ASX Release

12 July 2021

Improved Graphite Recoveries from Locked Cycle Tests

Results of independent locked cycle tests offer increased economic efficiencies in the production of Graphite Concentrates

Highlights:

- Independent locked cycle flotation test results have resulted in improvements to Renascor's planned Graphite Concentrate operation, the upstream component of Renascor's planned vertically integrated graphite mine and battery anode material manufacturing operation in South Australia.
- The locked cycle flotation tests were performed to measure and validate mineral processing parameters adopted from optimisation testwork undertaken following the completion of the Siviour Graphite Concentrate Definitive Feasibility Study ("**DFS**")[1].
- The locked cycle flotation tests achieved graphite recovery of 94.5%, as compared to 91.0% in the Siviour DFS.
- The increase in recovery offers the potential for increased economic efficiencies in the production of Graphite Concentrates, which Renascor plans to use as feedstock in a downstream advanced manufacturing facility to produce Purified Spherical Graphite ("**PSG**") for use in lithium-ion battery anodes[2].
- The results also validate the mineral processing parameters adopted for the planned Graphite Concentrate operation and provide additional data for detailed engineering and equipment sizing and selection.
- **Renascor intends to leverage off the comparatively low OPEX of the planed Siviour Graphite Concentrate operation[3] by co-locating a downstream advanced manufacturing facility in Australia to produce low-cost, high-quality, 100% Australian-made PSG with leading ESG[4] credentials in the first integrated in-country mine and battery anode material operation outside of China**.
- Renascor now plans to commence more detailed engineering on the Graphite Concentrate operation, while concurrently conducting locked cycle purification tests on Renascor's eco-friendly, downstream purification process to be used in upgrading Siviour Graphite Concentrates to battery grade PSG.

Renascor Resources Limited
ABN 90 135 531 341

Head office:
36 North Terrace
Kent Town, South Australia 5067

Phone: + 61 8 8363 6989
Email: info@renascor.com.au
www.renascor.com.au

Renascor Resources Limited (ASX: RNU) (**Renascor**) is pleased to announce the results of independent locked cycle flotation tests that offer the potential for improvements to Renascor's planned Graphite Concentrate operation, the upstream component of Renascor's planned vertically integrated graphite mine and battery anode material manufacturing operation in South Australia.

In the recently concluded locked cycle flotation tests, Renascor achieved graphite recovery of 94.5%, as compared to 91.0% in the Siviour DFS.

Commenting on the recent results, Renascor's Managing Director David Christensen stated:

> *"Our technical team continues to make great progress in rapidly advancing the development of the Siviour project, with these results further underscoring the potential for Siviour to be a global leader in the production of high quality, low-cost graphite products.*
>
> *We expect these results to further support our plans for our 100% Australian-made Siviour Purified Spherical Graphite to become a world-leader in sustainable and ethically-sourced battery anode material for the lithium-ion battery market."*

Locked Cycle Flotation Tests

Since the completion of the Siviour DFS in November 2019[5], Renascor has undertaken bench scale mineral processing trials to optimise and validate the Graphite Concentrate mineral processing parameters adopted in the Siviour DFS. The bench scale tests included tests focused on maximising graphite recoveries by adjusting mineral processing parameters from the flowsheet adopted in the Siviour DFS.

The recently concluded locked cycle flotation tests were commissioned after completion of the bench scale tests with the principal objective of confirming the optimised flowsheet from the bench scale tests and validating grade and recovery assumptions.

The locked cycle flotation tests differ from the previous optimisation tests by more closely approximating processing conditions by including recycle streams from the flotation process and assessing the efficiency in producing Graphite Concentrates at requisite purity levels.

The tests were undertaken at ALS Perth, in collaboration with Renascor's external engineering advisors Wave International. Tests were completed on the same composite material used in the test work for the Siviour DFS, representing ore that, pursuant to the mining plan adopted in the Siviour DFS, is scheduled to be processed in the first five years of mining.

The locked cycle flotation tests achieved graphite recovery of 94.5%, which compares favourably to the Siviour DFS graphite recovery of 91%. The tests achieved purity of 94.6% carbon, which is comparable to the result from the Siviour DFS[6].

Significance

The increase in recovery offers the potential for increased economic efficiencies in the production of Graphite Concentrates, which Renascor plans to use as feedstock in a downstream advanced manufacturing facility to produce PSG for use in lithium-ion battery anodes[7].

