



CARBINE RESOURCES
LIMITED

Mount Morgan Gold & Copper Project

*Developing a low-cost long-life
tailings operation*

Investor Update
February 2015

Disclaimer



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Mineral Resources

The Indicated and Inferred Resources referred to above 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). 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 Table above 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 Statement

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.

Mount Morgan Value Proposition

Significant Resource Base

- ✓ **Up to +1Moz Au & 80,000t Cu tailings resources**
- ✓ Additional in-situ resource potential

Robust Project Economics

- ✓ Scoping Study outlines highly profitable operation
- ✓ **Projected All-In Sustaining Costs US\$393/oz**

Long Mine Life Potential

- ✓ Minimum 8yr mine life (current JORC resources only)
- ✓ **Potential for 25yr+ operations**

Strong Financial Position

- ✓ **Offtake agreement for Pyrite by-product sales**
- ✓ Carbine fully funded through to decision to mine

Carbine Resources Snapshot

Capital Structure

Shares (ASX: CRB)	140 million
Unlisted Options (\$0.05 - \$0.20)	28 million
Market Capitalisation (@ \$0.035/share)	\$4.9M
Cash & Deposits (31 Dec 2014)	\$4.2M
Enterprise Value	\$0.7M

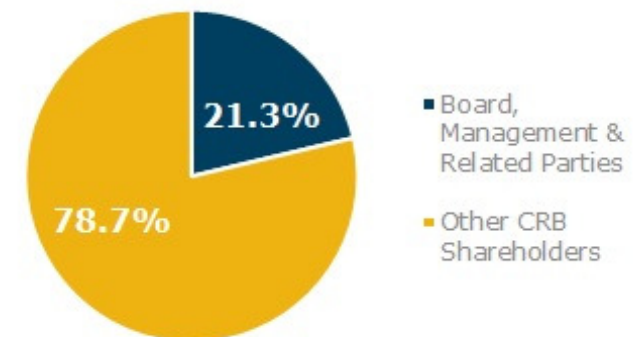
Board & Management

Patrick Walta	Executive Director
Evan Cranston	Non-Exec Director
Tom Bahen	Non-Exec Director
Rod Smith	Chief Metallurgist

Share Price History (post acquisition)



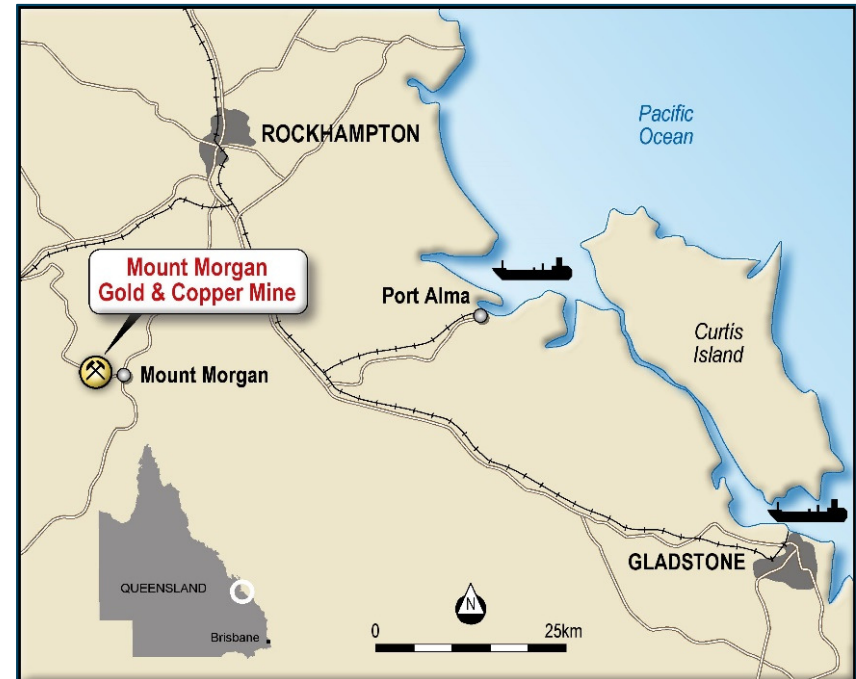
Significant Shareholders



Mount Morgan Mine Overview

Location & Historical Activity

- Au/Cu/Ag deposit on QLD coast
- Close proximity to cities, ports & rail
- Deposit mined for ~100 years
- Production 8.4Moz Au, 400kt Cu, 1.2Moz Ag
- Large defined tailings resource remains
- Environmental legacy owned by QLD gov



