

17 January 2023

**ASX ANNOUNCEMENT**

## December 2022 Quarterly Activity Report

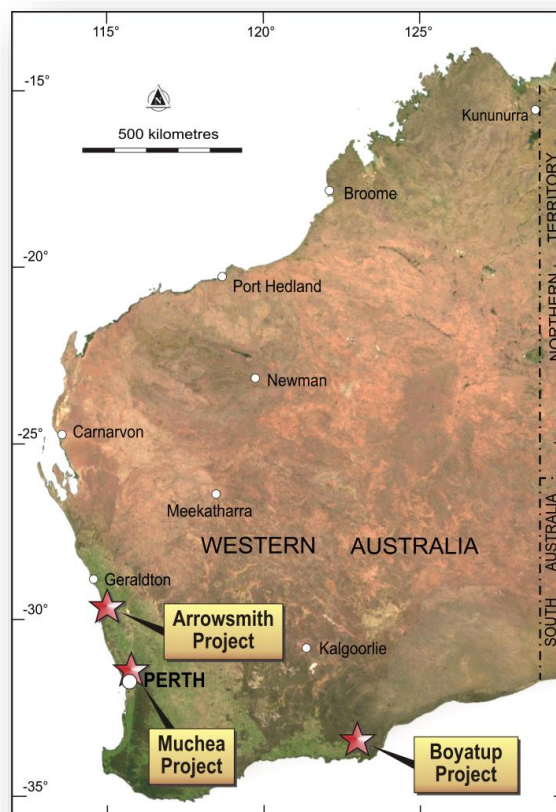
The following is a summary of the activities conducted by VRX Silica Limited (**VRX** or **Company**) during the December 2022 quarter at its silica sand projects at Arrowsmith North, Arrowsmith Central (located 270 km north of Perth), Muchea (located 50 km north of Perth) and Boyatup (located 100 km east of Esperance), all situated in Western Australia.

### VRX Silica Sand Resources

VRX is a Western Australian based pure-play silica sand exploration and development company with four high-value, advanced, very long-term silica sand projects in Western Australia, a Tier 1 mining region.

The Company has multi-decade scale contiguous sand deposits on granted Mining Leases with secure tenure and a combined +1.1Bn tonne Mineral Resource of 99.6% to 99.9% SiO<sub>2</sub> high grade silica sand (see table on page 19).

The Company and its management team is WA based as are its four large scale, high-grade and low impurity silica sand projects. Each project can be run independently and will supply high-grade silica sand to many diverse markets.



**Figure 1: Project Locations**

## Applications of Silica Sand

Silica sand is the most-used commodity on the planet after air and water. It is the main ingredient in all types of **glassmaking**, including specialty solar panel and high-tech glass. The glass manufacturing industry demand is increasing at a rate of 5-6% per year, or about 8-10 million tonnes pa. Around 47% of the world's glass is manufactured in Asia.

Silica sand is also an essential component of the **foundry** and casting industries. The largest foundry industry is in Korea where it dominates the industry particularly for large marine components.

Silica sand is also the main ingredient in concrete.

Silica sand is a finite resource that is rapidly being exhausted and the Asia-Pacific region is currently experiencing **increasing demand** at a time of a **global supply shortfall**.

## A Project development pipeline to ensure a disciplined, staged development of world-class assets

The Arrowsmith North silica sand project (**Arrowsmith North**) will lead a staggered and disciplined development program, followed by the Muehea silica sand project (**Muehea**) and Arrowsmith Central (**Arrowsmith Central**) silica sand project.

VRX has the most-developed ASX listed company silica sand projects in Australia with planning, Aboriginal heritage, environmental approvals, metallurgical testwork studies and plant engineering well advanced having commenced in 2017.

Mining Leases are granted over these projects as well as various Miscellaneous Licences for access with permitting and infrastructure preparations well-advanced.

The scale of the projects provides for a long-term opportunity for **silica sand export** and potential for **glass manufacturing and downstream industries** in Western Australia.

## Critical Minerals Publication

In December 2022 VRX Silica Limited announced its Arrowsmith North and Muehea Silica Sand projects have been included in the Australian Critical Minerals Prospectus for 2022 published by Austrade and launched by Minister Farrell, the Minister for Trade and Tourism.

The prospectus includes technical, commercial, and geological data to facilitate investment into projects for Australia's identified critical minerals. To-date, the prospectus has received significant recognition among interested foreign investors and buyers, Australian corporates, and the Australian government for its significant role in marketing opportunities in the Australian and export markets.

The recognition by the Australian Government that silicon and silica sand are a critical mineral and that VRX has significant potential to address anticipated production shortfalls, build supply chain security, and help deliver progress on a net-zero future is an important step forward.

This publication will enable Austrade to actively promote the VRX products to foreign investors and potential buyers.

VRX continues to engage with potential buyers that have received samples of products from Arrowsmith North and Muehea.

## Arrowsmith North

The mining and processing operation is relatively simple and low impact with long-term production expected to commence initially at Arrowsmith North on the **221Mt** Proved and Probable Ore Reserve (9.2Mt Proved and 212Mt Probable) in 2023, subject to final environmental approvals.

A revised capital estimate is currently underway on a tailored 2Mtpa processing plant with a unique patented custom process circuit.

The results of additional bulk testwork programs undertaken during the March and June 2022 quarters were received in August 2022. These programs produced sufficient final product for the large samples (50-60kg) required for glassmaking furnace testing and foundry resin coating testing. The samples have been forwarded to an extensive list of potential buyers.

The Company has identified long-lead items and has commenced the specification and production of tender documentation of processing equipment for the plant in preparation for the procurement process in order to enable a timely construction program following a decision to mine at Arrowsmith North.

### *Engineering*

The Company has undertaken significant steps to finalise the processing circuit design to produce multiple products and to finalise the detailed engineering required for construction.

The final design phase is progressing to shop detailing of all disciplines - steelwork, mechanicals, pipework, electrical, air, etc.

The execution schedule has been recently updated with revised lead times for major equipment. Well-documented supply-side constraints, including COVID lockdowns in China that have led to a backlog in production, is affecting equipment delivery globally and there is little certainty with quoted lead times. Specification and tendering of long lead time equipment is essentially complete and VRX is awaiting final mining approval and financing to commence procurement of these major items.

### *Process Water*

A process water bore was successfully drilled to access water from the Yarragadee North deep aquifer with aquifer testing to supply data for an abstraction licence application for 0.9GL of water. Monitoring boreholes for the borefield have been completed. The plant has been designed to operate predominately with recycled water.

VRX has successfully completed a production bore and monitoring bores for abstraction at Arrowsmith Central. Results from the pump testing at Arrowsmith Central will contribute to the assessment modelling for both Arrowsmith North and Central water abstraction.



