

**MOUNT MORGAN  
GOLD PROJECT  
DECEMBER 2017**



**CARBINE RESOURCES  
LIMITED**



**LONG LIFE PROJECT | SHORT TERM PAYBACK | COMMUNITY AND ENVIRONMENT ENHANCEMENT**





**A VISION OF OPPORTUNITY | A LONG LIFE PROJECT WITH SIGNIFICANT COMMUNITY AND ENVIRONMENTAL BENEFIT**





## SUMMARY INFORMATION AND NOT AN OFFER

The purpose of this presentation is to provide information about Carbine Resources Limited (“Carbine or the “Company”). It is not recommended that any person makes any investment decision in relation to the Company based on this presentation. This presentation is in summary form and does not purport to be all inclusive or complete. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this presentation. Neither this presentation nor the information contained in it constitutes an offer, invitation, solicitation or recommendation in relation to the purchase or sale of Carbine shares in any jurisdiction. To the fullest extent permitted by law, Carbine, its officers, employees, agents and advisers do not (a) make any representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of any information, statements, opinions, estimates, forecasts or other representations contained in this presentation or (b) accept any liability, including liability arising from fault or negligence on their part, for any loss arising from the use of this announcement or its contents or otherwise in connection with it. All securities transactions involve risks, which include (among other things) the risk of adverse or unanticipated market, financial or political developments.

## SLIDE 2 – ARTISTIC IMPRESSION

Please note that the picture shown on slides 2 and 17 in the additional information are artistic impressions generated by Carbine showing an example of the Mount Morgan site following mining and development of a tourist/cultural precinct. A significant amount of work needs to be completed by all the stakeholders at Mount Morgan to finalise the vision before the completion of the project. This picture has been generated by Carbine to allow people to visualize one of the many opportunities that exist at Mount Morgan.

## DISCLAIMER REGARDING FORWARD LOOKING STATEMENTS

This presentation includes forward looking statements. Forward looking statements are only predictions and the assumptions on which they are based are subject to risk factors related to the conduct of mineral exploration, mining and production activities. Whilst Carbine believes that the expectations as to future matters reflected in these forward looking statements are based on reasonable grounds, they may be affected by changes to underlying assumptions which could cause a material change to actual values, results or events, such as price and currency fluctuation, drilling results, environmental and physical risk, financial market conditions, approvals, legislative and regulatory changes, and cost estimates. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Subject to any continuing obligations under applicable law and ASX Listing Rules, Carbine does not undertake to update or revise any information or any of the forward looking statements in this presentation.

## METAL EQUIVALENTS

Both AuEq (g/t) and PyriteEq (wt%) have been used in this announcement. AuEq was calculated for each ore source based on the different metallurgical recoveries associated with those ore sources. A combined Total AuEq was also determined for representation of the combined effect of the four different ore sources. Please refer to Appendix F to see the detail formulas used for the determination of the metal equivalents.

## EXPLORATION TARGETS

It is common practice for a company to comment on and discuss its exploration in terms of target size and type. 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 significant 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.



## CAPITAL STRUCTURE

ASX Code	CRB
Shares on issue	200 Million
Share Price	6.9 cents <sup>1</sup>
Unlisted Options (\$0.05 - \$0.10)	7.0 Million
Market Cap	\$14.0M
Cash & Deposits	\$4.7M <sup>2</sup>

## MAJOR SHAREHOLDERS

Board, management and related parties	8.0%
GR Engineering Services	7.9%

## MOUNT MORGAN PROJECT EARN IN AGREEMENTS

Carbine & Raging Bull Metals <sup>3</sup>	CRB 6 month option extension to March 2018 to acquire 100% of project for 25M CRB shares, A\$2.1M and 1% Royalty. Previous milestone payments for initial 75% and remaining 25% after DFS replaced in new agreed option.
Raging Bull Metals & Norton Goldfields	100% interest transferred on decision to mine and payment \$2M Deferred payment \$13M (via 20% annual EBITDA)

## NOTES

1 - ASX 30 November 2017, 2 - As at 30 September 2017, 3 - ASX: 25 September 2017

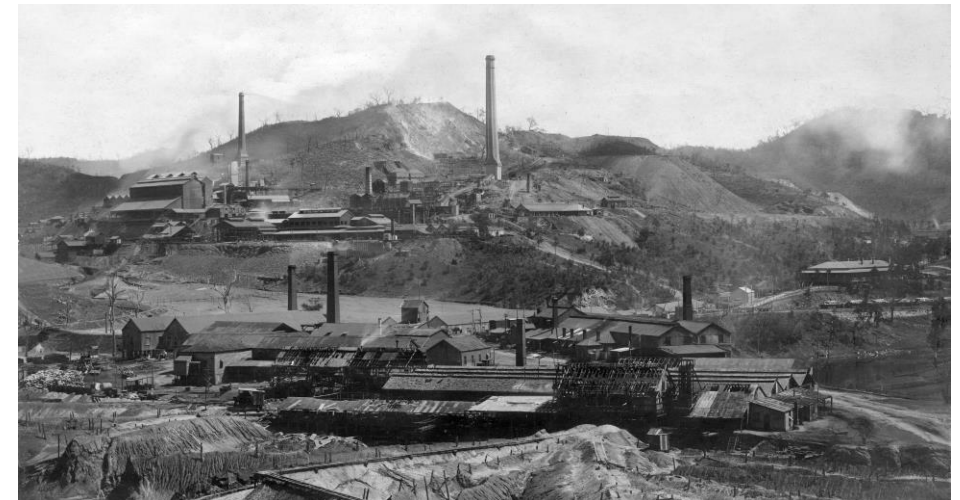
## BOARD & MANAGEMENT

Chairman	John Fitzgerald
Managing Director	Anthony (Tony) James
Director	Graham Brock
Director	Evan Cranston
Chief Operating Officer	Terry Moylan
Geology Manager	Chris Newman
Mount Morgan Project Specialist	Russell Dann





1. MOUNT MORGAN GOLD PROJECT IN CENTRAL QUEENSLAND. THE PROJECT SITS ADJACENT TO THE MOUNT MORGAN TOWNSHIP WITH WELL ESTABLISHED INFRASTRUCTURE
2. CARBINE FEASIBILITY STUDY COMPLETED IN DECEMBER 2016 ON THE TAILINGS RETREATMENT AND ENVIRONMENTAL CLEAN-UP OF FOUR HISTORIC TAILINGS DUMPS<sup>1</sup>
3. GOVERNMENT APPROVALS WILL CONTINUE INTO 2018 AND FEED ENGINEERING WILL BE COMPLETED IN 2017
4. THE HISTORICAL MOUNT MORGAN MINE IS ONE OF AUSTRALIA'S PREMIER GOLD AND COPPER MINES WITH PRODUCTION OF OVER 8.5MOZ GOLD, 400KT COPPER AND 1.2MOZ SILVER FROM 1882 TO 1980
5. TAILINGS PREVIOUSLY REPROCESSED VIA A 3MTPA CIL PLANT FROM 1981 TO 1990. LOW RECOVERY AND HIGH COST DUE TO CYANIDE CONSUMPTION AND SOLUBLE COPPER FORCED PREMATURE CLOSURE
6. QUEENSLAND GOVERNMENT ACCEPTED FULL ENVIRONMENTAL AND HERITAGE LIABILITY IN 1993
7. TECHNICAL AND COMMERCIALY SUCCESSFUL TEAM ESTABLISH NEW 3 STREAM PROCESS FLOW SHEET TO UNDERPIN FEASIBILITY STUDY (GR ENGINEERING SERVICES<sup>2</sup>)



