# Quarterly Report

## 30 September 2020

RENASCOR RESOURCES



ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


## Significant Events

- Renascor enters into non-binding Memorandum of Understanding (**MOU**) with Chinese anode company Shanxi Minguang New Material Technology Co. Ltd., part of one of China's largest battery supplier groups, to supply up to 10,000 tonnes per annum of Purified Spherical Graphite (**PSG**) from Renascor's 100%-owned Siviour Battery Anode Material Project in South Australia.
- Other significant milestones for the Siviour Battery Anode Material Project achieved during the quarter include:
  - Completion of Battery Anode Material Study, confirming globally competitive costs for producing PSG through a vertically integrated mine and downstream processing operation in South Australia;
  - Independent qualification tests undertaken by German graphite specialist confirming Siviour PSG meets product specifications required for integration of PSG into lithium-ion battery anodes; and
  - Updated Mineral Ore Reserve estimate for Siviour confirming Siviour as the largest reported total Ore Reserve of graphite outside of Africa, and the second largest reported Proven Reserve of graphite in the world.[1]
- Multiple drill-ready gold targets identified at Renascor's 100%-owned Carnding Gold Project in South Australia's Central Gawler Craton.
  - Targets include the Soyuz Prospect, where previous drilling intersected shallow gold, with results including:
    - 7m @ 5.14g/t Au from 26m to end of hole, including 2m @ 16.42 g/t Au from 30m, and
    - 6m @ 4.94g/t Au from 14m.
  - Additional near-surface gold targets along-strike from Soyuz identified from induced polarisation survey.
  - Carnding Gold Project expanded with the approval of an exploration licence application that includes the area immediately north of the Soyuz Prospect. Expanded project area includes an extension of a large magnetic anomaly at Soyuz related to a discrete part of afractionated Hiltaba Suite intrusion.
- Renascor completes share placement to $3.6m to fund work streams for the Siviour and Carnding projects.
- Cash position of approximately $5.2m as of 30 September 2020.

[1] See Figure 4 and Tables 4 and 5.

# Quarterly Report

## 30 September 2020

RENASCOR RESOURCES



ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

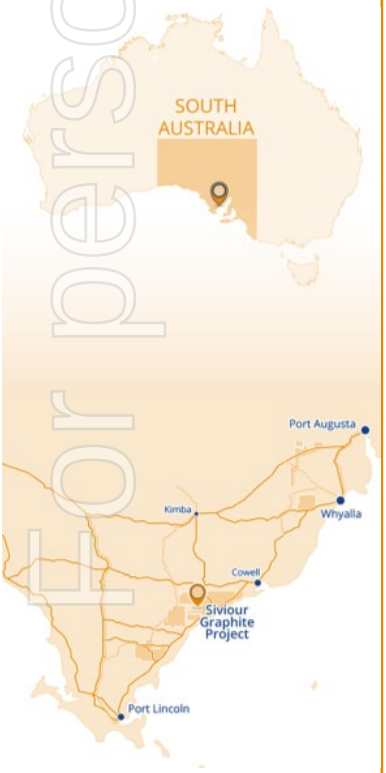
T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit




## Overview

During the recently completed quarter, Renascor's work programs were primarily focused on advancing the development the Siviour Battery Anode Material Project (**Siviour**) and the Carnding Gold Project (**Carnding**). See Figure 1.


**Figure 1. Renascor's Exploration and Development Projects**

# Quarterly Report

## 30 September 2020

RENASCOR RESOURCES



ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


## Siviour Graphite Project

### MOU with 'Minguang New Material'

During the recently completed quarter, Renascor entered into its first PSG offtake agreement, a non-binding MOU with Chinese anode company Shanxi Minguang New Material Technology Co. Ltd. (**Minguang New Material**), a subsidiary of Fujian Metallurgical Holding Co. Ltd. (**Fujian Metallurgical**).

Minguang New Material is an anode manufacturing company developing a ¥5 billion (A$1 billion), 40,000tpa lithium-ion battery anode manufacturing facility in China's Shanxi Province.

Fujian Metallurgical is a large, Chinese state-owned enterprise with 142 subsidiaries (including 3 listed companies), more than 38,000 employees and total assets of approximately A$17 billion[2]. It has diversified holdings in steel production, metal refining and battery materials, including a controlling interest in Xiamen Tungsten (XTC) Co. Ltd., a Shanghai-listed company that owns XTC New Material Xiamen Co., Ltd., China's largest cathode producer in 2019[3], and Fujian Sangang (Group) Co. Ltd., a Shenzhen-listed steel producer and one of the largest 500 companies in China[4].

The MOU covers the purchase of up to 10,000tpa of PSG over a ten year term, which represents approximately one-third of the projected initial PSG production capacity of Renascor's planned Battery Anode Material operation.

The MOU with Minguang New Material is non-binding and is intended to provide the initial framework for further negotiations in relation to price, product quality and other offtake parameters following completion of additional product validation tests.

### Progress on additional PSG offtake

In addition to concluding the MOU with Minguang New Material, Renascor is concurrently advancing offtake negotiations for the balance of its planned PSG production capacity, including with anode manufacturers and lithium-ion battery companies headquartered in Northeast Asia and Europe.

While COVID-19 has caused some delays by preventing site visits and in-person meetings, Renascor continues to make progress in relation to PSG offtake, with current activities largely focused on undertaking PSG validation tests, responding to due diligence enquiries and negotiating potential offtake terms.

### Battery Anode Material Study

During the recently completed quarter, Renascor completed a study assessing an integrated battery anode material operation (**Battery Anode Material Study**) in South Australia to produce PSG for lithium-ion battery anodes.

The Battery Anode Material Study updates a prefeasibility level study completed in February 2019 (**PSG PFS**) (see Renascor ASX announcement dated 21 February 2019) by

[2] Source: Fujian Metallurgical (Holding) Co. Ltd website: http:www.fjyjkg.com.
[3] Source: Benchmark Mineral Intelligence (2020).
[4] Source: Fujian Sangang (Group) Co. Ltd website: http://www.fjsg.com.cn.

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


incorporating the results of the Siviour Graphite Concentrate Definitive Feasibility Study (**Siviour Concentrate DFS**) (see Renascor ASX announcement dated 11 November 2019) and adjusting and validating material inputs to the downstream PSG processing operation, including PSG and by-product production levels, Graphite Concentrate feedstock specifications, operating and capital costs and revenue projections.

Wave International, an independent resource development consulting group with specific expertise in downstream processing of industrial minerals, acted as the study manager and supervising engineer of the Battery Anode Material Study, as well as the original PSG PFS.

***Financial highlights of Battery Anode Material Study***

Estimated values of key parameters of the Battery Anode Material Study are shown below. Material assumptions are described in Renascor ASX announcement dated 1 July 2020.

| | | |
|---|---|---|
| Average annual LOM production of PSG | 28,000t | |
| Life of mine/project | 40 years | |
| Start-up capital cost of mine and concentrator | A$114m | US$79m |
| Start-up capital cost of battery anode material operation | A$90m | US$63m |
| Total start-up capital (integrated operation)[5] | A$204m | US$142m |
| Payback of total start-up capital | 4.5 years | |
| $NPV_{10}$ (after tax) of integrated operation | A$713m | US$499m |
| IRR (after tax) of integrated operation | 33% | |
| Average cost of Graphite Concentrate feedstock per tonne PSG | A$1,107/t | US$775/t |
| Average cost of converting Graphite Concentrates to PSG | A$1,735/t | US$1,214/t |
| Average gross PSG cash operating cost | A$2,842/t | US$1,989/t |
| Average net PSG cash operating cost (with by-product credit[6]) | A$1,998/t | US$1,398/t |
| Projected PSG sales price | A$6,160/t | US$4,312/t |
| Net revenue of integrated operation | A$9,552m | US$6,686m |
| EBITDA of integrated operation | A$6,267m | US$4,387m |
| Project cashflow of integrated operation | A$4,112m | US$2,878m |

**Table 1. Financial highlights**

[5] The Siviour Concentrate DFS contemplates a second stage expansion in year five to be paid with projected cashflows. The projected stage two capital requirement is A$77 million or US$ 54 million.
[6] Adjustment of A$786/US$550 per tonne made for by-product sales.

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


***Siviour's Purified Spherical Graphite advantage***

The Battery Anode Material Study shows a gross operating cost for PSG of US$1,989 per tonne. This compares favourably with operating costs from existing commercial PSG operations (all of which are in China), for which Renascor's market data suggests an average operating costs of approximately US$2,000 per tonne[7].

This favourable cost position is particularly important as battery anode makers seek to diversify from China. Compared to other proposed PSG operations that are not vertically integrated, Renascor's integrated, Australian operation offers important advantages.

***Low-cost Graphite Concentrate feedstock***

Renascor achieves a relatively low PSG unit operating cost in large part because the battery anode materials operation obtains the key raw material, Graphite Concentrates, from Renascor's 100% owned Siviour Graphite Project at a projected life of mine unit operating cost of US$355 per tonne.[8] The current market value for Graphite Concentrates,[9] is US$540 per tonne,[10] and over the life of the battery anode material operation, the average market value of Graphite Concentrate is projected to be US$898 per tonne.[11]

This price difference for Graphite Concentrate feedstock has an exaggerated impact on PSG operating costs primarily because only half of the Graphite Concentrates used as feedstock are spheronised to PSG during the milling process.[12] In other words, twice as much Graphite Concentrate feedstock is required compared to the resultant PSG production.[13]

As shown in Figure 2 below, the potential PSG unit operating cost savings attributable to using Siviour Graphite Concentrates is US$385 per tonne based on current Graphite Concentrate prices. With Graphite Concentrate prices projected to grow over the life of the battery anode material operation,[14] the potential cost savings from sourcing Graphite Concentrate from Siviour grows to over US$1,150 per tonne over the life of the operation.

