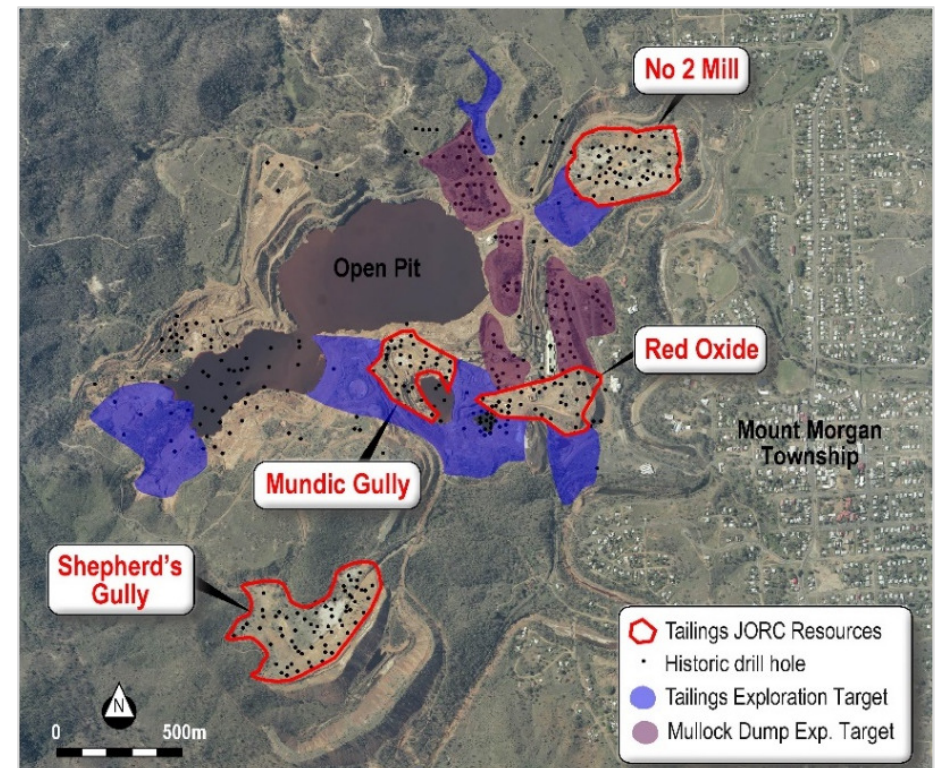
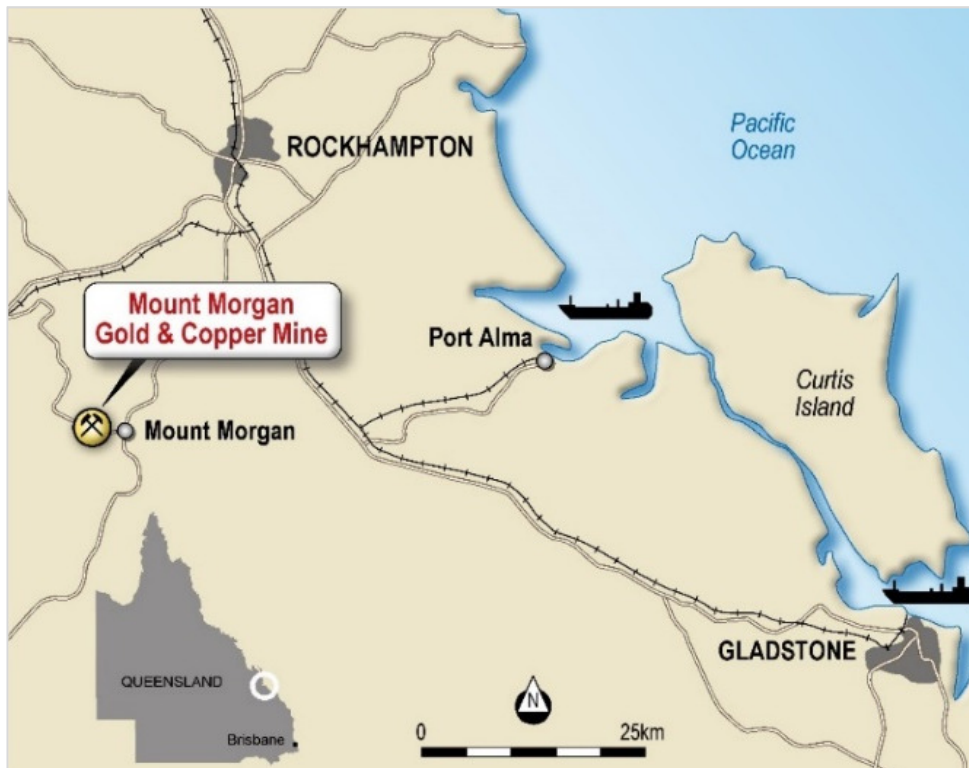
*Pyrite binding offtake:  
Up to A\$25M pa revenue*

