ASX Release

29 January 2025

Renascor Advances Downstream Demonstration Facility

Key milestones achieved in Australian Government co-funded Purified Spherical Graphite (PSG) demonstration plant

- Following award of a $5 million grant under the Australian Government's International Partnerships in Critical Minerals Program to co-fund a PSG demonstration facility[1], Renascor has achieved key milestones in the demonstration plant's development.
- Renascor has secured a site in South Australia for the demonstration plant, a 1,250m^2 industrial warehouse, adjacent to a fully permitted and operating commercial laboratory and analytical services facility. The site is located north of Adelaide, proximate to Bolivar, South Australia, where Renascor intends to construct the full-scale commercial facility[2].
- The first graphite concentrate production run from the recently collected Siviour bulk sample[3] was successfully completed, with grade (97.1% total carbon or **C**) and graphite recovery (96.0%) both exceeding respective targets from the Siviour Battery Anode Material Definitive Feasibility Study (**Siviour DFS**)[4]. Graphite concentrate produced from the production runs will be used as a feedstock for the PSG demonstration facility.
- Engineering design for the demonstration plant is well advanced. Following successful purification equipment trials completed last year[5], Renascor has updated the process flowsheet to account for selected equipment specifications. The initial process design is now complete and tendering of long lead equipment has commenced.
- Renascor has received its first Federal Government grant funding payment of $750,000.
- Pending timely receipt of equipment supply, commissioning is expected to commence in Q3 2025.

Siviour
Battery Anode Material Project
Powering Clean Energy

ESG

HF-free

100% Australian-made

For personal use only

For personal use only

Renascor Resources Limited (ASX: RNU) (**Renascor**) is pleased to announce the achievement of key milestones in the development of its Australian Government co-funded Purified Spherical Graphite (**PSG**) demonstration facility.

Recently completed activities have included securing a site in South Australia for the demonstration plant, completing initial graphite concentrate production runs to provide feedstock for the facility, completing initial process design and commencing procurement of long-lead equipment. Subject to timely receipt of long lead equipment, Renascor expects commissioning to commence in Q3 2025.

Commenting, Renascor's Managing Director, David Christensen stated:

> *"Our technical team continues to make excellent progress in advancing our eco-friendly, HF-free purification technology. We look forward now to moving through procurement, construction and commissioning of our PSG demonstration facility later this year, as we seek to deliver a globally competitive Australian alternative to China's current monopoly on PSG production.*

Discussion

Renascor is developing a vertically integrated Battery Anode Material (**BAM**) operation in South Australia. The BAM project comprises: (i) an upstream graphite mining and processing operation, and (ii) a downstream BAM facility in which graphite concentrate will be converted into PSG before being exported to lithium-ion battery anode manufacturers (see Figure 1).