[7] Source: Benchmark Mineral Intelligence.
[8] Source: Siviour Concentrate DFS. The estimated LOM average operating cost of US$355 per tonne of Graphite Concentrates consists of the following breakdown: (1) an average LOM cost of US$361 per tonne of Graphite Concentrates Feedstock, and (2) average LOM cost of US$349 per tonne of Graphite Concentrates sold to the market.
[9] Financial Model assumes -80 mesh and -100 mesh Graphite Concentrate as feedstock to PSG operations. For the purpose of Figure 1, fair market value of -100 mesh is being adopted for illustration purposes.
[10] Source: Benchmark Mineral Intelligence.
[11] Source: Siviour Concentrate DFS. Fair market value of US$898 per tonne is based on life of mine projected price forecast from Benchmark Mineral Intelligence for -100 mesh 94%-95% TC Graphite Concentrate. See note 9.
[12] The Battery Anode Material Study assumes that The Battery Anode Material Study assumes that Graphite Concentrates that do not pass to the purification circuit for sale as PSG are sold as a bi-product for sale into the recarburiser market. Renascor is also assessing opportunities for further processing for sale into the market for high purity fines and ultra-high purity fines.
[13] During the purification process, additional "losses" occur, as spheronised Graphite Concentrates are upgraded from purity levels of typically 94%-95% to +99.95% TC.
[14] See Siviour Concentrate DFS, p. 28.

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit

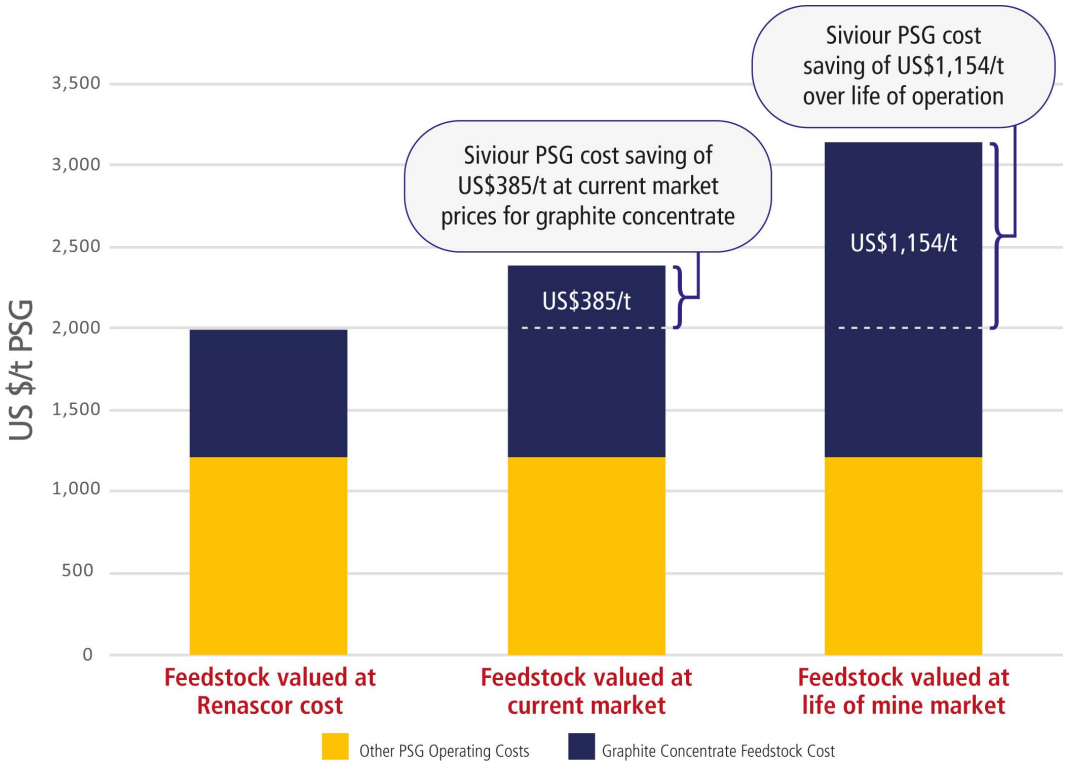




**Figure 2. Impact of Graphite Concentrate feedstock cost on unit PSG operating costs**

### *Advantage of Australian integrated processing*

Renascor's production of PSG also benefits from co-locating the Graphite Concentrate and PSG operations in South Australia. This eliminates supply dependence on overseas mines for Graphite Concentrates. For potential offtake and finance partners, an integrated Australian operation offers the added benefit of limiting supply chain risk , with Australia considered among the safest investment jurisdictions worldwide.[15]

Renascor's production of PSG with Siviour Graphite Concentrates also benefits by not introducing additional shipping costs, as the battery anode material operation is sited in Port Adelaide, which is within the planned transport corridor for Siviour Graphite Concentrates.

### *Demand for Graphite Concentrates and Purified Spherical Graphite*

Renascor's focus on PSG is based on obtaining direct exposure to the highest growth sector of the graphite market, the lithium-ion battery sector.

*Graphite Concentrates*

Currently, the demand for Graphite Concentrates is about two-thirds industrial and one-third related to battery demand.[16] As electric vehicle take-up increases, the demand for Graphite Concentrates is expected to soon shift to the lithium-ion market, with the battery

[15] South Australia was rated the sixth most attractive jurisdiction in the world for mining investment, according to the Fraser Institute Survey of Mining Companies 2019.
[16] Source: Benchmark Mineral Intelligence.

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


sector's share of Graphite Concentrate demand expected to exceed 50% by 2023 and 75% by 2029, and the overall market for Graphite Concentrates increasing from a projected 750,000 tonnes in 2019 to over 3 million tonnes by 2029.[17]

*Purified Spherical Graphite*

The impact of increased battery demand is expected to be even more pronounced in the demand for PSG, with annual growth rates of up to 29% predicted through to 2030, leading to an increase in the market from approximately 200,000 tonnes in 2019 to 2.4 million tonnes by 2029.[18] See Figure 3.

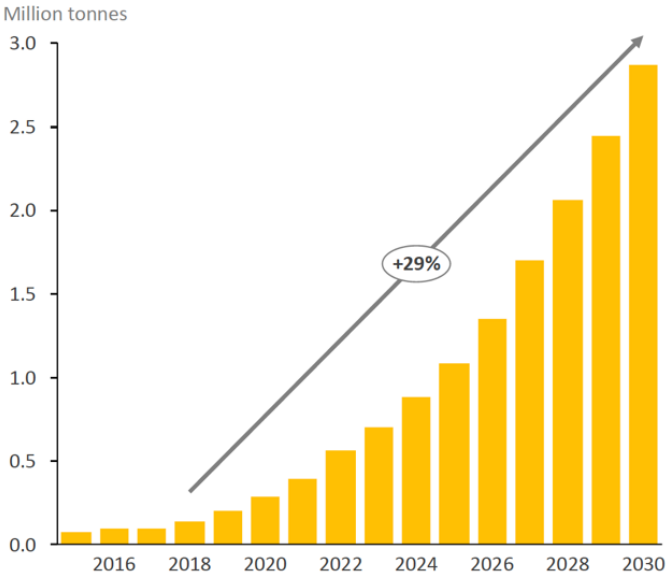



**Figure 3. PSG demand forecast (source: Benchmark Mineral Intelligence)**

## Caustic roast purification test results

During the recently competed quarter, Renascor completed purification tests using the caustic roast purification technique adopted in the Battery Anode Material Study.

***Background to purification tests***

In the Battery Anode Material Study, Renascor adopted a caustic roast purification technique for upgrading Siviour Graphite Concentrates to +99.95% C PSG, the minimum purity level generally accepted for incorporation of PSG into lithium-ion battery anodes.

Caustic roasting offers a more environmentally friendly process to purify graphite to battery-grade than the purification technique generally used in China, which uses Hydrofluoric acid.

The selection of the caustic roast method for the Battery Anode Material Study, which followed extensive purification testwork in 2018 and 2019,[19] was influenced by its comparative environmental benefits.

[17] Source: Benchmark Mineral Intelligence.
[18] Source: Benchmark Mineral Intelligence.
[19] See Renascor ASX announcements dated 28 November 2018, 12 August 2019 and 18 November 2019.

# Quarterly Report

## 30 September 2020

RENASCOR RESOURCES



ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


***Purification test results***

Following the completion of Battery Anode Material Study, Renascor continued purification tests to optimise and validate the caustic roast circuit used in previous testwork and adopted in the study.

The test were undertaken by German graphite specialist ProGraphite GmbH (**ProGraphite**) using the caustic roast purification method adopted in the Battery Anode Material Study, in which Siviour graphite is combined with a caustic solution and then roasted at low temperature before being leached with Hydrochloric acid.

Two tests were performed on samples of Siviour Graphite Concentrates that had been spheronised to approximately 16 µm, a size specification common for lithium-ion battery anode manufacturers.

The first test adopted the caustic roast circuit used in the Battery Anode Material Study, with a second test undertaken to assist in optimising the purification circuit by limiting reagent consumption.

In both cases, the caustic process successfully produced samples of battery-grade purity graphite, achieving 99.97% C.

***Significance***

The results of the caustic roast purification tests are significant because they provide independent validation of the ability to produce battery-grade PSG from Siviour Graphite Concentrates using the operating parameters adopted in the Battery Anode Material Study.

The results also confirm the potential to optimise the caustic roast circuit by lowering reagent consumption and thereby potentially reducing operating costs. The recent testwork is also significant because it offers further support for Renascor's more environmentally friendly purification technique that does not use Hydrofluoric acid.

**Battery anode tests**

During the recently completed quarter, Renascor completed additional tests that confirm that Siviour PSG meets product specifications required for integration of PSG into lithium-ion battery anodes.

***Background to battery anode tests***

Following completion of the purification tests, ProGraphite undertook additional tests to assess whether Siviour PSG samples meet additional physical and chemical product specifications imposed by lithium-ion battery anode manufacturers for integration of PSG into their anode manufacturing process.

Tests were performed on samples of Graphite Concentrates that had been:

- Spheronised to approximately 16 µm, a size specification common for lithium-ion battery anode manufacturers, and
- Purified to battery-grade (+99.95% C) using caustic roasting, the purification technique adopted in the Battery Anode Material Study.

