

# Presentation to the Australian Energy & Battery Minerals Investor Conference

ASX: RNU

## ASX RELEASE

March 15, 2018

## Renascor Resources Ltd

ABN 90 135 531 341

## HEAD OFFICE

36 North Terrace  
Kent Town, SA 5067  
Australia

## CONTACT

T: +61 8 8363 6989  
F: +61 8 8363 4989  
[info@renascor.com.au](mailto:info@renascor.com.au)  
[www.renascor.com.au](http://www.renascor.com.au)

## ASX CODE

RNU

Attached please find a copy of the presentation to be delivered to the Australian Energy & Battery Minerals Investor Conference – Brisbane, Thursday 15<sup>th</sup> March 2018.

## FOR FURTHER INFORMATION, PLEASE CONTACT:

**David  
Christensen**  
Managing  
Director

**Angelo Gaudio**  
Company Secretary

+61 8 8363 6989  
[info@renascor.com.au](mailto:info@renascor.com.au)

Developing  
Australia's largest  
graphite deposit



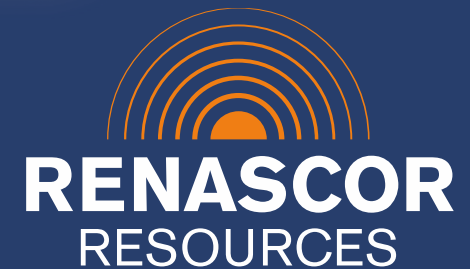
Renascor Resources Limited  
ASX code: RNU

# A Globally Significant *Australian* Graphite Project



**Presented to the Australian Energy &  
Battery Minerals Investor Conference**  
*Brisbane 14-15 March 2018*

*David Christensen, Managing Director*



# Important notices



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## Competent Persons Statement

The results reported herein, insofar as they relate to exploration activities and exploration results, are based on information provided to and reviewed by Mr G.W. McConachy (Fellow of the Australasian Institute of Mining and Metallurgy) who is a director of the Company. Mr McConachy has sufficient experience relevant to the style of mineralisation and type of deposits being considered to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code, 2012 Edition). Mr McConachy consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.

The results reported herein, insofar as they relate to metallurgical test work results, are based on information provided to and reviewed by Mr Simon Hall, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy and a consultant to the Company. Mr Hall has sufficient experience relevant to the mineralogy and type of deposit under consideration and the typical beneficiation thereof. Mr Hall consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.

## Bibliography

1. Renascor ASX announcement dated 14 March 2018, “Siviour PFS and Maiden Ore Reserve”
2. Renascor ASX announcement dated 15 February 2018, “Positive Metallurgical Tests for Expandable Graphite”
3. Renascor ASX announcement dated 15 February 2018, “99.99% Spherical Graphite Produced from Siviour”
4. Renascor ASX announcement dated 8 February 2018, “Spherical Graphite Study Further Improves Siviour Economics”
5. Renascor ASX announcement dated 17 March 2017, “Siviour Now Among Ten Largest Graphite Deposits in the World”

Renascor confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Renascor 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.

# What sets us apart?



## Siviour is unique as a Tier-1 graphite development in Australia

### PFS confirms robust economics

Lowest quartile OPEX: US\$335\* per tonne

NPV<sub>10</sub> (after-tax): US\$500m\*

Staged development option: start-up capex of US\$29m\*

### High-quality graphite product

Favourable flake size distribution and high purities for lithium-ion battery and other high growth markets

### 30-year mine life, low-cost

Among largest reported graphite deposits in the world, with lowest quartile OPEX

\*Based on Siviour Prefeasibility Study. OPEX and NPV figures refer to immediate large scale development. Staged development option refers to two-stage operation, with small-scale production for first three years before expanding to larger production in year four. See Renascor ASX announcement dated 14 March 2018.



# Why graphite in Australia?



**China dominates current supply, but market is restricted and unstable**

## Increased domestic demand

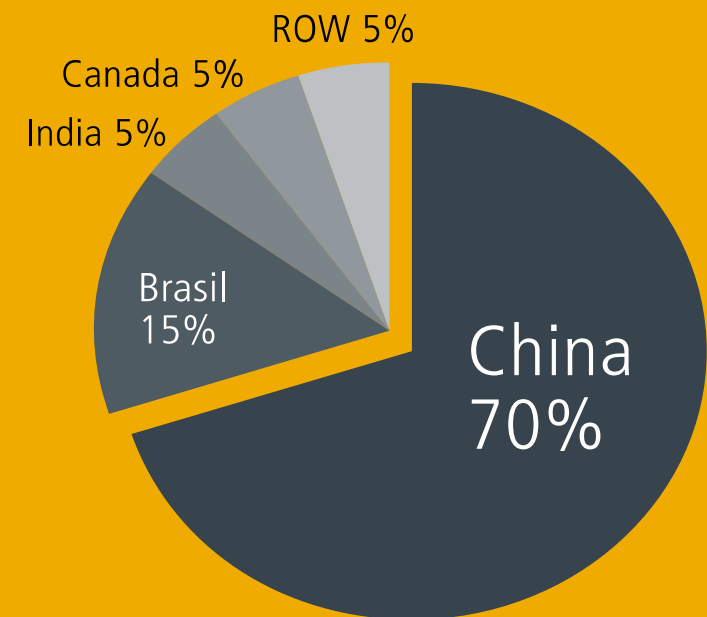
Graphite is becoming strategically important mineral due in large part to rising demand in lithium ion batteries

## Supply limitations

Issues of product consistency and lack of medium and large flake

## Environmental and export restrictions

New safety and environmental regulations and export restrictions have further reduced supply



# Why graphite in Australia?



New potential supply has been dominated by large developments in East Africa, where sovereign risk issues must be overcome



# Why graphite in Australia?



## Renascor offers secure supply from Australia

### Low sovereign risk jurisdiction

Secure, established regulatory framework increasingly important in graphite supply chain

### Established infrastructure

Lower capital and operating costs and increased certainty of project delivery

### Supportive government

Established, mine-friendly jurisdiction that has encouraged new mine developments



# Siviour – South Australia



Located centrally in an historical graphite corridor



Siviour graphite deposit,  
showing location

# Siviour – South Australia



## Optimal location for development and production

### Favourable jurisdiction

South Australia

Supportive government

### Port, Road, Power, Water

Established ports

Highway - 10km

Power - on main grid

Water for Stage-1 development

### Established workforce

Whyalla (23,000), Port Lincoln (15,000),  
Port Augusta (13,000)

Arno Bay, Cleve, Cowell, Tumby Bay



Eyre Peninsula: established infrastructure

# Globally competitive project economics



## Prefeasibility study results ...

Annual production (first ten years)	142,000t
NPV <sub>10</sub> (after tax)	US\$500m
Plant throughput	1,650,000tpa
IRR (after tax)	62%
Average feed grade (first ten years)	9.1% TGC
Cash cost per tonne	US\$335
Basket price per tonne	US\$1,056
Life of mine	30 years
Development capital	US\$99m
Payback period	1.8 years

