

# Siviour Graphite Scoping Study Demonstrates Robust Economics

ASX: RNU

## ASX RELEASE

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## ASX CODE

RNU

Developing  
Australia's largest  
graphite deposit



**Renascor Resources (ASX: RNU)** is pleased to announce the results of a Scoping Study for a proposed open pit mine and graphite production plant at the Siviour Graphite Deposit in South Australia's Eyre Peninsula. The Scoping Study was prepared by independent mining consulting group BatteryLimits.

The project economics are encouraging and highlight Renascor's potential to become a long-term graphite producer in Australia.

### Scoping Study Parameters – Cautionary Statements

*The Scoping Study referred to in this announcement has been undertaken to determine the potential viability of an open pit mine and graphite production plant constructed adjacent to the Siviour Graphite Deposit and to reach a decision to proceed with more definitive feasibility studies.*

*This Scoping Study is a preliminary technical and economic study of the potential viability of the Siviour Graphite Deposit. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves. Further evaluation work and appropriate studies are required before Renascor will be in a position to estimate any ore reserves or to provide any assurance of an economic development.*

*Renascor has chosen to base 100% of the total Life of Mine (LOM) production target on resources identified within the Indicated Resource category. The Scoping Study has not included any Inferred Resources in the LOM production target because there is a lower level of geological certainty associated with Inferred Resources.*

*This Scoping Study is based on the material assumptions outlined elsewhere in this announcement. These include assumptions about the availability of funding. While Renascor considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.*

*To achieve the range of outcomes indicated in the Scoping Study, additional funding will likely be required. Investors should note that there is no certainty that Renascor 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 be dilutive to or otherwise affect the value of Renascor's existing shares. It is also possible that Renascor could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce Renascor's proportionate ownership of the project.*

*This announcement contains forward-looking statements. The Company has concluded it has a reasonable basis for providing the forward looking statements included in this announcement and believes it has reasonable basis to expect it will be able to fund development of the project. However, a number of factors could cause actual results, or expectations to differ materially from the results expressed or implied in the forward-looking statements.*

*Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.*

## Key Outcomes of Scoping Study

The Scoping Study considered multiple mine options based on a 20-year mine life in which the entire Life of Mine (LOM) graphite production target would be entirely included within the existing Indicated Resource of Siviour. Based on market requirements and potential capital raising capacity, an annual production rate of 123,000 tonnes per annum was selected as the most viable scenario.

The Scoping Study is based on producing flake graphite concentrates from a proposed open pit mine and graphite production plant to be located on the project site in South Australia. The potential to produce spherical graphite or other advanced materials through downstream processing is to be considered in further studies.

A summary of the key results of the Scoping Study is described below in Table 1. Additional information, including the material assumptions used in the study, are included elsewhere in this announcement.

Annual graphite concentrate production (tonnes per annum)	123,000	
Plant throughput (tonnes per annum)	1,650,000	
LOM average feed grade (TGC)	8.1%	
NPV <sub>10</sub> (after tax)	AU\$551m	US\$408m
IRR (after tax)	59%	
Cash cost of production (per tonne of concentrate)	AU\$450	US\$333
Capital cost (pre-production)	AU\$144m	US\$107m
Sustaining capital	AU\$28m	US\$21m
Basket sales price	AU\$1,420	US\$1,051
Payback (after-tax) from first production	1.7 years	

**Table 1. Summary of key results from Scoping Study**

## Next Steps

Renascor considers the project economics of the Scoping Study to be highly encouraging and to support additional developmental programs and a more advanced feasibility study. Upcoming work programs are expected to include:

- Further metallurgical tests designed to optimise the existing flow sheet parameters
- Advanced materials tests to assess the potential to produce premium-priced products
- The collection of a bulk sample and pilot plant preparation of concentrates
- Offtake discussions with potential end-users
- An advanced mining study to consider further efficiencies in mine scheduling
- Hydrogeological testing
- Continued compliance permitting and community engagement
- Preparation of an advanced feasibility study

## Overview of Scoping Study

BatteryLimits, an independent mining consulting group, acted as the Scoping Study manager and supervising engineer. In its capacity as study manager, BatteryLimits compiled the preliminary assumptions and conceptual financial models for the Scoping Study using information and assumptions provided by Renascor and a range of specialist consultants who have consented to the information used in the context in which it appears in this announcement.

Details of the consultants who contributed to key components of this Scoping Study are provided below in Table 2.