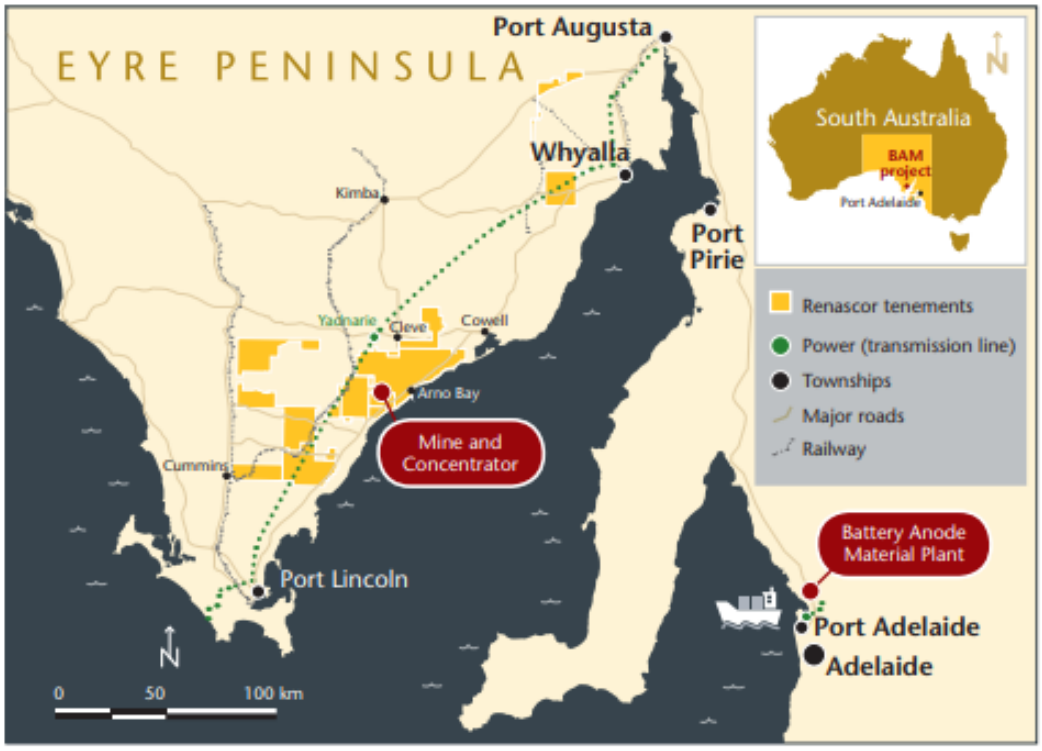

Figure 1. *Renascor's BAM project, showing the locations of the planned mine and concentrator and the BAM facility*

The BAM project is in the advanced planning stages, with Renascor intending to accelerate the development of the upstream mining operation to reduce the time to first production of graphite to coincide with projected near-term supply shortfalls in particular in the ex-China markets.

Renascor continues to progress the competitive Early Contractor Involvement (**ECI**) process to mature the engineering design of the upstream mineral processing plant and non-processing infrastructure. The ECI process is intended to culminate with an executable EPC contract for the upstream operation, comprising a fully priced offer, agreed commercial terms, finalised project works scope, technical specifications and performance parameters under a competitive and open-book process[6].

Downstream PSG facility

Concurrent with the development of the upstream mining operation, Renascor is continuing to advance the downstream PSG facility.

As announced in July 2024, Renascor was awarded a $5 million grant under the Australian Government's International Partnerships in Critical Minerals Program to construct a PSG demonstration facility[7].

The demonstration facility will convert graphite concentrate from Renascor's 100%-owned Siviour Graphite Deposit in South Australia into PSG through a continuous production process, enabling Renascor to test, demonstrate and optimise its purification process. Learnings obtained from the demonstration facility will be utilised in the detailed design stage and carried through into the construction and operation of the full-scale commercial PSG facility[8].

Renascor has recently achieved key milestones in the development of the demonstration facility.

Demonstration Plant Site

Renascor has secured a two year lease, with options to extend for another three years, over a site for the PSG demonstration plant.

The site consists of 1,250m^2 of industrial warehouse space adjacent to a fully permitted and operating commercial laboratory and analytical services facility and is located north of Adelaide, proximate to Bolivar, South Australia, where Renascor intends to construct the full-scale commercial facility[9].

Bulk Sample Production

In preparation for construction of the PSG demonstration facility, Renascor completed the collection of approximately 730 tonnes of graphite ore from its Siviour Graphite Deposit in September 2024[10]. The ore was collected over locations that Renascor considers to be representative of graphite ore that Renascor will process during the first three years of the planned mining operation at Siviour.

The large-scale sample was subsequently delivered to a commercial graphite facility in China for production of graphite concentrate via conventional flotation utilising the optimised flowsheet that Renascor developed after the completion of the Siviour DFS[11]. This optimised flowsheet has adjusted the flowsheet parameters of the mineral processing plant to increase the production of size fractions greater than 150 microns (+100 mesh) by approximately 60% from a projected 17% to 27% of total production[12].

For personal use only

For personal use only

The first production run at the commercial facility has been successfully completed. Approximately 150 tonnes of Siviour ore grading 9.2% total graphitic carbon have been processed, producing graphite concentrate at an average grade of 97.1% (**C**) and graphite recovery of 96.0%, exceeding the respective parameters of the Siviour DFS (94.5% grade and 95.5% recovery) [13].

Processing of the remaining bulk sample is scheduled to resume in March 2025 following the customary winter shutdown at the Chinese commercial facility.