**Figure 2: Bore testing equipment**

### *Power Supply*

The Company continues to engage with local power providers to investigate establishing a power supply using locally produced LNG. Initial evaluation indicates that there are significant potential savings to use LNG from the wellhead after it is dewatered and before it is compressed for transport in one of the two gas pipelines adjacent to the project area. This solution eliminates the transport cost for LNG and provides a very long term power supply.

### *Logistics*

The Company is continuing discussions with the Mid West Ports Authority (for export of silica sand product from Geraldton Port) to enable a storage area and shiploading within their Port Maximisation Plan.

The Company has access to the adjacent Brand Highway and an approved road intersection plan from Main Roads enable road transport of silica sand product in the short term.

### *Approvals*

VRX has conducted extensive environmental studies on its silica sand projects over a number of seasons in anticipation of requirements of the State and Federal environmental regulation authorities to undertake approvals assessments. These surveys commenced shortly after the tenements were acquired and the number and extent of these surveys have expanded following further consultation with these authorities. The Company has initially concentrated on gaining approval for development of the Arrowsmith North project.

VRX has received confirmation from the Commonwealth Department of Agriculture, Water and the Environment (now Department of Climate Change, Energy, the Environment and Water) for accredited approval under the Environment Protection and Biodiversity Conservation Act 1999 (**EPBC Act**). Accreditation of the Environmental Protection Authority of Western Australia's (**EPA**) assessment processes means that the Commonwealth can rely on environmental assessments undertaken by the EPA for the purpose of its approval decisions under the EPBC Act on proposals that are likely to have a significant impact on a matter of national environmental significance. If the EPA assesses a proposal at the level of Public Environmental Review (**PER**), as is the case for Arrowsmith North, separate assessment by the Commonwealth is not required.

The Environmental Scoping Document (**ESD**) was lodged with the EPA in September 2021 and approved in April 2022.

During May 2022 the Company lodged the initial Environmental Review Document (**ERD**) for Arrowsmith North with the EPA. The ERD document is required under the EPA's public environmental review process and will be released for public review following review and acceptance by the EPA and other relevant authorities. The ERD was prepared according to the EPA's Administrative Procedures, Procedures Manual and other guidance documents. The ERD is a comprehensive summary of the project environmental setting, the physical elements of the mine and infrastructure, operational elements, the extent of effects on the environment and the proposed rehabilitation and closure plan. The Company received a request from the EPA for further information in early July 2022 and the response was submitted later that month.

As per the Procedures Manual, the ERD was distributed for review by relevant government agencies, subsequently a request for additional information was received in mid-November 2022. The Company lodged a revised ERD (Revision D) and response table to address the requested information in December 2022. The Company now awaits a response and/or acceptance for the ERD for publication, initiating the four week Public Environmental Review of the ERD.

An important feature of the EPA Proposal is the proposed rehabilitation method to use the unique VDT method which is estimated to result in the best restoration of the mine area vegetation and habitat.

The VDT methodology can be viewed at:

<https://vrxsilica.com.au/miningandrehabilitationmethodology/>

### *Key Plant Equipment*

VRX has previously announced the start of project capital expenditure for its Arrowsmith North processing plant, with the purchase of two major items of sand processing capital equipment.

VRX has purchased locally a 3m diameter x 8m long RCR-designed feed trommel and a 3.6 x 8.5m Schenck "banana" vibrating screen. This equipment has been refurbished by Bunbury based workshops.

The banana screen has undergone strip, non-destructive testing and refurbishment by the OEM (Original Equipment Manufacturer) and is complete.

VRX will continue to pursue other lead time and cost-saving opportunities to capitalise on its first-mover advantage in Western Australia's emerging silica sand sector, at a time when there is fast-rising global demand for high-quality, responsibly sourced silica sand volumes.

### Arrowsmith North update to the Mineral Resource Estimate (MRE) and Ore Reserve Statement (ORS)

On 11 November 2022 VRX Silica announced an update to the Mineral Resource Estimate (**MRE**) and Ore Reserve Statement (**ORS**) for its Arrowsmith North Silica Sand Project, located 270km north of Perth.

The MRE update was based on an additional 130 close spaced grade control holes<sup>1</sup>. These holes were drilled as a pre-production activity to increase the resource confidence in the initial years of mining, and to produce a bulk sample for pilot scale metallurgical testwork and the generation of bulk samples for potential offtake partners.

A pilot plant testwork of a 3.3 tonne bulk metallurgical composite was completed. In combination with market analysis a suite of four saleable products have been determined that will be produced from Arrowsmith North. Process and Engineering design of the proposed Process Plant has been guided by the chemical and physical specifications of these products. The declaration of these four products was used to define the saleable Ore Reserve declared in this release.

This updated Mineral Resource and Ore Reserve is a culmination of significant metallurgical testwork and evaluation of the Resource to determine the premium products VRX can produce.

These products include sought after foundry sand as well as glassmaking sand suitable for flat glass, including automobile glass and also container glass.

Large samples (50-60kg) have been despatched to several foundry and glassmaking companies in Korea, Japan and Taiwan for evaluation and subsequent discussions for offtake.

The creation of this JORC compliant Proved Ore Reserve has led to a high confidence mining and processing schedule of the final products that will be available for sale for the initial 6 years of mining. This will allow for a proactive marketing effort to return the best economic outcomes from the project. Future grade control programs and ore reserve updates will not be required for 5 years from the commencement of mining.

Detailed information on the methodology underpinning the final Mineral Resource Estimate and Ore Reserve Statement is contained in the Company's ASX Announcement dated 11 November 2022.

