

22 April 2024

Mineral Assay Results for Muceha High Grade Silica Flour

Highlights:

-  **Products meet specification grades**
-  **Samples dispatched to potential customers**
-  **Investigating markets within existing and emerging technologies**

VRX Silica Limited (**VRX** or **Company**) (ASX: VRX) is pleased to announce the assay results for the high-grade silica flour produced from its Muceha Silica Sand Project (**Muceha**).

In January 2024 the Company announced¹ the preliminary results of its specific high-grade silica flour comminution testwork on Muceha products conducted at a specialist laboratory in Germany. The particle size distribution of the silica flour conformed to end user specifications.

All testing materials and products have been returned to VRX for elemental testing, and the results of that further testwork confirm they match those of the product specification requested by end users. Table 1 (below) sets out these results.

	SiO ₂ %	Al ₂ O ₃ %	Fe ₂ O ₃ %	TiO ₂ %	LOI %
Silica Flour	99.9	0.09	0.01	0.01	0.03

Table 1: Assay Results

The Company has received a number of enquiries for silica flour products and samples have been dispatched to a select number of potential customers in Asia.

VRX Managing Director Bruce Maluish said:

“These assay results are the next step in examining the potential for new product lines and downstream processing opportunities for silica sand from our Muceha Silica Sand Project, including an examination of the viability of new industries in Western Australia.

¹ ASX announcement 8 January 2024, “High Grade Silica Flour Testwork Results.”

ASX: VRX

Capital Structure

Shares on Issue:
583 million

Unlisted Options:
57 million

Corporate Directory

Paul Boyatzis
Non-Executive Chairman

Bruce Maluish
Managing Director

Peter Pawlowitsch
Non-Executive Director

David Welch
Non-Executive Director

Ian Hobson
Company Secretary

Silica Sand Projects

Arrowsmith Silica Sand Projects, 270km north of Perth, WA.

Muceha Silica Sand Project, 50km north of Perth, WA.

Boyatup Silica Sand Project, 100km east of Esperance, WA.

Geothermal Energy Dandaragan Geothermal Energy Permit, 145km north of Perth, WA

The Company is actively assessing other silica sand and downstream processing projects in Australia.

“VRX is considering a range of downstream processing opportunities. These R&D activities, which start with the production of silica flour, will potentially result in higher value products that maximise the value of VRX’s world-class high-quality Muchea Silica Sand Project.”

Potential markets for fine silica being investigated include LCD, pharmaceutical and flint glass, Epoxy Moulding Compound (EMC) encapsulant, anti-stain paint filler, high tensile fibreglass yarn, 3D printer compounds, laser printer inks, cristobalite (road marking paint) quartz crucibles and semi-conductors.

Further development of the program will be subject to confirmation testwork by potential customer laboratories and confirmation of market depth, in particular LCD glass specification silica flour.

Process circuits for the production of silica flour products have predominately ceramic components and are designed to be completely sealed to eliminate any dust exposure to employees or the environment.

This announcement has been authorised for release to ASX by the Managing Director, Bruce Maluish.

Further information:

Bruce Maluish
Managing Director
brucem@vrxsilica.com.au
0418 940 417

Peter Klinger
Cannings Purple
pklinger@canningspurple.com.au
0411 251 54

Competent Persons’ Statement

The information in this document that relates to Muchea Exploration Results are based on data collected and compiled under the supervision of Mr David Reid, who is a full-time employee of VRX Silica. 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.

JORC Code 2012 Edition Table 1 Section 1
Sampling Techniques and Data
(Criteria in this section apply to all succeeding sections.)

Criteria	Commentary
<i>Sampling techniques</i>	A metallurgical bulk sample was sourced near surface from within the mining lease M70/1390. The sample was representative of near surface geology.
<i>Drilling techniques</i>	No drilling is being reported.
<i>Drill sample recovery</i>	Sub-surface composite sample was excavated from M70/1390.
<i>Logging</i>	No drilling is being reported.
<i>Subsampling techniques and sample preparation</i>	Sample was prepared by screening at Nagrom in Perth WA to provide a 1,000kg sample dispatched to the German specialised metallurgical laboratory. A 1kg sub-sample of silica flour was dispatched to SGS Laboratories in Perth.
<i>Quality of analytical data and laboratory tests</i>	Samples were submitted for analysis to the SGS Laboratory in Perth WA. The assay methods used by SGS are as follows: multi-elements are determined by a specialised four-acid digest including Hydrofluoric, Nitric, Perchloric and Hydrochloric acids in Teflon tubes. Analysed by Inductively Coupled Plasma Mass Spectrometry, silica is reported by difference. The assay results have also undergone internal laboratory quality assurance (QA), which includes the analysis of standards, blanks, and repeat quality control (QC) samples.
<i>Verification of sampling and analyses</i>	Duplicate analysis was done and shows an acceptable repeat result.
<i>Location of data points</i>	No drilling is being reported.
<i>Data spacing and distribution</i>	No drilling is being reported.
<i>Orientation of data in relation to geological structure</i>	No drilling is being reported.
<i>Sample security</i>	The bulk sample was collected under supervision by VRX Staff.
<i>Audits or reviews</i>	No drilling is being reported.