#### NOTES

1. Please refer announcement ASX:8 December 2016..
2. Please refer announcement ASX: 23 December 2015.



## 2016

CLEANSSED RESOURCE & TECHNICAL DATA (2016)

MAIDEN ORE RESERVE (JORC 2012 – DECEMBER 2016)<sup>1</sup>

LONG LIFE, SHORT PAYBACK FEASIBILITY STUDY (DECEMBER 2016)<sup>1</sup>

## 2017

RAGING BULL OPTION EXTENSION TO MARCH 2018 AGREED (March & September 2017)<sup>2</sup>

HERITAGE DEVELOPMENT APPLICATION ENDORSED BY QHC & APPROVED BY MINISTER DNRM (April & May 2017)<sup>3</sup>

REGIONAL PLANNING AUTHORITY APPROVED BY DILGP (July 2017)<sup>5</sup>

PYRITE OFFTAKE AGREEMENT WITH IKING INTERNATIONAL LIMITED (August 2017)<sup>6</sup>

COMMENCE FEED & RIP DEMONSTRATION PLANT (May & September 2017)<sup>4</sup>

SLAG TRIALS TO COMMENCE CEMENT AUSTRALIA (August 2017)<sup>7</sup>

NOV – DEC, 2017

ENVIRONMENTAL AUTHORITY AMENDMENT (EA PREVIOUSLY APPROVED IN 2010)

JAN – MAR, 2018

FEED AND DEMONSTRATION PLANT RESULTS

DEC 2017

QLD REGIONAL JOBS & GROWTH FUND APPLICATION, (QLD GOV CARETAKER MODE)

DEC 2017

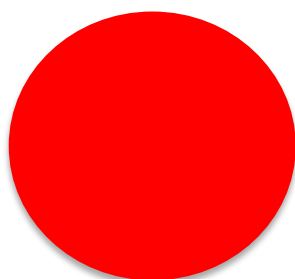
FINANCIAL ASSURANCE

PROJECT FINANCE (PARALLEL DUE DILIGENCE)

NIL

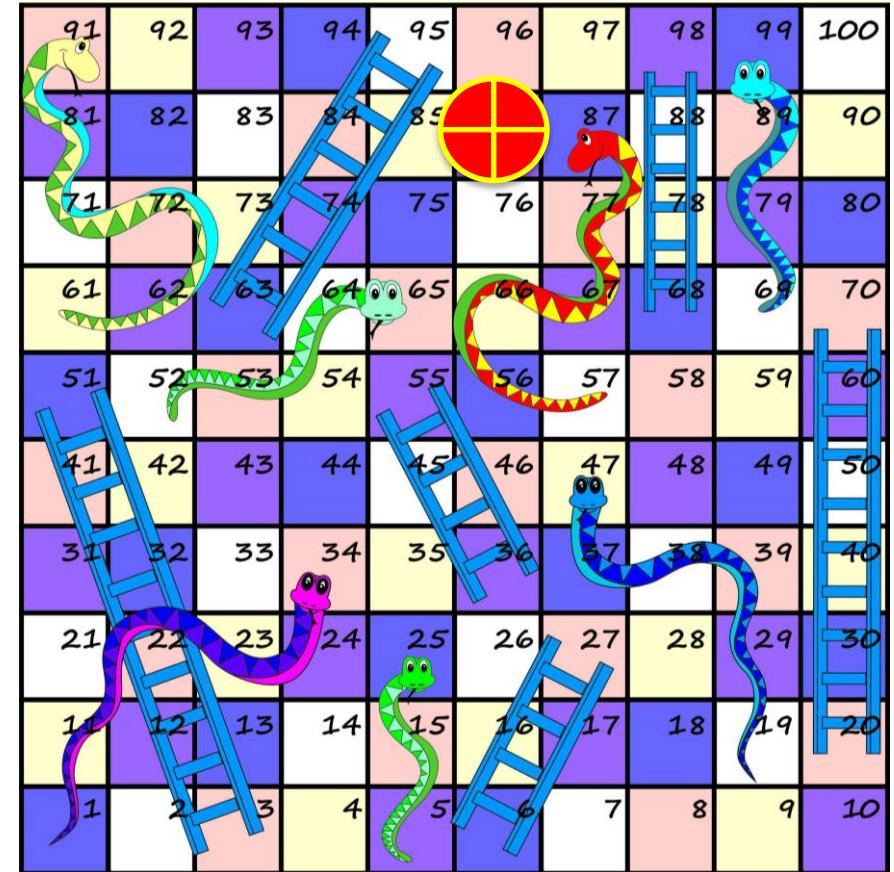
## NOTES – PLEASE REFER ANNOUNCEMENTS

1. ASX: 8 December 2016.
2. ASX: 24 March 2017 & 25 September 2017.
3. ASX: 27 April & 29 May 2017.
4. ASX: 9 May 2017.
5. ASX: 28 July 2017.
6. ASX: 2 August 2017
7. ASX: 28 August 2017





- 2014 - CARBINE PROJECT ENTRY SCOPING STUDY
- 2015 PRE FEASIBILITY STUDY (PFS) – COMPANY SPEND BY END OF 2015 WAS \$3.8M
- 2016 - COMPLETED DEFINITIVE FEASIBILITY STUDY (DFS) DELIVERS ROBUST PROJECT WITH EXPECTED Q2 2017 START – SPEND IN 2016 WAS \$4.9M
- 2017 – TIME TAKEN TO GET REGULATORY APPROVALS AND FINANCE PERIOD DELAYS START BEYOND DFS TIMELINE. COMPANY ALSO DECIDES TO RUN AND HAS COMPLETED DEMONSTRATION PLANT AS PART OF FEED WORK – SPEND IN 2017 IS \$2.5M
- MOUNT MORGAN PROJECT’S TECHNICAL PROGRESSION IS A RESULT OF SEVERAL COMPANY’S WORK OVER MANY YEARS. OVER 10 YEARS AND \$15M.
- MOUNT MORGAN FOCUSSED CARBINE SPEND SINCE 2014 IS \$11.2M
- COMPANY REMAINS COMMITTED TO DEVELOPING THE PROJECT PENDING FINAL APPROVALS AND FINANCE IN 2018