High NPV



Low cost of production



Fast payback

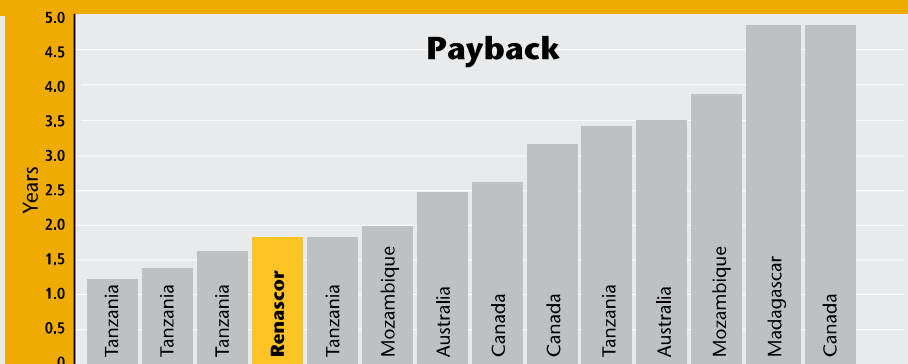
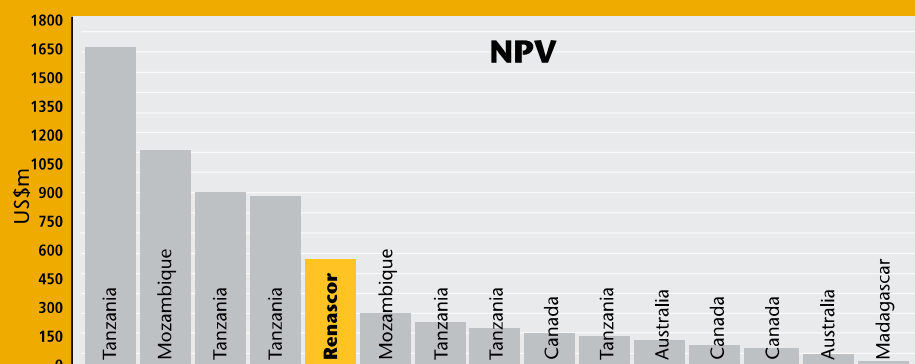
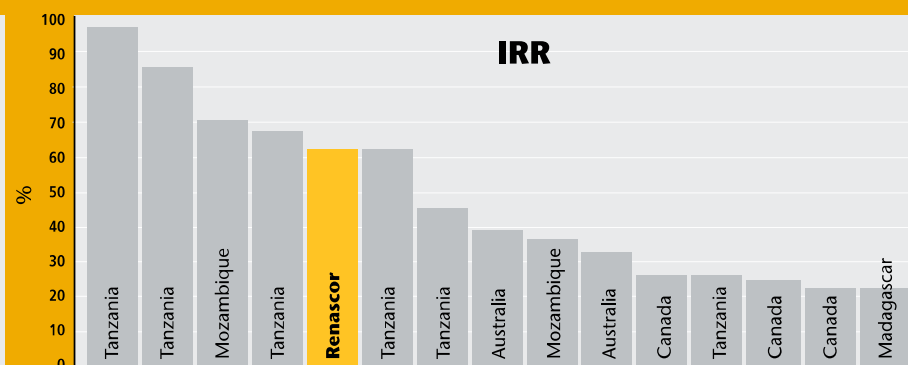
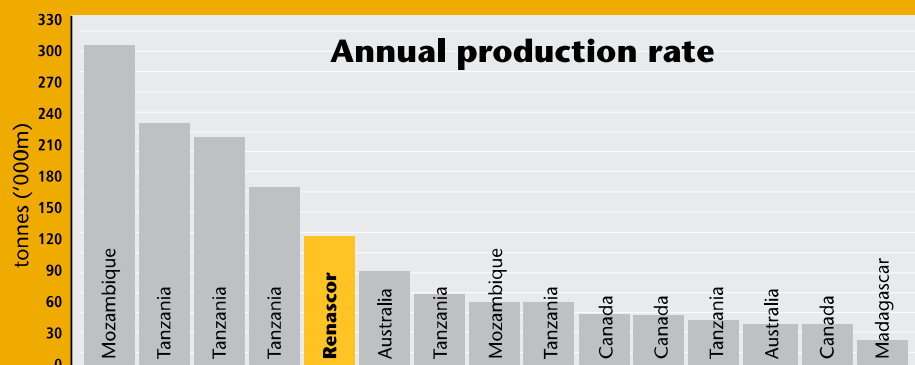


\*Source: Renascor data based on Siviour Prefeasibility Study. See Renascor ASX announcement dated 14 March 2018.

# Globally competitive project economics



... compare favourably to other graphite developments globally\*

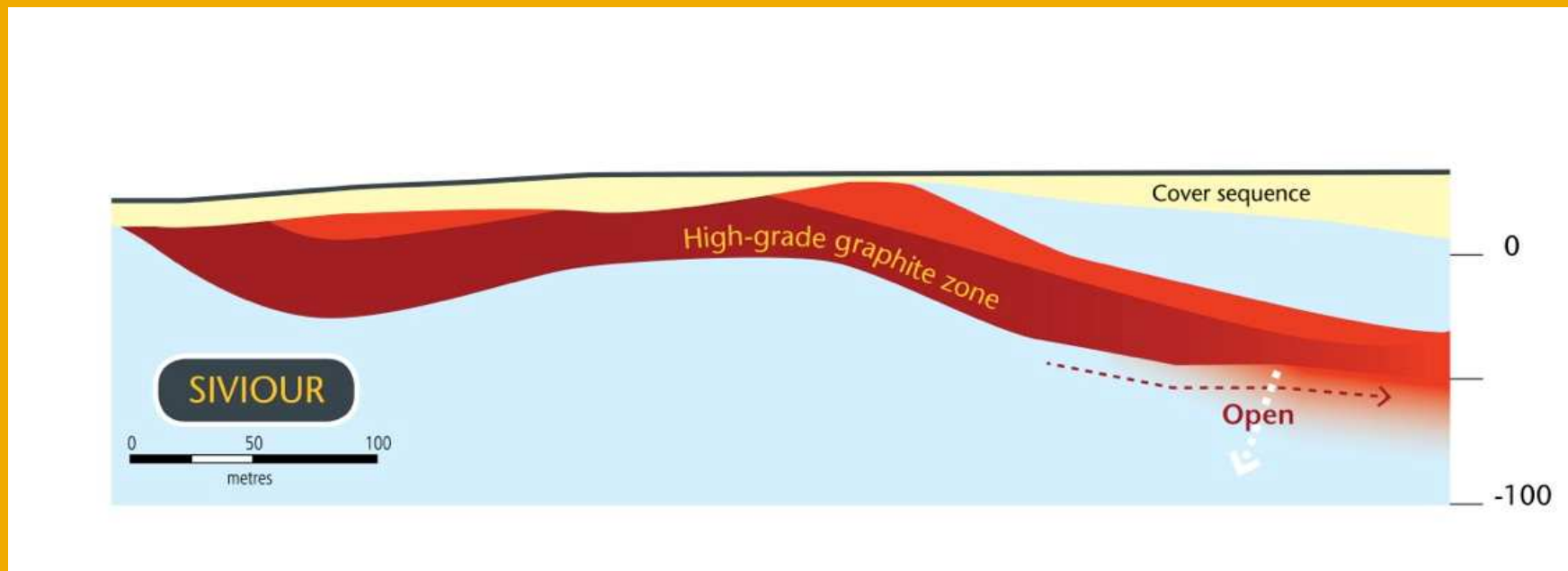


\*Source: Renascor data based on Siviour Prefeasibility Study. See Renascor ASX announcement dated 14 March 2018. Other company data based on publicly available company reports (as of March 2018) of feasibility studies or 43-101 preliminary economic assessments

# Project economics -- OPEX



Siviour's flat laying orientation underpins a low cost of production ...