Development Status


- Established Mining Leases, Native Title extinguished
- Initial JORC resource definition completed, significant Exploration Target
- Identified cyanide consumption issue during historical tailings operations
- Carbine testwork completed – confirmed viability of new flowsheet
- **Scoping study completed – defined potential for low cost, long life ops**

Building on Past Success...

Mount Morgan Historical Tailings Operations (1981-1991)

- 1980: Shutdown of primary ore mining operations
- 1981 – 1991: 28Mt tailings processed via 3Mtpa Carbon-in-Leach (CIL) plant
- Average gold price during operations: US\$392/oz
- Excess cyanide consumption caused by soluble copper
- Operations ceased due to increased copper and falling gold price

Norton Gold Fields Feasibility Study (2010)

- Gold CIL flowsheet with pyrite recovery circuit (secondary revenue stream)
 - Excellent recoveries of pyrite to a high grade concentrate
 - Pyrite sales risk factors (reliant on sales to counter excess cyanide costs)
 - Soluble copper remained a central issue to operating costs
 - Recognised need for a more robust process solution...
- 

Carbine's Process Solution

Reverse Leach Ion Exchange (IX) with CIL

- Selective removal of copper prior to gold CIL extraction
- Upfront copper extraction provides:
 - ✓ Decreased cyanide consumption during gold extraction
 - ✓ Additional revenue stream
 - ✓ Increased gold recovery (no competition with copper)
- Simple copper IX process allows economic gold extraction via traditional CIL
- Pyrite flotation to also produce saleable/containable concentrate
- Creation of benign tailings to mitigate future acid mine drainage issues

Process provides a credible mechanism for economic mineral extraction and environmental site remediation

1Moz+ Au Remaining in Tailings

JORC RESOURCES		Tonnes (000s)	Au (g/t)	Cu (%)	Au (oz)	Cu (t)
	Indicated	2,487	1.59	0.16%	127,000	3,900
	Inferred	5,861	1.07	0.14%	202,000	8,400
TOTAL JORC		8,348	1.23	0.15%	329,000	12,300
EXPLORATION TARGETS*		Tonnes (000s)	Au (g/t)	Cu (%)	Au (oz)	Cu (t)
Tailings	<i>(low range)</i>	2,900	1.45	0.13%	135,000	4,000
	<i>(high range)</i>	3,280	1.66	0.18%	175,000	6,000
Mullock Dumps	<i>(low range)</i>	1,750	1.69	0.11%	95,000	2,000
	<i>(high range)</i>	2,500	2.00	0.15%	162,000	4,000
Metallurgical Slag	<i>(low range)</i>	1,850	0.60	0.43%	36,000	8,000
	<i>(high range)</i>	6,000	1.00	0.69%	193,000	41,000
Open Pit Tails	<i>(low range)</i>	25,300	0.52	0.09%	423,000	23,000
	<i>(high range)</i>	28,000	0.54	0.09%	486,000	25,000
TOTAL EXP. TARGET		31,800	0.67	0.11%	690,000	36,500
		39,800	0.79	0.19%	1,015,000	76,500

- Independent resource verification (Coffey & SMG)
- Drilling planned - JORC upgrading and definition of Exp. Targets

* 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

Testwork Results

Phase 1 & 2 Metallurgical Testwork

- **80% reduction in cyanide consumption** via upfront copper removal

Phase 1 Testing	Leach Mechanism	Cyanide Consumption (kg/t)
As Received	Cyanide CIL	5.54
75um Grind	Cyanide CIL	5.25
75um Grind	Acid IX & Cyanide CIL	1.00

- **91% recovery of pyrite** to a saleable high grade concentrate
- **Significant increase in gold extraction** compared with previous operations
- Successful copper recovery for additional by-product revenue

Pit Water Testwork

- Pit water contains elevated levels of dissolved copper
- Successful 99.9% copper extraction via single pass IX processing
- Copper extraction to improve existing pit water treatment plant performance