Graphite concentrate produced from the production runs will be used as feedstock for the demonstration facility.

Engineering

Engineering design for the demonstration plant is well advanced.

The demonstration plant flowsheet has been updated to account for the successful purification equipment trials completed last year that tested the Renascor purification flowsheet with commercially available equipment at comparable scale to the planned PSG demonstration facility[14]. These tests successfully produced lithium-ion battery grade graphite across all targeted product specifications, with results of up to 99.99% **C** (versus anode industry standard of 99.95% C). The trials similarly met industry requirement for impurities, with tests below industry impurity standards.

The initial process design is now complete and tendering of long lead equipment has commenced.

A water treatment provider has been selected, with the design and supply of the pre-fabricated water treatment module scheduled to commence in the current quarter.

The project schedule has been revised to account for the procurement times from Renascor's selected overseas equipment providers. Commissioning is now expected to commence in Q3 2025, commencing with the water treatment circuit. Pending timely receipt of equipment from overseas suppliers, full-scale demonstration plant commissioning is scheduled to commence in Q4 2025.

This ASX announcement has been approved by Renascor's Board of Directors and authorised for release by Renascor's Managing Director David Christensen.

For further information, please contact:

Company Contact
David Christensen
Managing Director
+61 8 8363 6989
info@renascor.com.au

Media Enquiries Contact
James Moses
Mandate Corporate
+61 (0) 420 991 574
james@mandatecorporate.com.au

Keep in the Loop: Subscribe to our newsletter

For personal use only

Appendix 1

About Renascor

Renascor is developing a vertically integrated Battery Anode Material (**BAM**) in South Australia. The BAM project comprises:

- **the Siviour Graphite Deposit** - the world's second largest Proven Reserve of Graphite and the largest Graphite Reserve outside of Africa[15];
- **the Graphite Mine and Processing Operation** - a conventional open-pit mine and crush, grind, float processing circuit delivering world-class operating costs in large part due to the favourable geology and geometry of Renascor's Siviour Graphite Deposit; and
- **a Battery Anode Material Production Facility** – where graphite will be converted to Purified Spherical Graphite (**PSG**) using an eco-friendly processing method before being exported to lithium-ion battery anode manufacturers.