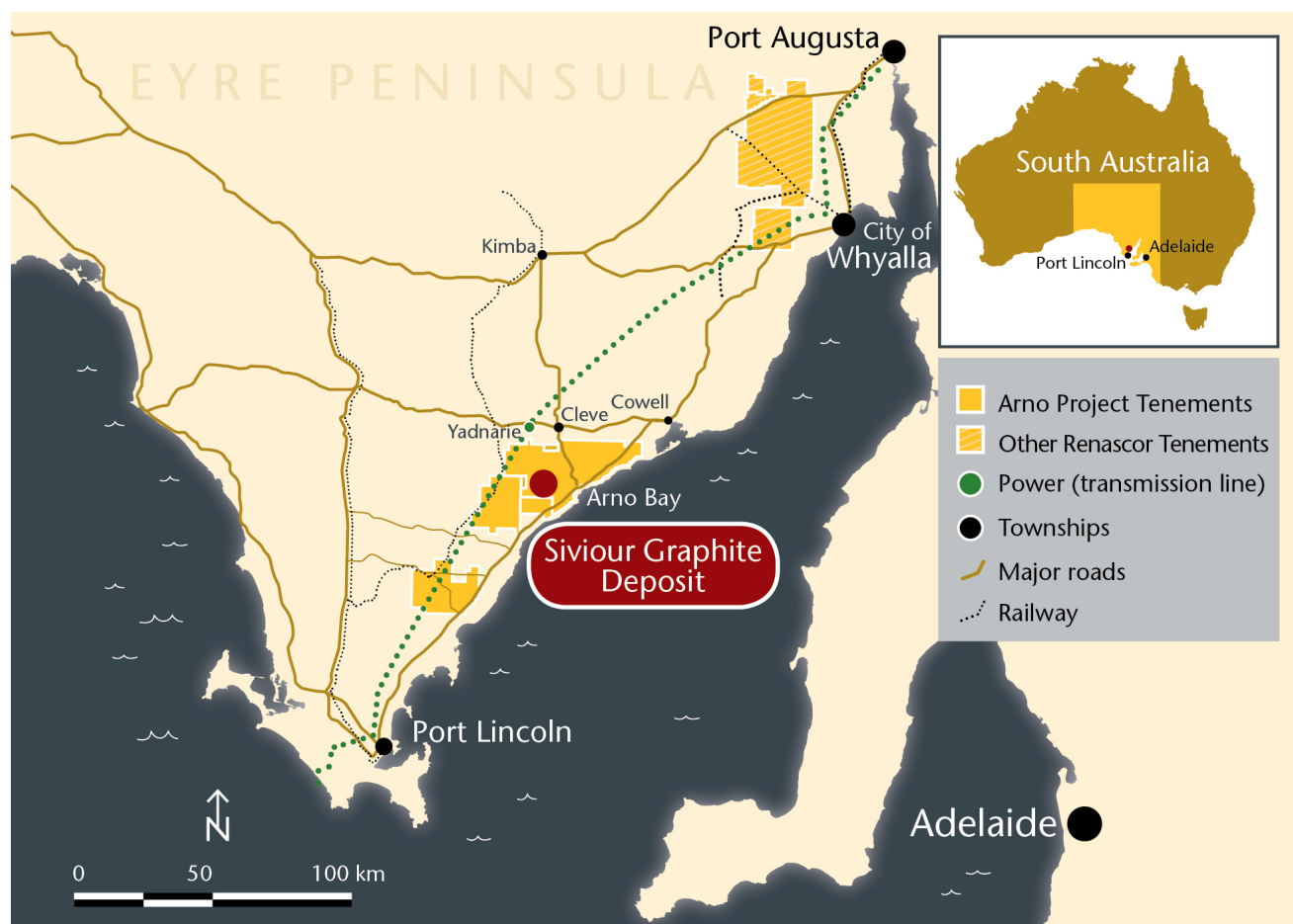
Consultant	Scope of Work
Christine Standing (MAusIMM), Optiro Pty Ltd	Resource estimate
Simon Hall (MAusIMM)	Metallurgical testwork
Ben Brown (MAusIMM), Optima Consulting and Contracting Pty Ltd	Mining study
Dave Pass (MAusIMM), BatteryLimits Pty Ltd	Process plant and infrastructure
Ben Jeuken (MAusIMM), Ground Water Science Pty Ltd	Hydrogeology
Evelyn G Poole (AAusIMM), Evelyn G Poole & Associates	Environmental and social permitting
Andrew Reeves and George Wilby	Logistics

**Table 2. Consultants contributing to Scoping Study**

## Key Components of Scoping Study

### 1. Location and ownership

The Siviour Graphite Deposit is part of Renascor's Arno Graphite Project. The project is located in South Australia's Eyre Peninsula, approximately 15km west of the coastal township Arno Bay, 120km northeast of Port Lincoln and 150km southwest of Whyalla. See Figure 1.



**Figure 1. Project location**

The project area consists of four granted exploration licences, covering an area of approximately 1,370 km<sup>2</sup>.