Scoping Study Results

Parameters

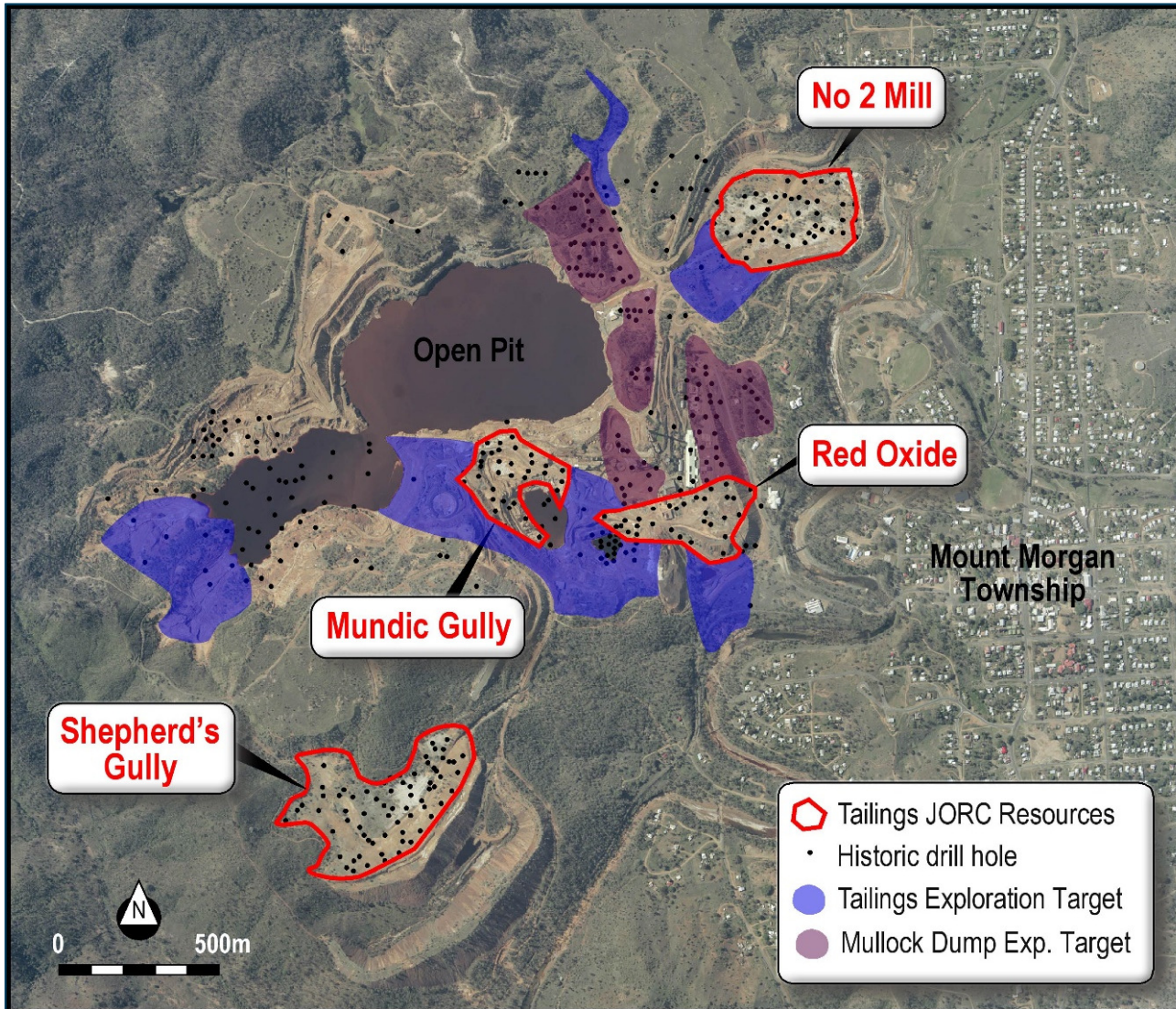
Parameter	Value	Notes
Mine Life	8 years	JORC resources only
Annual Throughput	1,000,000 t/yr	Based on available JORC resources
Production		High grade resources targeted during initial years of operations
<i>Gold</i>	36,000 oz/yr	
<i>Copper</i>	850 tpa	
<i>Pyrite</i>	230,000 tpa	