*Copper binding offtake:  
Up to A\$8M pa revenue*

# MOUNT MORGAN MINE

## Overview

- Historic Australian gold mine - proximity to infrastructure, cities, ports & rail
- Primary deposit mined for ~100 years (8.4Moz Gold, 400kt Copper)
- Mineralised Tailings: ~40Mt deposited on site

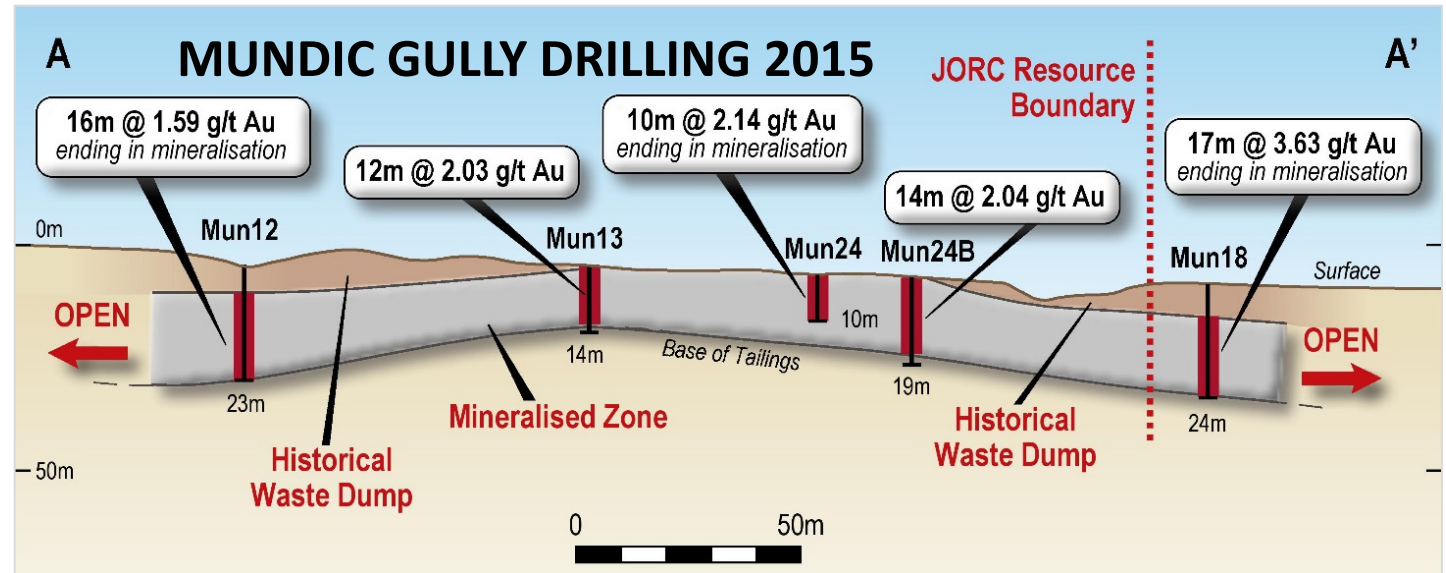
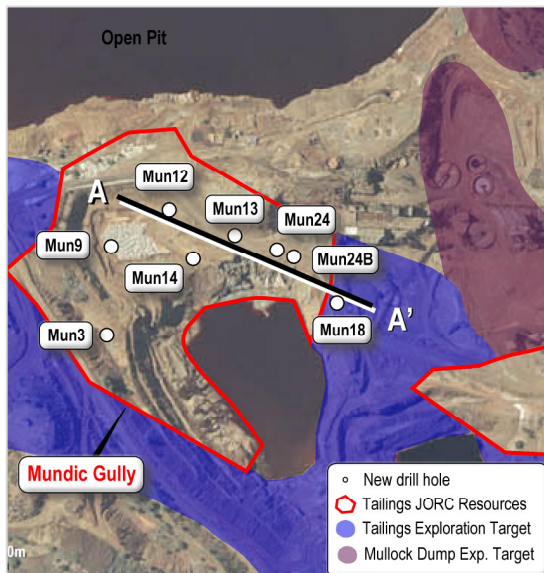




