



VRXSILICA

30 October 2020

### Quarterly Activities Report

The following is a summary of the activities conducted by VRX Silica Ltd (VRX Silica or Company) (ASX: VRX) during the quarter ending 30 September 2020.

### Arrowsmith Silica Sand Projects

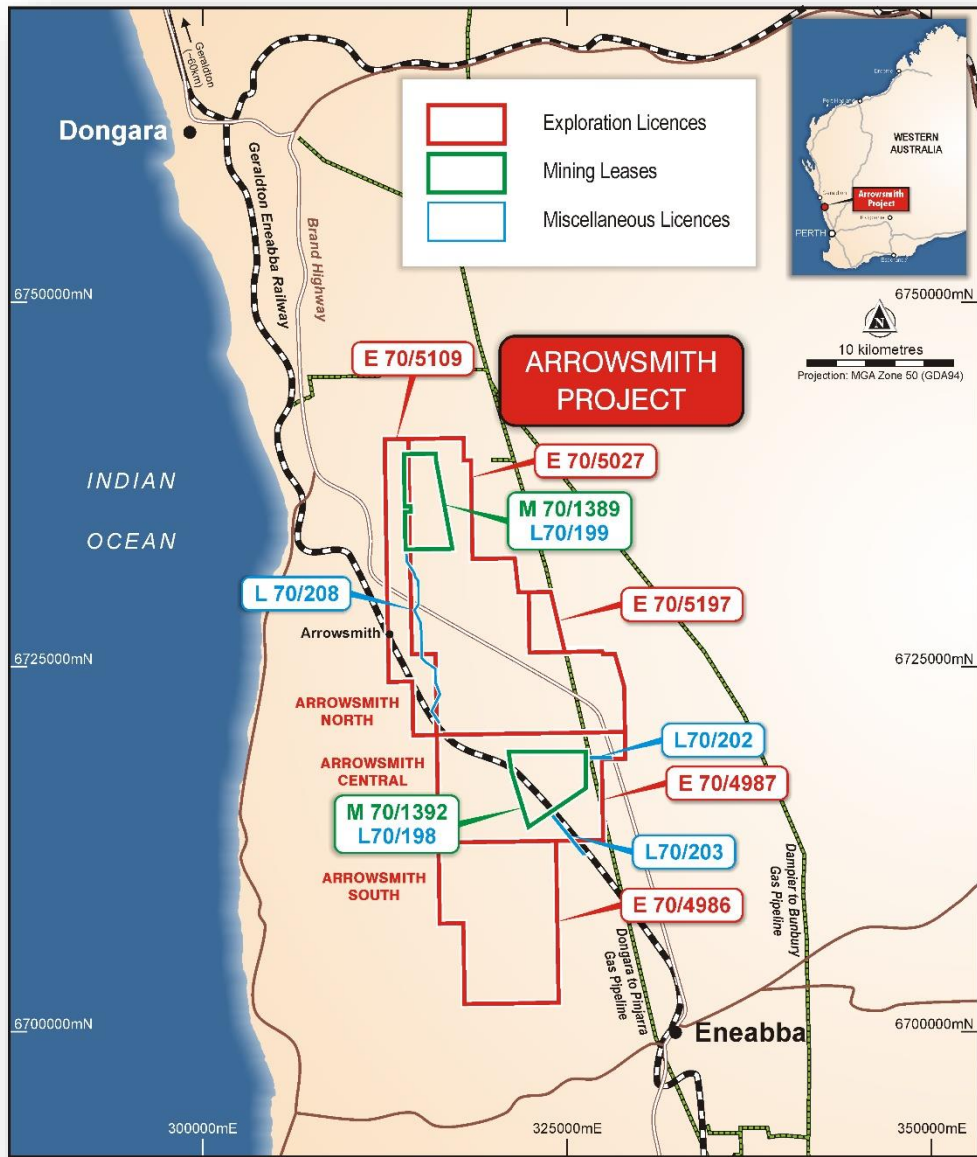


Figure 1: Arrowsmith Projects Location

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VRX Silica holds the Arrowsmith North and Arrowsmith Central Silica Sand Projects (**Arrowsmith Projects**), which are located 270km north of Perth, in its wholly owned subsidiary Ventnor Mining Pty Ltd (**VMPL**).