Battery anode manufacturers generally have unique product specifications that are

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit



dependent on their own manufacturing processes and the requirements of battery manufacturers they supply. Typical physical and chemical criteria involve size, tap density, surface area, carbon purity, impurities and moisture.

The Siviour PSG sample, which adopted a mid-point size specification of 16 µm, meets or exceeds anode specifications for all physical and chemical properties tested.

| Parameter | | Siviour PSG |
|---|---|---|
| Size (µm) | | 16 |
| Tap density (g/cm$^3$) | | 0.92 |
| Surface area (m$^2$/g) | | 4.5 |
| Fixed carbon (%) | | 99.97 |
| Impurities (ppm) | Al | 2.2 |
| | Ca | 10.4 |
| | Cu | 0.9 |
| | Fe | 7.9 |
| | S | 12.8 |
| | Si | 17.2 |
| | Zn | 0.3 |
| Moisture (%) | | 0.04 |

**Table 2. Physical and Chemical properties of PSG produced from Siviour Graphite Concentrates**

***Significance***

The results of the customer specification tests are significant because they provide independent verification that PSG produced from Siviour Graphite Concentrates, and using operating parameters adopted in the Battery Anode Material Study, meets or exceeds common quality control specifications required for use of PSG by lithium-ion battery makers.

The results also provide the basis for adjusting Renascor's production parameters to further meet quality control requirements for other PSG products, including PSG sized to 10 µm, a less common, but premium-priced PSG product, and for producing larger scale samples for customer qualification purposes.

**Upgraded Ore Reserve estimate for Siviour**

During the recently completed quarter, Renascor announced an upgraded JORC Ore Reserve estimate for Siviour. See Renascor ASX announcement dated 21 July 2020.

The expanded Ore Reserve estimate is 51.5Mt at 7.4% TGC for 3.8Mt of contained graphite, including a Proven Reserve of 15.8Mt at 8.4% TGC for 1.3Mt of contained graphite.

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


This makes Siviour the largest reported estimate of total Ore Reserves of graphite outside of Africa, and the second largest reported Proven Reserve estimate of graphite in the world.[20]

***Ore Reserve***

The Siviour Ore Reserve was prepared by independent mining consultancy Optima Consulting and Contracting Pty Ltd based on a Mineral Resource that was announced in April 2019.[21] The Siviour Concentrate DFS[22] has been used as the basis to estimate Ore Reserves for the project in accordance with the JORC Code 2012.

The Ore Reserve estimate for Siviour is summarised below is Table 3.

| Reserve Category | Ore (Mt) | TGC (%) | Contained Graphite (Mt) |
|---|---|---|---|
| Proven | 15.8 | 8.4% | 1.3 |
| Probable | 35.8 | 6.9% | 2.5 |
| **Total** | **51.5** | **7.4%** | **3.8** |

**Table 3. Siviour Ore Reserve (July 2020)[23]**

The Mineral Resource estimate was prepared by independent mining consultants Optiro Pty Ltd in accordance with the 2012 JORC Code and is summarised below in Table 4.

| Resource Category | Ore (Mt) | TGC (%) | Contained Graphite (Mt) |
|---|---|---|---|
| Measured | 15.8 | 8.8% | 1.4 |
| Indicated | 39.5 | 7.2% | 2.8 |
| Inferred | 32.1 | 7.2% | 2.6 |
| **Total** | **87.4** | **7.5%** | **6.6** |

**Table 4. Siviour Mineral Resource estimate as of April 2019 reported above a cut-off grade of 2.3% TGC[24]**

Additional details of the material assumptions are set out below and in Appendix 1 (JORC Table 1) of Renascor ASX announcement dated 21 July 2020.

The Ore Reserve was estimated from the Mineral Resource after consideration of the level of confidence in the Mineral Resource and taking into account material and relevant modifying factors.

The Ore Reserve is based on Measured and Indicated Resources only. No Inferred Mineral Resources have been included in the Ore Reserve.

[20] See Figure 4 and Tables 4 and 5.
[21] See Renascor ASX announcement dated on 30 April 2019.
[22] See Renascor ASX announcement dated on 11 November 2019.
[23] Columns may not total exactly due to rounding.
[24] Columns may not total exactly due to rounding.

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


### *Siviour in comparison to other graphite Ore Reserves*

As shown below in Figure 4 and Table 5 (Proven Reserve estimates) and Table 6 (Total Ore Reserve estimates), Siviour has a reported Ore Reserve estimate that is the largest outside of Africa, with a reported Proven Ore Reserve estimate that is the second largest globally.

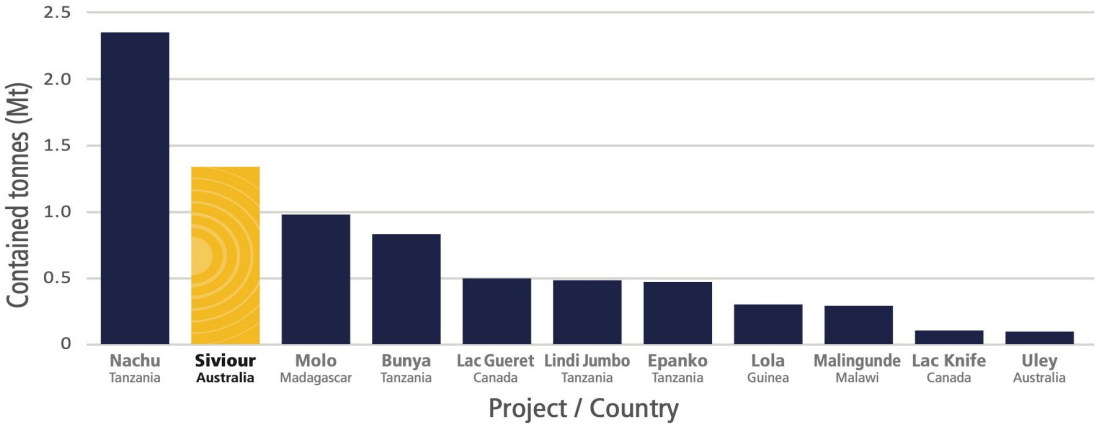



**Figure 4. Globally Reported Proven Ore Reserve estimates (July 2020)[25]**

| Proven Reserve estimates | | | | |
|---|---|---|---|---|
| **Project** | **Country** | **Ore (Mt)** | **TGC[26] Grade (%)** | **Contained Tonnes (Mt)** |
| Nachu | Tanzania | 50.5 | 4.6 | 2.32 |
| **Siviour** | **Australia** | **15.8** | **8.4** | **1.33** |
| Molo | Madagascar | 14.2 | 7.0 | 0.99 |
| Bunyu | Tanzania | 19.3 | 4.3 | 0.83 |
| Lac Gueret | Canada | 2.0 | 25.1 | 0.50 |
| Lindi Jumbo | Tanzania | 2.5 | 19.3 | 0.49 |
| Epanko | Tanzania | 5.7 | 8.4 | 0.48 |
| Lola | Guinea | 6.7 | 4.1 | 0.30 |
| Malingunde | Malawi | 3.1 | 9.5 | 0.29 |
| Lac Knife | Canada | 0.4 | 23.6 | 0.10 |
| Uley | Australia | 0.8 | 11.7 | 0.09 |

**Table 5. Globally Reported Proven Graphite Reserve estimates (July 2020)[27]**

[25] Source: public company reports as of July 2020. 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.
[26] Grades are reported as TGC, except for Nachu, Molo, Lac Gueret, Lola and Lac Knife, which report carbon.
[27] Source: public company reports as of July 2020. 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.

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

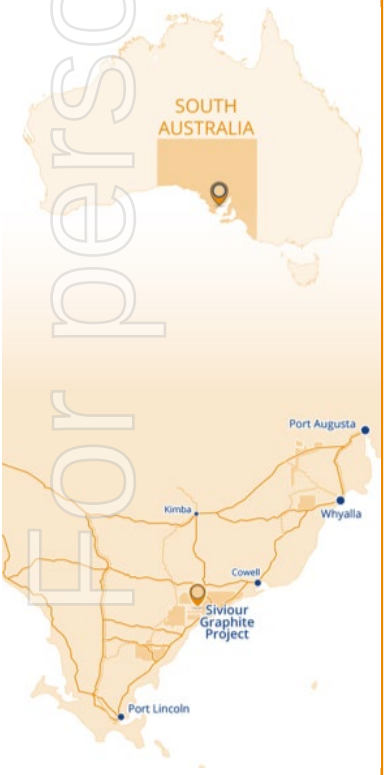
T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit




| Total Ore Reserve estimates | | | | |
|---|---|---|---|---|
| **Project** | **Country** | **Tonnes (Mt)** | **TGC[28] Grade (%)** | **Contained Tonnes (Mt)** |
| Balama | Mozambique | 107.5 | 15.7 | 16.9 |
| Mahenge | Tanzania | 69.6 | 8.5 | 6.0 |
| Bunyu | Tanzania | 127.4 | 4.4 | 5.6 |
| Montepuez | Mozambique | 42.2 | 9.3 | 3.9 |
| **Siviour** | **Australia** | **51.5** | **7.4** | **3.8** |
| Nachu | Tanzania | 76.3 | 4.8 | 3.6 |
| Metawinie | Canada | 59.8 | 4.4 | 2.6 |
| Lola | Guinea | 42.0 | 4.2 | 1.8 |
| Molo | Madagascar | 22.4 | 7.0 | 1.6 |
| Ancuabe | Mozambique | 24.9 | 6.2 | 1.5 |
| Lac Gueret | Canada | 4.7 | 27.8 | 1.3 |
| Lac Knife | Canada | 7.9 | 15.1 | 1.2 |
| Lindi Jumbo | Tanzania | 5.5 | 17.9 | 1.0 |

**Table 6. Globally Reported total Ore Reserve estimates (July 2020)[29]**

[28] Grades are reported as TGC, except for Nachu, Metawinie, Molo, Lola, Lac Gueret and Lac Knife, which report carbon.
[29] Source: public company reports as of July 2020. 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.