# SIGNIFICANT RESOURCE BASE

Tailings resource: deposit stockpiled at surface, crushed & ground

Resources		Tonnes	Au (g/t)	Cu (%)	Au (oz)	Cu (t)
JORC RESOURCES		8.4 Mt	1.23	0.15%	329,000	12,300
NON-JORC HIGH GRADE RESOURCES (Exploration Target)*	Low	4.7 Mt	1.54	0.12%	231,000	5,700
	High	5.8 Mt	1.81	0.17%	336,000	9,800
TOTAL RESOURCES*	Low	13.1 Mt	1.34	0.14%	560,000oz	18,000t
	High	14.2 Mt	1.46	0.16%	665,000oz	22,100t



\* The potential quantity and quality in these exploration targets are conceptual in nature, there has been insufficient exploration to define a Mineral Resource and it is uncertain if further exploration will result in the determination of a Mineral Resource

# PRE-FEASIBILITY STUDY RESULTS

Independent report: completed by GR Engineering



Production Parameters	Value	Notes
Mine Life	8 years	JORC Resources only (<30% of known mineralisation)
Annual Throughput	1,000,000 t/yr	Scale up potential
Average Production	31,000 oz/yr 3,200 tpa 211,000 tpa	Gold Copper Sulphate Pyrite Concentrate
Average Gold Eq. Production	48,500 oz/yr	Inc. >58,000oz/yr Au eq. in years 1 – 3