On 15 July 2020 VRX Silica announced it had received confirmation that the terms of its proposed Mining Project Agreement covering the areas of the Arrowsmith Projects have been approved by the Working Group for the Southern Yamatji People, Native Title claimants over the project areas.<sup>1</sup> This confirmation preceded the formal requirement for execution by all 12 individual Native Title Applicants along with a separate State Deed between those individuals, VMPL and the State.

During the quarter the Company continued as part of the environmental approvals process for the grant of a Mining Permit at the Arrowsmith Projects to compile necessary data to support referrals to the Federal Department of Agriculture, Water and Environment (**DAWE**) and the State Environmental Protection Authority (**EPA**). The Company and its environmental consultants held pre-referral meetings with representatives from DAWE and received valuable feedback as to requirements for the referral.

The Company has continued discussions with potential customers in Asia for long-term contracts for offtake of products from both its Arrowsmith Projects. These customers are in Malaysia, Thailand, Taiwan and South Korea. The outbreak of COVID-19 ceased all possible face to face meetings with potential clients however the Company has progressed discussions via video conferencing and interest remains strong despite the current economic climate in those countries.

### **Muchea Silica Sand Project**

VRX Silica holds the Muchea Silica Sand Project (**Muchea Project**), which is located 50km north of Perth, in its wholly owned subsidiary Wisecat Pty Ltd (**Wisecat**).

During the quarter, pending grant of a Mining Lease for the Muchea Project following Native Title clearance having been received in the June quarter, as for its Arrowsmith Projects the Company progressed compilation of necessary data to support referrals to DAWE and the EPA with pre-referral meetings held with representatives from DAWE.

The Company has also continued discussions with potential customers in Asia for long-term contracts for offtake of products from Muchea Project. Interest remains strong.

<sup>1</sup> ASX Announcement 15 July 2020



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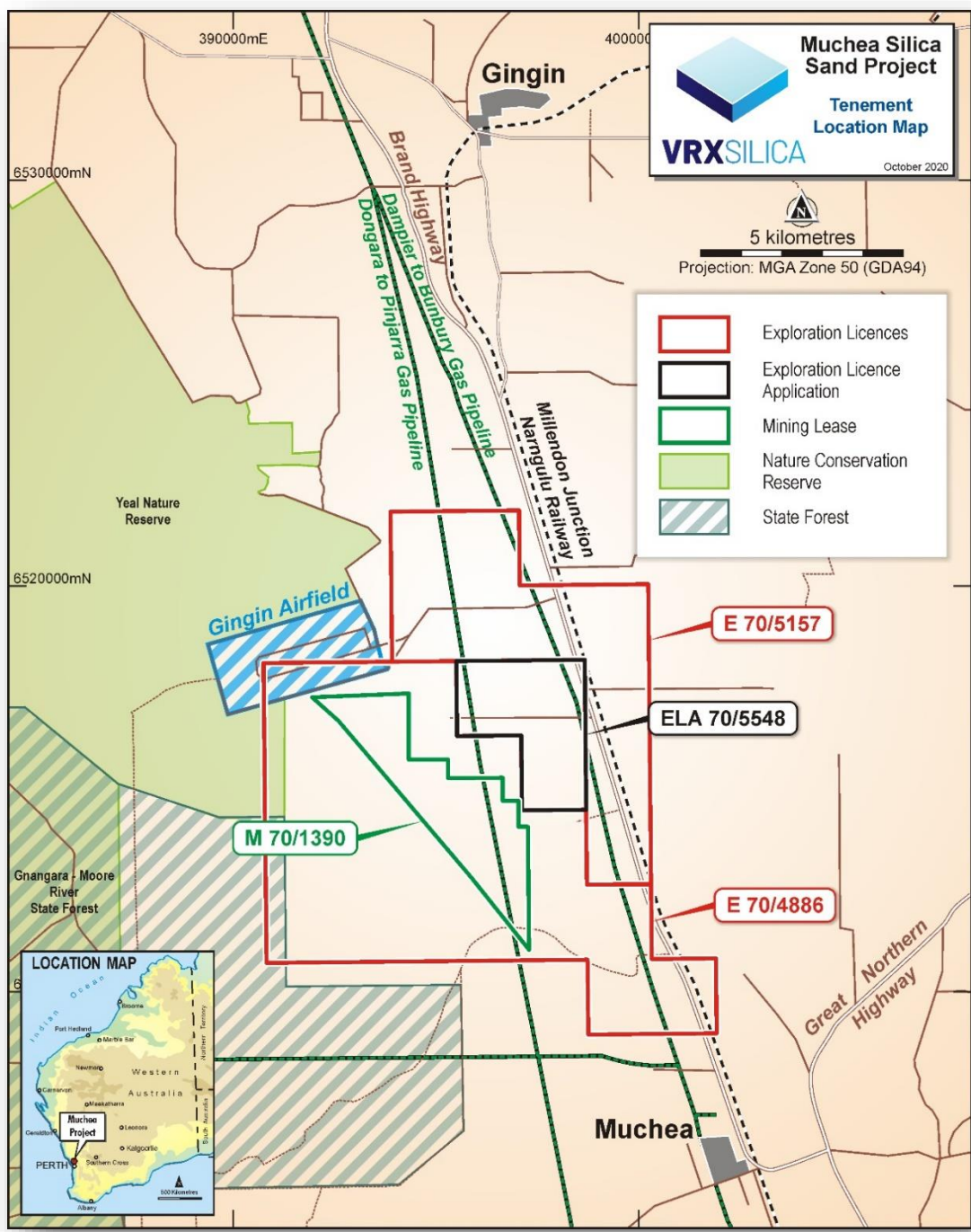