# Project economics -- OPEX



Siviour's flat laying orientation underpins a low cost of production ...



# Project economics -- OPEX



**Siviour's flat laying orientation underpins a low cost of production\* ...**

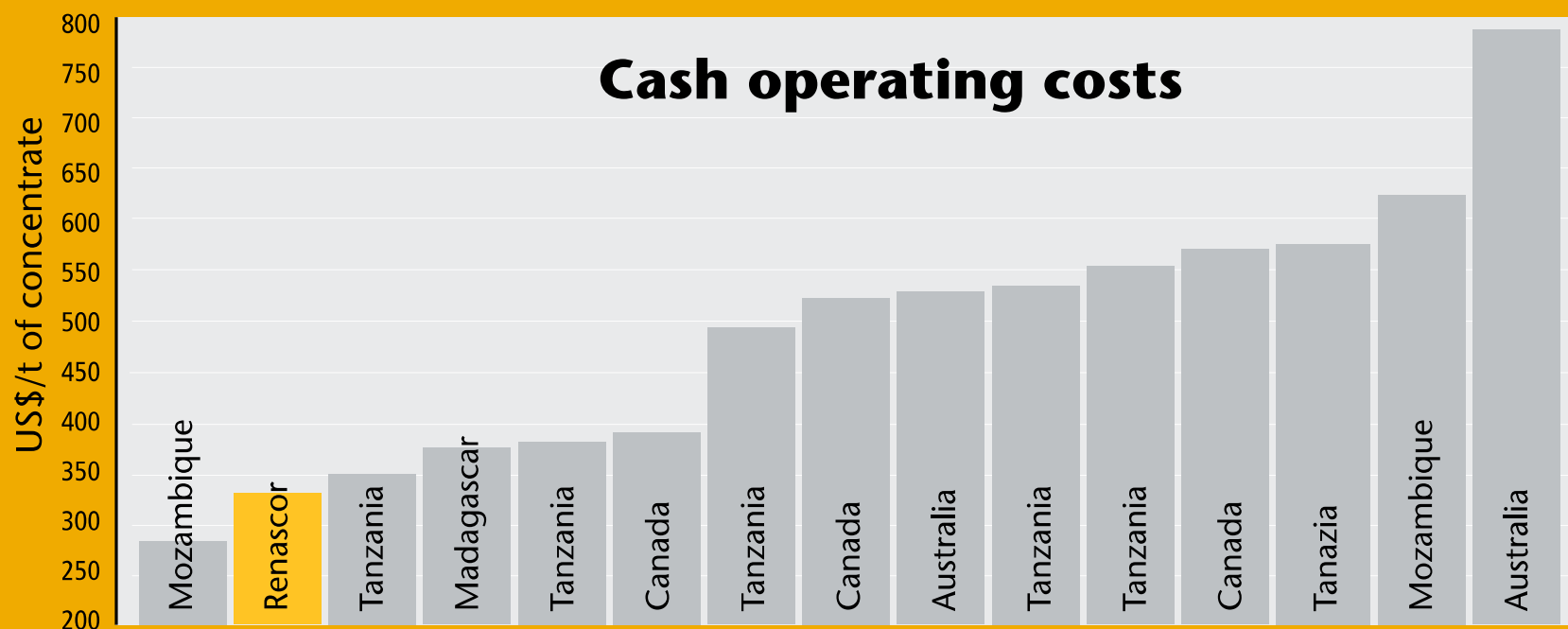
Parameter	US\$/t
Mining	\$83
Processing	US\$159
General and administration	US\$13
Product logistics	US\$80
<b>Total</b>	<b>US\$335</b>

\* Data based on Siviour Prefeasibility Study. See Renascor ASX announcement dated 14 March 2018

# Project economics -- OPEX



... that is among the lowest of global graphite developments\*



\*Source: Renascor data based on Siviour Prefeasibility Study. See Renascor ASX announcement dated 14 March 2018. Other company data based on publicly available company reports (as of March 2018) of feasibility studies or 43-101 preliminary economic assessments.

# Low start-up CAPEX option



## Staged-development offers low initial CAPEX pathway to production

### Leverages off infrastructure advantages of coastal Australian location

Stage-1: 200,000tpa plant using existing potable water supply



**Start-up CAPEX:**  
**US\$29m**

### Competitive small-scale operation

Initial mining in high-grade zone at start-up production rate of 22,8000 tonnes of graphite concentrates per year



**Start-up OPEX:**  
**US\$577/t (reducing to US\$333/t in stage-two\*)**

### Development of customer base

Establishment of customer base optimal for Siviour basket of products in stage-one...



**...to support capital requirement to fund larger stage-2 operation**

Source: Siviour Prefeasibility Study. See Renascor ASX announcement dated 14 March 2018.

\* Stage-two start-up capital US\$91m

# Low start-up CAPEX option



## Staged-development offers low CAPEX pathway to large-scale production

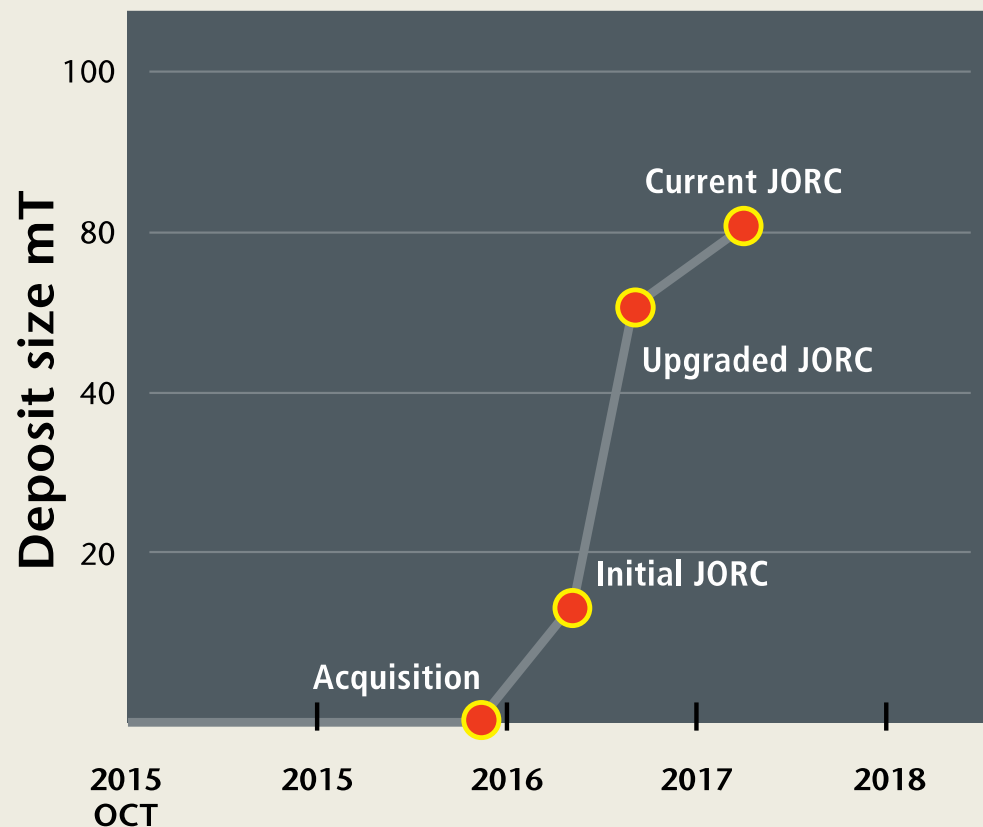
Parameter	Two-stage development		Immediate large-scale development
	Stage-one (years 1 to 3)	Stage-two (year 4 to 30)	
Annual production	22,800t	156,000t (years 4 to 13) 129,000 (LOM)	142,000t (first ten years) 117,000 (LOM)
Plant throughput	200,000tpa	1,850,000tpa	1,650,000tpa
Average feed grade	12.4% TGC	9.0% TGC (years 4 to 13) 7.6% (LOM)	9.1% TGC (first ten years) 7.5% TGC (LOM)
Cash cost per tonne	US\$577	US\$333 (LOM)	US\$335
Basket price per tonne	US\$1,056		
Life of mine	30 years		
Development capital	US\$29m	US\$91m	US\$99m
Payback period (years)	3.1	1.5	1.8
NPV <sub>10</sub> (after tax)	US\$407m		US\$500m
IRR (after tax)	47%		62%