CURRENT TIMING FOR APPROVALS/FINANCE LEADS TO START OF PROJECT CONSTRUCTION IN EARLY TO MID 2018 AND PRODUCTION IN 2019



## 1. EA AMENDMENT APPLICATION TO BE FINALISED (DEHP)

- MOVING THE PROCESSING PLANT TO SANDSTONE GULLY
- REVISED TAILINGS STORAGE FACILITY(TSF) DESIGN AND SIZE
- INCLUSION OF MINING AND PROCESSING SHEPHERDS GULLY

## 2. EA INTERACTION WITH MINING RIGHTS AGREEMENT (DNRM) BEING FINALISED BETWEEN DNRM, DEHP & CARBINE

- DEE RIVER WATER DISCHARGE AND SITE WORK AREAS “DISTURBED AREA STATUS” TO BE AGREED AND FINALISED

**IMPORTANT NOTE ON PICTURE BELOW:  
THIS PICTURE SHOWS THREE PHOTOGRAPHS TAKEN FROM THE SAME LOCATION IN THE DEE RIVER IN APRIL 2017. THE ACID MINE DRAINAGE EFFECT SHOWN IN THIS PART OF THE DEE RIVER IS A RESULT OF SEEPAGE FROM THE MINE AT MUNDIC GULLY AND NOT FROM WATER DISCHARGE ASSOCIATED WITH WATER TREATMENT PLANT (WTP)**





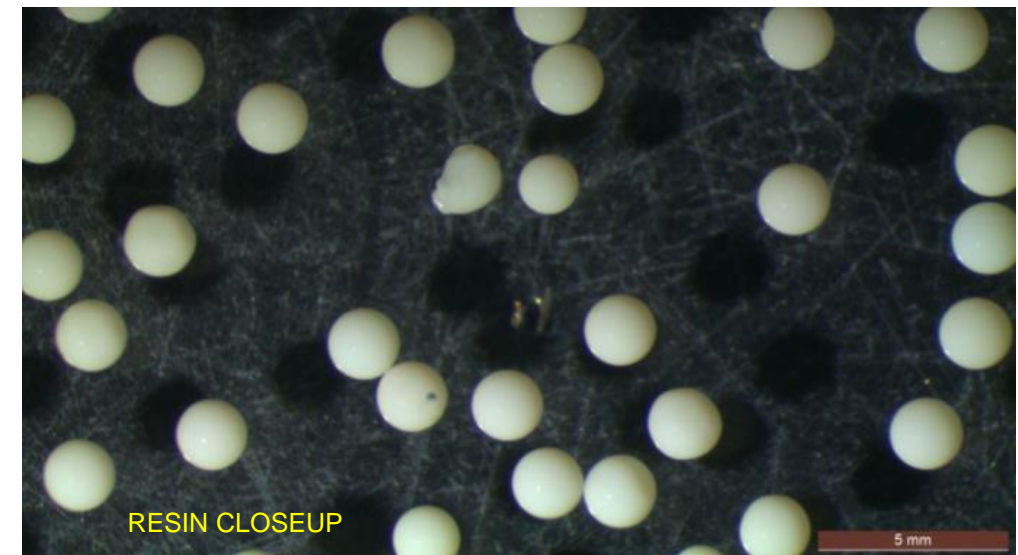


## 1. PLANT SITE GEOTECHNICAL (GRES)

- COMPLETED FOUNDATION DRILLING AND TEST PITS

## 2. DEMONSTRATION PLANT TEST WORK COMPLETE<sup>1</sup>

- CONFIRMS FLOW SHEET WILL DELIVER TECHNICAL AND ECONOMIC OUTCOMES ACHIEVED IN THE DFS
- VALIDATION OF COPPER AND CYANIDE RESIN CIRCUITS
- REPLICATION OF PYRITE CONCENTRATE QUALITY
- CONSISTANT ORE FEED ASSAYS FROM COMPOSITE BLEND SAMPLE