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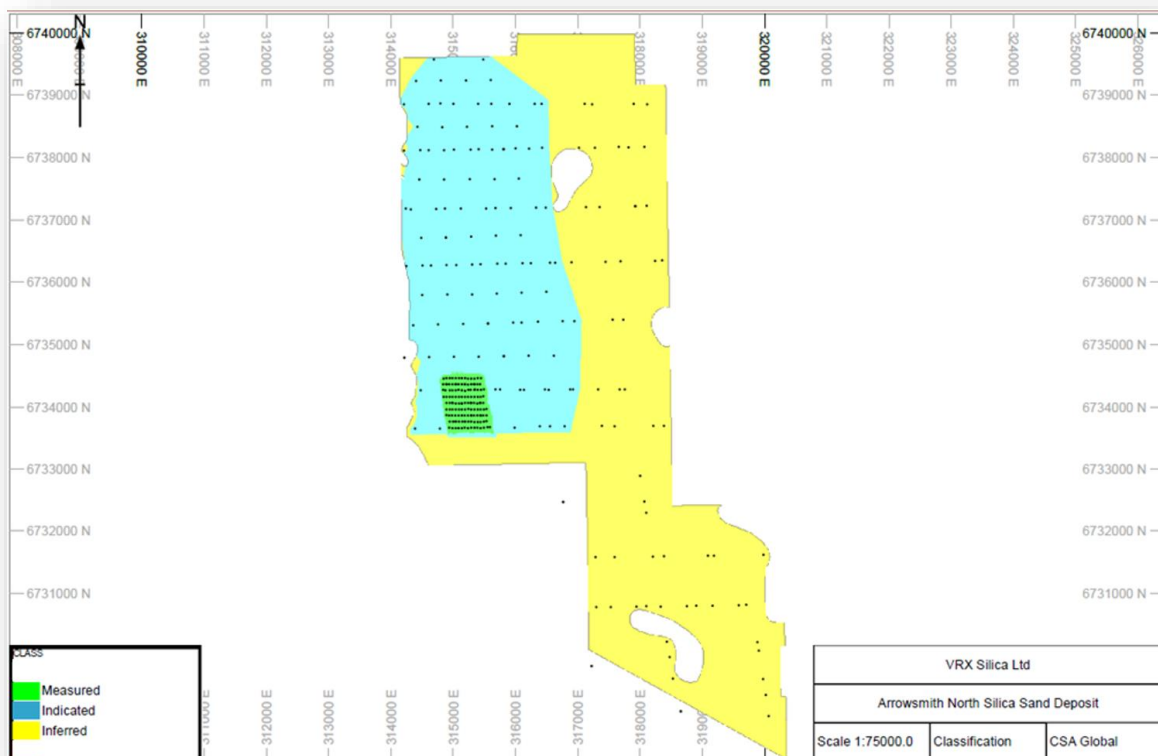
<sup>1</sup>ASX announcement of 11 March 2021, "Arrowsmith North Grade Control Drilling".

### Summary of updated MRE and ORE Information

In summary, in March 2021 VRX completed the pre-production activity by conducting a close spaced grade control drilling program of 130 AC holes with the aim of improving the resource confidence for the initial years of mining, and to produce a bulk metallurgical composite that represents the material that will be processed in these initial years and to process this material through a pilot plant that mimics the current designed process circuit to generate bulk samples for potential offtake partners.

VRX engaged CSA Global to update the Arrowsmith North MRE with the expectation that the new estimate would not be materially different from the published estimate<sup>2</sup>, as the CSA update was confined to the new data generated by the grade control drilling, see Figure 33, which shows the area (shown in green) that was included in the updated MRE.

The updated MRE resulted in a category upgrade to the material in the area grade controlled to a Measured Resource. A summary of the updated MRE is shown in Table 1. The JORC 2012 Table 1 is included in Appendix 2 in the Company’s ASX Announcement dated 11 November 2022.



**Figure 3: CSA MRE Update – Green area updated**

<sup>2</sup> ASX announcement of 9 July 2019, “Arrowsmith North Mineral Resource Estimate Upgrade”.

### Arrowsmith North - Mineral Resources July 2019 Estimate

Classification	Mt	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %
Measured						
Indicated	248	97.7	1.0	0.4	0.2	0.5
Inferred	523	98.2	0.8	0.3	0.2	0.4
<b>Total</b>	<b>771</b>	<b>98.0</b>	<b>0.9</b>	<b>0.3</b>	<b>0.2</b>	<b>0.4</b>

Updated Estimate							Change	
Classification	Mt	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %	Mt	%
Measured	10	95.9	1.9	0.7	0.3	0.7	10	
Indicated	237	97.7	1.00	0.40	0.20	0.50	-11	-4.6%
Inferred	521	98.2	0.80	0.30	0.20	0.40	-2	-0.4%
<b>Total</b>	<b>768</b>	<b>98.0</b>	<b>0.90</b>	<b>0.30</b>	<b>0.20</b>	<b>0.40</b>	<b>-3</b>	<b>-0.4%</b>

*\*Note: Interpreted mineralisation is domained into different sand types based on drill logging data and chemical analysis results. Depletion zones include the upper 0.5 m for rehabilitation purposes, 2 m base of sands within the 'grade control' area, iron richer sand ridges in the west and minor swamp zones in the east and south of the modelled area. Differences may occur due to rounding.*

**Table 1: Arrowsmith North Mineral Resource Estimate**

#### Ore Reserve Estimate Update

Cube Consulting was engaged by VRX to complete mining engineering work towards a life of mine production schedule to provide an updated Ore Reserve estimate for Arrowsmith North.

The scope of work included importing and reconciling the supplied mineral resource block model, defining mining boundaries for successive schedule timing, preparing the mining area into appropriate blocks which would form the basis of the mining schedule, preparing a mining schedule for the total mine life, reporting of the mining schedule physicals including material mined and the associated products, for inclusion in the financial model, culminating in the reporting of an updated Ore Reserves estimate for the project.

The production schedule was completed in quarterly increments for the first 7 years, followed by annual increments for the following 38 years after which the schedule was aggregated and reported in 5-year increments to the end of the mine's 111 year life in Figure 5.

Total material movements planned are shown for the first seven years in quarterly increments in Figure 4 and annually for years 8 to 45 in Figure 5.

The work completed supports the reporting of an updated Ore Reserve estimate for this project in accordance with the guidelines in the JORC Code. Proved and Probable Ore Reserves have been derived from the Measured and Indicated Mineral Resources respectively contained within the mining lease area M70/1389. The Arrowsmith North updated Ore Reserve estimate is shown in Table 2.