\*Source: Siviour Prefeasibility Study. See Renascor ASX announcement dated 14 March 2018.

# The Siviour graphite deposit



Siviour has rapidly transitioned from discovery to development



\*Source: Renascor ASX announcement dated 14 March 2018.

## Acquisition:

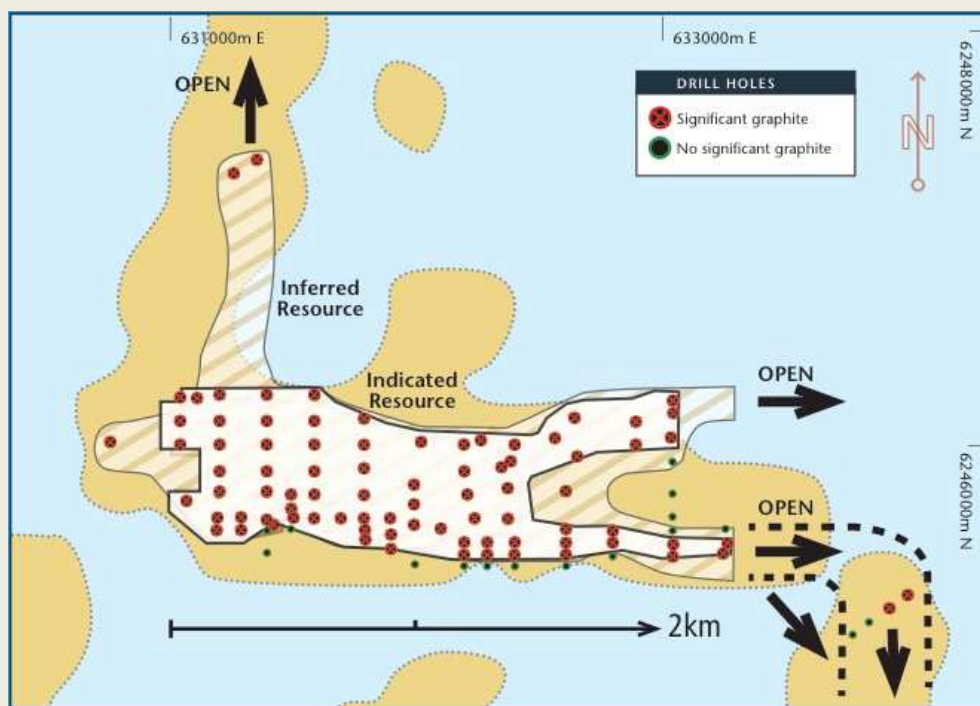
Renascor has an option to acquire 100% of company holding Siviour after incurring \$2.5m in project expenditure

**Maiden Ore Reserve (Mar 18):**  
45.2mT @ 7.9% TGC for 3.6mT of contained graphite\*

# The Siviour graphite deposit

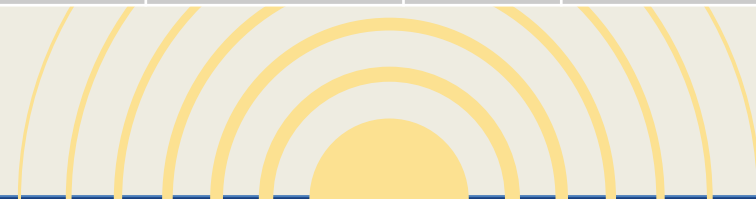


The Siviour Mineral Resource is already large and remains open along-strike at shallow depths



Resource category	Mineralisation (Mt)	TGC	Contained graphite (Mt)
Indicated	51.8	8.1%	4.2
Inferred	21.8	7.6%	2.2
Total	80.6	7.9%	6.4

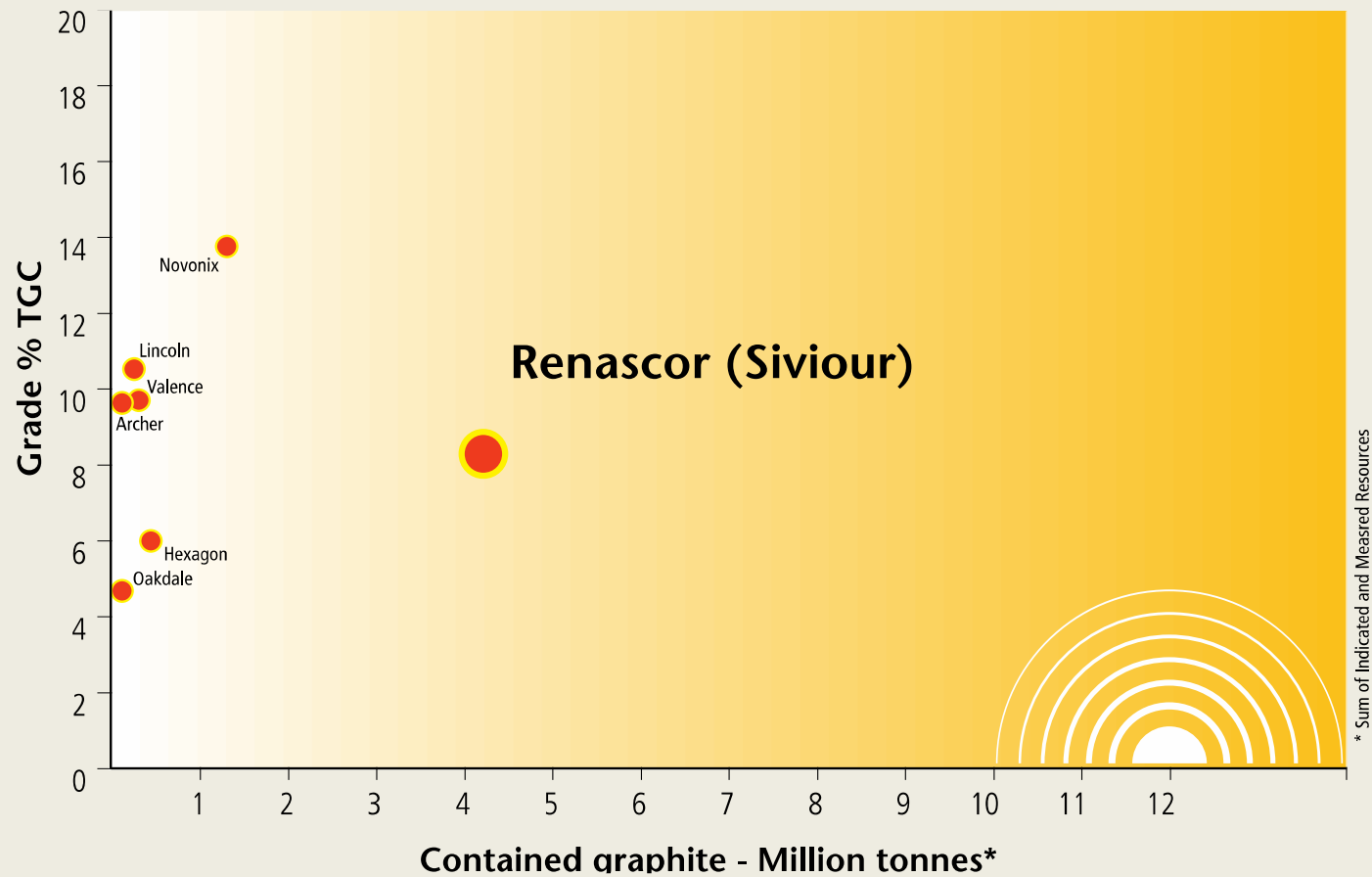
Reserve category	Ore (Mt)	TGC	Contained graphite (Mt)
Proven	--	--	--
Probable	45.2	7.9%	3.6
Total	45.2	7.9%	3.6