NOTES – PLEASE REFER ANNOUNCEMENTS

1. ASX: 25 October 2017





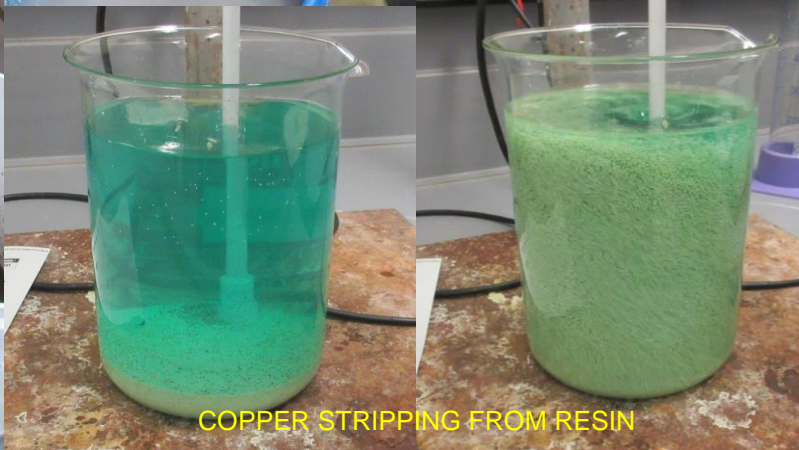
COPPER RIP DEMONSTRATION



COPPER LOADED RESIN



BATCH TESTING



COPPER STRIPPING FROM RESIN

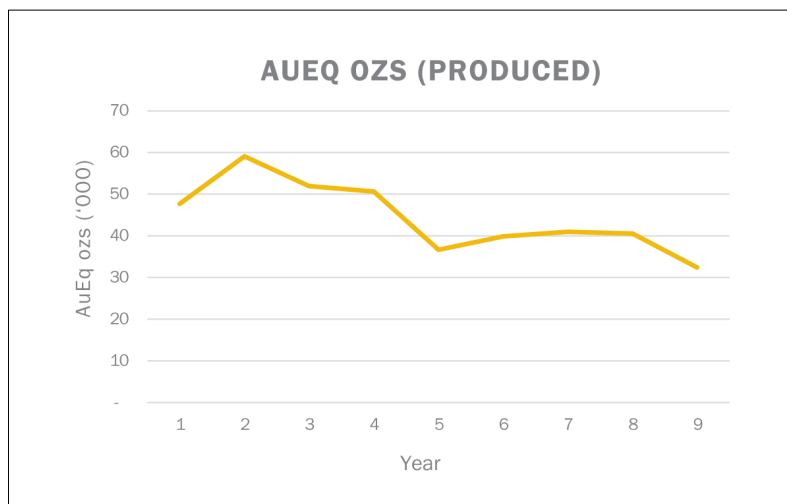


PYRITE FLOTATION

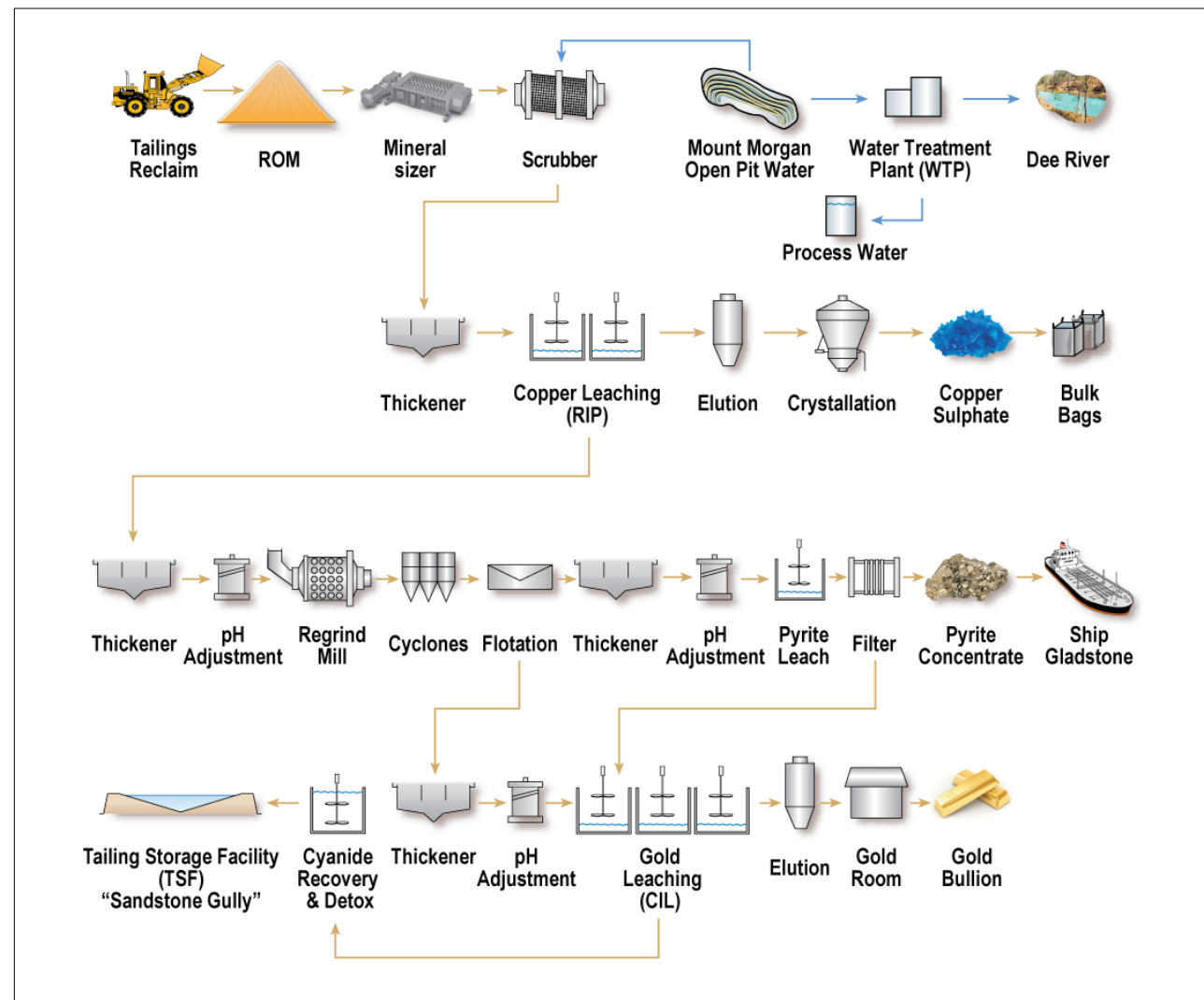


## THREE STREAM PROCESSING FACILITY PRODUCING COPPER SULPHATE, UNROASTED PREMIUM IRON PYRITE AND GOLD

- COPPER RESIN LOADING (RIP)
- PYRITE CONCENTRATE FLOTATION
- GOLD CARBON LEACHING (CIL)



METAL RECOVERY	MUNDIC GULLY	NO 2 MILL	RED OXIDE	SHEPHERDS	TOTAL
GOLD	72%	71%	74%	70%	71%
PYRITE	96%	93%	0%	87%	90%
COPPER	66%	65%	48%	51%	56%





## 1. LONG LIFE PROJECT (1.1MTPA THROUGHPUT)

- 9.5 YEAR BASE CASE<sup>1</sup>
- 20 YEAR EXPANDED CASE<sup>1</sup>

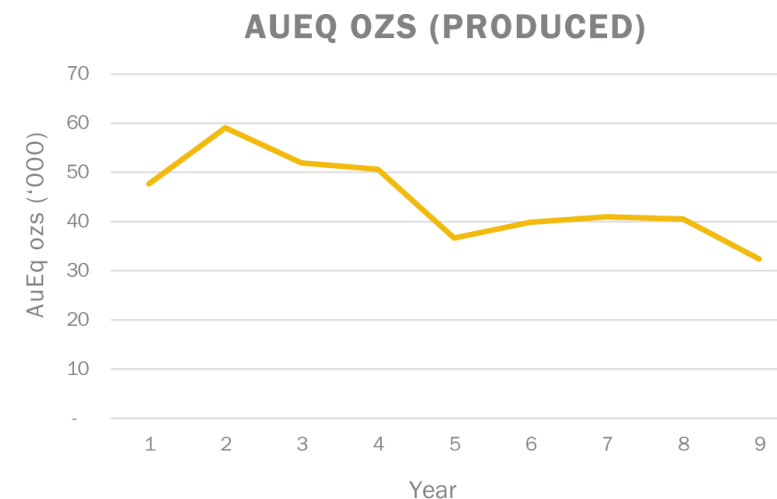
## 2. LOW COST - AISC<sup>2</sup> OF A\$549/AU OZ