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


## Carnding Gold Project

During the recently completed quarter, Renascor identified multiple gold targets at its 100%-owned Carnding Project (EL 5856) in South Australia's Gawler Craton.

Renascor considers the newly identified prospects, over which previous drilling intersected high-grade, shallow gold, to offer multiple drill-ready targets for near-surface, high-grade, Proterozoic granite-associated gold deposits.

### *Central Gawler Craton*

South Australia's Central Gawler Craton hosts a significant number of gold deposits and occurrences within an aruate region around the southern and western edge of the Gawler Range Volcanic Province outcrop.[30] The region hosts the Challenger underground gold mine and processing facility, which includes an operational 650,000 tonne per annum processing plant, as well as the Tarcoola open-cut gold mine and the Tunkillia gold deposit. See Figures 5 (below) and 6 (next page).

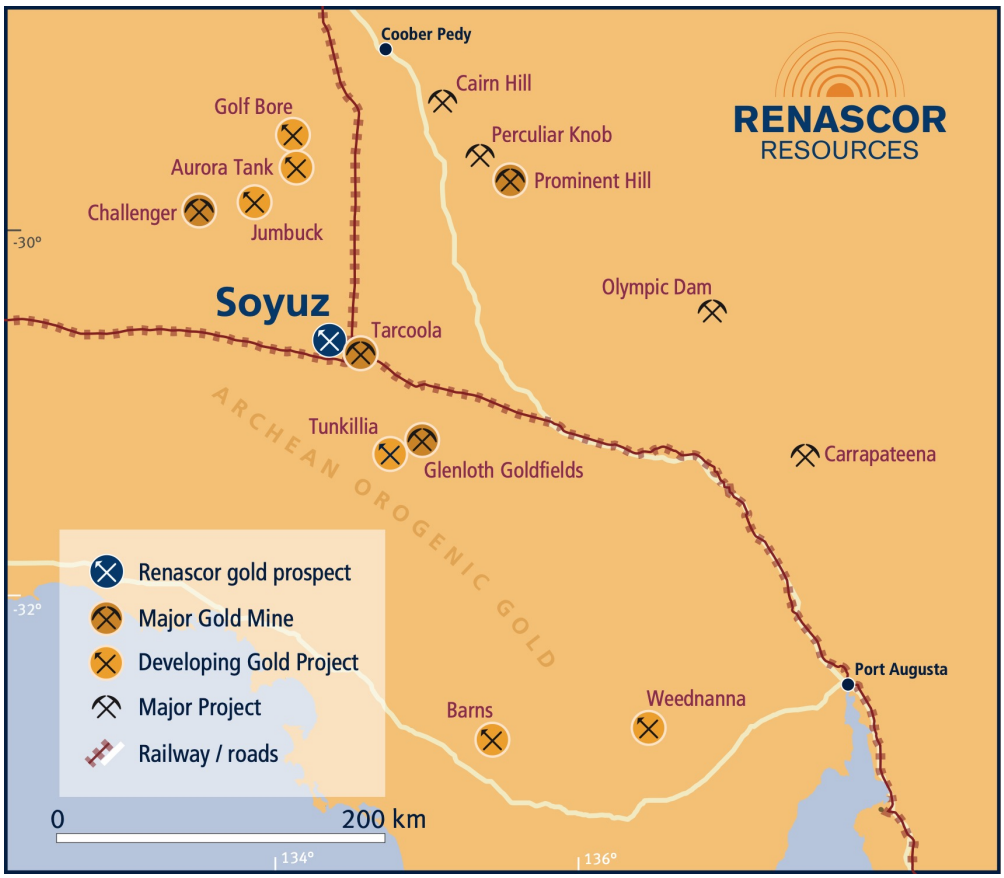



**Figure 5. Renascor's Soyuz Prospect in relation to nearby gold mines and prospects**

[30] See, e.g., *Gold Mineral Systems and Exploration, Gawler Craton, South Australia*, Justin Gum, Geological Survey of South Australia, Department for Energy and Mining, MESA Journal 91, December 2019.

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


The region is currently experiencing increased gold exploration and development activity, including the proposed redevelopment of the Tarcoola gold mine, located approximately 20km east of Renascor's project area, and the Tunkillia gold deposit by Barton Gold Pty Ltd (see www.bartongold.com.au). See Figure 6.

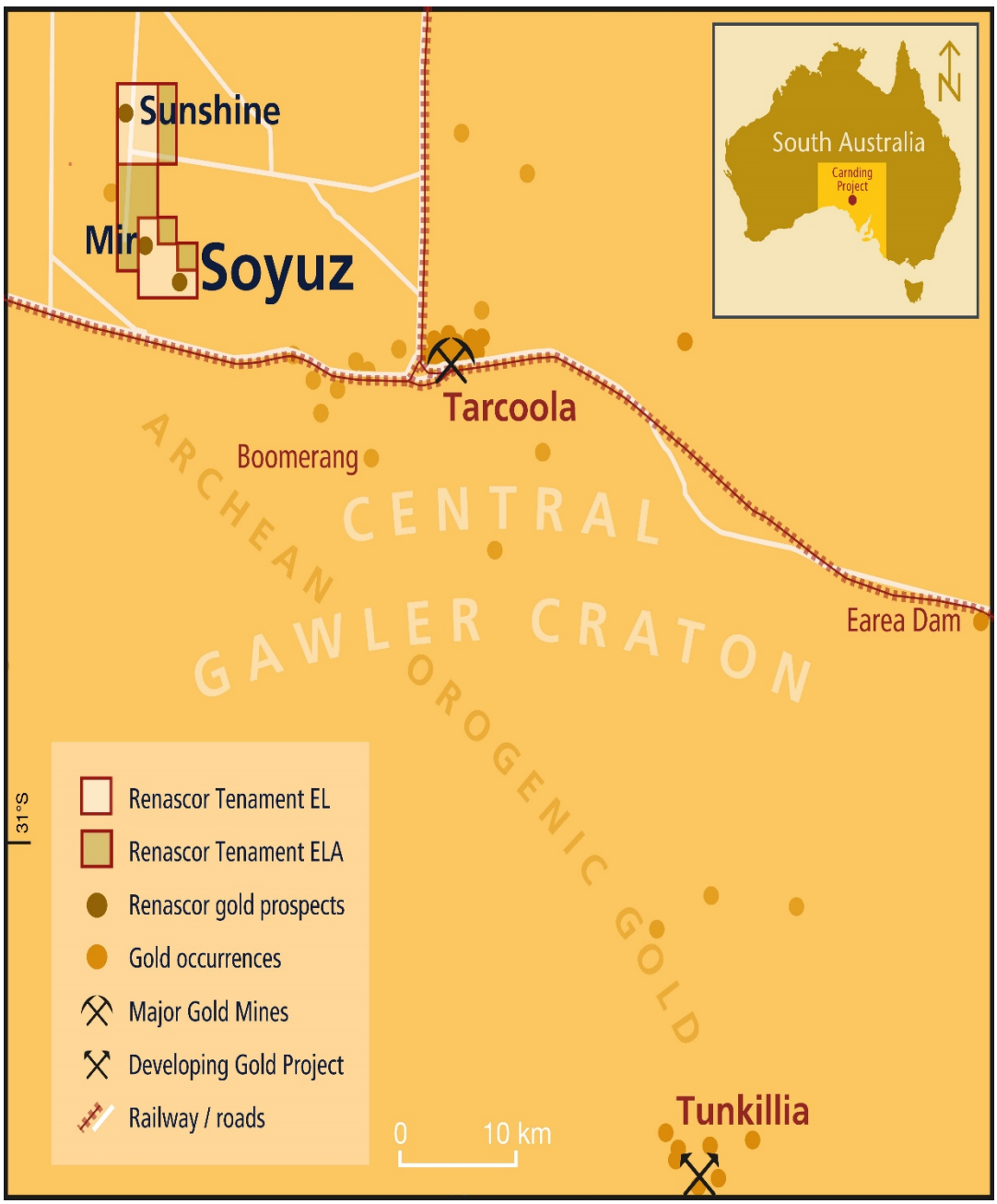



**Figure 6. Renascor's Carnding Project in relation to nearby gold deposits and occurrences**

Additional recent gold activity in the area has included exploration of the Aurora Tank project by Marmota Energy (ASX: MEU) and the proposed sale and redevelopment of the Jumbuck project, currently owned by Tyranna Resource (ASX: TYR). See Figure 5.

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

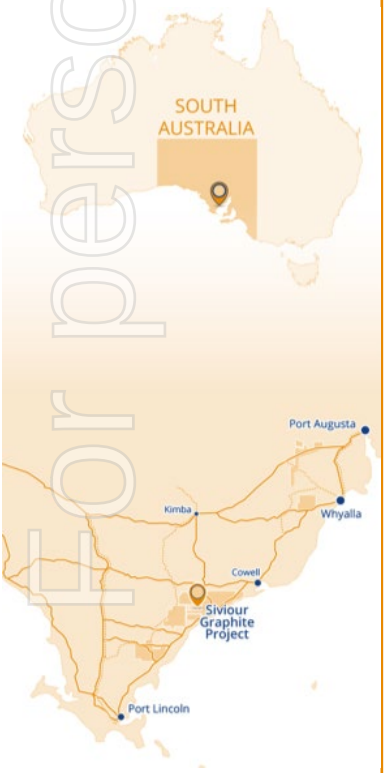
T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit




### *Carnding Project gold prospects*

Within the Carnding Project, Renascor has identified multiple high priority gold targets. The newly identified prospects are based on shallow drilling in areas where regional gold exploration programs defined coincident geochemical and magnetic anomalies after broad-scale and subsequent infill calcrete sampling. See Figure 7.

The prospects remain open at shallow depths and offer drill-ready targets for Proterozoic granite-associated, near-surface, high-grade gold deposits associated with Hiltaba Suite intrusions.