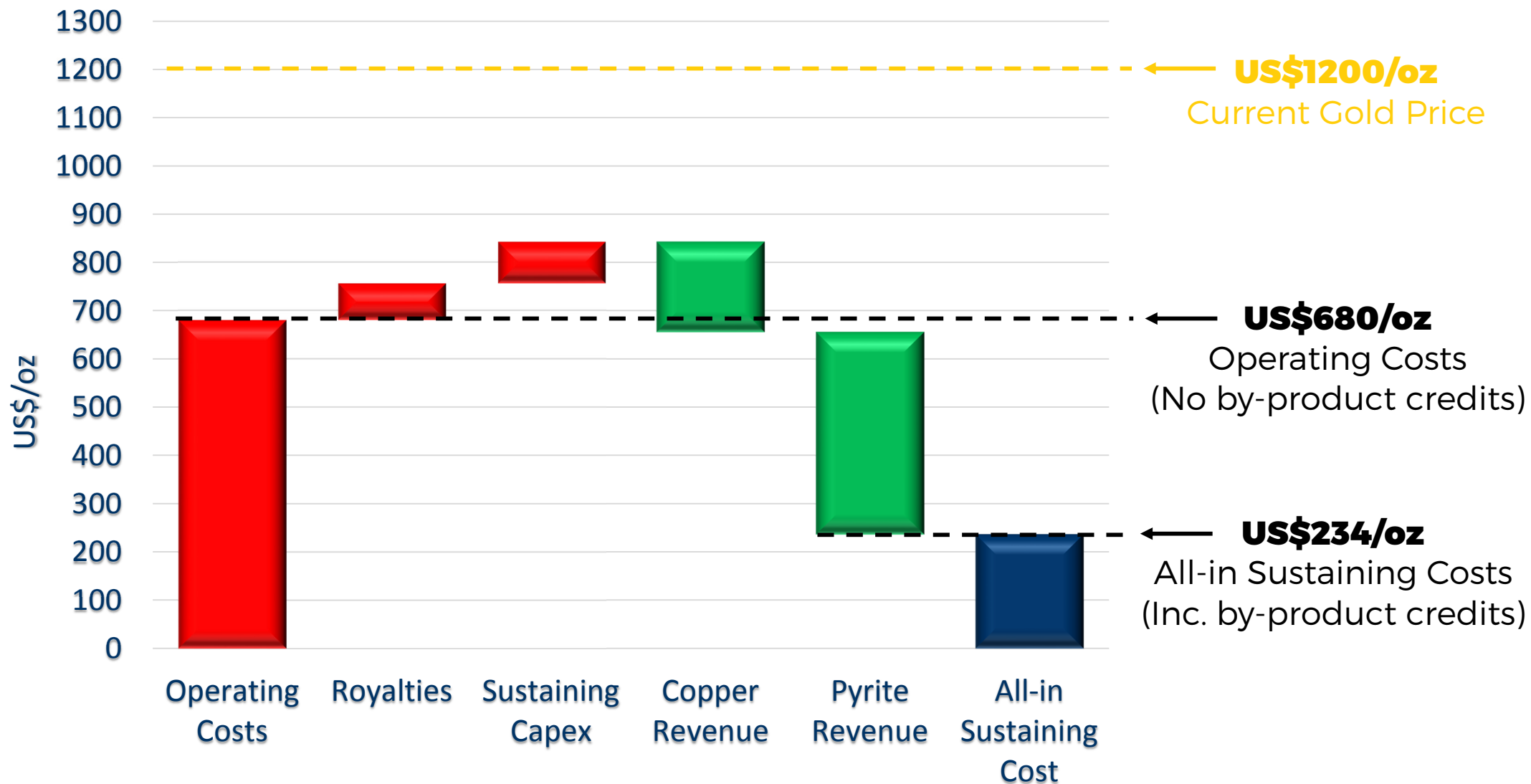
Financial Parameters	Value	Notes
Capital Costs	A\$ 63.3M	Assumed new plant construction
Operating Costs	A\$ 29.2/t	
All-in Sustaining Costs	US\$ 234/oz	Life of mine

*\*Note: Metal prices Gold US\$1,125/oz.; Copper US\$5,100/t;  
Pyrite US\$60/t; USD/AUD Ex. Rate \$0.75.*

Potential to become one of the lowest cost  
gold operations in Australia.