Results

Parameter	Value	Notes
Capital Costs	A\$ 81.9M	Assumed new plant construction
Operating Costs	A\$ 32.2/t	
All-in Sustaining Costs	US\$ 393/oz	Life of mine

* Note: Metal Prices: gold US\$1,250/oz, copper US\$7,000/t, pyrite US\$86/t. Ex. Rate \$0.85

Simple Mining Operations



Tailings & Mullock

- Easily identified & extensively drilled
- Confined by natural gullies & retaining walls
- Deposition history from historical operations

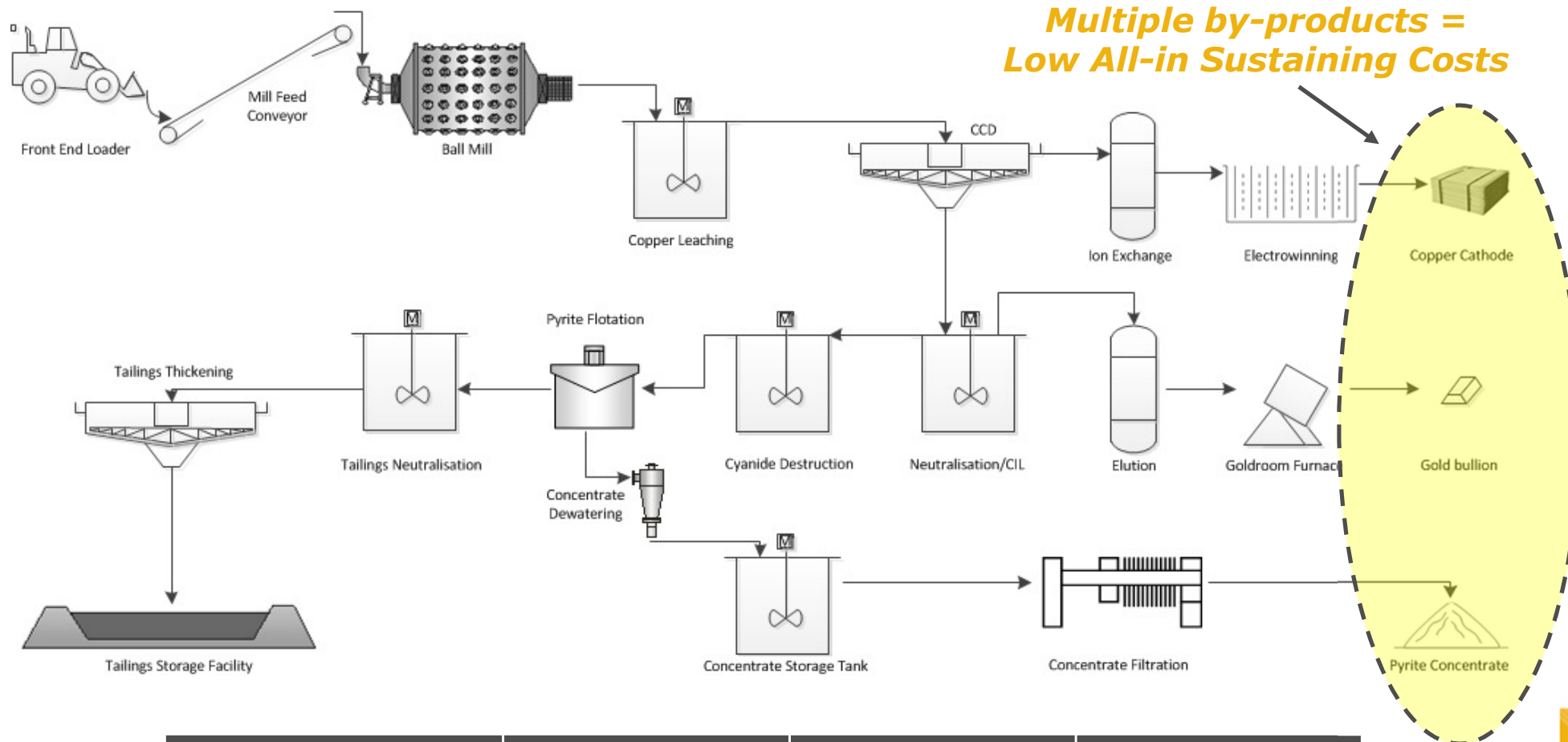
Mining Operations

- Planned dry mining
- Truck & loader operation
- Potential for hydraulic mining

Production of Three Products



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Metal Extraction	Historical Tailings Reprocessing (1981 – 1991)	Norton Feasibility Study (2010)	Carbine Scoping Study (2014)