**Table 2: Arrowsmith North Open Pit Ore Reserve Estimate – November 2022**

**Arrowsmith North - Ore Reserves**

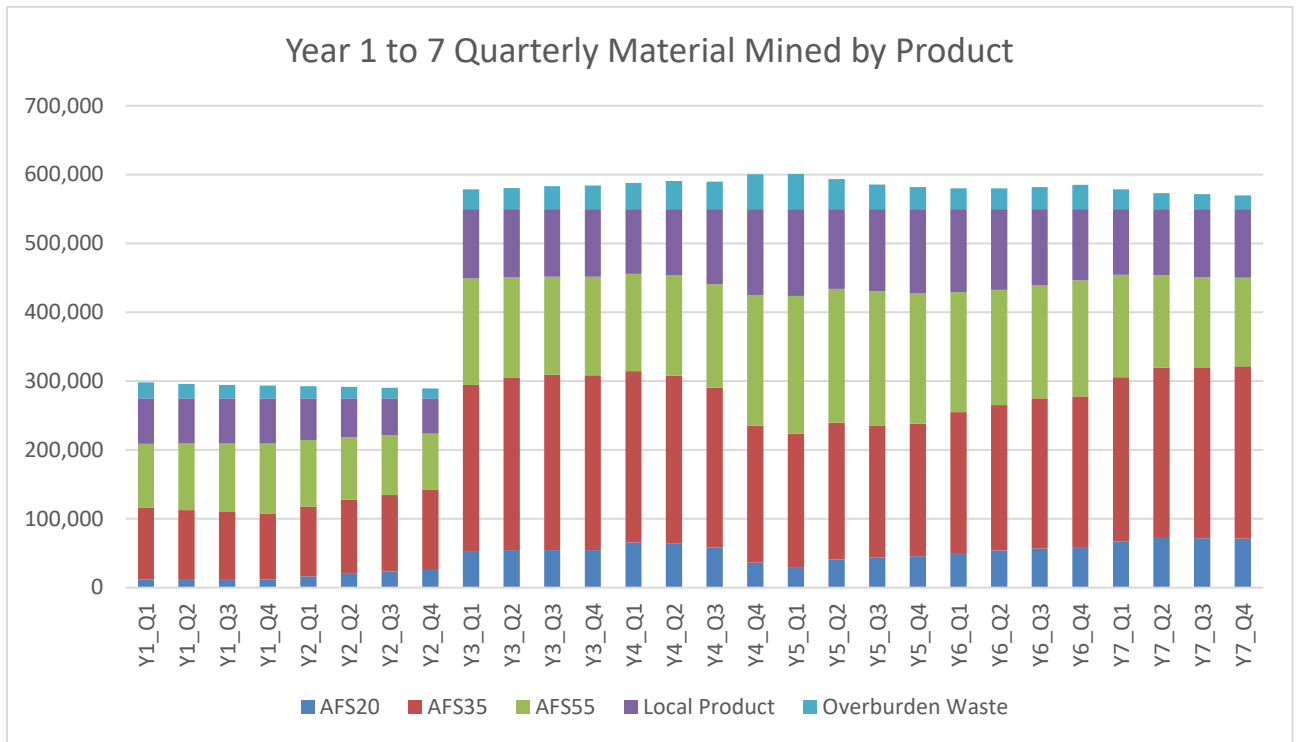
**Updated Estimate**

Classification	Total	AFS20	AFS35	AFS55	Local
	Mt	Mt	Mt	Mt	Mt
Proved	9.2	0.8	3.9	2.7	1.8
Probable	211.8	24.2	102.5	51.1	34.1
<b>Total</b>	<b>221.0</b>	<b>25.0</b>	<b>106.4</b>	<b>53.8</b>	<b>35.9</b>
Prior Estimate	223	Mt			
<b>Change</b>	<b>-2.0</b>	<b>Mt</b>			
	<b>-0.9%</b>				

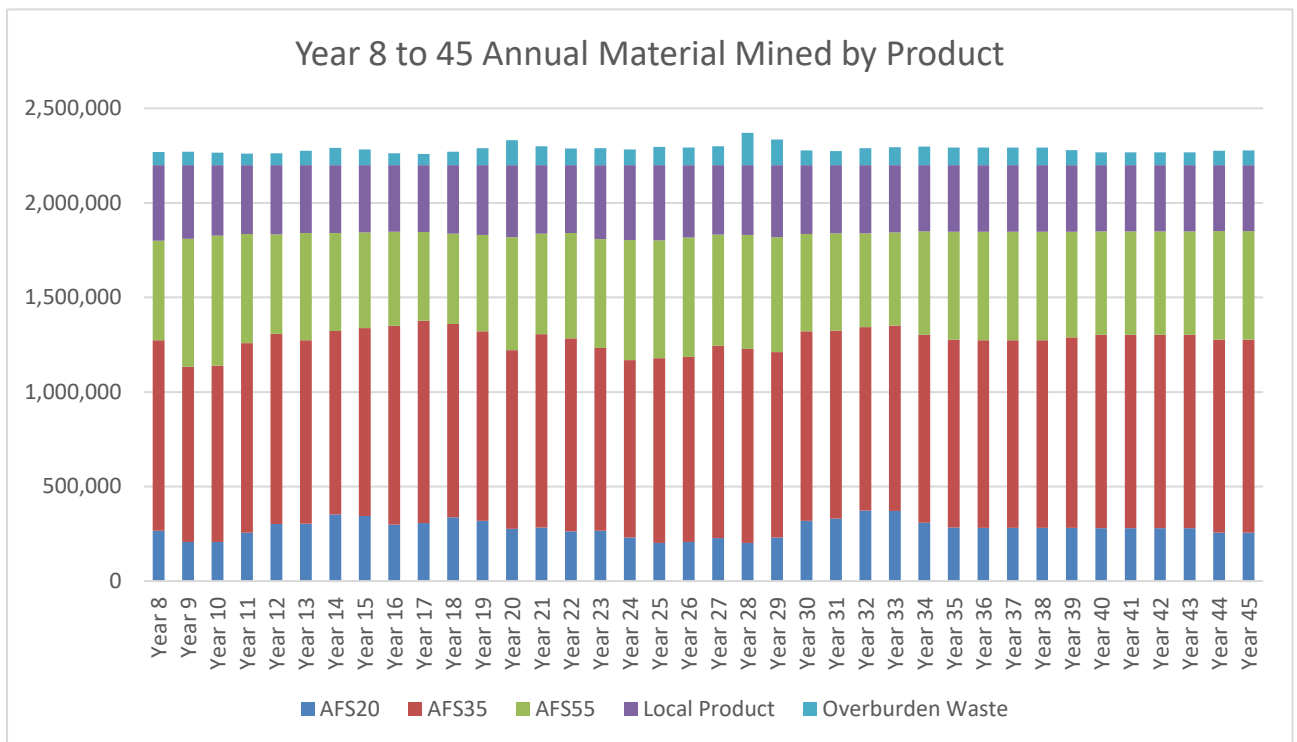
The rounding in the above table is an attempt to represent levels of precision implied in the estimation process which may result in apparent errors of summation in totals shown in rows or columns.

The Prior Estimate relies on VRX's bankable feasibility study for Arrowsmith North announced to ASX on 28 August 2019<sup>3</sup>. All material assumptions contained in that study continue to apply and have not materially changed from the date of release of that study. While VRX considers all of the material assumptions to be based on reasonable grounds, there is no certainty they will be correct or that the range of outcomes indicated within the study will be achieved.