The results also offer further validation of the mineral processing parameters for the planned Graphite Concentrate operation and provide data for detailed engineering and equipment sizing and selection.

Next steps

Renascor now plans to commence more detailed engineering on the Graphite Concentrate operation, while concurrently conducting locked cycle purification tests on Renascor's eco-friendly, downstream purification process to be used in upgrading Siviour Graphite Concentrates to battery grade PSG.

Disclaimer

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.

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.

Competent Person Statements

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.

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:

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

About Renascor

Renascor is committed to powering the clean energy transition through the development, in Australia, of a vertically integrated graphite mine and manufacturing operation to produce sustainable and ethically-sourced battery anode material for the lithium-ion battery market.

Renascor's operation will combine:

- The Siviour Graphite Deposit in South Australia, the largest reported graphite Reserve outside of Africa[8], and
- A state-of-the-art processing facility in South Australia to manufacture purified spherical graphite through Renascor's eco-friendly purification process.

Renascor's aim is to become a leading supplier of 100% Australian-made and low-cost purified spherical graphite for lithium-ion battery anode makers worldwide.

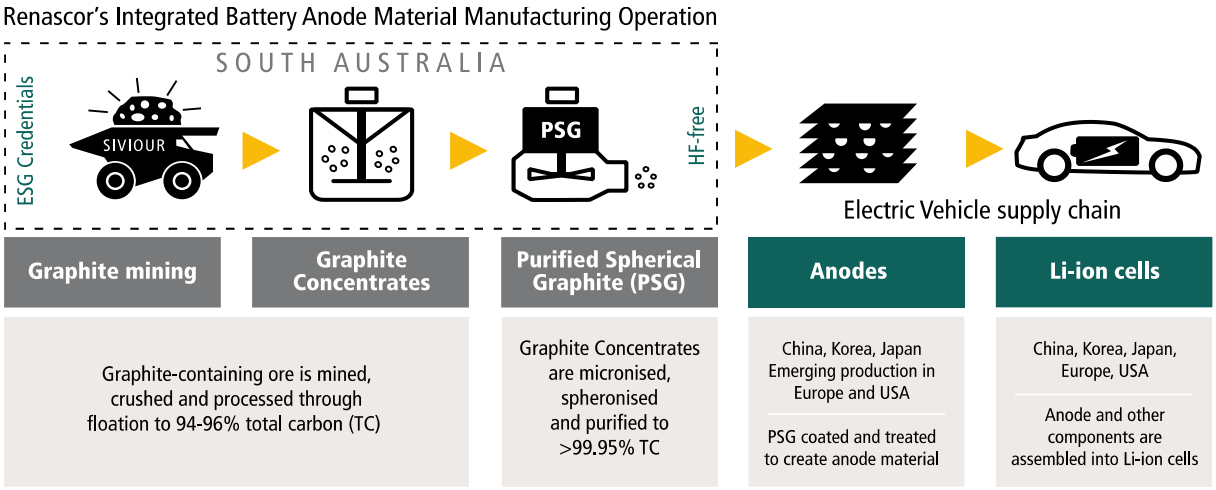

Figure 1: Renascor's vertically integrated Mine and Concentrator and Downstream PSG production facility within the Electric Vehicle supply chain

[1] See Renascor ASX release dated 11 November 2019.
[2] See Renascor ASX release dated 1 July 2020.
[3] The Siviour DFS estimates a life of mine operating cost per tonne of Graphite Concentrate of A$508 or US$355 per tonne, amongst the lowest reported projected operating cost of any graphite development globally. See Renascor ASX release dated 11 November 2019, Figure 12, page 27.
[4] Environmental, social and corporate governance.
[5] See Renascor ASX release dated 11 November 2019.
[6] See Renascor ASX release dated 11 November 2019, page 17.
[7] See Renascor ASX release dated 1 July 2020.
[8] See Renascor ASX release dated 21 July 2020.