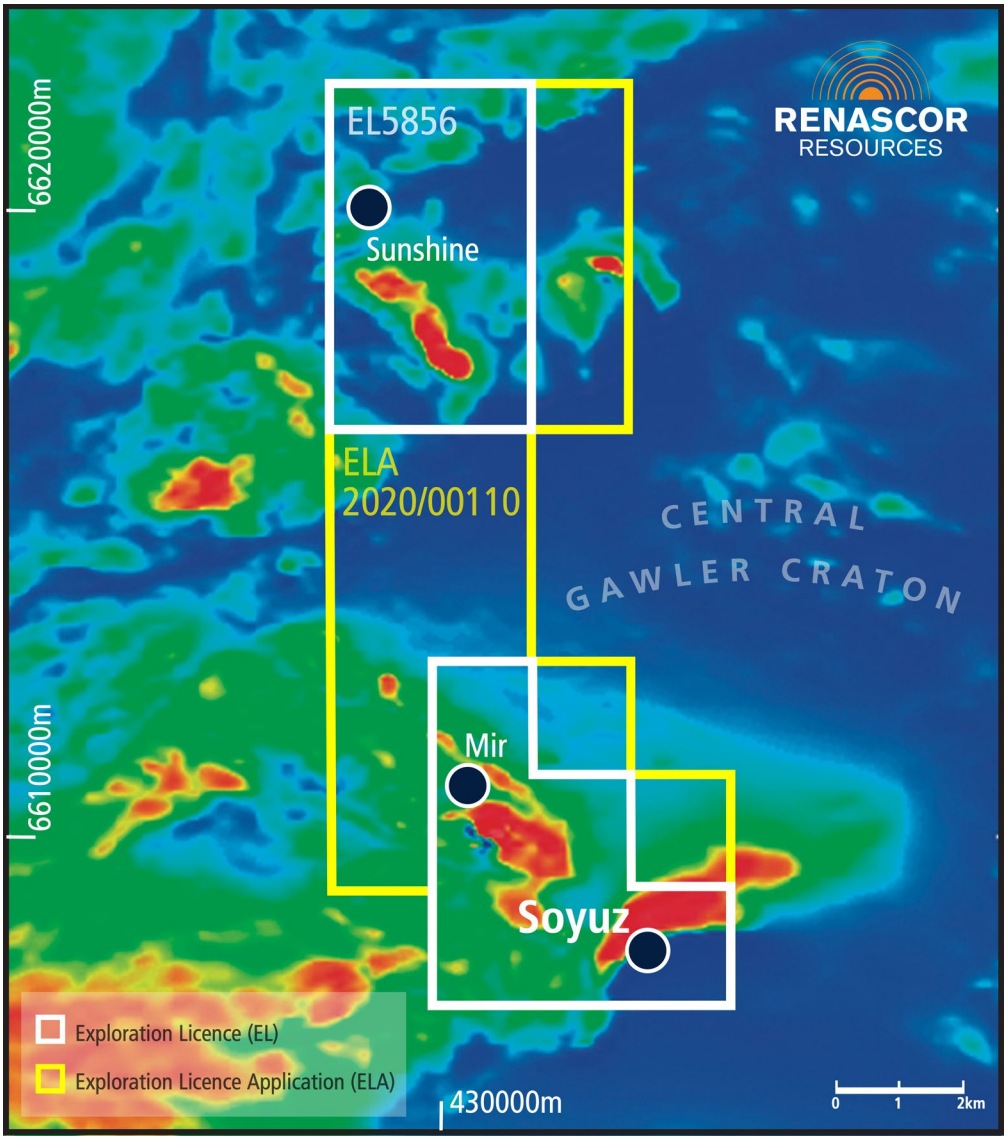



**Figure 7. Renascor's Carnding Project, showing gold prospects over reduced to pole (RTP) magnetic image**

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

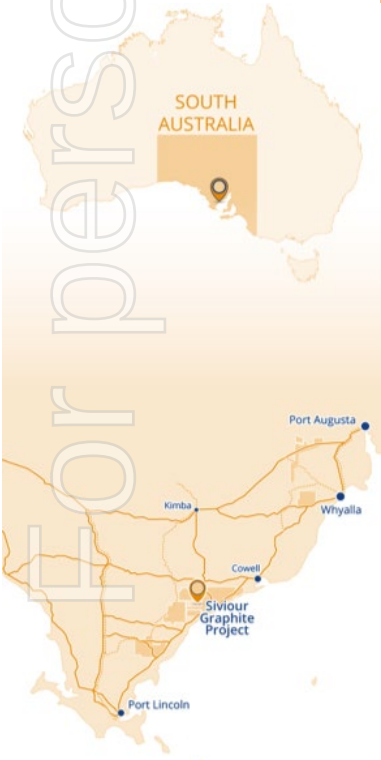
T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit




### *Soyuz Prospect*

Targets within the project area include the Soyuz Prospect, which is defined by coincident 2km by 1km magnetic and gravity anomalies along the northern margin of a Hiltaba-type granite. Within this area, multi-element soil leach sampling has identified multiple geochemical anomalies.

Initial shallow drilling at Soyuz (See Figure 8) returned anomalous to highly anomalous gold intercepts, including:

- **7m @ 5.14g/t Au** from 26m to end of hole, including **2m @ 16.42 g/t Au** from 30m (SZRB006), and
- **6m @ 4.94g/t Au** from 14m (SZRC07).

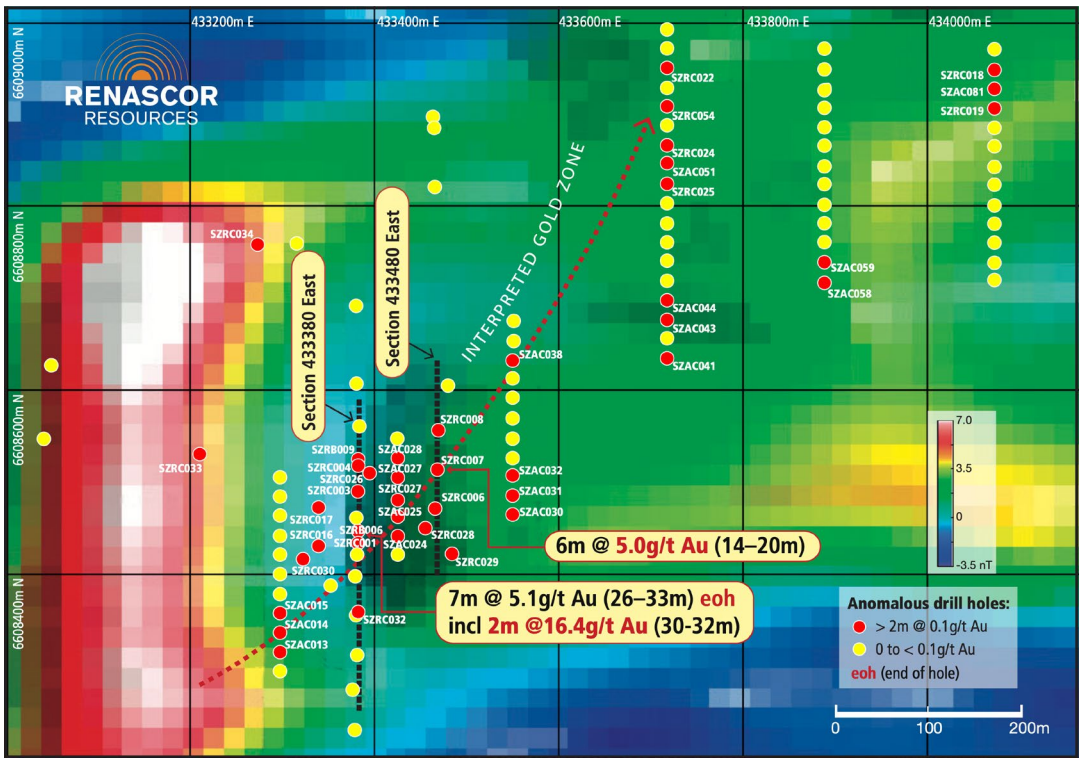



**Figure 8. Soyuz Prospect showing previous drill holes with anomalous Au highlighted, over part of vertical gradient aeromagnetic image**

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

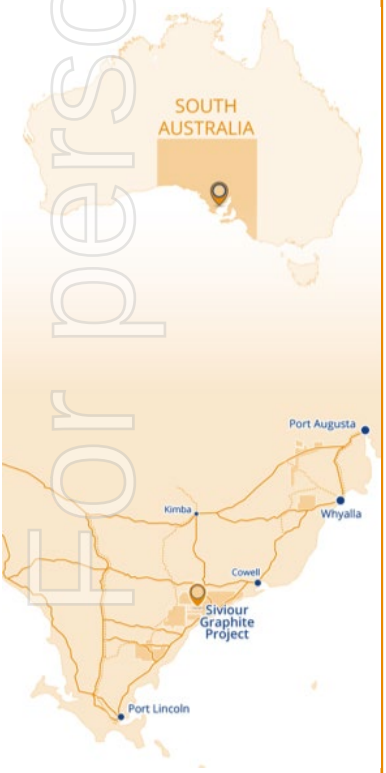
T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit




As shown in the cross-sections in Figures 9 and 10 (refer to Figure 8 for a location of the cross-sections), the anomalous gold intercepts have defined a coherent zone of gold mineralisation at shallow depths. Notwithstanding weathering and oxidation, which may have caused gold leaching or enrichment, the results include several significant and anomalous gold intersections over two cross-sections separated by 100 metres.

The gold target zone remains open both at shallow depth and along-strike. Accordingly, Renascor consider the existing drilling to have defined drill-ready targets for shallow, high-grade gold deposits within the target zones shown in Figures 5 and 6, as well as along-strike to the south-west and north-east and targeting the magnetic high immediately to the west. See Figure 8.