Renascor has the right to acquire the project through an option agreement between Renascor's wholly-owned subsidiary Eyre Peninsula Minerals Pty Ltd (EPM) and Ausmin Development Pty Ltd (Ausmin). EPM's option to acquire the project entitles EPM to 100% of Ausmin in exchange for a 22% equity interest in a listed vehicle holding the project and a 1% gross royalty. The option is exercisable upon completing a feasibility study in relation to the commercial development of graphite within the project area.

## 2. Mineral Resources

The Scoping Study utilises Renascor's JORC Mineral Resource Estimate for Siviour as announced on 17 March 2017. See Table 3.

Category	Tonnes of mineralisation (millions)	TGC	Tonnes of contained graphite (millions)
Indicated	51.8	8.1%	4.2
Inferred	28.8	7.6%	2.2
Total	80.6	7.9%	6.4

Note: Cut-off grade of 3% total graphitic carbon

**Table 3. Siviour Mineral Resource estimate as of 15 March 2017**

For the purpose of the Scoping Study, one hundred percent (100%) of the total life of mine (LOM) production target is included within the Indicated Resources of Siviour.

## 3. Mining and Mine Design

The mining schedule and physicals were developed based on an approximately twenty-year mine life. Mining is based on Indicated Resources only.

The Scoping Study considered multiple mining methods, including conventional open pit mining, mobile in-pit crush and convey (IPCC), continuous surface-mining with in-pit loading and conveying and highwall mining after conventional open pit mining. Waste rock disposal systems considered included conventional waste rock storage on waste rock dumps outside the pit area, in-pit (e.g., strip mining or cell mining where overburden is placed back in the previous mining zone), dry-stack tailings with waste rock dumps and dry-stack tailings with in-pit disposal.

For the purpose of the Scoping Study, conventional mining, using drill and blast, load and haul and crusher feed and in-pit wet disposal were adopted. Further studies into alternative mining and disposal methods will be considered in future studies.

#### 4. Metallurgical Testwork

Metallurgical testwork has been undertaken at ALS Metallurgy (Adelaide) and Bureau Veritas Minerals (Adelaide) on three composite samples obtained from core samples from 16 diamond holes drilled within areas of the Siviour mineralised body. Core samples were selected on the basis of being representative of the typical mineralised zone within each core hole. Examination of these samples has demonstrated continuity of the quality of the graphite.

The flake size distribution from the test work to date is summarised in Table 4. These results were achieved at a weighted average graphite concentrate grade of 94% TCG and a recovery rate of 85%.

Flake category	Particle size		Distribution
	Microns (µm)	Mesh (#)	
Jumbo	>300	+48	8%
Large	180 to 300	-48 to +80	25%
Medium	150 to 180	-80 to +100	15%
Small	75 to 150	-100 to +200	39%
Fine	<75	-200	13%

**Table 4. Summary of Siviour concentrate size distribution**

Additional test work has demonstrated the ability to achieve higher purity levels, including grades of over 99% TCG with an additional regrind and flotation circuit.

#### 5. Process Plant Design

The process plant is designed to recover graphite concentrate by froth flotation. Ore from the mine will be primary, secondary and tertiary stage-crushed, followed by grinding, flotation, filtering, sizing and drying, before being bagged and containerised for shipment

The results presented are based on an annual process plant treatment of 1.65mtpa. The proposed processing plant incorporates the following unit process operations:

- Run of mine (ROM) ore will be stage crushed in primary, secondary and tertiary crushers
- Ore will be wet ground by primary rod mill for concentration by flotation
- Graphite concentrate will be recovered by desliming followed by flotation roughing and cleaning stages with re-grind targeting coarse graphite recovery
- Graphite concentrate will be dried, sized and bagged
- Flotation tailings will be thickened to enhance water recovery and discharged in-pit.

A simplified flow sheet is shown in Figure 2.