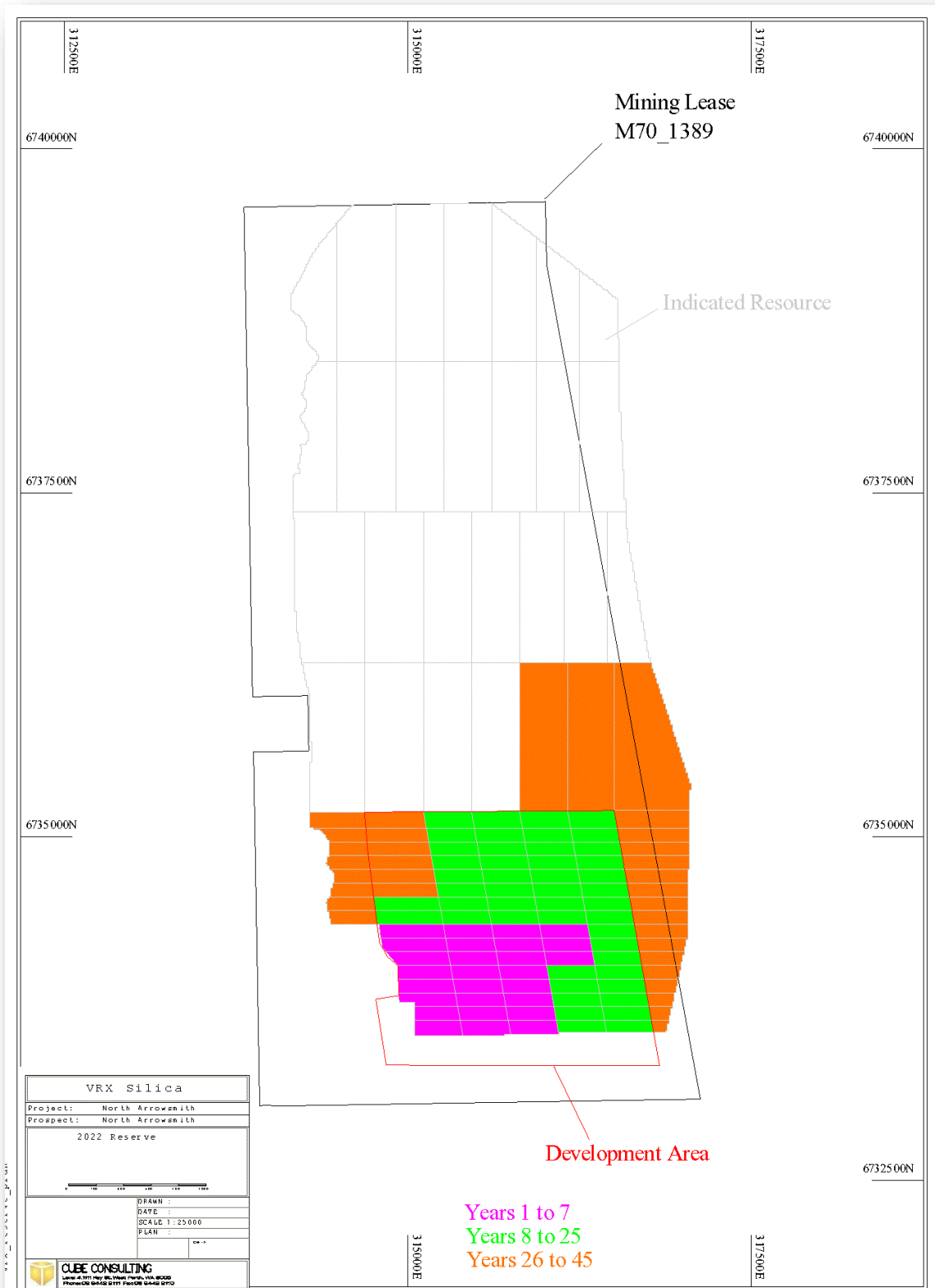
<sup>3</sup> ASX announcement of 28 August 2019, "Arrowsmith North BFS and Maiden Ore Reserve".



**Figure 4: First 7 Years Production Profile**



**Figure 5: Years 8 to 45 Production Profile**



**Figure 6: Mine Schedule Blocks, Development area and Mining Lease Area**

The schedule targets total product tonnes of 2.2 Mt per annum over the full mine life with the exception of the first 2 years which are scheduled at half of the full production target as part of a conservative ramp up plan. The total material mined averages just over the target of

product tonnes, which is due to the very low volumes of overburden waste to be moved to expose the target product material. Total material movements planned are shown for the first seven years, in quarters in Figure 5 and annually for years eight to forty five in Figure 6.

#### *Ore Reserve Estimate*

At the conclusion of this study, it was demonstrated that the project is economically viable considering all relevant factors, test work and design criteria, culminating in a financial analysis with favourable economic metrics.