# Siviour – large scale graphite deposit



Siviour is the largest graphite deposit in Australia ...

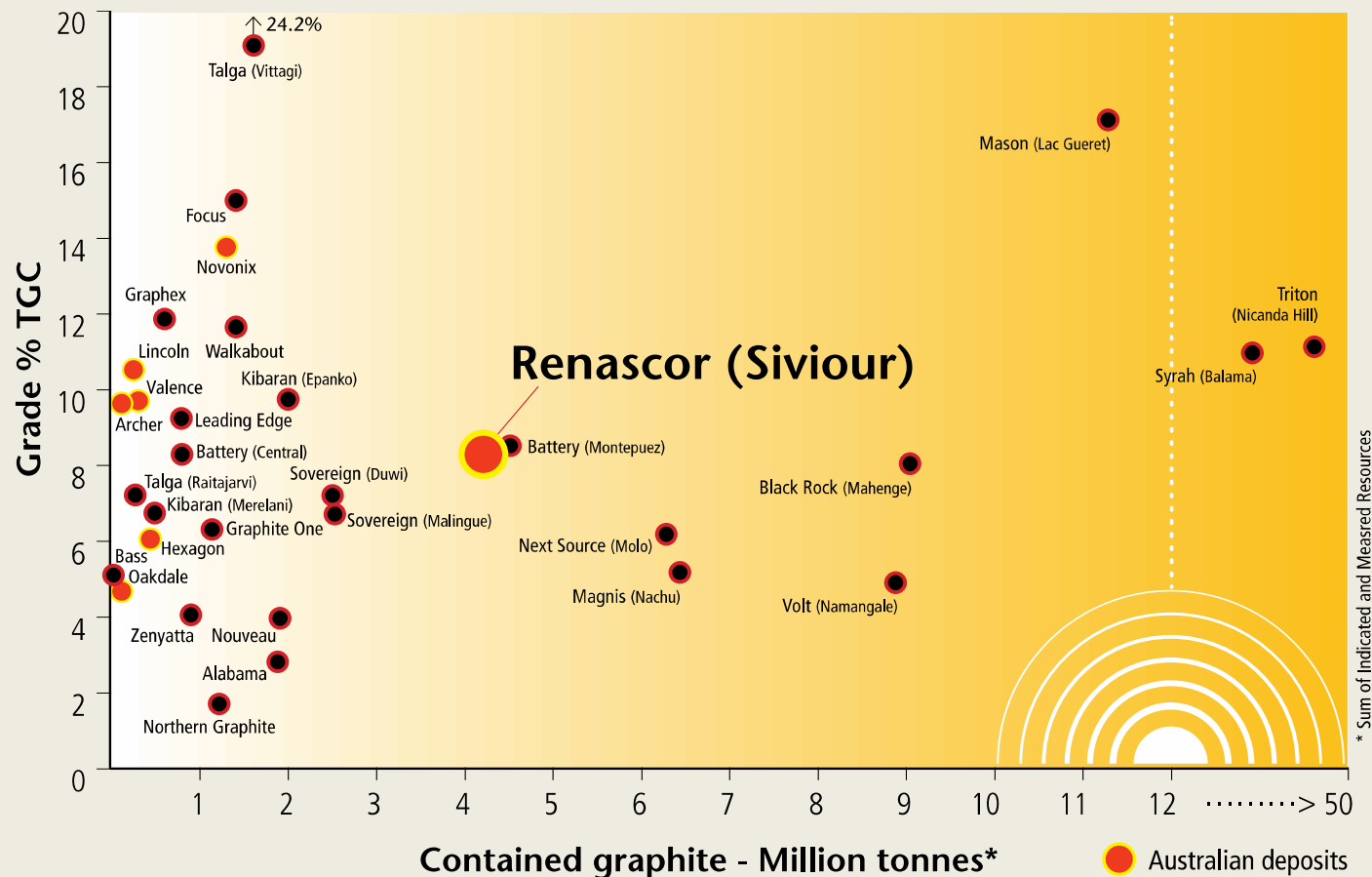


Source: Company reports on economic studies of flake graphite projects as of October 2017

# Siviour – large scale graphite deposit



... and among the largest reported graphite deposits in the world ...