## 3. SHORT TERM PAYBACK - 2 YEAR PAYBACK

## 4. PRE-PRODUCTION CAPITAL<sup>3</sup> OF A\$85M, WHICH INCLUDES

- PROCESSING PLANT \$75.6M

## 5. MAIDEN ORE RESERVE OF 9.9MT @ 1.8 G/T AUEQ<sup>4</sup> (1.2G/T AU, 0.16% CU, 21% PYRITE)



### NOTES

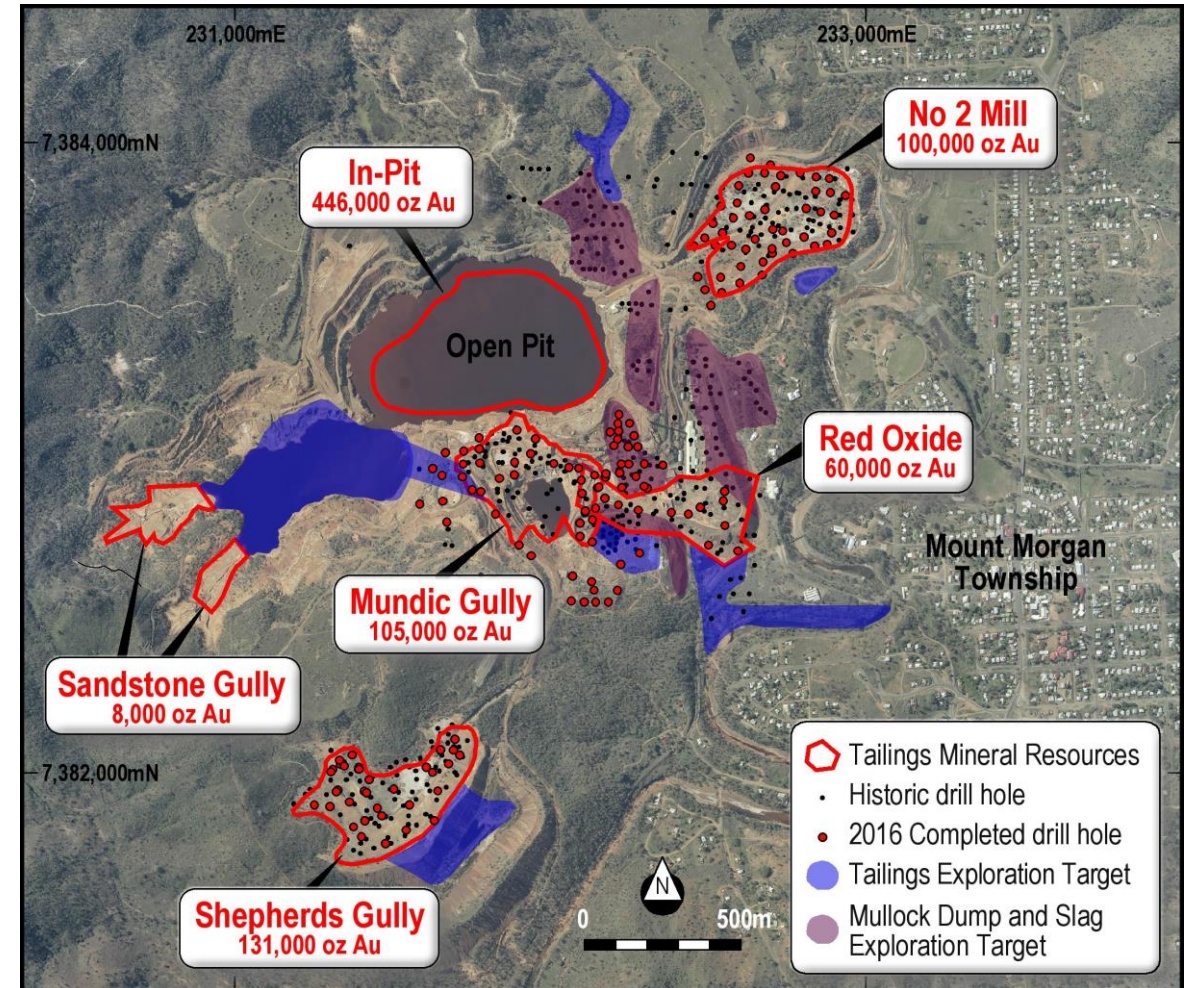
1. Please refer announcement ASX:8 December 2016.
2. AISC = C1 + royalties + sustaining capital costs (C1 = Direct cash operating costs produced net of by-product credits),
3. Preproduction capital is capital spent prior to first gold production.
4. AuEq reference formula Appendix F:



## 1. 20 YEAR PROJECT IS AN EXTENSION TO ORE RESERVE (“BASE CASE”)

## 2. EXPANDED CASE - 22MT @ 1.6G/T AUEQ<sup>1</sup>, (0.9G/T AU, 0.12% CU, 21% PYRITE)

- First 9.5 years – “Base Case”, Ore Reserve
- +9.5 years to achieve 20 years expansion (same throughput rate) includes;
  - 10.8Mt @ 0.63g/t Au (47% of total Inferred Mineral Resources)<sup>2</sup>
  - 1.9Mt @ 1.2g/t Au (Low range Exploration Target)<sup>2</sup>
- Exploration Target is combination of oxide and sulphide waste and tailings dumps. Exploration Target is conceptual in nature, there has been insufficient exploration to estimate Mineral Resources and it is uncertain further exploration will result in estimation of the Mineral Resources or that the production target will be realised.
- Historical Production data and detailed technical review support reasonable grounds for inclusion of a portion of Inferred Mineral Resources in the Expanded Case. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the production target itself will be realised.
- The project is not dependent on the Expanded Case to be economic



### NOTES

1. AuEq reference formula Appendix F:
2. Mount Morgan Resource increases by 215% to 850,000oz (ASX: 30 August 2016)





# PYRITE OFFTAKE

## 1. BINDING OFFTAKE

- CARBINE SIGNS KEY CHINESE OFFTAKE WITH IKING INTERNATIONAL LIMITED (Please refer announcement ASX: 2 August 2017)
- CARBINE APPOINT PYRITE MARKETING SPECIALIST
- LOI's RECEIVED FROM END USERS FOLLOWING TESTWORK

## 2. CHINA CONSUMING 16MTPA PYRITE

- 10 LARGEST CONSUMERS ACCOUNT FOR OVER 5MTPA
- INITIAL FOCUS ON 3 REGIONAL AREAS,
  - SHANDONG/HEBEI    ● YANTZE    ● SOUTHERN
- PLANTS FOCUSED ON IRON FINES PRODUCTION (65%Fe), SULPHURIC ACID & POWER CREDITS



IRON FINES RESIDUE FROM ROASTER



PYRITE ROASTER  
JIHENG LANTIAN CHEMICAL COMPANY, HEBEI

PROVINCES:			AUTONOMOUS REGIONS:	CENTRAL GOVERNMENT-CONTROLLED MUNICIPALITIES:	SPECIAL AUTONOMOUS REGIONS:				
AH	Anhui	HL	Hainan	GX	Guangxi Zhuang (Inner Mongolia)	Beijing	Chongqing	Shanghai	Tianjin
FJ	Fujian	HL	Heilongjiang	NM	Nei Mongol				
GD	Guangdong	HN	Hunan						
GS	Gansu	JL	Jilin						
GZ	Guizhou	JS	Jiangsu						
HA	Henan	JX	Jiangxi						
HB	Hubei	LN	Liaoning						
HE	Hebei	QH	Qinghai						
		SC	Sichuan						
		SD	Shaanxi						
		SN	Shandong						
		SX	Shanxi						
		YN	Yunnan						
		ZJ	Zhejiang						