Gold	50 - 55%	65%	78%
Pyrite	-	86%	91%
Copper	-	-	56%

Pyrite Offtake Agreement

Landmark Principal Offtake Agreement for Pyrite & Met Slag

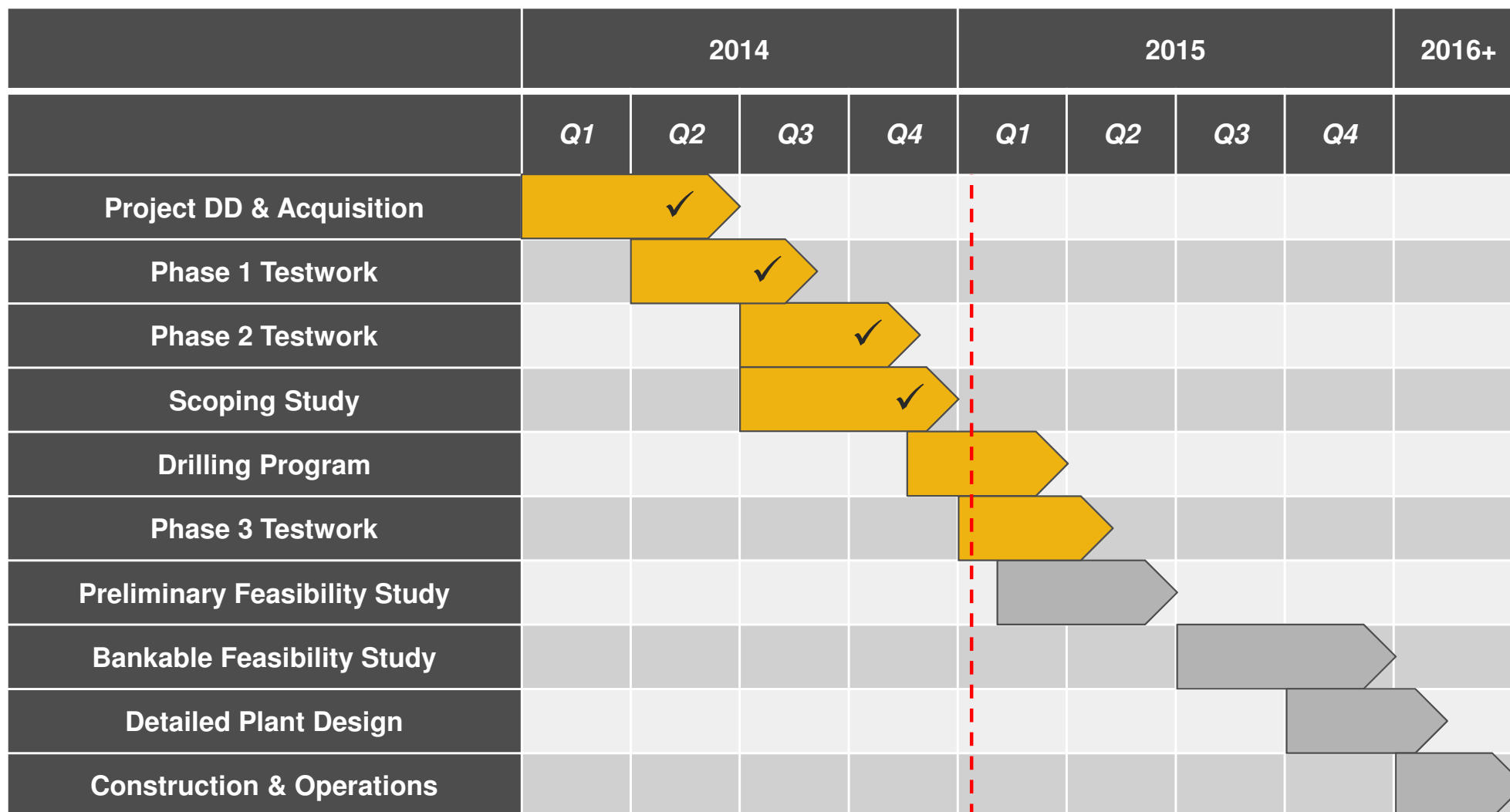
- Principal agreement for mine gate sales (non-exclusive)
- Talana Limited: Large global distributor of industrial minerals
- Talana to pre-market pyrite products to existing trade connections in Asia
- **Conditional Pyrite Offtake Agreement Terms:**
 - **Production: 200,000 – 300,000tpa**
 - **Grade: ±50% Sulphur**
 - **Price: ±US\$100/t CFR**
- Final parameters confirmed following completion of PFS & logistics study
- Met Slag terms to be agreed following pre-marketing exercise
- Potential to increase scope to include copper products & raw material supply