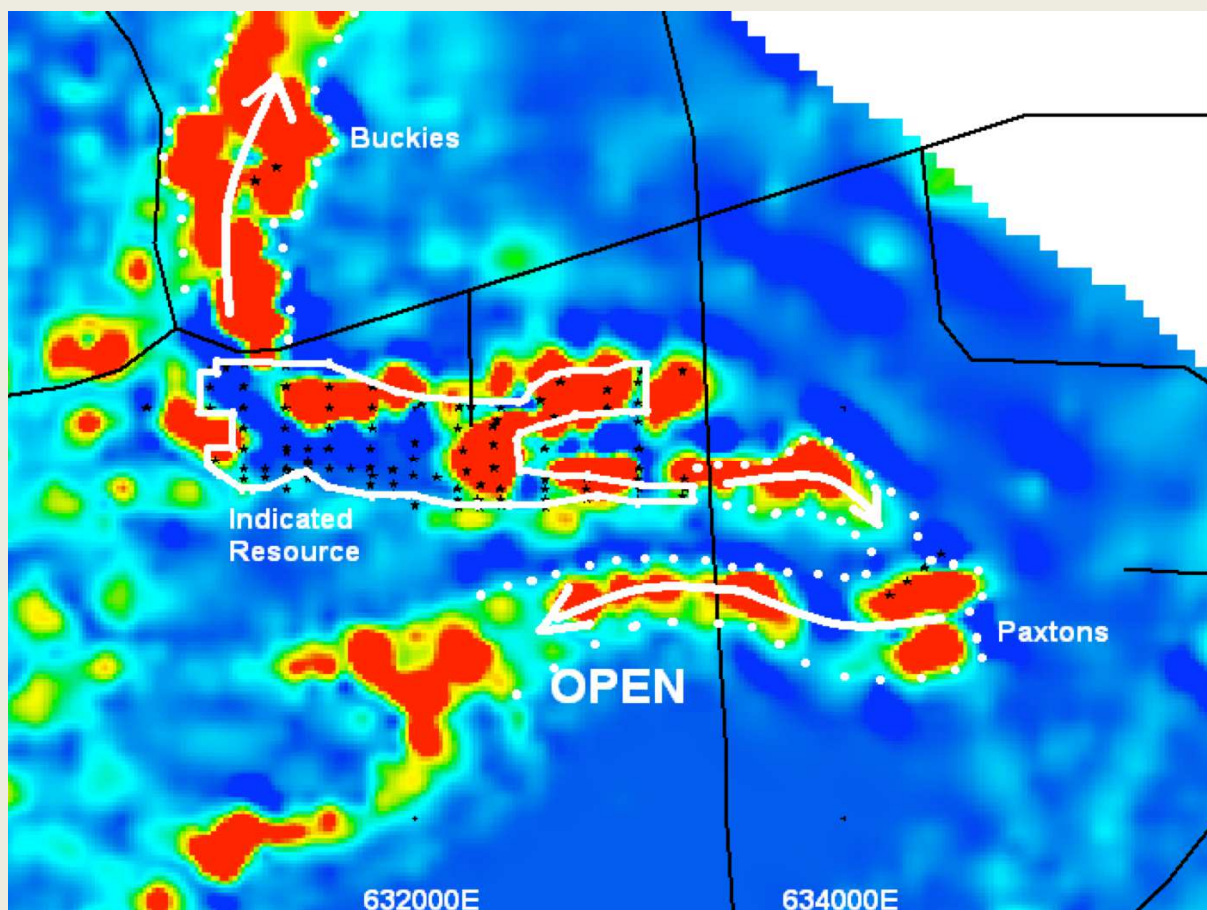


Source: Company reports as of March 2018

# Siviour – large scale graphite deposit



... and offers ample scope to expand

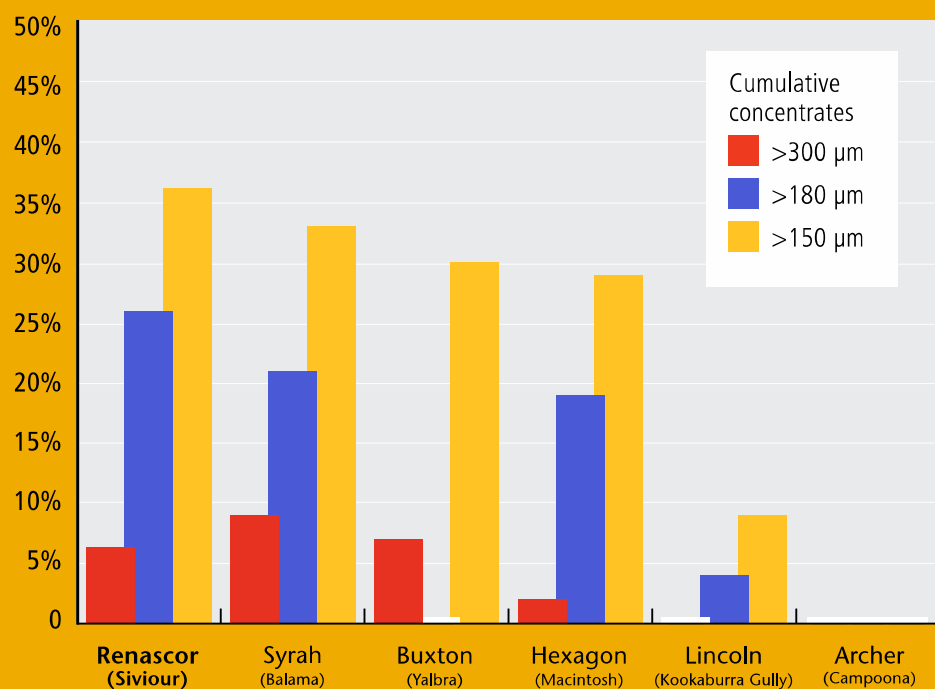


Conductivity image from AEM survey

# Siviour – metallurgy



Initial metallurgical testing has established Siviour as unique in Australia ...



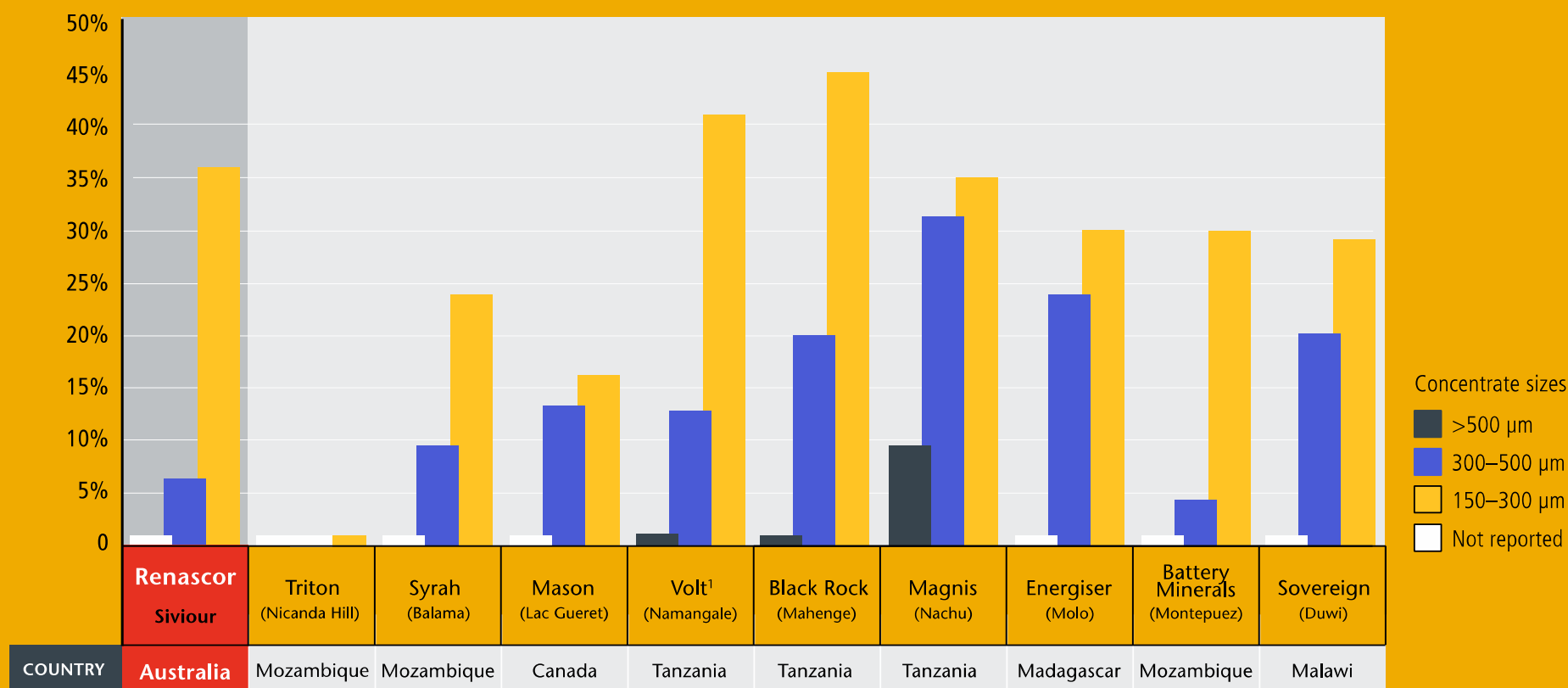
Flake category	Particle size		Purity (C)	Distribution	Annual production
	Microns (µm)	Mesh (#)			
Jumbo	>300	+48	94%	6%	8,520
Large	180 to 300	-48 to +80	96%	20%	28,400
Medium	150 to 180	-80 to +100	96%	10%	14,200
Small	75 to 150	-100 to +200	96%	43%	61,060
Fine	<75	-200	94%	21%	29,820

Source: Renascor Prefeasibility Study (Renascor ASX announcement dated 14 March 18 and company reports as of March 2018)

# Siviour – metallurgy



... offering potential to produce concentrates competitive with largest graphite resources in the world ...