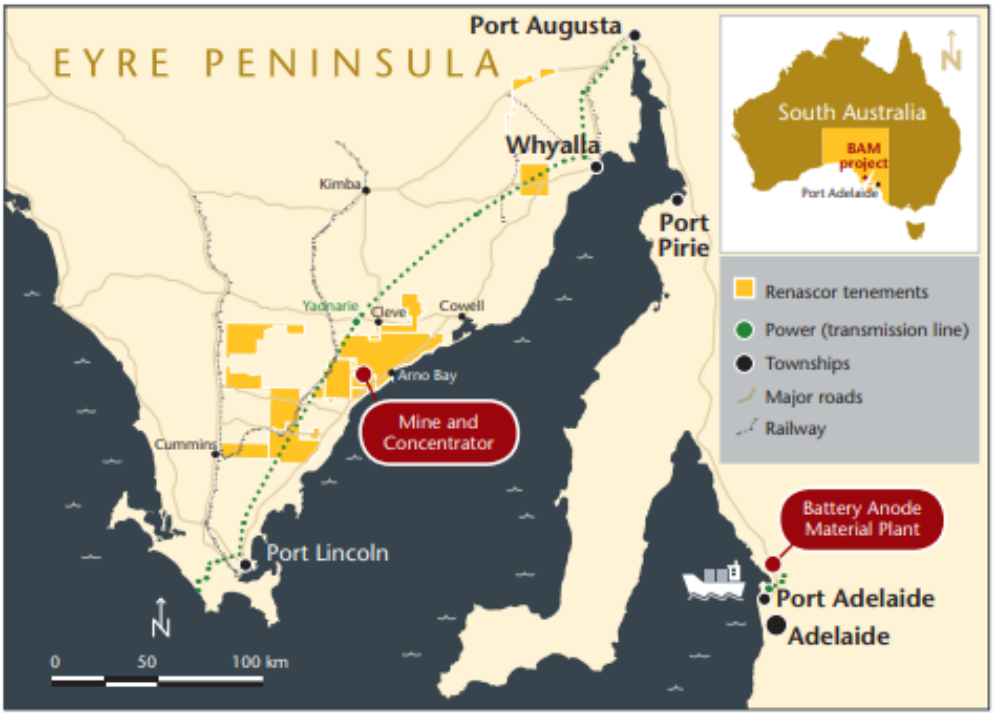

Figure 1. Renascor's Battery Anode Material Project location

HF-free

The 100% Renascor-owned Siviour Graphite deposit is unique in both its near-surface, flat-lying orientation and its scale as one of the world's largest graphite Reserves. The favourable geology and size of the deposit will allow Renascor to produce graphite at a low-cost over a 40-year mine life.

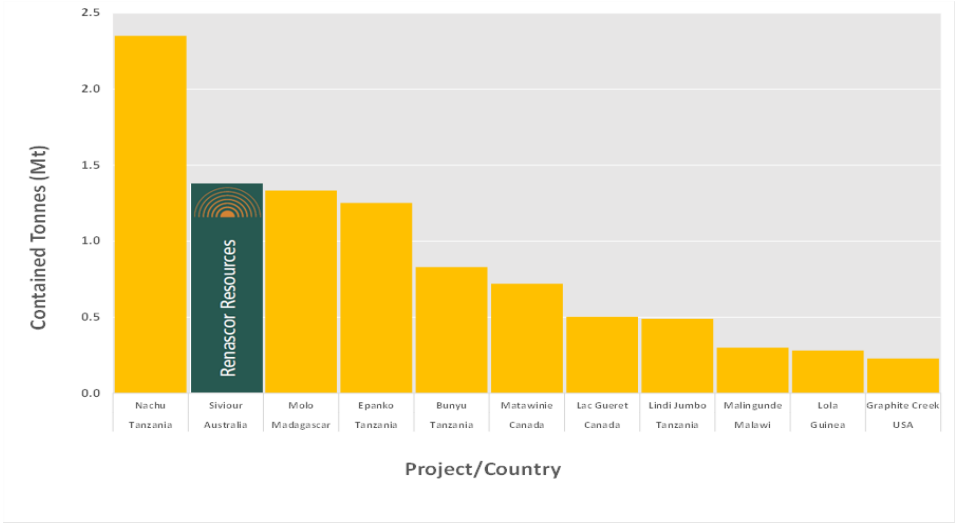

Figure 2. Globally Reported Proven Ore Reserve estimates (September 2023)[16]

Renascor intends to leverage this inherent advantage and develop a vertically integrated operation to manufacture high value PSG from a low-cost graphite concentrate feedstock and provide a secure cost-competitive supply of battery anode raw material into the rapidly growing lithium-ion battery market.

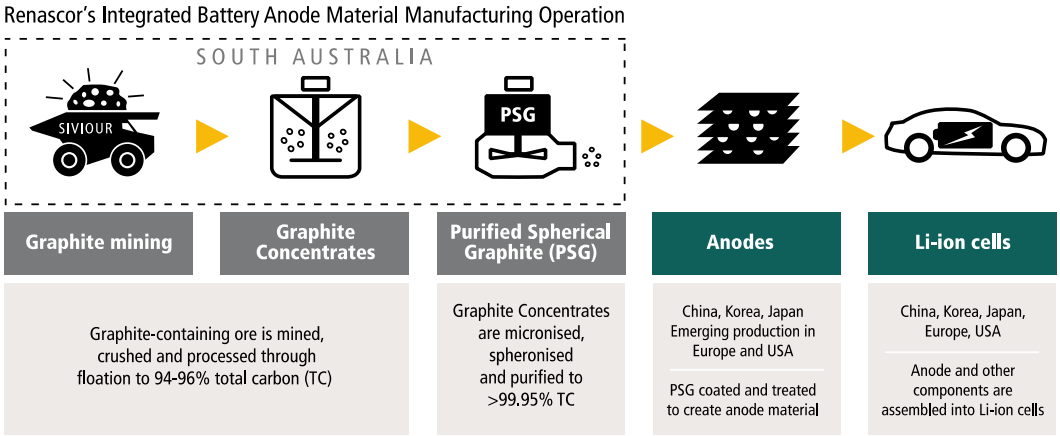

Figure 3. Renascor's vertically integrated Mine and Downstream PSG production facility within the Electric Vehicle supply chain.