# ALL-IN SUSTAINING COSTS

Projected US\$966/oz (A\$1,350/oz) operating margin



# SECURED BY-PRODUCT OFFTAKES

Pyrite & copper underpin low cost operation

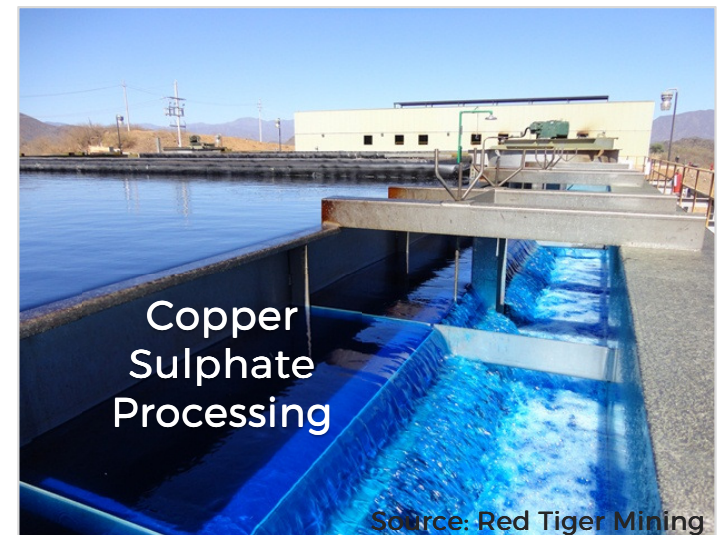
## Pyrite Concentrate

- Four year contract – up to 225,000tpa
- Sale price: US\$80/t FOB Gladstone Port
- 90% payment at mine gate, letter of credit terms
- *Revenue base of up to ~A\$25 Million per annum*



## Copper Sulphate

- Three year contract – up to 5,000tpa
- Sale price: formula relative to LME Cu price + premium
- Mine gate sales
- *Revenue base of up to ~A\$8 Million per annum*





# STRATEGIC PARTNERSHIP

GR Engineering now Carbine's largest shareholder

## Alliance with GR Engineering for future mine development

- Dec 2015: Binding MOU with GR Engineering Services Limited (ASX: GNG)
- A\$750,000 placement: strong vote of confidence in Carbine's development plans
- Long term relationship for ongoing engineering, design, construction and operations

## GR Engineering Overview

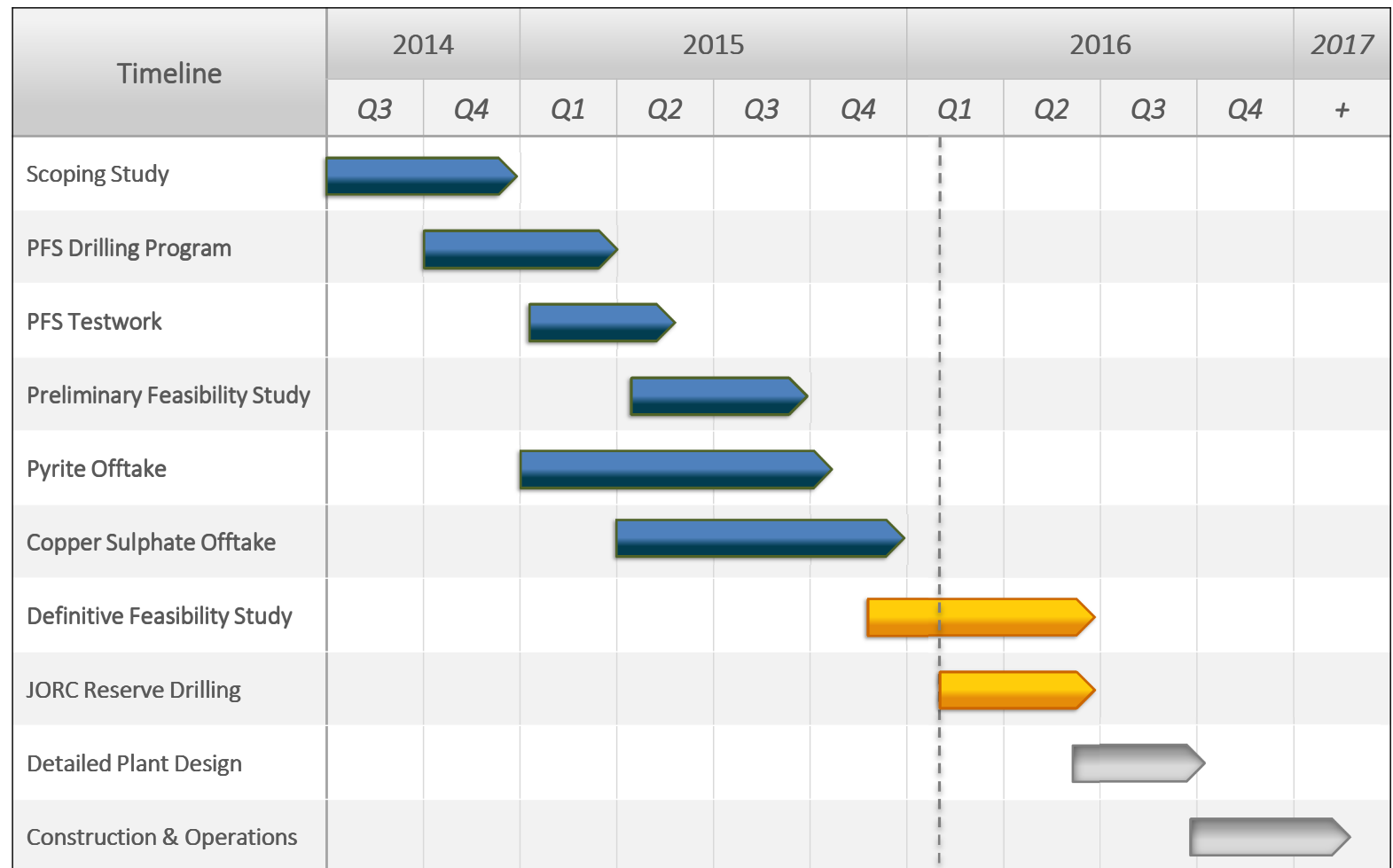
- ASX Listed, leader in specialist process engineering, design and construction
- Strong reputation and experience in tailings reprocessing
- Track record of project delivery in 13 countries