Figure 2: Muchea Project Location

## Biranup Project

On 1 July 2020 VRX Silica announced it had entered into a conditional agreement with New Energy Metals Limited (**NEM**) for the sale of its wholly-owned subsidiary and holder of the Biranup base metals and gold project (**Biranup Project**), Ventnor Gold Pty Ltd.<sup>2</sup>

NEM is an unlisted public company planning an Initial Public Offering (IPO) and ASX listing later this year. NEM has indicated that it will prioritise applications in the IPO from VRX Silica shareholders. The terms for the sale of the Biranup Project will enable VRX Silica to share in any future exploration success which is an ideal outcome for VRX Silica and its shareholders.

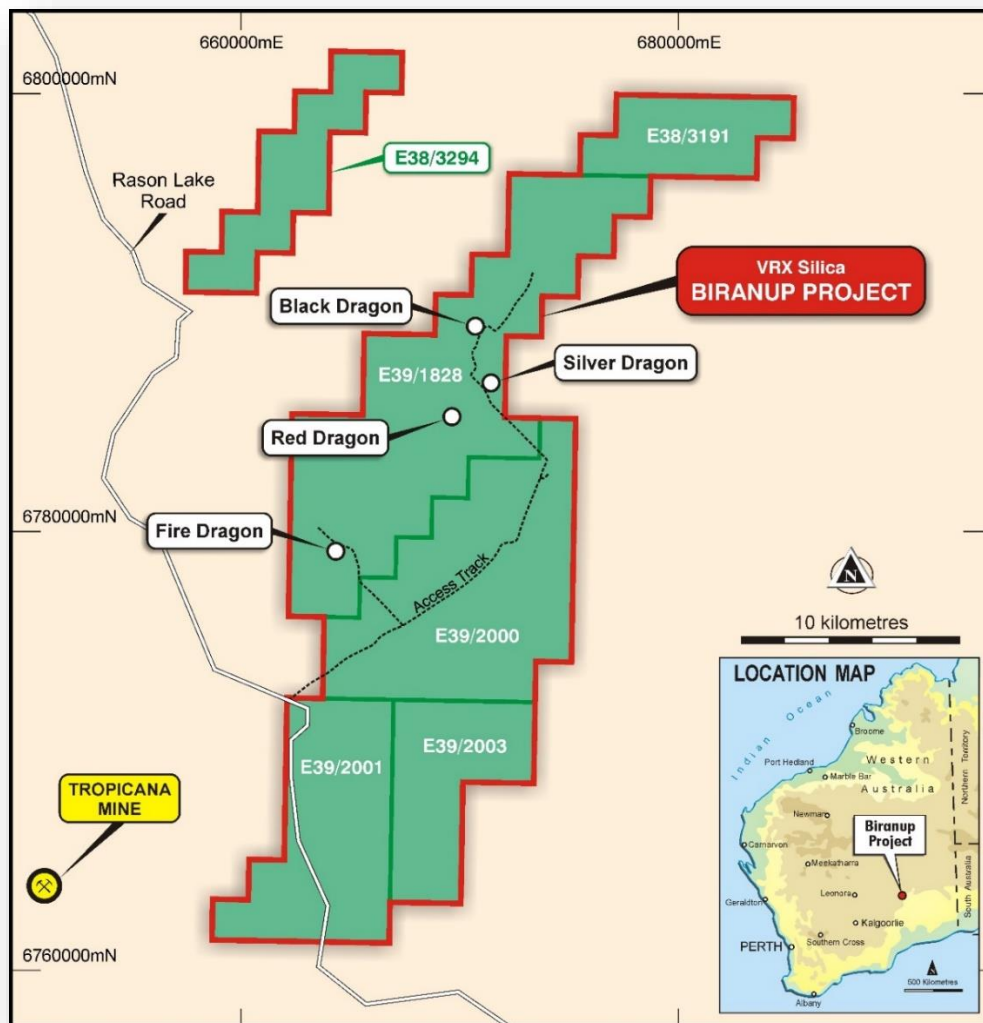


Figure 3: Biranup Tenements

<sup>2</sup> ASX Announcement 1 July 2020

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## Events Subsequent to the Quarter

### Arrowsmith Silica Sand Projects

On 23 October 2020 VRX Silica announced after receiving notice from the Yamatji Marlpa Aboriginal Corporation (**YMAC**) that conclusive registration of the Yamatji Nation Indigenous Land Use Agreement (**ILUA**) was expected to occur on that day in accordance with the terms of the ILUA.<sup>3</sup>

The ILUA is an alternative settlement by the West Australian Government of native title claims covering a significant portion of land in the Mid West, including the Southern Yamatji People claim covering the Arrowsmith Projects.

The effect of conclusive registration is that VRX's Mining Lease and Miscellaneous Licence applications for its Arrowsmith Projects will be dealt with under the terms of the ILUA. The ILUA supersedes the negotiations held between VRX, YMAC and the Southern Yamatji Working Group over the terms of any native title project agreement for the Arrowsmith Projects. These negotiations had been progressing in good faith, though they have now been overtaken by the Government-led ILUA, which settles all native title claims over the Arrowsmith Projects area.

Conclusive registration of the ILUA clears the way for the grant of Mining Leases for the Arrowsmith Projects and the Company anticipates the imminent grant of these and related Miscellaneous Licences. VRX Silica must now proceed in accordance with the terms of the ILUA.