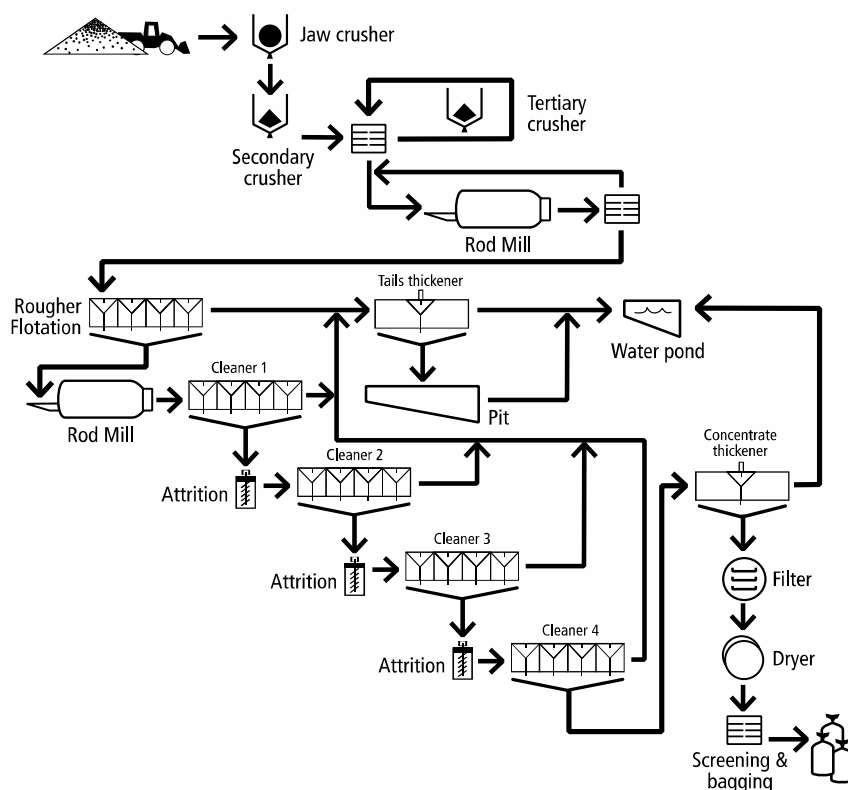


Figure 2. Process flow sheet

## 6. Infrastructure and Logistics

### *Process plant and infrastructure*

The process plant and infrastructure will include:

- Raw water and process water dams
- Water supply bores and desalination facility
- Access roads within the plant and the project site
- Process plant, including complementary equipment and office facilities.

### *Electricity*

Electricity is expected to be supplied from an existing 11-33kV transmission line that supplies power to customers between Cleve and Arno Bay. The transmission line, which is owned and operated by SA Power Networks (SAPN), is approximately 14km to the north of Siviour.

### *Water supply and management*

The Scoping Study is based on supplying the plant with ground water from local bore holes. It is expected that water will be desalinated on site by reverse osmosis and blended for plant treatment purposes, with waste brine re-injected to an aquifer and tails returned to the pit. Upcoming work programs are expected to include hydrogeological testing and will include comprehensive studies into optimal brine and tailings disposal.

### ***Transport***

Concentrates will be bagged and containerised for road from the project site to Port Adelaide. It is proposed that concentrates will be packed, bagged and loaded at the plant. The transport route from the project site to Port Adelaide is generally approved for use by restricted access vehicles, such as road trains, with the exception of approximately 5km of road covering the distance from the project site and an arterial road that connects to the Port Lincoln Highway.

### ***Workforce***

It is expected that Renascor will employ the majority of personnel from local communities within the vicinity of the project site, with personnel not based in the district having access to air service from Adelaide to either Port Lincoln or Whyalla. Housing will not be provided on site, with personnel needing accommodation having access to rental units in Arno Bay and other nearby townships. Significant medical requirements are expected to be sourced from Cleve, Tumby Bay, Port Lincoln or Whyalla hospitals, with first aid services to be maintained on site.

## **6. Environmental and Social Permitting Requirements**

Renascor has initiated studies as part of the compliance and permitting process to establish baseline characteristics, including studies relating to climate, hydrogeology, pedology, ecology, relief and drainage, air, water and noise quality and social conditions, including economic activities, infrastructure and services. Preliminary studies have not indicated material impediments to the proposed development of Siviour.

As part of the subsequent permitting process, Renascor will need to undertake a comprehensive environmental and social impact assessment. It is anticipated that these assessments will support an application for a Mining Lease (ML) under Section 35 of South Australia's Mining Act 197. Approval of a Program of Environmental Protection and Rehabilitation (PEPR) will be needed to enable operations to commence.



## 7. Product Pricing

A basket price of \$1,051/t has been calculated based on discussions with potential end-users and market professionals, as well as investigations into prices adopted by peer companies. See Table 5.

Flake category	Particle size		Distribution	Pricing – FOB (US\$)
	Microns (µm)	Mesh (#)		
Jumbo	>300	+48	8%	2,100/t
Large	180 to 300	-48 to +80	25%	1,450/t
Medium	150 to 180	-80 to +100	15%	1,150/t
Small	75 to 150	-100 to +200	39%	750/t
Fine	<75	-200	13%	425/t
<b>Basket price</b>				<b>US\$1,051/t</b>

Table 5. Graphite pricing assumptions for basket price

## 8. Capital Costs

Estimated pre-production capital costs are provided below in Table 6.