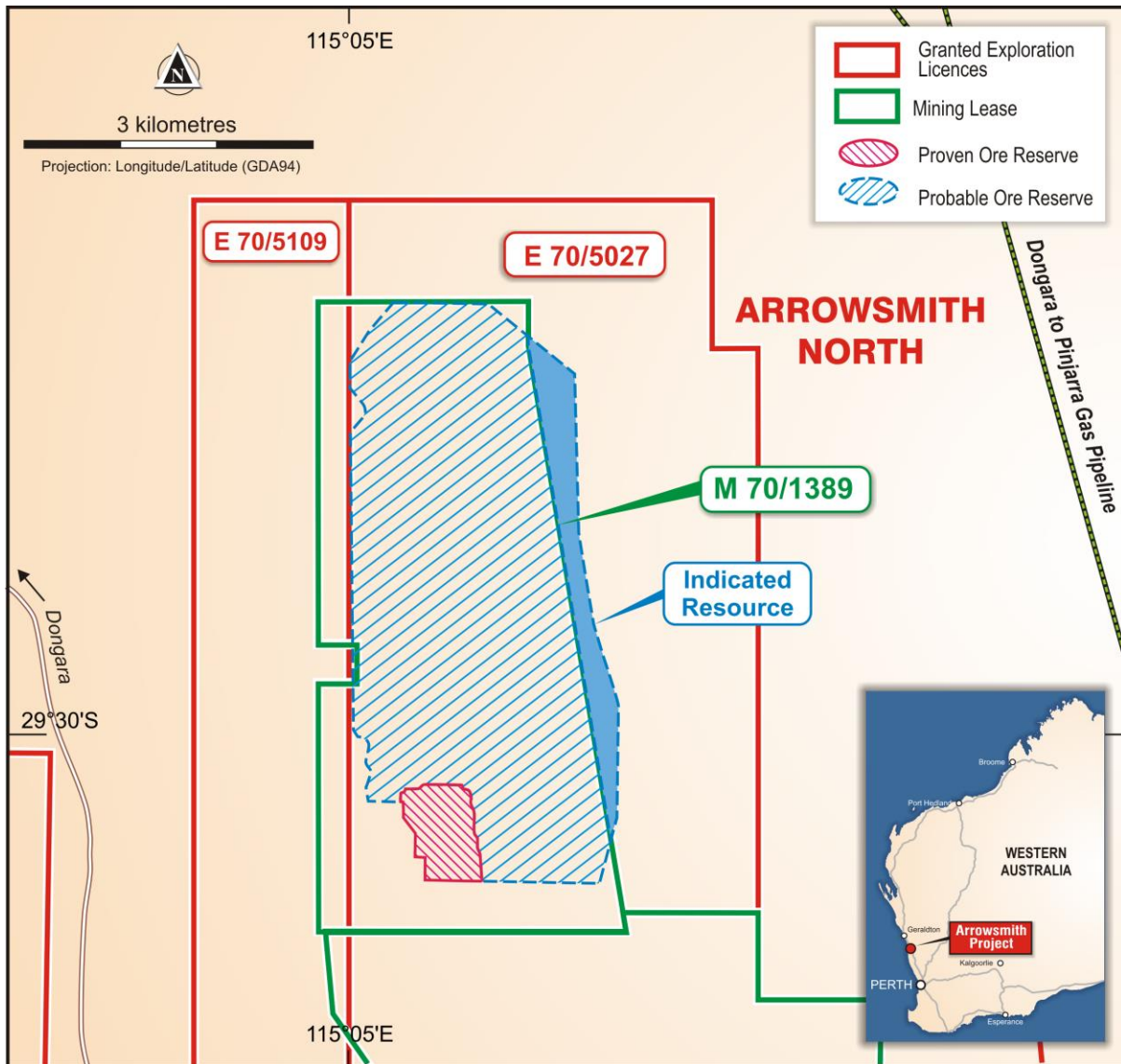
The work completed supports the reporting of an updated Ore Reserve estimate for this project in accordance with the guidelines in the JORC Code. Proved and Probable Ore Reserves have been derived from the Measured and Indicated Mineral Resources respectively, contained within the mining lease area M70/1389. The Arrowsmith North updated Ore Reserve estimate is shown in Table 3.

**Table 3: Arrowsmith North Open Pit Ore Reserve Estimate – October 2022**

<b>Ore Reserve Classification</b>	<b>Product</b>				
	<b>Total</b>	<b>AFS20</b>	<b>AFS35</b>	<b>AFS55</b>	<b>Local</b>
	<b>Mt</b>	<b>Mt</b>	<b>Mt</b>	<b>Mt</b>	<b>Mt</b>
<b>Proved</b>	9.2	0.8	3.9	2.7	1.8
<b>Probable</b>	211.8	24.2	102.5	51.1	34.1
<b>Total</b>	<b>221.0</b>	<b>25.0</b>	<b>106.4</b>	<b>53.8</b>	<b>35.9</b>

The rounding in the above table is an attempt to represent levels of precision implied in the estimation process which can result in apparent errors of summation in some columns.

Figure 7 shows the Arrowsmith North Ore Reserve area.



**Figure 7: Arrowsmith North Ore Reserve Area**

### *Future Work*

VRX has now completed all mining and processing pre-production works as well as the production of bulk material of the various final products and detailed engineering design of the planned processing plant is close to completion. VRX is in the final stages of gaining regulatory approval to commence construction in 2023.

## Arrowsmith Central

Arrowsmith Central is the second of the Company's silica sand projects under development.

### *Approvals*

Arrowsmith Central Silica Sand Project (**Arrowsmith Central**) *has moved to the next stage of the environmental approval process with the EPA.*

*On 20 June 2022 the Company lodged an Environmental Scoping Document (ESD) which details the environmental studies that are required to inform the assessment of the project. Lodgement of the ESD is a fundamental step in the EPA administration procedures to inform the Environmental Impact Assessment of Arrowsmith Central. The Company is confident the ESD addresses the EPA's Environmental Principles, Factors and Objectives..*

*The ESD is under assessment and the Company is seeking feedback from the EPA.*

The Company is not in a position at this stage to set a definitive timeline for the approval process.

### *Process Water*

On 6 September 2022 VRX Silica Limited announced the completion of the test holes for 2 production water bores which will be the source of water supply for the proposed processing plant at Arrowsmith Central. The borehole drilling, construction, test pumping and downhole logging is completed to compile the required data for the H3 assessment for the abstraction licence.

## Muchea

Development of Muchea will follow development at Arrowsmith North.

The Company has had many offtake enquiries for Muchea silica sand from Asian markets and believes that the consistent production of such high-grade silica sand with a low iron content will be in high demand as raw material for the manufacture of predominately premium ultra-clear glass production, particularly for the burgeoning solar panel manufacturing industry. VRX continues to receive these enquiries on a regular basis.

### *Environmental Studies*

Detailed springtime flora and vegetation studies were undertaken during the springtime months on a selected priority area of 450Ha.

This survey will comply with the requirements of the Environment Protection Authority Environmental Factor Guideline: Flora and Vegetation, and Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (2016a and 2016b).

The final flora and vegetation report will include previous survey results and the current survey results from quadrats, targeted searches as well as historical information that relates to the root structure, density and distribution of the key species.

The Priority Area has been selected as an area that has only two vegetation types and is restricted to Low Banksia Woodland on loose sand. Which is the Company production target.

Work to date indicates that the selected area has no Priority Species of flora and no thickets of paperbark which are restricted to low lying areas and generally have more fauna species.

The final report is due early 2023 and will form the basis of the EPA Proposal Referral for the Muchea Silica Sand Project.



**Figure 8: Typical vegetation in the Muchea Priority Area**

### *Muceha Aboriginal Heritage*

VRX had previously undertaken an Aboriginal Ethnographic and Archaeological heritage survey in 2017 to clear the initial drilling program area, with representatives of the Whadjuk People accompanying the drill crew.

During the December 2022 quarter, VRX undertook a comprehensive Aboriginal Ethnographic and Archaeological heritage survey over the Priority Area to identify and understand Aboriginal heritage values within the area to support future dialogue with the Whadjuk people about the proposed mining project.

During October 2022 an Aboriginal Heritage Work Area Clearance Survey was conducted on the Priority Area at the Muceha Silica Sand Project with representatives from the Whadjuk People and VRX managed by Joe Dortch (PhD, Archaeology) with an Ethnographic Survey conducted early November 2022 with representatives from the Whadjuk People and VRX and managed by Dirima Cuthbert (MEnv Des, BSc Hons, Anthropology) and anthropology assistant Jordanna Rebbeck (BA Anthropology, BA Archaeology).