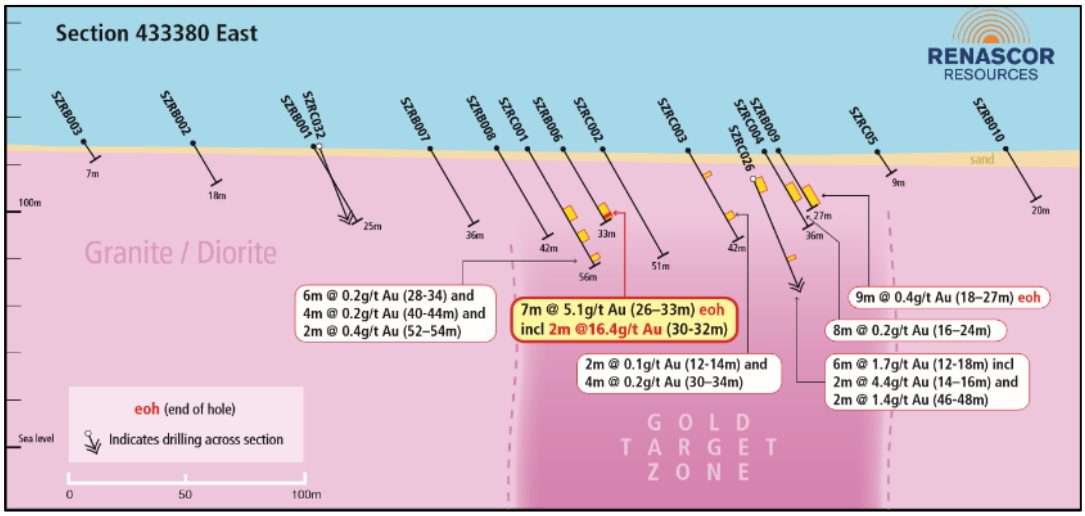



**Figure 9. Soyuz Prospect, Section 433380 East showing historic drill holes and gold anomalous intercepts (see Figure 5 for a plan view of the Soyuz Prospect)**

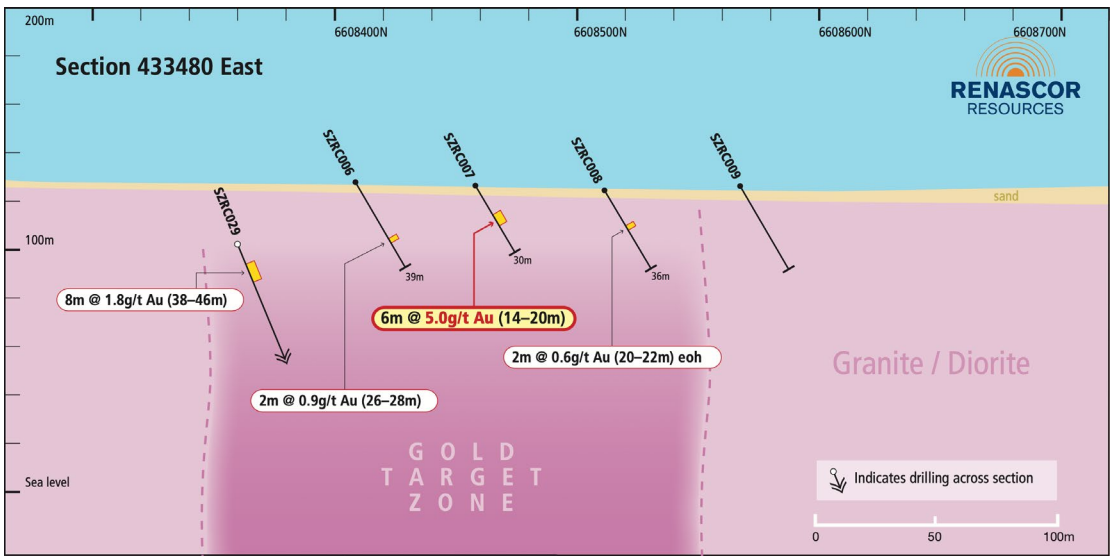



**Figure 10. Soyuz Prospect, Section 433480 East showing historic drill holes and gold anomalous intercepts**

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

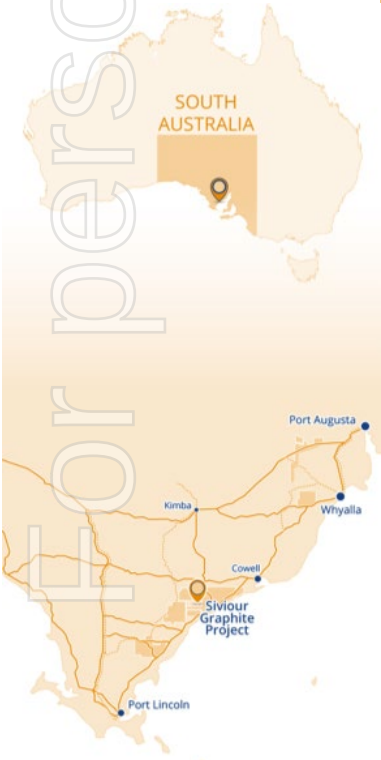
T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit




In addition to gold anomalies, the initial soil geochemical data at Soyuz also shows a rare earth element (**REE**) anomaly. The REE anomaly, which includes a peak Cerium value 2,480 ppb Ce, is located in the south-west corner of the sample grid, near the southern margin of both the gravity and magnetic anomalies. See Figures 11 and 12.

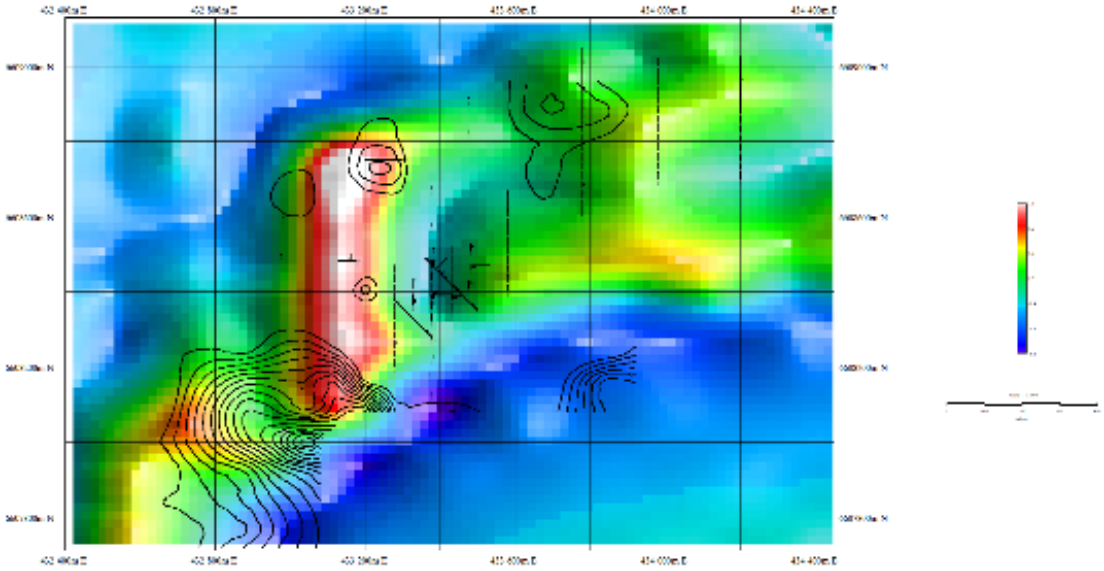


**Figure 11. Soyuz prospect drill traces on Aeromagnetic – Vertical Gradient (VG) and soil geochemical Cerium contours**

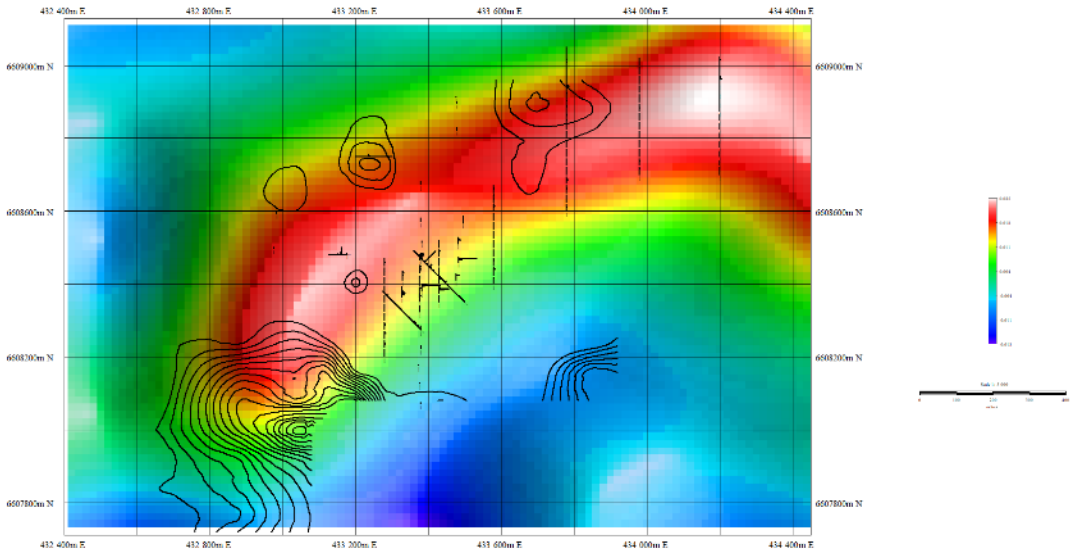


**Figure 12. Soyuz prospect drill traces on local gravity image with soil geochemical Cerium contours**

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

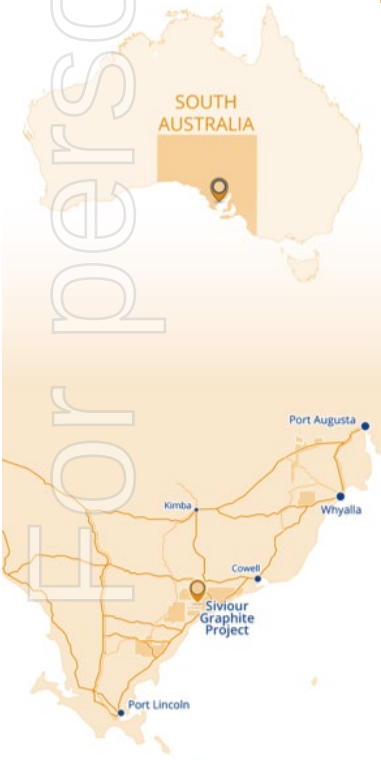
T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit




The REE anomaly, which has not been drill tested, is located outside of the drill hole grids. Renascor considers the REE anomaly to offer potential for gold and REE mineralisation.