Process Plant	AU\$87.9m	US\$65.0m
Site Infrastructure	AU\$16.7m	US\$12.4m
EPCM	AU\$15.3m	US\$11.3m
Contingency	AU\$5.1m	US\$3.8m
Owners' costs	AU\$15.7m	US\$11.6m
Other	AU\$3.1m	US\$2.3m
<b>Total</b>	<b>AU\$143.9m</b>	<b>US\$106.5m</b>

Table 6. Pre-production capital cost estimate summary

## 9. Operating Costs

Estimated annual cash operating costs are provided below in Table 7.

Area	AU\$/year	AU\$/ tonne of concentrate	US\$/year	US\$/ tonne of concentrate
Mining and technical services	14.4m	117	10.7m	87
Processing and power	27.9 m	224	20.6m	166
General and administration	2.4m	19	1.8m	14
Product logistics FOB	11.1m	90	8.2m	67
<b>Total</b>	<b>AU\$55.8</b>	<b>AU\$450</b>	<b>US\$41.3m</b>	<b>US\$333</b>

Table 7. Operating cost estimate summary

## 10. Financial Evaluation

### Key financial results

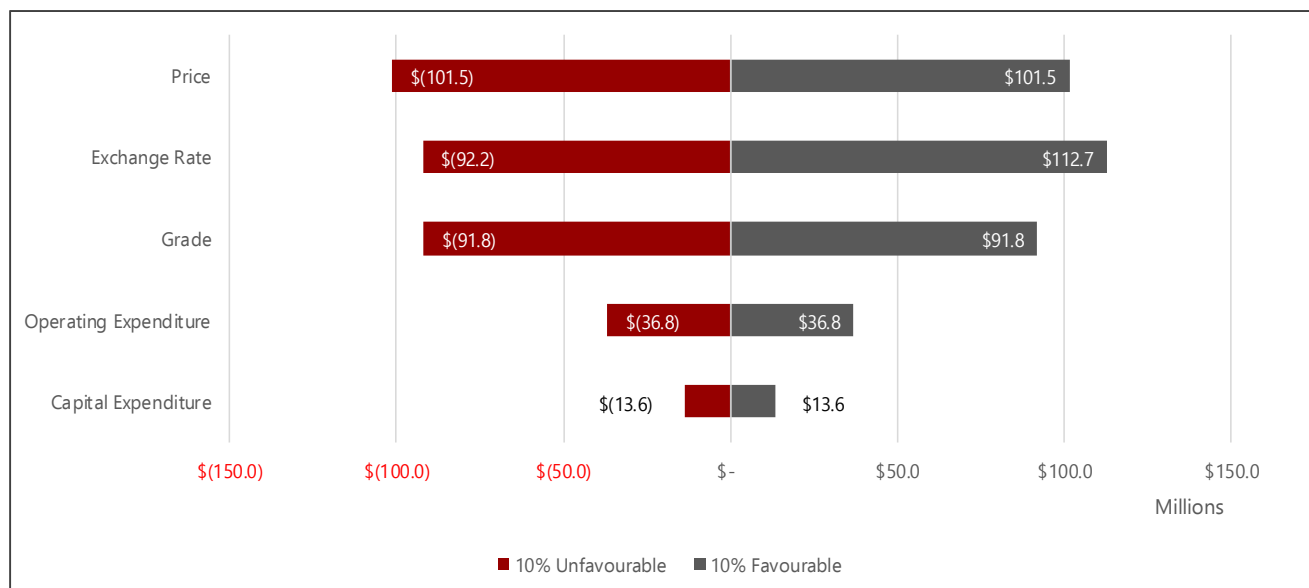
A summary of the key results of the Scoping Study is described below in Table 8.

Annual graphite concentrate production (tonnes per annum)	123,000	
Process plant throughput (tonnes per annum)	1,650,000	
LOM average feed grade (TGC)	8.1%	
Strip ratio	1.5	
NPV <sub>10</sub> (after tax)	AU\$551m	US\$408m
IRR (after tax)	59%	
Cash cost of production (per tonne of concentrate)	AU\$450	US\$333
Capital cost (pre-production)	AU\$144m	US\$107
Sustaining capital	AU\$28m	US\$21
Basket sales price	AU\$1,420	US\$1,051
Payback (after-tax) from first production	1.7 years	

Table 8. Summary of key results from Scoping Study

### Financial sensitivities

The sensitivity of the net present value (10% discount rate, after-tax) as expressed in Australian Dollars to changes in product price, the Australian-US exchange rate, grade, operating expenditure and capital expenditure is set out below in Table 9.



Variable	-10% unfavourable		+10% favourable	
	AU\$m	US\$m	AU\$m	US\$m
Capital Expenditure	537	397	564	417
Operating Expenditure	514	380	587	434
Grade	459	340	642	475
Exchange Rate	458	339	663	491
Price	449	332	652	482

**Table 9. NPV sensitivity**

## 11. Preliminary Schedule

The project development schedule is based on completing feasibility studies in the second half of 2018 and completing construction in the first half of 2020. Subject to obtaining funding and relevant project approvals, the Scoping Study contemplates the commencement of production in 2020. See Table 10.