No archaeological heritage sites were identified on the archaeological survey. VRX has committed to continued monitoring by Whadjuk representatives when significant ground disturbing works are undertaken. to identify any material which comes may come to light as a result of the proposal.

No ethnographic heritage sites were identified on the ethnographic survey. The Proposal will be managed through a Cultural Heritage Management Plan (CHMP) under the *Aboriginal Cultural Heritage Act (Western Australia) 2021* (to be implemented in 2023).



**Figure 9: Muceha clearance survey area**



### *Exploration*

The samples from the drill program conducted the previous quarter will undergo metallurgical testwork which will generate further samples for buyer testing following overwhelming interest from potential offtake partners.

### **Boyatup**

A first pass metallurgical testwork program is underway on drill samples from the March 2022 program to determine the specification of the potential products that can be produced from the in-situ sand resource at Boyatup.

Once the potential products that can be produced are identified a marketing study will be completed to determine the focus to maximise the economic value of the project.

### **Geothermal Exploration Permit Applications**

In January 2022 DMIRS released 21 areas in Western Australia for applications for Geothermal Exploration Permits with a closing date for applications of 21 April 2022.

VRX made a number of applications for permits proximal to the Company's current Arrowsmith North and Arrowsmith Central silica sand holdings.

The applications were made as part of VRX's overall green energy intentions as demonstrated by the hydrogen gas MOU signed with XODUS Energy Pty Ltd.

VRX has not received any notification at this stage regarding these applications and received no notification on the timetable to grant.

### **Metallurgical Testwork R&D**

During April 2022, VRX lodged a registration for an R&D Tax Incentive Application with AusIndustry for the year ending June 2021.

The Company is currently preparing an additional claim for the financial year ending June 2022.

### **WA Investment Attraction Fund**

In July 2019 the Western Australian State Government released Diversity WA to provide an economic development framework for the State. It sets out initiatives, actions and strategies that will contribute to achieving its vision for "a strong and diversified economy delivering secure, quality jobs through increased investment across a broad range of industries". It also identifies priority sectors for strategic development that match Western Australia's unique strengths with global trends to achieve growth across the economy.

As part of the initiative, successful applicants will be eligible for financial assistance in the form of grants and other incentives, subject to a Financial Assistance Agreement (FAA) from the Investment Attraction Fund.

In May 2022 VRX made a preliminary application under Stage 1 of the scheme (Expressions of Interest) and at the end of August 2022 the Company was shortlisted and invited to progress to Stage 2 and make a detailed application.

The detailed application was lodged in October 2022.

## Corporate

During the quarter 2,000,000 ordinary fully paid shares were issued upon the exercise of 2,000,000 unlisted options. A further 2,000,000 unlisted options expired on 30 November 2022 and were cancelled.

During the quarter the Company issued 10,000,000 unlisted options under its employee equity incentive scheme, with an expiry date of 31 December 2025, exercisable at 20c.

## VRX Silica Interactive Investor Hub

During the quarter the Company invited shareholders to engage with us directly by asking questions, watching video summaries, and seeing what other shareholders have to say about this and past announcements at our Investor Hub, at:

<https://vrx.freshamplify.com/>.

## ASX Listing Rule 5.3 disclosures

### Details of mining exploration activities:

Payments for exploration & evaluation under operating activities of \$135,000 related mainly to tenement rents.

Payments for exploration & evaluation under investing activities of \$785,000 consists mainly of processing plant engineering design and related metallurgical test work and environmental surveys and approvals costs.

There were no substantive mining production and development activities during the quarter.

### Details of tenement activities:

None

### Details of related party payments:

The aggregate amount of payments to related parties and their associates of \$127,000 represents directors fees and salaries paid during the quarter.

## Combined +1.1Bn tonne Mineral Resource

Project	Classification	Mt	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> %	Fe <sub>2</sub> O <sub>3</sub> %	TiO <sub>2</sub> %	LOI %
Muchea	Indicated	29	99.6	0.09	0.03	0.07	0.22
	Inferred	172	99.6	0.05	0.02	0.10	0.23
	Total	208	99.6	0.06	0.02	0.10	0.23
Arrowsmith North	Indicated	248	97.7	1.00	0.40	0.20	0.50
	Inferred	523	98.2	0.80	0.30	0.20	0.40
	Total	771	98.0	0.86	0.30	0.17	0.41
Arrowsmith Central	Indicated	28.2	96.6	1.70	0.40	0.20	0.70
	Inferred	48.3	96.9	1.50	0.40	0.20	0.70
	Total	76.5	96.8	1.50	0.40	0.20	0.70
Boyatup*	Inferred	60	97.8	0.83	0.23	0.13	0.88
	Total	60	97.8	0.83	0.23	0.13	0.88

**Total Mineral Resource 1,116 Million Tonnes\*\***

\* Boyatup Mineral Resource Estimate announced to ASX on 18 August 2022

\*\* See material assumptions statement at end of document

### Material assumptions for Reserve and Resource reporting

The information in this document that relates to the estimation and reporting of the Mineral Resource and Ore Reserves for the Arrowsmith North, Arrowsmith Central and Muchea Silica Sand Projects, and Boyatup Drilling is extracted from releases to ASX on 28 August 2019 (updated 11 November 2022), 17 September 2019, 18 October 2019, 24 March 2022, respectively. The Company confirms that it is not aware of any new information or data that materially affects the information included in this document and all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

This quarterly report has been approved for release by the Managing Director.

## Interests in Mining Tenements (Western Australia)

### *Arrowsmith Project – Silica Sand*

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%
E70/5817	Granted	100%	-	-	100%
M70/1389	Granted	100%	-	-	100%
M70/1392	Granted	100%	-	-	100%
M70/1418	Application	-	-	-	-
L70/198	Granted	100%	-	-	100%
L70/199	Granted	100%	-	-	100%
L70/202	Granted	100%	-	-	100%
L70/203	Granted	100%	-	-	100%
L70/208	Granted	100%	-	-	100%
L70/230	Granted	100%	-	-	100%
L70/229	Application	-	-	-	-
G70/264	Granted	100%	-	-	100%
G70/265	Granted	100%	-	-	100%
G70/266	Granted	100%	-	-	100%

### *Muceha Project – Silica Sand*

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	Granted	100%	-	-	100%
E70/5651	Application	-	-	-	-
M70/1390	Granted	100%	-	-	100%
M70/1414	Application	-	-	-	-
L70/200	Granted	100%	-	-	100%
L70/204	Granted	100%	-	-	100%
L70/205	Application	-	-	-	-
L70/206	Granted	100%	-	-	100%

### *Boyatup Project – Silica Sand*

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%

## About VRX Silica

VRX Silica Ltd (ASX: VRX) is developing world-class, high-grade silica sand projects in Western Australia.