The Company does still intend to continue to consult and work with with the Southern Yamatji People as the Arrowsmith Projects are advanced, building on the strong and positive relationships developed during the negotiation process.

### Muchea Silica Sand Project

On 29 October 2020, the Company announced the grant of a Mining Lease for its Muchea Project.<sup>4</sup>

The Mining Lease (M70/1390) covers approximately 1,008ha including the development area sufficient for at least 25 years of production as per the Muchea Project's Bankable Feasibility Study (**BFS**) released in October 2019.<sup>5</sup>

#### *Initial Production Target*

The Company has set out in the BFS an initial production target of 48.3Mt from the Muchea Project reported in accordance with the JORC Code (2012), sourced from the Probable Ore Reserve of 14.6Mt @ 99.9% SiO<sub>2</sub> and a portion of the Inferred Mineral Resource of 61.4Mt @ 99.6% SiO<sub>2</sub> within the Mining Lease area.

The maiden Probable Ore Reserve is estimated from the Indicated Mineral Resource only and constitutes approximately 30% of the estimated total production target (in terms of processed

<sup>3</sup> ASX Announcement 23 October 2020

<sup>4</sup> ASX Announcement 29 October 2020

<sup>5</sup> ASX Announcement 18 October 2019

tonnes of silica sand) over a 25-year mine life. The Company intends to mine solely from the Probable Ore Reserve during the first nine to 10 years of mining operations.

The ore that forms the Inferred Mineral Resource is contiguous with the Indicated Mineral Resource and has been categorised as lower confidence because of wider-spaced drilling. There is negligible difference between the modelled sand in each category and it is believed an additional 1,500m of drilling would be required to upgrade the inferred resource category.

Notwithstanding this, there is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

Full details are set out in the BFS.

### *Project Metrics*

The Muchea Project has outstanding economic prospects.