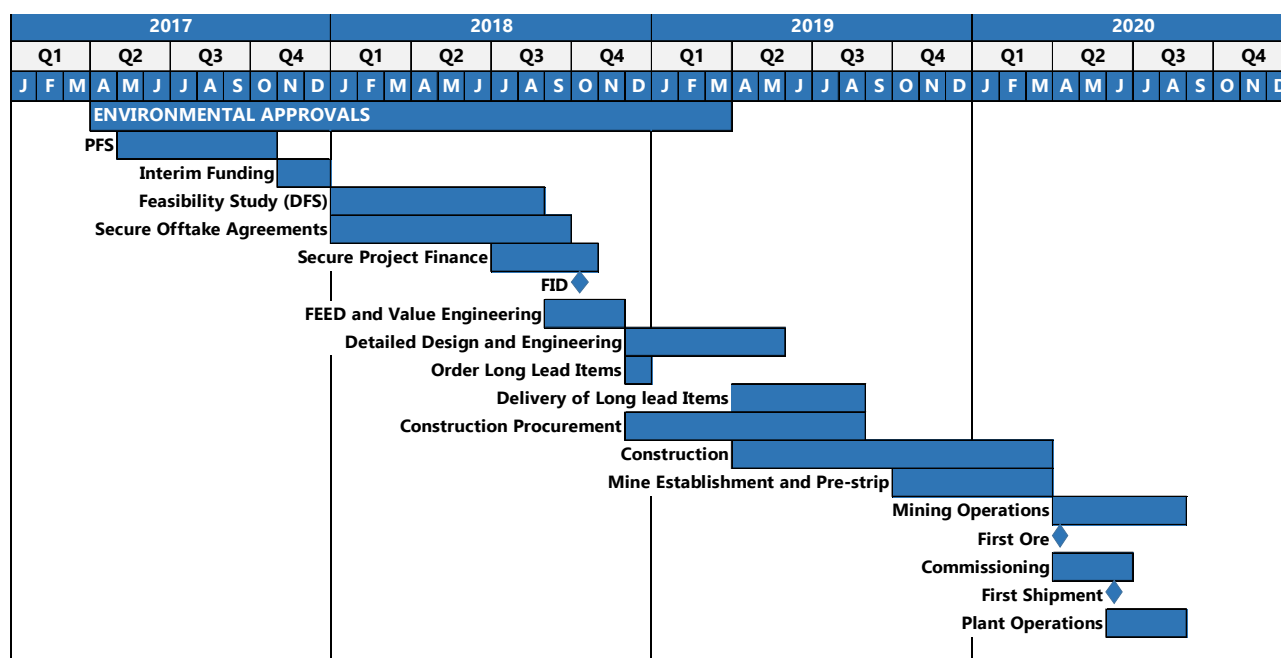


Table 10. Project implementation schedule

## **Bibliography**

1. Renascor ASX announcement dated 17 March 2017, "Siviour Now Among Ten Largest Graphite Deposits in the World"
2. Renascor ASX announcement dated 31 March 2017, "High Purity Coarse Flake Graphite from Metallurgical Tests"
3. Renascor ASX announcement dated 10 November 2016, "99% TGC Product from Simple Flotation at Siviour"
4. Renascor ASX announcement dated 1 September 2016, "Acquisition of 100% of Eyre Peninsula Minerals"

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.

## **Competent Person Statements**

### ***Mineral Resource***

*The information in this document that relates to Mineral Resources is based upon information compiled by Mrs Christine Standing who is a Member of the Australasian Institute of Mining and a Member of the Australian Institute of Geoscientists. Mrs Standing is an employee of Optiro Pty Ltd and has sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and to the activity 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. Mrs Standing consents to the inclusion in the report of a summary based upon her information in the form and context in which it appears.*

### ***Exploration Results***

*The information in this document that relates to exploration activities and exploration results is based on information compiled and reviewed by Mr G.W. McConachy who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr McConachy 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.*

### **Mining Study**

*The information in this document that relates to mine design and mine plan scheduling is based on information compiled and reviewed by Mr Ben Brown, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Brown is an employee of Optima Consulting and Contracting Pty Ltd and a consultant to the Company. Mr Brown has sufficient experience relevant to the type of deposit under consideration 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 Brown consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.*

### **Metallurgical Results**

*The information in this document that relates to metallurgical test work results is based on information compiled and reviewed by Mr Simon Hall, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Hall is 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 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 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.*

### **Scoping Study**

*The information in this document that relates to the process plant and infrastructure design for a Scoping Study level assessment is based on information compiled and reviewed by Mr David Pass, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Pass is an employee of BatteryLimits. Mr Pass has sufficient experience relevant to process plant and infrastructure design thereof 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 Pass consents to the inclusion in the report of the matters based on the reviewed information in the form and context in which it appears.*

This report may contain forward-looking statements. Any forward-looking statements reflect management's current beliefs based on information currently available to management and are based on what management believes to be reasonable assumptions. It should be noted that a number of factors could cause actual results, or expectations to differ materially from the results expressed or implied in the forward-looking statements.