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JORC Code 2012 Edition Table 1 Section 2
Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	Commentary
<i>Mineral tenement and land tenure status</i>	The metallurgical bulk sample was collected within Tenement M70/1390, which is owned by Wisecat Pty Ltd a 100% owned subsidiary of VRX Silica Limited.
<i>Exploration done by other parties</i>	All exploration on the tenement has been completed by VRX.
<i>Geology</i>	<p>Most economically significant silica sand deposits in Western Australia are found in the coastal regions of the Perth Basin, and the targeted silica sand deposits at Muchea are hosted by the Bassendean Sand, which extends over large areas of the Swan coastal plains of the Perth Basin.</p> <p>The term Bassendean Sand was introduced in 1972 (Playford, P. E., and Low, G. H. 1972. Definitions of some new and revised rock units in the Perth Basin: Western Australia. Geological Survey, Annual Report for 1971, p. 44–46) for the widespread unit of quartz sand extending over large areas of the coastal plain, from about 23 km north of Jurien, to about 15 km southwest of Busselton.</p> <p>Quartz grains of the Bassendean Sand are interpreted as being derived from granitic rocks in the Darling Range and have accumulated as shoreline and dune sands during two or more periods of relatively stable sea level, ranging from about 8 to 25 m above present sea level.</p> <p>According to published reports (e.g. GSWA Bulletin 21) the Bassendean Sand is typically clean, well rounded and well sorted; however, its physical, chemical, and mineralogical characteristics can vary. The sand is generally white near surface but at depth it is usually high in iron and yellow to brown in colour.</p>
<i>Drillhole information</i>	No drilling is being reported.
<i>Data aggregation methods</i>	Exploration results are not being reported.
<i>Relationship between mineralisation widths and intercept lengths</i>	Exploration results are not being reported.
<i>Diagrams</i>	No required.
<i>Balanced reporting</i>	Exploration results are not being reported.
<i>Other substantive exploration data</i>	The metallurgical bulk sample was collected to undertake comminution testing to determine the yield and quality of silica flour that can be produced from the raw material. The sample was processed at Nagrom for preconditioning prior to shipping to Germany.
<i>Further work</i>	Product samples will be forwarded to potential customers for feedback on suitability for future supply.

About VRX Silica Limited

VRX Silica Limited (ASX: VRX) is the most advanced pureplay silica sand company listed on the ASX, developing its 100% owned silica sand projects at Arrowsmith (North, Brand and Central), Muchea and Boyatup in Western Australia.

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, and foundry casting. It is a finite resource that is running out, with the Asia-Pacific region experiencing an ever-growing supply shortfall that is driving up prices.

Arrowsmith is located 270km north of Perth. Arrowsmith North boasts a minimum 25-year mine life capable of producing more than 2Mt tonnes per year of high-grade (99.7% SiO₂)* silica sand for export to the foundry, container glass and flat glass markets in Asia, with permitting well advanced, and will lead production.

Muchea, located 50km north of Perth, is an ultra-high-grade (99.9% SiO₂)* silica sand project capable of producing sand required for ultra-clear glass for solar panels and other high-tech glass applications.

Boyatup, located 100km east of Esperance, is under development and capable of producing sand for the glass market.



*Information relating to grades are extracted from releases to ASX on 28 August 2019 and 11 November 2022 (Arrowsmith North) and 18 October 2019 (Muchea). The company is not aware of any new information or data that materially affects this information.

VRX Silica Limited

A Ground Floor 52 Kings Park Road, West Perth 6005 • PO Box 1925, West Perth WA 6872 Australia • ABN 59 142 014 873
P +61 8 9226 3780 • E info@vrxsilica.com.au • W vrxsilica.com.au