Province and autonomous region capitals are marked on the map



“The Queensland Government is **committed** to advancing key projects to support **jobs** and **regional growth**. Queensland’s mining sector is an **economic** mainstay and its capability to deliver **innovation in rehabilitation and remediation** is a major opportunity for the state. **On that basis the Department of State Development will continue to work with you to accelerate delivery of the project” ...**

# Jobs and Regional Growth Fund



**\$130 million fund**  
Backing business  
and jobs in regional  
Queensland



 The Hon Dr Anthony Lynham MP  
Minister for State Development and  
Minister for Natural Resources and Mines

Our Ref: MCY17/3217  
MC17/2004

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[www.derm.qld.gov.au](http://www.derm.qld.gov.au)

12 MAY 2017

Mr Anthony James  
Managing Director  
Carbine Resources Limited  
PO Box 1311  
SUBIACO WA 6904

Email: [tjames@carbineresources.com.au](mailto:tjames@carbineresources.com.au)

Dear Mr James

Thank you for your letter of 7 March 2017 about the Mount Morgan gold copper project. Carbine Resources' proposed mining project in Mount Morgan is certainly an exciting opportunity for the Rockhampton region and I am keen to see this project proceed.

I am advised the project may create 60 to 110 full time equivalent (FTE) jobs during construction and employ up to 70 FTE workers during operations. I understand it is your company's intention to recruit and procure locally where possible and I applaud this commitment.

I welcome this forward-thinking project which has the potential to significantly reduce the environmental legacy associated with the abandoned mine's contaminated tailings. The development of processes and technologies to re-work the historic tailings resources represents a significant opportunity for improved environmental outcomes.

The Queensland Government is committed to advancing key projects to support jobs and regional growth. Queensland's mining sector is an economic mainstay and its capability to deliver innovation in rehabilitation and remediation is a major opportunity for the state. On this basis, the Department of State Development will continue to work with you to accelerate delivery of the project.

If you have any questions about my advice to you, Mr Paul Woodland, Chief of Staff, will be pleased to assist you and can be contacted on (07) 3719 7360.

Yours sincerely



Dr Anthony Lynham MP  
Minister for State Development and  
Minister for Natural Resources and Mines



## 1. LONG LIFE PROJECT / SHORT TERM PAYBACK<sup>1</sup>

- 9.5 YEAR ORE RESERVE BASE CASE & 20 YEAR EXPANDED CASE
- \$549/AU OUNCE AISC (BIPRODUCT CREDITS) & 2 YEAR PAYBACK PERIOD
- PEAK AT 60OZS AUEQ ANNUAL PRODUCTION
- BINDING PYRITE OFFTAKE AGREEMENT WITH IKING<sup>2</sup>

## 2. COMMUNITY & ENVIRONMENTAL COMMUNITY ENHANCEMENT

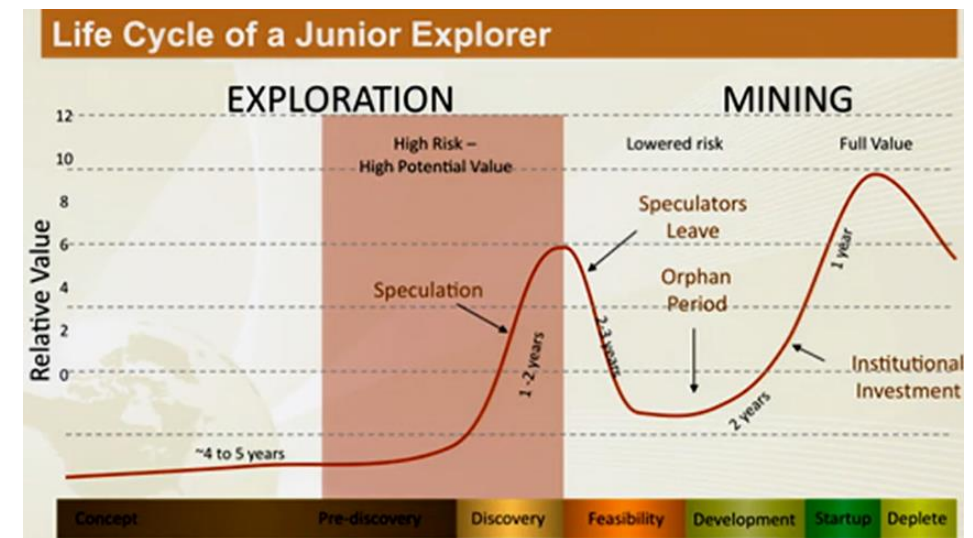
- SIGNIFICANT INROADS INTO QLD GOVERNMENT ACID MINE DRAINAGE LEGACY +\$500M
- TAILINGS REMOVED FROM OLD WATER WAYS & ORIGINAL GULLIES RESTABLISHED, COPPER (2KTPA) & PYRITE (200KTPA) BY-PRODUCTS REMOVED FROM SITE
- 12 MONTH CONSTRUCTION PERIOD WITH \$A85M CAPITAL SPEND, 20 YEAR OPERATING COSTS +\$A45M/YEAR
- 60 DIRECT JOBS, NO FIFO, MOUNT MORGAN HAS +25% UNEMPLOYMENT
- ENVIRONMENTAL CLEANUP & HERITAGE VISION LINKED TO GREEN TOURISM OPPORTUNITY

## 3. PROJECT STATUS

- ONE REMAINING APPROVAL ASSOCIATED WITH EA AMENDMENT (PREVIOUSLY APPROVED IN 2010)
- STRONG GOVERNMENT SUPPORT & REGIONAL GROWTH FUNDING APPLICATION TO BE ADVISED – QLD ELECTION DELAY
- FEED AND DEMONSTRATION PLANT COMPLETION WAITING FINAL TESTWORK RESULTS BEFORE FINANCIAL MODEL REVISION LEADING INTO PROJECT FINANCE
- COMPANY CURRENTLY REVIEWING NEW GEOPHYSICS POTENTIAL



Carbine share price performance through DFS and approval stage – project in the orphan period



Lanstead Investors Pty Ltd, Queensland Mining Convention August 2017



# MOUNT MORGAN GOLD PROJECT

## ADDITIONAL INFORMATION



## EXPANDED CASE – CAUTIONARY STATEMENT

**The expanded case referred to in this announcement has been undertaken to show the likely extension of the 9 year Mineral Reserve base case out to 20 years.**

It is a preliminary technical and economic study of the potential viability of the Mount Morgan project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further exploration and evaluation work and appropriate studies are required before Carbine will be in a position to estimate any ore reserves.

The expanded case is based on the material assumptions outlined in Section 15 and Appendix 1 of the announcement (ASX: 8 December 2016). These include assumptions about the availability of funding. While Carbine considers all of the material assumptions are based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated in the expanded case will be achieved.