Appendix 1

JORC Table 1

Section 1: Sampling Techniques and Data **(criteria in this section apply to all succeeding sections)**		
Criteria	**JORC Code explanation**	**Commentary**

Sampling techniques	• *Nature and quality of sampling.*
	• *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*
		• In 2018, Renascor undertook diamond drilling and collected core samples based on geology, varying in thickness from 0.0m to 3.m intervals.
		• Core samples were quarter split Triple Tube HQ3 core and sent for laboratory geochemical analysis at Bureau Veritas, South Australia.
		• Duplicate samples were collected after each 25 samples and standards were inserted into the sample stream at the end of every hole.
		• Sampling was guided by Renascor's protocols and QAQC procedures.
		• Cores were selected from 12 drill holes: 18SIVDD126 through 139, excluding 18SIVDDDD134 and 18SIVDD135.
		• Half core subsamples were selected from the twelve cores based on the following procedure:
		  ○ selection of core over full depth of mineralisation using core logs;
		  ○ identifying lithological units and selecting subsamples based on Metcodes 1, 2 and 3; and
		  ○ selecting approximately a third of every lithological interval on an approximately 1m basis.
		• After selection of subsamples from the 12 drillholes, the samples were delivered to ALS metallurgy and the subsamples were composited by Metcode to form composites.
		• The subsamples were processed by Jaw and Cone crushing each ½ core sample to -3.35mm and combined and homogenising into three bulk samples of each Metcode.
		• A bulk composite of approximately 50 kg was prepared by combining subsamples of Metcode Composites 1 and 2 in the ratio of Metcode 1 - 86%, to Metcode 2 - 14%, based on the DFS resource model.
		• Refer to Renascor ASX release 7

Section 1: Sampling Techniques and Data (criteria in this section apply to all succeeding sections)		
Criteria	**JORC Code explanation**	**Commentary**
		December 2018 for drillhole locations. Renascor confirms that the form and context in the Competent Persons' findings are presented have not materially changed from the original announcement.
Drilling techniques	• *Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Diamond drilling was undertaken by a drilling contractor (MJ Drilling in 2018) using triple tube with a HQ3 drill bit (61mm core diameter). Core was orientated down hole using a Reflex digital orientation system.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Diamond core recovery was routinely recorded and within the reported mineralised zones. The core recovery averaged 88% for entire holes. • Recovery was assessed by the site geologist and deemed acceptable for resource estimation, given the friable mature of the mineralisation.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• All drill samples were geologically logged by experienced geologists at the drill rig. The geological logs were checked by re-logging of the drill core in Adelaide. • Primary data was captured into spreadsheet format by the supervising geologist, and subsequently loaded into the Renascor's database. • No adjustments have been made to any assay data. • The density data collected by Renascor used the Archimedes Principle water displacement device of core samples on metre intervals down the hole. Check analysis were made by Bureau Veritas, South Australia. • Core was orientated using the Reflex orientation tool, marked into 1m intervals, core recovery and geotechnical

Section 1: Sampling Techniques and Data (criteria in this section apply to all succeeding sections)		
Criteria	**JORC Code explanation**	**Commentary**
		data – Rock Quality Designation were recorded. • Core was photographed, both dry and wet.
Sub-sampling techniques and sample preparation	• *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• HQ3 diameter core is cut in half to preserve the orientation mark. • Graphite intervals are sampled using ¼ HQ3 diameter core. • Every twenty-five samples a duplicate sample is collected using ¼ HQ3 diameter core and submitted for check analysis. • All the samples are marked with unique sequential numbering as a check against sample loss or omission. • Samples were crushed and pulverised using LM5, with nominally 90% passing 75 µm in preparation for analysis using the Bureau Veritas network. • For metallurgical recovery work, the ore composite was crushed in accordance with the DFS flowsheet, prior to being processed through the DFS flotation flowsheet. • Ore head grade and concentrate grade was assayed for Total Carbon (TC) and Total Graphitic Carbon (TGC), with intermediate stages assayed for TC.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.*	• All core samples were sent to Bureau Veritas laboratory in Adelaide for preparation and for TGC analyses and additional multi element analysis using a mixed acid digest. • For TGC analysis a portion of the sample is dissolved in weak acid to liberate carbonate carbon. The residue is then dried at 420°C driving off organic carbon and then analysed by its sulphur-carbon analyser to give TGC. • Bureau Veritas Minerals has adopted the ISO 9001 Quality Management Systems. All Bureau Veritas laboratories work to documented procedures in accordance with this standard. • QAQC procedures for the drilling program included the insertion of standard (certified reference material) samples and field duplicates at the drill site.