### **FOR FURTHER INFORMATION, PLEASE CONTACT:**

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**Angelo Gaudio**  
Company Secretary

## Material Assumptions

Material assumptions used in the estimation of the production targets and associated financial information are set out in the following table.

Criteria	Commentary
<b>Study Status</b>	The production target and financial information in this release are based on a Scoping Study. The Scoping Study referred to in this announcement is based on low-level technical and economic assessments and is insufficient to support the estimation of Ore Reserves or to provide assurance of an economic development case at this stage or to provide certainty that the conclusions of the Scoping Study will be realised.
<b>Mineral resource estimate underpinning the production target</b>	The Mineral Resource estimate declared in March 2017 (see Renascor ASX release dated 17 March 2017) underpins the production target. This estimate was prepared by a Competent Person in accordance with JORC Code 2012 (the JORC Code). The JORC Code (Clause 49) requires that industrial minerals must be reported <i>“in terms of the mineral or minerals on which the project is to be based and must include the specification of those minerals”</i> and that <i>“it may be necessary, prior to the reporting of a Mineral Resource or Ore Reserve, to take particular account of certain key characteristics or qualities such as likely product specifications, proximity to markets and general product marketability.”</i> The likelihood of eventual economic extraction was considered in terms of possible open pit mining, likely product specifications, possible product marketability and potentially favourable logistics to port.
<b>Mining factors or assumptions</b>	Mining is based on an open cut operation utilising conventional drill and blast, load and haul and crusher feed, with mining to be undertaken by experienced mining contractors. It is expected that wet or paste tailing would be disposed in-pit.
<b>Metallurgical factors or assumptions</b>	Metallurgical parameters are based on test work on three composite samples which achieved average purity of 94% TGC and recovery of 87% TGC. For purposes of the Scoping Study, a process flowsheet has been adopted which is similar to flowsheets that have been adopted by similar flake graphite operations. Further testwork is currently underway and will include further optimisation work, variability testing, salinity testing and the generation of a bulk sample.
<b>Infrastructure and logistics</b>	The infrastructure required to support the plant and mine is based on raw water and process dams, water supply bores and a reverse osmosis facility, access roads within

	<p>the plant and project site and the process plant, together with complementary equipment and facilities. Power is based on accessing on-grid power from South Australia Power Network (SAPN) and subsequently negotiating a contract tariff with electricity providers. Renascor has commenced discussions with SAPN to access its existing line located approximately 14km north of the project area. Water is expected to be supplied from local boreholes and provision is made for desalination on site by reverse osmosis. Waste brine would be re-injected to an aquifer and tails returned to the pit. Transport is based on road haulage from the project site to Port Adelaide.</p>
<b>Capital costs</b>	<p>The capital cost estimate has been compiled by BatteryLimits based on a high level preliminary process design, for the design, supply, fabrication, construction and commissioning of the process plant facility. The process design criteria and high-level process flowsheet underlie the basis of this estimate. The estimate incorporates direct costs and indirect costs and contains estimates for project infrastructure. The estimate has been prepared as a factored estimate based upon supplied cost of equipment from current in-house data from recent projects and industry standard estimating factors, and excludes working capital, financing costs, relocation and resettlement costs, rehabilitation and closure costs. A project contingency allowance of 15% has been applied to the estimate. EPCM refers to engineering, procurement and construction management costs and is applied at a rate of 12.5% - 15% of direct costs. Owners Costs is estimated on comparable projects and includes allocations for pre-production labour and G&amp;A, commissioning, first fills and opening stocks, land acquisition cost estimate and miscellaneous software and equipment. The capital cost estimates were compiled in AU\$ with a base date of Q4 2016 with no allowance for escalation to an accuracy of +/-35%.</p>
<b>Operating costs</b>	<p>The operating cost estimate for the project includes all costs associated with mining, processing, infrastructure, and site-based general and administration costs. The operating cost estimate is presented on an annualised basis and there has been no allowance for initial ramp-up periods or contingencies applied. The operating costs have been developed in AU\$ by BatteryLimits based on cost database, industry standards from similar operations, first principle estimates based on typical operating data and information by Optima Consulting (mining costs) and Renasor (labour force estimates and logistics). The operating cost estimates exclude exchange rate variations, price escalation and interest charges.</p>
<b>Revenue factors</b>	<p>Revenue from the project is derived from the sale of graphite concentrates. Renascor has established the</p>