For personal use only

For personal use only

Appendix 2

Peer Comparison Data

Company	Deposit	Country	Proven Reserve				Source	Date
			Total Tonnes (Mt)	Grade (%)	TGC (Mt)	Study Status*		
Volt Resources Ltd	Bunyu	Tanzania	19.3	4.3%	0.8	Pre-Feasibility Study	https://announcements.asx.com.au/asxpdf/20161215/pdf/43drlhpvdwbhxp.pdf	15 December 2016
Ecograf Ltd	Epanko	Tanzania	5.7	8.4%	0.5	Bankable Feasibility Study	https://announcements.asx.com.au/asxpdf/20240725/pdf/065xhvjr74hlh2.pdf	25 July 2024
Graphite One Inc	Graphite Creek	USA	3.8	6.0%	0.2	Pre-Feasibility Study	https://www.graphiteoneinc.com/wp-content/uploads/2022/10/JDS-Graphite-One-NI-43-101-PFS-20221013-compressed.pdf	14 October 2022
Nouveau Monde Graphite	Lac Guéret	Canada	2.0	25.1%	0.5	Technical Feasibility Study	https://masongraphite.com/wp-content/uploads/2021/06/a53b7c_22115be39ccf4d85b9579f359680997c.pdf	12 December 2018
Walkabout Resources Ltd	Lindi Jumbo	Tanzania	2.5	19.3%	0.5	Definitive Feasibility Study	https://announcements.asx.com.au/asxpdf/20190228/pdf/44321stl8dlk5f.pdf	28 February 2019
Falcon Energy Materials plc	Lola	Guinea	6.4	4.4%	0.3	Technical Feasibility Study	https://minedocs.com/25/SRG-Mining-Lola-Project-Update-FS-02272023.pdf	12 April 2023
NGX Ltd	Malingunde	Malawi	3.1	9.5%	0.3	Pre-Feasibility Study	https://announcements.asx.com.au/asxpdf/20230614/pdf/05qn89bfqrhwx8.pdf	14 June 2023
Nouveau Monde Graphite	Matawinie	Canada	17.3	4.2%	0.7	Technical Feasibility Study	https://nmg.com/wp-content/uploads/2022/08/Feasibility-Study-NMGs-Integrated-Phase-2-Projects.pdf	10 August 2022
NextSource Materials Inc	Molo	Madagascar	21.3	6.2%	1.3	Technical Feasibility Study	P9239 Molo Graphite Phase 2 NI43-101 Technical Report (nextsourcematerials.com)	12 December 2023
Magnis Energy Technologies Ltd	Nachu	Tanzania	50.5	4.6%	2.4	Bankable Feasibility Study	https://magnis.com.au/files/Nachu-BFS-Update.pdf	27 September 2022

* Denotes the name of the study at the time of the release. The Molo and Lindi Jumbo projects are now in the operations phase, with all other projects being in pre-production phase.

[1] See Renascor ASX announcement dated 11 July 2024.
[2] See Renascor ASX announcement dated 20 September 2022.
[3] See Renascor ASX announcement dated 23 September 2024.
[4] See Renascor ASX announcement dated 8 August 2023.
[5] See Renascor ASX announcement dated 21 August 2024.
[6] See Renascor ASX announcement dated 24 June 2024.
[7] See Renascor ASX announcement dated 11 July 2024.
[8] See Renascor ASX announcement dated 11 July 2024.
[9] See Renascor ASX announcement dated 20 September 2022.
[10] See Renascor ASX announcement dated 23 September 2024.
[11] See Renascor ASX announcement dated 8 August 2023.
[12] See Renascor ASX announcement dated 17 January 2024.
[13] See Renascor ASX announcement dated 8 August 2023.
[14] See Renascor ASX announcement dated 21 August 2024.
[15] See Renascor ASX release dated 21 July 2020.
[16] Source: public company reports. Does not include graphite deposits that do not publicly report data on main stock exchanges in Australia, Canada, the United Kingdom and the United States. See Appendix 2 for further details on sourcing.