Section 1: Sampling Techniques and Data (criteria in this section apply to all succeeding sections)		
Criteria	**JORC Code explanation**	**Commentary**
		• 52 samples that were analysed by Bureau Veritas were also analysed by ALS. • Analysis of the standard samples indicates an acceptable level of accuracy. Analysis of the blank samples indicates low levels of contamination and/or sample mix-ups.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Primary data was captured into spreadsheet format by the supervising geologist, and subsequently loaded into the Renascor's database. • There are four diamond drillholes that twinned earlier RC holes. One set (where the samples are less than 1m apart) were used for duplicate sample analysis. Analysis of the drilling methods indicates that there is no consistent bias between the grade and thickness of mineralisation. • No adjustments have been applied to the results.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• All drillholes were pegged using a hand-held GPS. • The drillholes were surveyed by a licenced surveyor. • The collar coordinates were entered into the drillhole database. • The degree of accuracy of drillhole collar location and RL is estimated to be within 0.1m for DGPS and m error level for the hand-held GPS. • The grid system for the project was Geocentric Datum of Australia (GDA) 94, Zone 53.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Exploration results are not being reported. • 87% of the samples were taken over a 1m interval. Diamond drill core sampling was based on geological boundaries with a general maximum limit of 1m thickness and a minimum of 0.05m thickness for assay samples.
Orientation of data in relation to	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is*	• Interpretation of the relationship between the drilling orientation and the orientation of key mineralised structures indicates that mineralisation is likely to be

Section 1: Sampling Techniques and Data (criteria in this section apply to all succeeding sections)		
Criteria	**JORC Code explanation**	**Commentary**
geological structure	*known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	perpendicular to strike continuity. • The orientation of drilling is not expected to introduce sampling bias.
Sample security	• *The measures taken to ensure sample security.*	• Unique sample number was retained during the whole process. • Samples were transported by a reputable transport company and sample bags and dispatch notice checked upon receipt at the laboratory. • Flotation and analysis for the metallurgical testwork was performed by ALS Laboratories in Perth.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• All data collected was subject to internal review.

SECTION 2: REPORTING OF EXPLORATION RESULTS (criteria listed in the preceding section apply also to this section)		
Criteria	**JORC Code explanation**	**Commentary**
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The Siviour deposit is located within Mineral Lease (ML) 6495 and Exploration Licence (EL) 6469, held by Ausmin Development Pty Ltd (Ausmin). Renascor, through its wholly-owned subsidiary Eyre Peninsula Minerals Pty Ltd (EPM), acquired 100% of Ausmin Development Pty Ltd (Ausmin) and its tenements in 2018. • The tenements are in good standing. • The drilling was carried out on agricultural freehold land.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Several companies have carried out historic exploration over many years, but without any focus on graphite prospectivity. Cameco Ltd, as part of a uranium exploration program, acquired EM data across the tenement in 2006 and 2007. Cameco drilled hole CRD0090, without testing for graphite. • During 2014, Eyre Peninsula Minerals Pty Ltd carried graphite-focused exploration and drilled a further six RC holes and one diamond core hole reporting graphite intersections in all holes.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The graphite mineralisation at Siviour is hosted within Meso-Proterozoic metasedimentary rocks sediments of the Hutchison Group. • The graphite mineralisation is within a nominally 30 m-thick band of pelitic schist that occurs within a thick calc-silicate sequence.
Drillhole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:* • *easting and northing of the drillhole collar* • *elevation or RL (elevation above sea level in metres) of the drillhole collar*	• Reported previously.

SECTION 2: REPORTING OF EXPLORATION RESULTS (criteria listed in the preceding section apply also to this section)		
Criteria	**JORC Code explanation**	**Commentary**
	• *dip and azimuth of the hole* • *down hole length and interception depth* • *hole length.*	
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.*	• Exploration results are not being reported. • Metal equivalent values have not been used.
Relationship between mineralisation widths and intercept lengths	• *If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect.*	• Renascor considered the undulating nature of the mineralisation and all drillholes intersected mineralisation at near perpendicular to the dip orientation of the host lithologies and mineralisation. • Exploration results are not being reported.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Exploration results are not being reported.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• Exploration results are not being reported.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating*	• Exploration results are not being reported.

SECTION 2: REPORTING OF EXPLORATION RESULTS (criteria listed in the preceding section apply also to this section)		
Criteria	**JORC Code explanation**	**Commentary**
	substances.	
Further work	• *The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Additional drilling may be undertaken to follow-up EM anomalies within areas adjacent to the Siviour deposit. • Ongoing metallurgical work may include optimisation and variability test work.