	<p>characteristics of expected final products through test programs undertaken on composite samples from Siviour core. Renascor has received market feedback that graphite concentrates produced to a minimum purity of approximately 94% TGC will be attractive to potential customers at premium or near premium pricing levels (provided the concentrates do not otherwise contain any potentially disqualifying contaminants). Accordingly, Renascor designed its metallurgical test work to meet this minimum purity threshold. Renascor has received additional market feedback regarding the potential benefits of increasing purity levels to make its graphite concentrates more attractive to potential customers. Renascor's continuing metallurgical work will include investigations designed to further increase the purity of Renascor's concentrates, while maintaining other variables (e.g. flake size, recoveries and capital and operating costs) at optimal levels.</p> <p>Product prices are based on discussions with end-users and market professionals and examination of other studies.</p> <p>Risks associated these assumptions used in product pricing include that the product split is not achieved and that the price assumptions are not met by the prevailing graphite market.</p>
<p><b>Schedule and timeframe</b></p>	<p>The project development schedule is based on completing a pre-feasibility study, transitioning to a definitive feasibility study without material modification and having funding readily in place to commence construction in Q4 2018. The schedule assumes a likely EPC implementation strategy. This results in a timeline of 20 months from funding approval to operation. The schedule assumes that permitting progresses concurrently with the schedule.</p>
<p><b>Market assessment</b></p>	<p>The majority of current world demand for graphite (&gt;80%) is driven by industrial applications (steel making, refractories and lubricants) that are growing at around 3% per annum. Within the industrial sector, lithium ion batteries represent a potential high growth area due to the impact of electric vehicles and grid power storage. Other new applications comprising expandable graphite (flame retardant materials, graphite foil, graphite paper, knitted tape), and specialist applications (micronised graphite, and graphene) are leading to an increase in demand.</p>
<p><b>Funding</b></p>	<p>To achieve the range of outcomes indicated in the Scoping Study, funding of up to AU\$167 or US\$125m will likely be required for capital works, pre-production operating costs and contingency. It is anticipated that the finance will be sourced through a combination of equity and debt instruments from existing shareholders, new</p>

	<p>equity investment and debt providers from Australia and overseas.</p> <p>The Company has sufficient cash on hand at the date of this announcement to undertake the next stage of planned work programs, including continued metallurgical testing, the collection of a bulk sample, and the commencement of advanced mining, geotechnical, hydro-geological and other technical studies.</p> <p>Renascor's Board believes that there is a reasonable basis to assume that funding will be available to complete all feasibility studies and finance the pre-production activities necessary to commence production on the following basis:</p> <ul style="list-style-type: none"> <li>• Renascor's Board and executive team have a strong financing track record in developing resources projects;</li> <li>• The Company has a proven ability to attract new capital;</li> <li>• Renascor's Board believes this Scoping Study demonstrates the project's strong potential to deliver favourable economic return; and</li> <li>• Other companies at a similar stage in development have been able to raise similar amounts of capital in recent capital raisings.</li> </ul>
<b>Economic</b>	<p>A discount rate of 10% has been used for financial modeling. This number was selected as a generic cost of capital and considered a prudent and suitable discount rate for project funding and economic forecasts. The model has been run as a life of mine model and includes sustaining capital and closure costs. The Study outcome was tested for key financial inputs including: basket price, capital and operating costs and US/AU exchange rate. All of these inputs were tested for variations of +/- 10%.</p>
<b>Exchange rate</b>	<p>The exchange rate used is of AU\$1.00 = US\$0.74.</p>
<b>Social</b>	<p>The local community includes the townships of Arno Bay, Cleve, Port Neill and Cowell. Renascor has commenced meetings with stakeholders within these communities, and the general acceptance of the project has been favourable. There are no known community issues that Renascor has identified as being a likely material impediment to developing the project.</p>
<b>Other</b>	<p>There are several other material risks to this project including product price, competition, regulatory approval, social licence, scheduling and other risks typical of projects of similar scale.</p>
<b>Audits or reviews</b>	<p>The Scoping Study was internally reviewed by Renascor and the following consultants: Ben Brown (Optima Consulting), in relation to the mining component, Simon Hall, in relation to the metallurgical component, Ben Jeuken, (Groundwater Science) in relation to the</p>

	<p>hydrogeological component, Evelyn Poole, in relation to the environmental component, and Andrew Reeves and George Wilby, in relation to logistics. No material issues were identified by the reviewers. All study inputs were prepared by Competent Persons identified in this announcement.</p>
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