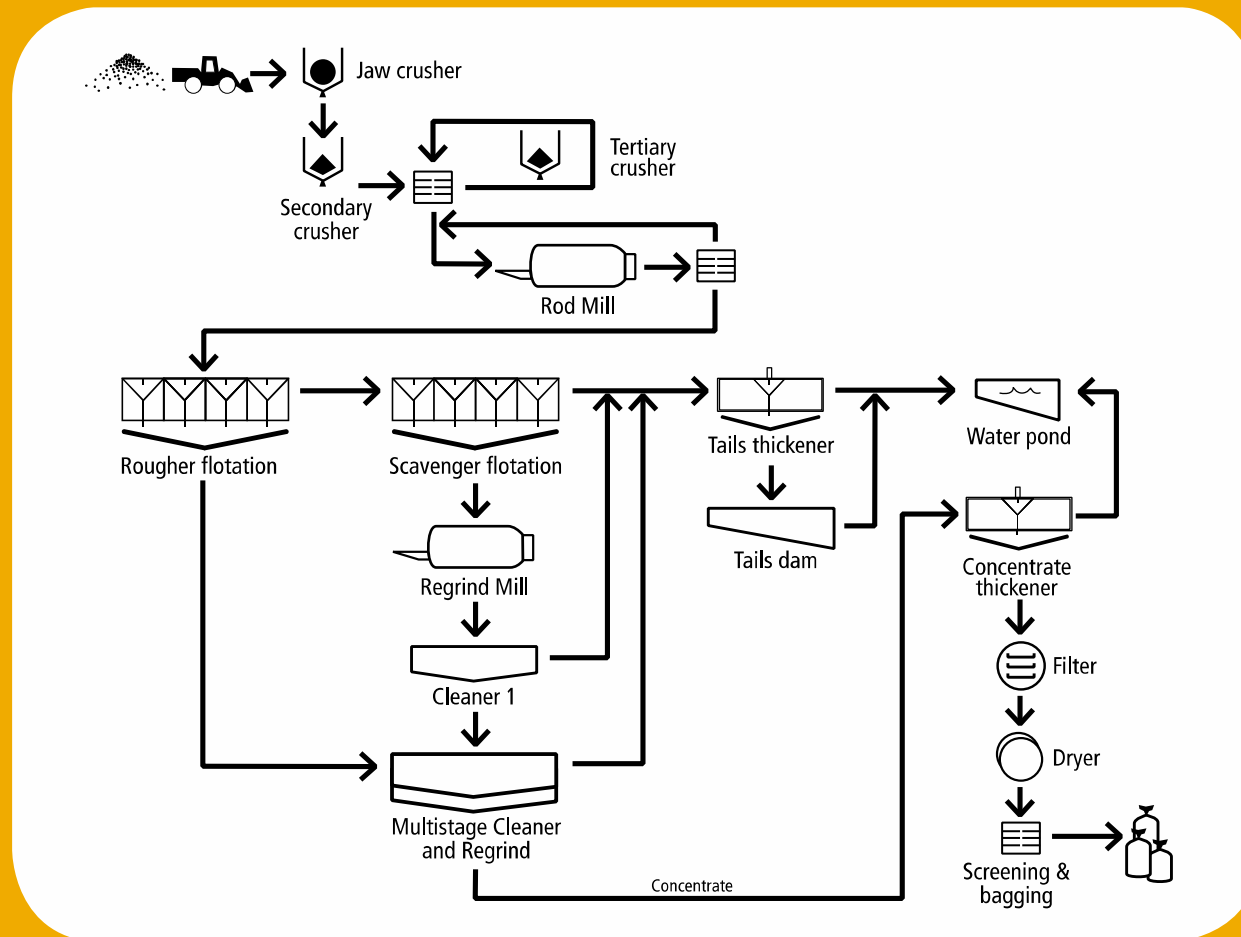


<sup>1</sup> Results reported for Namangale 1 (North)

# Siviour – metallurgy



... with conventional (non-chemical, non-thermal) flowsheet



# Siviour – downstream processing potential



**Siviour is well-positioned to produce premium-priced, valued-added graphite products**

## Ultra high purity

99.99% spherical graphite suitable for use in lithium-ion battery anodes

## Located proximate to modern industrial zones

Siviour's South Australian location offers easy access to established industrial centres for advanced processing

## Expandable graphite

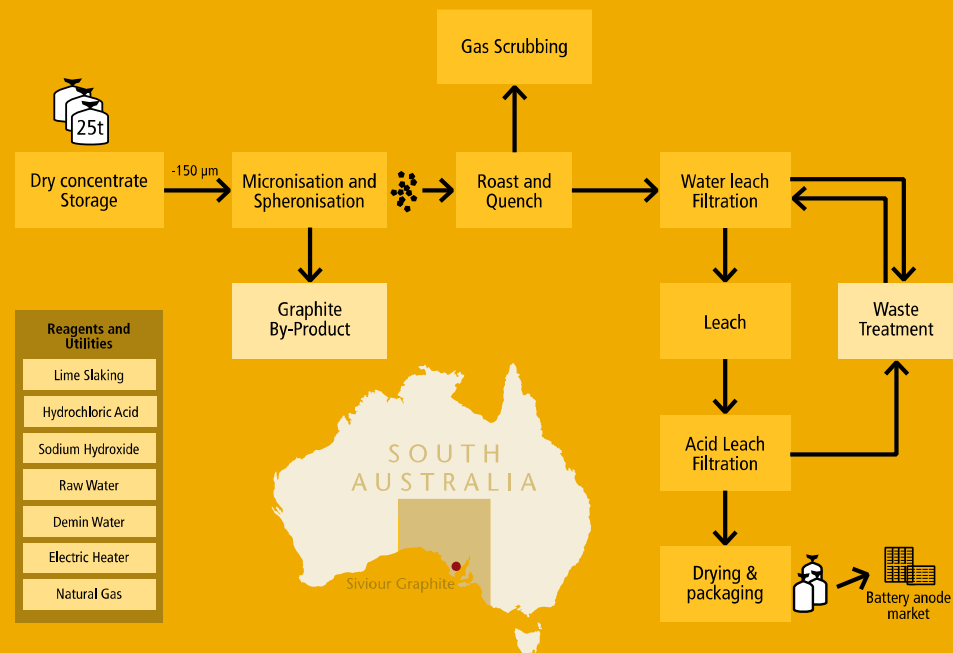
Independent tests confirm Siviour concentrates are suitable for expandable graphite in excess of standard industry expansion coefficient requirements