Andy Well Gold Process Plant (GR Engineering EPC)  
Source: Doray Minerals Ltd

## Final feasibility & financing process underway

- ✓ Confirmed US\$234 AISC via independent PFS
- ✓ Binding pyrite offtake – A\$25M p.a. revenue
- ✓ Binding copper sulphate offtake – A\$8M p.a. rev
- ✓ DFS & drilling underway
- ✓ Employed key technical and financial staff
- ✓ 2015 Austmine Innovation Award for Miners
- ✓ Three phases of independent testwork
- ✓ Maintained strong cash balance



# CARBINE SNAPSHOT

Experienced board & management, quality major shareholders

## Share Price History



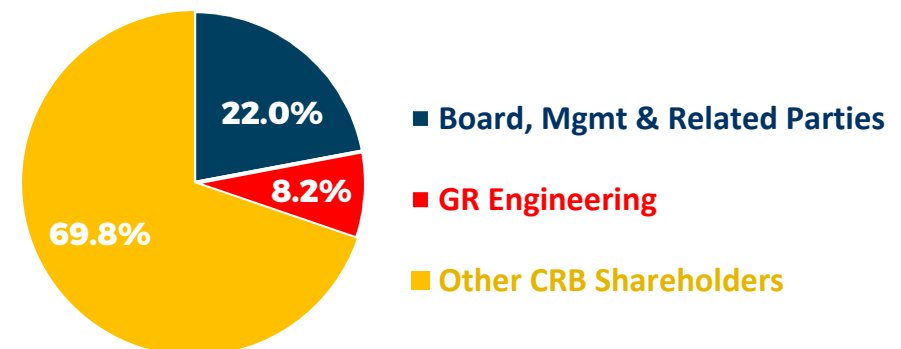
## Board & Management

Patrick Walta	Executive Director
Evan Cranston	NED
Tom Bahen	NED
Stephen Dobson	NED
Terry Moylan	Chief Operating Officer
Rod Smith	Chief Metallurgist
Russell Dann	Project Specialist

## Capital Structure

Shares (ASX: CRB)	152 Million
Unlisted Options (\$0.05 - \$0.10)	25 Million
Market Capitalisation (@ \$0.075/share)	\$11.5M
Cash & Deposits (10 Jan 2016)	\$3.0M

## Significant Shareholders





# CARBINE RESOURCES LIMITED

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*Unlocking significant metal value left behind  
after 100+ years of operations*