Key outcomes from the BFS and summary financial model outputs are set out below:

|   | <b>Muchea<br/>(including Inferred)</b> | <b>Muchea<br/>(Reserve only)</b> |
|---|--|----------------------------------|
| Post Tax, ungeared NPV <sub>10</sub>                | \$337,900,000                          | \$180,500,000                    |
| Post Tax, ungeared NPV <sub>20</sub>                | \$146,400,000                          | \$104,600,000                    |
| Post Tax, ungeared IRR                              | 96%                                    | 96%                              |
| Payback period (yrs) (post tax) (ramp up rate)      | 2.3                                    | 2.3                              |
| Exchange Rate US\$/A\$                              | \$0.70                                 | \$0.70                           |
| Life of Mine (yrs) (Scope of BFS Study)             | 25                                     | 15                               |
| Total Sales (initial 25 years) no escalation        | \$3,345,000,000                        | \$1,011,000,000                  |
| EBIT  | \$1,540,000,000                        | \$447,000,000                    |
| Cashflow after finance and tax                      | \$1,123,000,000                        | \$321,000,000                    |
| Shares on Issue                                     | 404,318,617                            | 404,318,617                      |
| EPS after tax (per year)                            | \$0.11                                 | \$0.09                           |
| Capex (2 mtpa)                                      | \$32,820,000                           | \$32,820,000                     |
| Capex contingency (inc)                             | 20%                                    | 20%                              |
| Life of Mine C1 costs, FOB Kwinana (inc royalties)  | \$32.74                                | \$33.84                          |
| Tonnes Processed (initial 25 years) (Mt)            | 54                                     | 16                               |
| Production Target (Mt) (BFS Study)                  | (25 years) 48.3                        | (9-10 years) 14.6                |
| Probable Ore Reserves @ 99.9% SiO <sub>2</sub> (Mt) | 18.7                                   | 18.7                             |
| Ore Reserve life (yrs)                              | 9-10                                   | 9-10                             |
| JORC Resources (million tonnes)                     | 208                                    | 208                              |

**Notes:**

1. The first column shows outputs when aggregated with the Inferred Mineral Resource and the second column shows outputs from the Probable Ore Reserve only.
2. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.
3. The Probable Ore Reserve and the Inferred Mineral Resource underpinning the above production targets have been prepared by a Competent Person in accordance with the requirements of the JORC Code.
4. Full summaries of economic assumptions are set out in the BFS. All such material assumptions continue to apply and have not materially changed from the date of release of the BFS.
5. All figures are presented in Australian dollars, unadjusted for inflation

*Permitting*

VRX Silica is in the process of finalising further studies and compilation of necessary data to support formal referrals to DAWE and the EPA to secure environmental approvals for the development of the Muchea Project.

The Company will also seek to expedite approval for its mine plan and the issue of a mining permit from the Department of Mines, Industry Regulation and Safety.

**Specific disclosure required under GN23**

**Details of mining exploration activities**

Details of exploration activities are set out above.

The \$41,000 expensed for exploration and evaluation expenditure was mainly tenement rates and rents. The \$186,000 amount of exploration and evaluation expenditure capitalised is comprised of environmental approvals (including flora and fauna assessments, and drainage studies) (\$99,000), heritage surveys and native title approvals (\$18,000), metallurgical test work and engineering designs (\$42,000), legal fees and survey costs relating to mining lease applications (\$19,000) with the balance being sample assays and storage.

**Details of mining production and development activities**

No production and development activities were undertaken during the quarter.

**Details of tenement activities**

The tenement schedule on the following page shows all holdings and any change for the Company and its subsidiaries. Changes during the quarter comprised the application for Exploration Licence E70/5548 and the grant of Mining Lease M70/1390 (at the Muchea Project) and the application for E38/3533 (at the Biranup Project).

**Details of related party payments**

The aggregate amount of payments to related parties and their associates of \$93,000 represents directors' fees and salaries paid during the quarter.

## Competent Persons' Statements

The information in this document that relates to Muchea Exploration Results and Muchea Aircore Drilling Area Mineral Resources are based on data collected and compiled under the supervision of Mr David Reid, who is a full-time employee of VRX Silica Limited. Mr Reid, BSc (Geology), is a registered member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activity being undertaken to qualify as a Competent Person under the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Reid consents to the inclusion of the data in the form and context in which it appears.