The soil data also shows three discrete uranium anomalies (peak 75ppm U). See Figure 13. Two anomalies are coincident with Soyuz gold mineralisation, suggesting that the third, largest and still open of the REE/uranium anomalies also represents a vector to priority gold/REE drill targets.

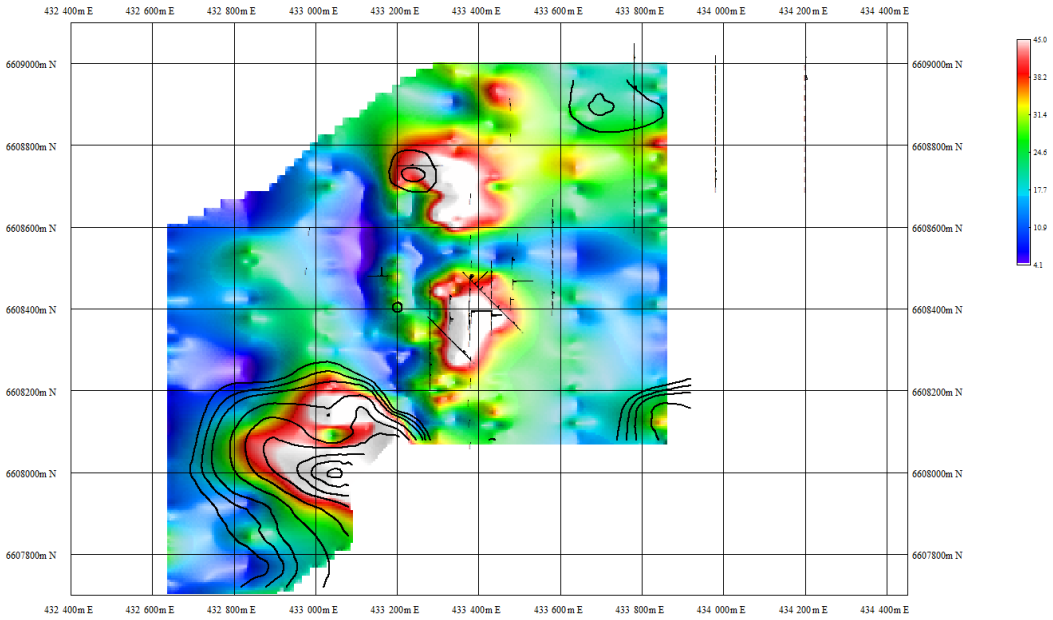



**Figure 13. Soyuz prospect drill traces on Uranium soil geochemical image and soil geochemical Cerium contours**

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


### *Soyuz Induced Polarisation (IP) anomalies*

In addition to the gold zone defined by previous drilling at Soyuz, Renascor has identified a further target zone at Soyuz from an IP survey conducted approximately 500 m to the west of the high grade intercepts at Soyuz. See Figure 14. The IP survey consisted of a single line of 100m dipole-dipole IP in March 2001 by Search Exploration Services Pty Ltd using high powered time domain transmitter and a proprietary full wave form digital acquisition receiver.

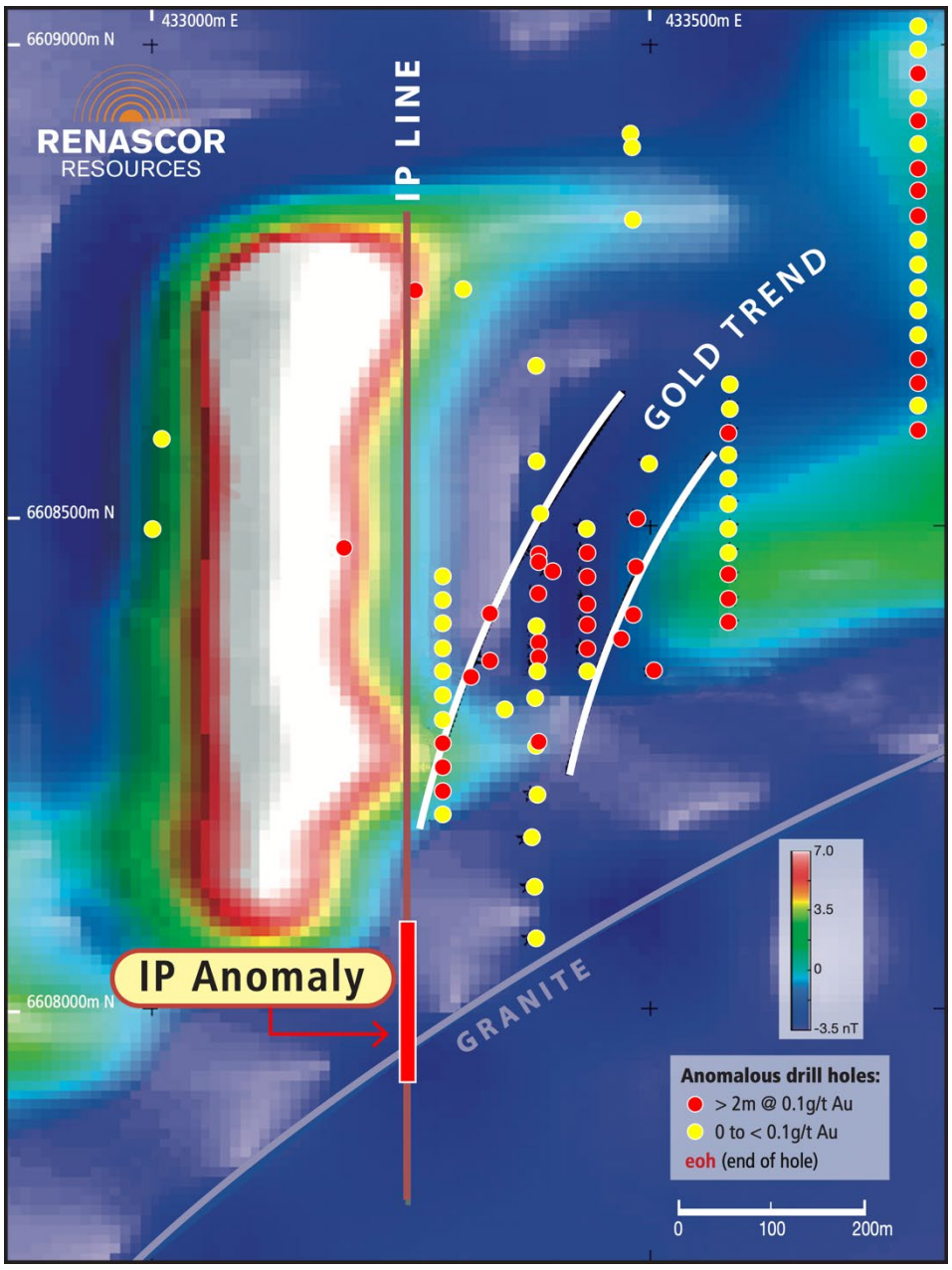



**Figure 14. Soyuz Prospect showing IP target zone and previous drilling overlying vertical gradient magnetic image**

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit

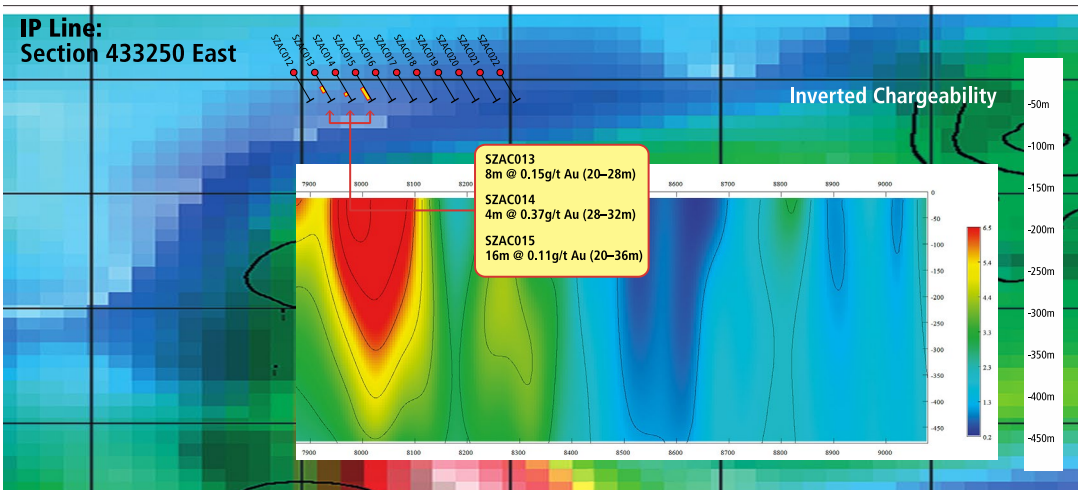




**Figure 15. IP Section 433250E showing IP chargeability target zone and previous nearby drilling from Section 433280E**

As shown in Figure 15, the IP anomaly is shallow (from surface) and significant in scale, covering a zone of approximately 150m in width and at least eight times background.

The single line IP Section 433250E, which was originally run to investigate a coincident magnetic/gravity anomaly area adjacent to a Hiltaba age granite (see Figure 16), revealed a moderate to strong chargeability anomaly near the southern end of the coverage. The anomaly's position as currently defined, between the north-south orientated magnetic feature and the granite margin to the south, is consistent with a significant hydrothermal system.