To achieve the range of outcomes indicated in the expanded case, funding of in the order of \$90 -\$100M will likely be required. Investors should note that there is no certainty that Carbine will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may dilute to or otherwise affect the values of Carbine's existing shares.

It is also possible that Carbine could pursue other 'value realization' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce Carbine's proportionate ownership of the project.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the expanded case.

	DESCRIPTION	FS BASE CASE	EXPANDED CASE
<b>MINING</b>	Ore Reserve (Mt)	9.9	9.9
	Additional Material – Expanded Case (Mt)	0	12.5
	Ore Reserve + Additional Material (Mt)	9.9	22.4
	Gold Grade (g/t)	1.19	0.9
	Contained Gold (ozs)	380,000	660,000
	Copper Grade (%)	0.16	0.12
	Contained Copper (t)	16,000	27,000
	Pyrite Grade (Wt %) <sup>4</sup>	21	21
	Contained Pyrite (t)	2,300,000	5,100,000
<b>PROCESSING</b>	Ore Processed (Mt)	9.5	22
	Polymetallic AuEq (g/t) <sup>1</sup>	1.8	1.6
	Gold Grade (g/t)	1.23	0.9
	Copper Grade (%)	0.17	0.12
	Pyrite Grade (Wt %)	22	21
	Average Annual Gold Production (ozpa)	30,000	23,000
	Average Annual Copper Sulphate Production (tpa)	3,800	2,700
	Average Annual Pyrite Concentrate Production (tpa)	214,000	200,000
<b>PROJECT ECONOMICS<sup>2</sup></b>	Mine life (years)	9.5	20
	Payback (years) <sup>3</sup>	2	2
	C1 (A\$/Au oz) <sup>4</sup>	395	384
	AISC (A\$/Au oz) <sup>5</sup>	549	576
	Pre-production Capital (A\$M)	85.1	85.1

### Table Notes (Ref announcement ASX: 8 December 2016):

- AuEq ozs have been determined using the AuEq grade for each case as outlined in Table 2 above. The AuEq calculation has been done with respect to the commodity prices shown in point 3 below and suitable metal recovery factors. Please refer to Section 1.6 of announcement and Appendix F this presentation for detailed description of calculation of Metal Equivalents used in this presentation.
- Project economics shown above includes the capital payment of A\$2 million to Norton Gold Fields Limited at the commencement of the project to obtain ownership rights and includes deferred payment of A\$13 million from future profits.
- Payback was determined using a AUD/USD FX 0.75, and with commodity prices of US\$1,200/oz gold, US\$60/t unroasted iron pyrite for years 1 & 2 then US\$80/t for the remaining years, US\$5,800/t copper. Copper sulphate revenue is based on copper LME price for approximately 25% copper grade plus A\$500/t premium for copper sulphate.
- C1 is defined as the direct cash operating costs produced, net of by-product credits, divided by the amount of payable gold produced. Direct cash costs include all mining and processing costs, general and administration costs, and transport and port costs net of revenue credits from the sale of by-products (pyrite and copper sulphate).
- AISC is the "All in sustaining cost" includes C1 costs, plus royalties and sustaining capital and are presented net of by-product credits, divided by the amount of payable gold produced.



# APPENDIX B – COMPETENT PERSON STATEMENT



The information in this report that relates to Exploration Targets, Exploration Results and the Inferred Mineral Resources for Mount Morgan In-Pit and Sandstone Gully is based on, and fairly represents, information and supporting documentation prepared by Mr. C Newman, who is a Competent Person according to the JORC 2012 Code. Mr. C Newman is a fulltime employee of Carbine Resources and a Fellow of the Australasian Institute of Mining and Metallurgy. He has sufficient experience that is relevant to the style of mineralization and the 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 Exploration Results, Mineral Resources and Ore Reserves'. The information in this report is extracted from previous company releases 'ASX: 16 August 2016 and 30 August 2016', and is available to view on the Carbine Resources website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to the Mineral Resources for Mundic Gully, Shepherds Gully, No 2 Mill and Red Oxide is based on information compiled by Dr M. Abzalov, who is a Competent Person according to the JORC 2012 Code. Dr M. Abzalov is a Fellow of the Australasian Institute of Mining and Metallurgy. He has sufficient experience in estimation of resources of gold mineralisation, and has a strong expertise in the all aspects of the data collection, interpretation and geostatistical analysis to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves'. Dr M. Abzalov is independent consultant, contracted to Carbine Resources for providing the technical guidelines for resource definition drilling at the Mount Morgan tailings project and in estimating the Mineral Resources. The information in this report is extracted from previous company releases 'ASX: 18 July 2016, 27 July 2016, 1 August 2016 and 9 August 2016, and is available to view on the Carbine Resources website. The Company confirms that it is not aware of any new

information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

The information in this report that relates to Ore Reserves for Mount Morgan is based on, and fairly represents, information and supporting documentation prepared by Mr. A James, who is a Competent Person according to the JORC 2012 Code. Mr. A James is a fulltime employee of Carbine Resources as the Managing Director of the company and he holds shares in the company. He is a Fellow of the Australasian Institute of Mining and Metallurgy. He has sufficient experience that is relevant to the style of mineralization and the 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 Exploration Results, Mineral Resources and Ore Reserves'. Mr. A James consents to the inclusion in this report of the matters based on his information in the form and context in which it appears. The information in this report is extracted from previous company releases 'ASX: 8 December 2016', and is available to view on the Carbine Resources website. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

# APPENDIX C – MINERAL RESOURCES

JORC 2012 MINERAL RESOURCE TABLE REPORTED AT A 0.00G/T CUT-OFF (REFER ASX ANNOUNCEMENT DATED 30 AUGUST 2016). ROUNDING ERRORS CAN OCCUR.