- Confirms value potential of pyrite sales
- Validates Scoping Study All-in Sustaining Costs of US\$393/oz

Achieving Project Milestones



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- All key milestones achieved within prescribed timeframes
- Continuing to aggressively pursue development milestones

Additional Assets

Kundana CIP Plant

- 1Mtpa gold CIP plant
- Originally intended for use at Mount Morgan
- **Plant refurbishment (\$3.5M spent by NGF)**
- Plant remains packed at Paddington Mine, WA
- Potential for:
 - full or partial reuse at Mount Morgan
 - domestic or international sale



Kundana CIP Plant prior to decommissioning & refurbishment

Many Peaks Copper Deposit

- QLD prospective Cu/Au exploration ground with historical operations
- Historical mining of 500,000 @ ~2% Cu
- Significant resource definition potential
- Mining leases in place
- Desktop study underway to review potential

Kundana CIP (Pre-Refurb.)



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*Crushing
Circuit*



*Ball Mill &
Gravity Circuit*



*Leaching
Circuit*



Gold Room



*Reagents
Plant*



*Tailings
Disposal
Plant*

*Assessing
suitability for full
or partial
utilisation of the
Kundana CIP
Plant at Mount
Morgan*



Why Invest in Carbine?

Cash flow strategy targeting near term production

- Large resource of up to +1Moz gold with significant copper & pyrite credits
- Predicted robust project economics with by-product sales
- Engagement of key offtake partners
- Engagement of key technical partners
- Government R&D Rebate provides 45% refund on project expenditure

Carbine's planned course of action

- Phase 1 & 2 testwork (technical viability confirmation) (COMPLETED)
- Scoping study (economic potential confirmation) (COMPLETED)
- Drilling & JORC definition of exploration targets (Due Mar 2015)
- Phase 3 testwork & Preliminary Feasibility Study (Due July 2015)

Carbine remains fully funded to decision to mine
(\$4.2M cash & deposits)

Appendices: Board & Mgmt Bios

<p>Patrick Walta Executive Director</p>	<ul style="list-style-type: none">▪ Metallurgist & mineral economist, commercial & tech. mining experience▪ MD of Raging Bull Mining & Former CEO of Cradle Resources Limited▪ Experience in mineral resource dev, M&A, project management
<p>Rod Smith Chief Metallurgist</p>	<ul style="list-style-type: none">▪ Extractive metallurgist with 40 years' experience in metallurgical R&D▪ Former Managing Director of Ammtec Laboratories Limited▪ Vast experience in gold, base metals, rare earths & uranium extraction
<p>Evan Cranston Non-Exec Director</p>	<ul style="list-style-type: none">▪ Lawyer specialising in corporate and mining law▪ Former Executive Director of gold explorer Ampella Mining▪ Current Director of Attila Resources, Boss Resources & Cradle Resources
<p>Tom Bahen Non-Exec Director</p>	<ul style="list-style-type: none">▪ Current Director of Private Clients & Inst. Sales at Paterson Securities▪ Significant experience in capital raisings & corporate advisory▪ Previous experience in assurance and advisory with Deloitte

Appendices: Mount Morgan Tails



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