The IP anomaly is also proximate to low level gold in drill holes SZAC013,14 and 15 (Figure 15), with a subtle IP/chargeability high. At surface, previous soil sampling in the IP zone has indicated REE and Uranium surface anomalism, which may suggest pathfinders for gold.

Renascor considers the IP anomaly to be consistent with sulphide development and hydrothermal alteration/silicification favourable for gold mineralisation.

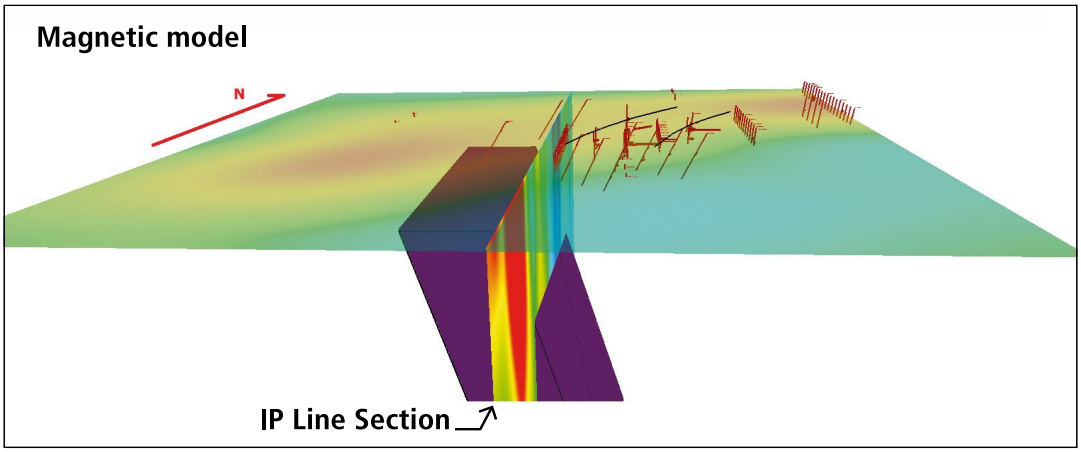



**Figure 16. Soyuz three dimensional magnetic model, showing IP Section 433250E and existing drilling sections**

ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


***Sunshine Prospect***

The Sunshine prospect, located approximately 10km north of Soyuz (see Figure 7), is defined by calcrete gold geochemistry.

Historical drilling at Sunshine included shallow rotary air blast and limited reverse circulation (**RC**) drilling to depths of approximately 130m, with particular focus on the calcrete gold anomalies associated with demagnetized zones that define the Bulgunnia Shear.

In the northern portion of the gold anomaly (with calcrete geochemistry of 210 ppb Au), near limited outcrop of the Bulgunnia Shear, intersections included 20m @ 0.41g/t Au from 18m, including 2m @ 1.24g/t Au from 24m (SUNRC012) and 10m @ 1.44g/t Au from 56m, including 2m @ 6.65 g/t Au from 60m (SUNRC014).

Renascor considers Sunshine to offer potential for granite-associated near-surface, high-grade gold deposits within significant, untested magnetic highs, using the Soyuz model for targeting, as well as in untested areas within the southern portion of the calcrete gold anomaly.

Limited exploration of Sunshine suggests similarities with the Challenger gold mine. In particular, drilling has at Sunshine intersected quartz vein-hosted gold mineralisation in biotite-Kspar-quartz gneiss and calcsilicate rocks inferred to be part of the Archaean metasedimentary Christie Gneiss, the host lithology of Challenger. These similarities to Challenger suggest similar potential large-scale, high-grade deposits.

***Mir Prospect***

The Mir prospect is located approximately three kilometers northwest of Soyuz (see Figure 7) and is defined by anomalous gold in calcrete distribution covering an area of approximately 2.5km$^2$, with values to max 97ppb Au. The area is coincident with an intense magnetic high.

Limited drilling within the geochemical anomaly intersected 2m @ 2.44g/t Au from 32m (MIRRB045) and 4m @ 1.29g/t Au from 78m (MIRRC03). Gold mineralisation and associated magnetite/pyrite alteration at Mir is related to quartz veining, suggesting potential for granite associated, high-grade gold. Targets include coincident magnetic anomalies, as well, as lesser tenor magnetic anomalies to the south-east towards Soyuz.

***ELA 2020/00110***

During the recently completed quarter, Renascor expanded the Carnding Gold Project, with the approval of ELA 2020/00110. See Figure 7. The newly acquired ELA includes an extension of a large magnetic anomaly at Renascor's Soyuz Prospect that is related to a discrete part of a fractionated Hiltaba Suite intrusion. The expanded project area also include additional geochemical gold anomalies.

The area encompassed by ELA 2020/00110 was previously part of a wider tenement package controlled by Grenfell Resources and its successor company Stellar Resources (ASX: SRZ). Renascor acquired the exploration rights to a portion of these tenements, including the area now included within ELA 2020/00110, from subsidiaries of Stellar Resources in 2012 in connection with tenement acquisitions focused primarily on a historic

# Quarterly Report

## 30 September 2020

RENASCOR RESOURCES



ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


uranium project, the rights to which Renascor has since relinquished. See Renascor ASX Announcement dated 4 September 2012. With the approval of ELA 2020/00110, Renascor has reacquired the right to explore within ELA 2020/00110.

**Next steps**

Renascor is preparing for drill-testing of the shallow, high-grade Soyuz gold prospect. Recently completed activities include ground clearance surveys and geological mapping, with geochemical sampling and further induced polarisation surveys planned to commence in November 2020 and, pending regulatory approval and drill rig availability, drill-testing to commence in the current or next quarter.

**Corporate Events**

On 18 September 2020, Renascor announced a share placement to raise $3.6 million to fund work streams related to the Siviour and Carnding Projects. In connection with the share placement, Renascor received firm commitments from professional and sophisticated investors to raise approximately $3.6 million (before expenses) at 1.1 cents per share with one attaching option with an exercise price of $0.02 for every two shares issued. On 25 September 2020, Renascor issued 312,681,819 shares to sophisticated and professional investors, with an additional 12,136,364 to be issued to Renascor directors, subject to authorisation by Renascor Shareholders.

As of 30 September 2020, Renascor had approximately $5.2m cash on hand.

*Note in relation to Appendix 5B*

Payments to related parties and their associates during the recently completed quarter and outlined in Section 6 of Appendix 5B to this quarterly activities report were $87,000 These payments are related to salaries, superannuation and service and consultancy fees paid to directors and director-related entities during the quarter.

# Quarterly Report
## 30 September 2020

RENASCOR RESOURCES



ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


***Competent Person's Statements***

***Exploration Results***

*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.*

***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 Metallurgy 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 (the JORC Code 2012 edition). 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*.

***Ore Reserve***

*The information in this document that relates to Ore Reserves 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.*

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. A number of factors could cause actual results, or expectations to differ materially from the results expressed or implied in the forward-looking statements.

# Quarterly Report
## 30 September 2020

RENASCOR RESOURCES



ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit


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

# Quarterly Report

## 30 September 2020

RENASCOR RESOURCES



ASX Release

Quarterly report for the period ending 30 September 2020

Renascor Resources Ltd
ABN 90 135 531 341

Head Office

36 North Terrace
Kent Town, SA 5067
Australia

CONTACT

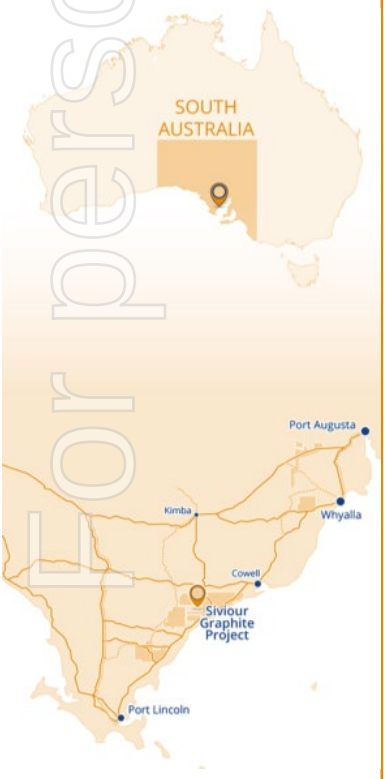
T: +61 8 8363 6989

info@renascor.com.au
www.renascor.com.au

ASX CODE

RNU

Developing Australia's Largest Graphite Deposit




## Appendix 1

## Summary of tenements for quarter ended 30 September 2020

## (ASX Listing Rule 5.3.3)

| Project Name | Tenement | Area km² | Registered holder/Applicant | District | Company Interest |
|---|---|---|---|---|---|
| Willouran | EL6170 | 349 | Renascor Resources Limited (Renascor) | South Australia | 100% |
| Flat Hill | EL5586 | 283 | Renascor | South Australia | 100% |
| Witchelina | EL 6403 | 316 | Renascor | South Australia | 100% |
| Iron Baron | EL5822 | 180 | Renascor | South Australia | 100% |
| Old Wartaka | EL6191 | 14 | Renascor | South Australia | 100% |
| Carnding | EL5856 | 35 | Renascor | South Australia | 100% |
| Malbooma Railway | ELA 2020/00110 | 32 | Renascor | South Australia | 100% |
| Outalpa | EL6450 | 159 | Astra Resources Pty Ltd (Astra) * | South Australia | 100%* |
| Cutana | EL6451 | 157 | Astra* | South Australia | 100%* |
| Malbrom | EL6197 | 81 | Ausmin Development Pty Ltd (Ausmin) * | South Australia | 100%* |
| Lipson Cove | EL6423 | 329 | Ausmin* | South Australia | 100%* |
| Verran | EL6469 | 690 | Ausmin* | South Australia | 100%* |
| Malbrom West | EL5714 | 270 | Ausmin* | South Australia | 100%* |
| Dutton Bay | EL6032 | 31 | Ausmin* | South Australia | 100%* |
| Siviour | ML6495 | 16 | Ausmin* | South Australia | 100%* |

* Astra and Ausmin are 100%-owned subsidiaries of Renascor.