The Arrowsmith North and Arrowsmith Central Silica Sand Projects, 270km north of Perth, comprise five granted exploration licences and two granted mining leases. Bankable feasibility studies for both projects have demonstrated exceptional financial metrics.

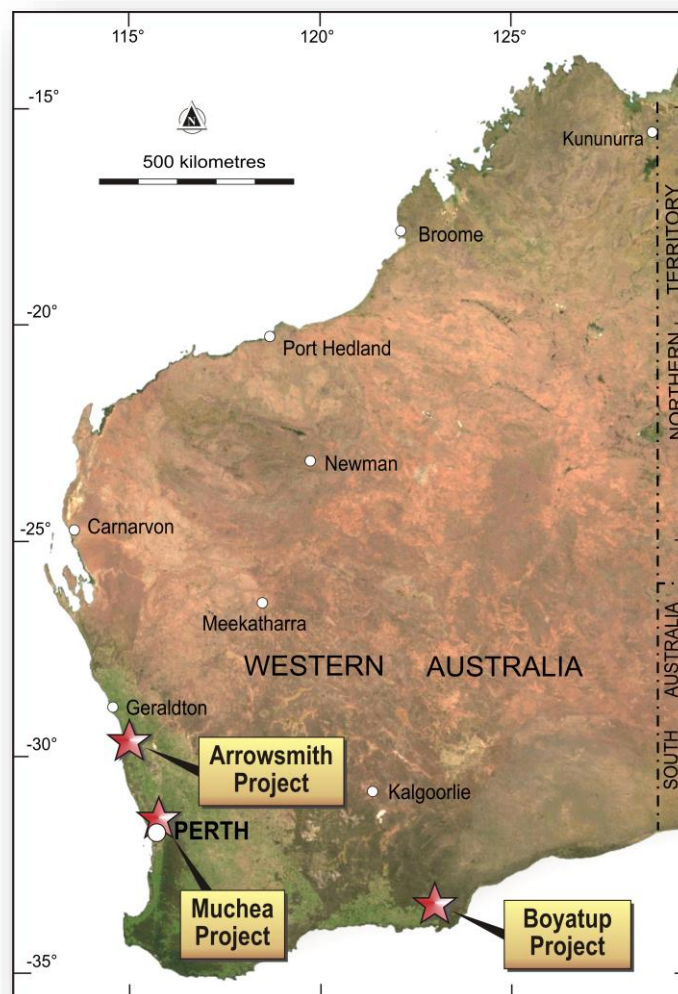
The Muchea Silica Sand Project, 50km north of Perth, comprises two granted and one under-application exploration licences as well as one granted mining lease. Muchea is a world-class project with high-purity silica sand in situ. A bankable feasibility study has demonstrated outstanding financial metrics.

The Boyatup Silica Sand Project, 100km east of Esperance, comprises two adjacent granted exploration licences. Initial indications are that this project can complement the Arrowsmith and Muchea projects and add to the range of silica products VRX Silica may be capable of producing.

## Proven Management

VRX Silica's Board and Leadership Team have extensive experience in mineral exploration and mine development-to-production and in the management of publicly listed mining and exploration companies.

## Silica Sand Projects Locations



## Appendix 5B

### Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

VRX SILICA LTD

ABN

59 142 014 873

Quarter ended ("current quarter")

31 December 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (6 months) \$A'000
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(135)	(207)
(b) development	-	-
(c) production	-	-
(d) staff costs	(242)	(478)
(e) administration and corporate costs	(560)	(1,085)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	27	34
1.5 Interest and other costs of finance paid (on lease liability)	(6)	(8)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	198
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(916)</b>	<b>(1,546)</b>
<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	-	-
(c) property, plant and equipment	(196)	(352)
(d) exploration & evaluation	(785)	(2,155)
(e) investments	(20)	(20)
(f) other non-current assets	-	-

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (bonds deposit)	-	(89)
<b>2.6</b>	<b>Net cash from / (used in) investing activities</b>	<b>(1,001)</b>	<b>(2,616)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	-
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	-
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (repayment of lease liability)	(18)	(35)
<b>3.10</b>	<b>Net cash from / (used in) financing activities</b>	<b>(18)</b>	<b>(35)</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of period	7,044	9,306
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(916)	(1,546)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(1,001)	(2,616)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(18)	(35)

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>Consolidated statement of cash flows</b>		<b>Current quarter \$A'000</b>	<b>Year to date (6 months) \$A'000</b>
4.5	Effect of movement in exchange rates on cash held	-	-
<b>4.6</b>	<b>Cash and cash equivalents at end of period</b>	<b>5,109</b>	<b>5,109</b>

<b>5.</b>	<b>Reconciliation of cash and cash equivalents</b> at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	<b>Current quarter \$A'000</b>	<b>Previous quarter \$A'000</b>
5.1	Bank balances	3,109	2,021
5.2	Call deposits	2,000	5,023
5.3	Bank overdrafts		
5.4	Other (provide details)		
<b>5.5</b>	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>5,109</b>	<b>7,044</b>

<b>6.</b>	<b>Payments to related parties of the entity and their associates</b>	<b>Current quarter \$A'000</b>
6.1	Aggregate amount of payments to related parties and their associates included in item 1	127
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-

*Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.*



## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

<b>7. Financing facilities</b>	<b>Total facility amount at quarter end \$A'000</b>	<b>Amount drawn at quarter end \$A'000</b>
<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1 Loan facilities	-	-
7.2 Credit standby arrangements	-	-
7.3 Other (please specify)	-	-
7.4 <b>Total financing facilities</b>	-	-
7.5 <b>Unused financing facilities available at quarter end</b>		-
7.6 Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		

<b>8. Estimated cash available for future operating activities</b>	<b>\$A'000</b>
8.1 Net cash from / (used in) operating activities (item 1.9)	(916)
8.2 (Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	(785)
8.3 Total relevant outgoings (item 8.1 + item 8.2)	(1,701)
8.4 Cash and cash equivalents at quarter end (item 4.6)	5,109
8.5 Unused finance facilities available at quarter end (item 7.5)	-
8.6 Total available funding (item 8.4 + item 8.5)	5,109
8.7 <b>Estimated quarters of funding available (item 8.6 divided by item 8.3)</b>	3
<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8 If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1 Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
Answer: Not applicable	
8.8.2 Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
Answer: Not applicable	

## Mining exploration entity or oil and gas exploration entity quarterly cash flow report

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: Not applicable

*Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.*

## Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: ....17 January 2023.....

Authorised by: ...The Board.....  
(Name of body or officer authorising release – see note 4)

## Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.