AREA	TYPE	CATEGORY	TONNAGE (MT)	GOLD (G/T)	GOLD (KOZ)	COPPER (%)	COPPER METAL (T)	SILVER (G/T)	SILVER METAL (KG)	SULPHUR (%)	PYRITE EQUIV. (WT %)
NO 2 MILL	Sulphide	Indicated	2.71	1.11	97	0.12	3,184	1.14	3,078	13.7	25.6
	Oxide	Indicated	0.12	0.8	3	0.05	55	1.8	207	4	
MUNDIC GULLY	Sulphide	Indicated	1.7	1.91	104	0.17	2,822	0.9	1,533	10.5	19.6
	Sulphide	Inferred	0.02	1.86	1	0.24	40	1.24	21	10.6	19.9
SHEPHERDS	Sulphide	Indicated	4.83	0.84	131	0.17	8,195	1.42	6,889	12.4	23.2
RED OXIDE	Oxide	Indicated	0.83	2.17	58	0.3	2,495	0.6	499	0.6	
	Oxide	Inferred	0.03	2.05	2	0.29	85	0.58	17	0.5	
SANDSTONE GULLY	Sulphide	Inferred	0.25	0.85	7	0.07	175	1.2	301	12	22.4
	Oxide	Inferred	0.02	0.85	1	0.07	14	1.2	24	2	
IN-PIT TAILS	Sulphide	Inferred	26.67	0.52	446	0.07	18,672	1.38	36,884	11.3	21.1
<b>TOTAL INDICATED</b>	<b>Total Indicated</b>	<b>Indicated</b>	<b>10.19</b>	<b>1.2</b>	<b>394</b>	<b>0.16</b>	<b>16,750</b>	<b>1.2</b>	<b>12,207</b>	<b>11.4</b>	
	Sulphide	Indicated	9.24	1.12	333	0.15	14,200	1.24	11,500	12.4	23.2
	Oxide	Indicated	0.95	2	61	0.27	2,550	0.74	706	1	
<b>TOTAL INFERRERD</b>	<b>Total Inferred</b>	<b>Inferred</b>	<b>26.99</b>	<b>0.53</b>	<b>456</b>	<b>0.07</b>	<b>18,986</b>	<b>1.38</b>	<b>37,246</b>	<b>11.3</b>	
	Sulphide	Inferred	26.94	0.52	454	0.07	18,887	1.38	37,205	11.3	21.1
	Oxide	Inferred	0.05	1.56	2	0.2	99	0.84	41	1.1	

# APPENDIX D – EXPLORATION TARGET

## EXPLORATION TARGET TABLE (ASX:30 AUGUST 2016).

The potential quality 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 the Mineral Resource. Rounding Errors will occur.

DESCRIPTION	DRILLHOLE NUMBER	TONNES (KT)	AU GRADE (G/T)	AU (KOZ)	COPPER %	SULPHUR %	TONNES (KT)	AU GRADE (G/T)	AU (KOZ)	COPPER %	SULPHUR %
OXIDE WASTE DUMPS	54	285	1.8	16	0.1	2	555	2.3	40	0.1	2
OXIDE SLAG DUMPS	5	280	1	9	0.4	1	1,000	0.8	26	0.6	1
OXIDE TAILINGS DUMPS	34	215	1	7	0.1	3	715	0.9	22	0.1	3
<b>TOTAL OXIDE</b>	<b>93</b>	<b>780</b>	<b>1.3</b>	<b>32</b>	<b>0.2</b>	<b>2</b>	<b>2,270</b>	<b>1.2</b>	<b>88</b>	<b>0.3</b>	<b>2</b>
SULPHIDE WASTE DUMPS	34	430	1.2	17	0.1	12	635	1.4	30	0.1	13
SULPHIDE TAILINGS DUMPS	12	660	1	22	0.1	9	2,000	1.2	77	0.1	12
<b>TOTAL SULPHIDE</b>	<b>46</b>	<b>1,090</b>	<b>1.1</b>	<b>39</b>	<b>0.1</b>	<b>10</b>	<b>2,635</b>	<b>1.3</b>	<b>106</b>	<b>0.1</b>	<b>12</b>
<b>TOTAL SULPHIDE AND OXIDE</b>	<b>139</b>	<b>1,870</b>	<b>1.2</b>	<b>71</b>	<b>0.2</b>	<b>6.7</b>	<b>4,905</b>	<b>1.2</b>	<b>194</b>	<b>0.2</b>	<b>7.5</b>

# APPENDIX E – ORE RESERVE

## MINERAL RESERVE TABLE (ASX: 8 DECEMBER 2016).

This estimate has been prepared in accordance with JORC Code (2012) guidelines. Further details for the estimate can be found in FS announcement and the JORC code table 1 located at the back of that announcement. Some discrepancies in total may occur due to the rounding of numbers:

2 – Au Eq(g/t) refers to the calculated Au equivalent grade formula for which is stated in Appendix F:

3 – PyriteEq(wt %) refers to the calculated Pyrite equivalent grade formula for which is stated in Appendix F

LOCATION	RESERVE CATEGORY	QUANTITY (MT)	AUEQ (G/T) <sup>2</sup>	AUEQ (KOZ) <sup>2</sup>	AU (G/T)	CU (%)	S (%)	PYRITE (WT%) <sup>3</sup>
MUNDIC	Proven							
	Probable	1.52	2.57	126	2.04	0.17	10.1	18.9
RED OXIDE	Proven							
	Probable	0.73	2.48	58	2.11	0.3	0.4	-
No 2 Mill	Proven							
	Probable	2.82	1.73	156	1.1	0.11	13.1	24.4
SHEPHERDS	Proven							
	Probable	4.83	1.49	232	0.84	0.17	12.4	23.1
<b>TOTAL</b>	Proven							
	Probable	<b>9.9</b>	<b>1.8</b>	<b>573</b>	<b>1.19</b>	<b>0.16</b>	<b>11.3</b>	<b>21.1</b>



## BOTH AUEQ (G/T) AND PYRITEEQ (WT%) HAVE BEEN USED IN THIS ANNOUNCEMENT.

AuEq was calculated for each ore source based on the different metallurgical recoveries associated with those ore sources. A combined Total AuEq was also determined for representation of the combined effect of the four different ore sources. The following formulas shows the various calculations for the AuEq values seen in this announcement. The AuEq value is determined by multiplying the recovered metal by the metal prices and dividing by the gold price to determine the equivalent gold grade. Consideration is also given to the fact that the end product for Copper is Copper Sulphate and for Pyrite is Pyrite Concentrate. The total AuEq is determined by taking a weighted average of the four separate AuEq grades.

$$\text{Mundic Gully AuEq} = \text{Au (g/t)} + \text{Cu(\%)} * 172.11 + \text{PyriteEq (wt\%)} * 1.30$$

$$\text{No2 Mill AuEq} = \text{Au (g/t)} + \text{Cu(\%)} * 172.76 + \text{PyriteEq (wt\%)} * 1.73$$

$$\text{Red Oxide AuEq} = \text{Au (g/t)} + \text{Cu(\%)} * 122.83$$

$$\text{Shepherds AuEq} = \text{Au (g/t)} + \text{Cu(\%)} * 138.83 + \text{PyriteEq (wt\%)} * 1.79$$

Metal prices used in this calculation are US\$ 1,200/oz gold, US\$ 60/t unroasted iron pyrite for years 1&2 and US\$ 80/t thereafter, \$5,800/t copper. Copper Sulphate revenue is based on copper LME price for approximately 25% Copper grade plus \$500/t premium for copper sulphate. Metal recoveries are provided in section 6, Processing Physicals. It is Carbine's view that all the metals included within this formula are expected to be recovered and sold.

Pyrite (wt%) – Sulphur (S,wt %) grade has been converted into "pyrite equivalent" (wt,%) using stoichiometry of the pyrite

Formula – FeS<sub>2</sub>

Chemical composition Fe – 46.6%, S – 53.4% (this corresponds to 100wt% of pyrite in a sample)