The information in this report that relates to Muchea Auger area Mineral Resources is based on information compiled by Mr Grant Louw who was a full-time employee of CSA Global, under the direction and supervision of Dr Andrew Scogings, who is an Associate of CSA Global. Dr Scogings is a Member of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. He is a Registered Professional Geologist in Industrial Minerals. Dr Scogings has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as Competent Person as defined in the 2012 edition of the Australasian Code for the Reporting of Exploration Results, Mineral Resources, and Ore Reserves (JORC Code). Dr Scogings consents to the disclosure of information in this report in the form and context in which it appears.

The information in this report that relates to Muchea Probable Ore Reserves is based on data collected and compiled under the supervision of Mr David Reid, who is a full-time employee of VRX Silica Limited. Mr Reid, BSc (Geology), is a registered member of the Australian Institute of Geoscientists and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and the activity being undertaken to qualify as a Competent Person under the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code). Mr Reid consents to the inclusion of the data in the form and context in which it appears.





This report has been authorised for release to ASX by the Board of Directors.

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## Interests in Mining Tenements (Western Australia)

### Arrowsmith Project – Silica

| Tenement | Status      | Interest at beginning of quarter | Interests relinquished, reduced or lapsed | Interests acquired or increased | Interest at end of quarter |
|----------|-------------|----------------------------------|---|---------------------------------|----------------------------|
| E70/4986 | Granted     | 100%                             | -   | -                               | 100%                       |
| E70/4987 | Granted     | 100%                             | -   | -                               | 100%                       |
| E70/5027 | Granted     | 100%                             | -   | -                               | 100%                       |
| E70/5109 | Granted     | 100%                             | -   | -                               | 100%                       |
| E70/5197 | Granted     | 100%                             | -   | -                               | 100%                       |
| M70/1389 | Application | -                                | -   | -                               | -                          |
| M70/1392 | Application | -                                | -   | -                               | -                          |
| L70/198  | Granted     | 100%                             | -   | -                               | 100%                       |
| L70/199  | Granted     | 100%                             | -   | -                               | 100%                       |
| L70/202  | Application | -                                | -   | -                               | -                          |
| L70/203  | Application | -                                | -   | -                               | -                          |
| L70/208  | Application | -                                | -   | -                               | -                          |

### Muchea Project – Silica

| Tenement | Status      | Interest at beginning of quarter | Interests relinquished, reduced or lapsed | Interests acquired or increased | Interest at end of quarter |
|----------|-------------|----------------------------------|---|---------------------------------|----------------------------|
| E70/4886 | Granted     | 100%                             | -   | -                               | 100%                       |
| E70/5157 | Granted     | 100%                             | -   | -                               | 100%                       |
| E70/5548 | Application | -                                | -   | -                               | -                          |
| M70/1390 | Granted     | -                                | -   | -                               | 100%                       |
| L70/200  | Granted     | 100%                             | -   | -                               | 100%                       |
| L70/204  | Application | -                                | -   | -                               | -                          |
| L70/205  | Application | -                                | -   | -                               | -                          |
| L70/206  | Application | -                                | -   | -                               | -                          |

### Boyatup Project – Silica

| Tenement | Status  | Interest at beginning of quarter | Interests relinquished, reduced or lapsed | Interests acquired or increased | Interest at end of quarter |
|----------|---------|----------------------------------|---|---------------------------------|----------------------------|
| E69/3560 | Granted | 100%                             | -   | -                               | 100%                       |
| E69/3668 | Granted | 100%                             | -   | -                               | 100%                       |

### Biranup Project – Base Metals/Gold

| Tenement | Status      | Interest at beginning of quarter | Interests relinquished, reduced or lapsed | Interests acquired or increased | Interest at end of quarter |
|----------|-------------|----------------------------------|---|---------------------------------|----------------------------|
| E39/1828 | Granted     | 100%                             | -   | -                               | 100%                       |
| E38/3191 | Granted     | 100%                             | -   | -                               | 100%                       |
| E39/2000 | Granted     | 100%                             | -   | -                               | 100%                       |
| E39/2001 | Granted     | 100%                             | -   | -                               | 100%                       |
| E39/2003 | Granted     | 100%                             | -   | -                               | 100%                       |
| E38/3294 | Granted     | 100%                             | -   | -                               | 100%                       |
| E38/3533 | Application | -                                | -   | -                               | -                          |

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