# Siviour – Spherical scoping study results



Parameter	Spherical Graphite Scoping Study (stand-alone)	Consolidated findings (graphite concentrates and spherical graphite scoping study)
	Estimated values	
NPV <sub>10</sub> (after tax) (life of mine)	US\$231m	US\$555m
IRR (after tax) (life of mine)	59.9%	53.5%
Start-up capital	US\$57.8m	US\$165.7m
Payback of start-up capital	1.7 years	1.9 years
Net revenue	US\$1.9b	US\$4.2b
EBITDA	US\$935m	US\$2.3b
Net profit after tax	US\$614m	US\$1.2b



Source: Siviour Spherical Scoping. See Renascor ASX announcement 8 February 2018

# Renascor market information



<b>ASX code</b>	RNU
<b>Shares currently on issue</b>	672m
<b>Options</b>	130m*
<b>Cash</b> (31 Dec 17)	~\$2.9m
<b>Share price</b> (12 Mar 18)	\$0.032
<b>12 month range</b>	\$0.015-\$0.051
<b>Market cap</b> (12 Mar 18)	\$22m
<b>Top 20</b> (12 Mar18)	39%
<b>Board shareholding</b> (12 Mar18)	16%

## Board of Directors

Richard (Dick) Keevers (Chairman)

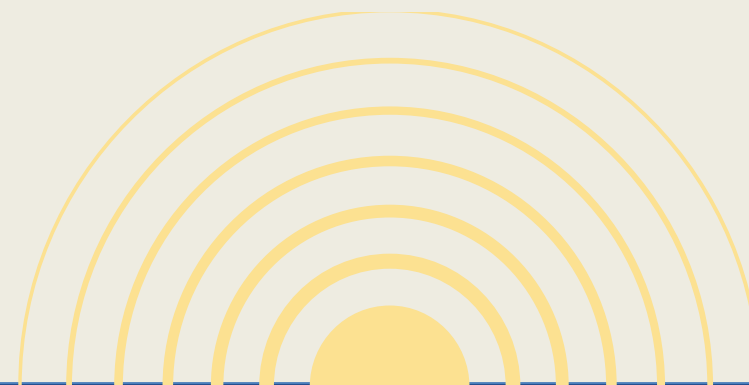
David Christensen (MD)

Stephen Bizzell

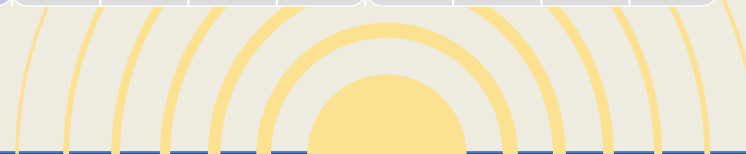
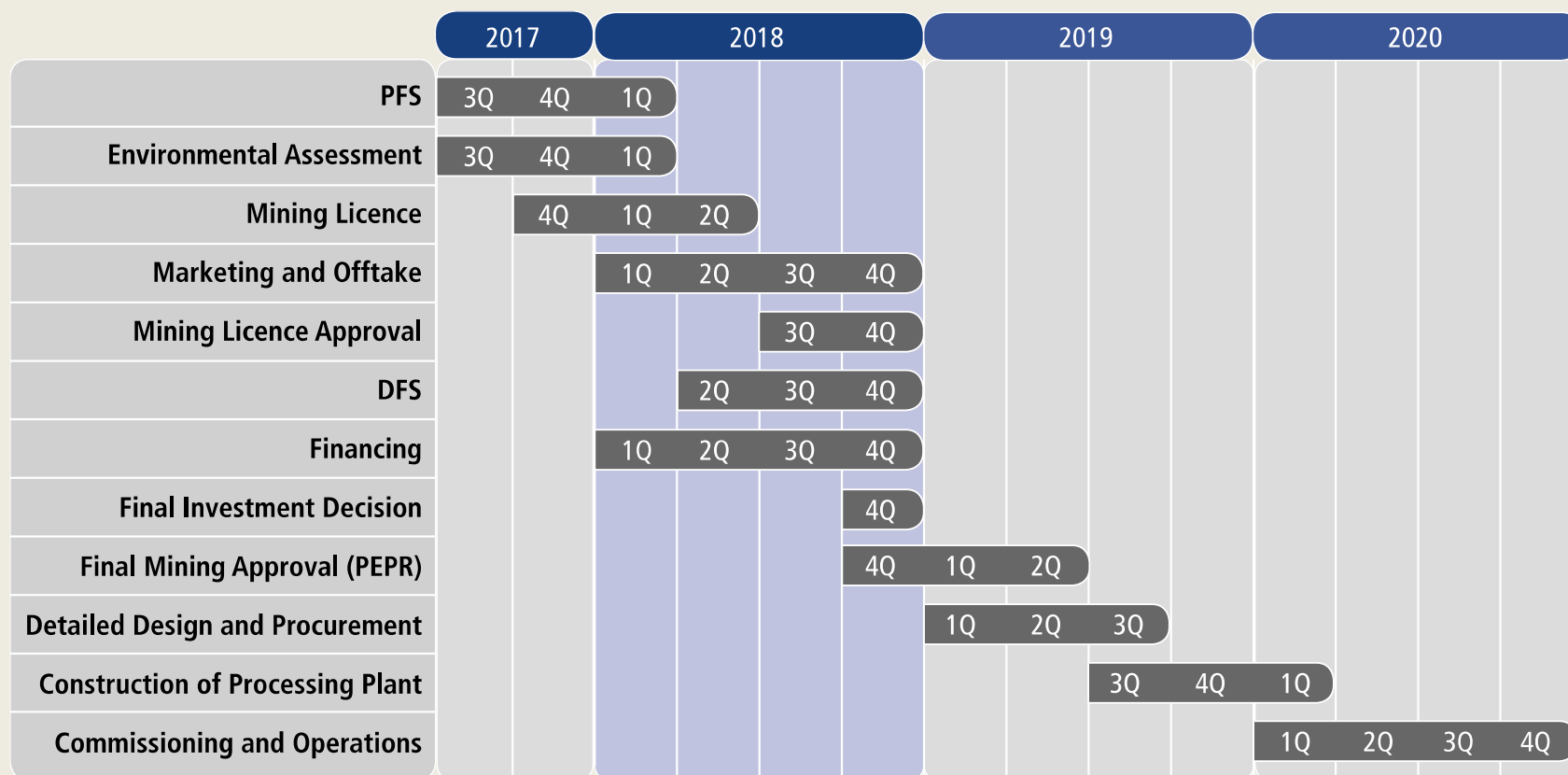
Geoff McConachy

Chris Anderson

\*15m @ \$0.05, expiring Dec 19 and 115m @ \$0.03, expiring Oct 19



# Forward Plan



# Conclusions



**Siviour is a Tier-1 graphite project**

Globally competitive project economics

Large-scale, low cost

Low CAPEX start-up option

High quality graphite concentrates

Secure supply from Australia



*For further information:*

David Christensen

Mobile: +61 429 643 770

[david.christensen@renascor.com.au](mailto:david.christensen@renascor.com.au)

[www.renascor.com.au](http://www.renascor.com.au)

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