## **BAUXITE RESOURCES LIMITED**



# HIGH GRADE SILICA SAND TERM SHEET FOR OPERATING DSO EXPORT VENTURE EXECUTED WITH URBAN RESOURCES

Bauxite Resources Limited ("BRL" or the "Company") is pleased to advise it has executed a binding terms sheet ("Term Sheet") through its wholly owned subsidiary Australian Silica Quartz Pty Ltd ("ASQ") with Urban Resources Pty Ltd ("Urban") to jointly exploit Urban's Silica Sand deposit located in Bullsbrook, Western Australia.

The Term Sheet is subject to a number of conditions including completion of legal due diligence and also contemplates that the parties will enter into a more detailed formal agreement within 150 days.

- ▶ BRL through ASQ will operate with Urban to exploit its silica sand deposit located in Bullsbrook, 30 km North of Perth
- > Urban has operated the mine for the last five years
- Urban produced over 1 million tonnes from the deposit in the last financial year
- After washing, the mined sand is expected to produce a product with 99.95% silica and iron levels less than 0.012%
- This high quality sand is sought after by mainly overseas customers that have sought out Silica Sand from ASQ, following supply constraints with various SE Asian countries winding back exports
- ASQ will run the marketing and sales operations, and will fund the additional equipment up to \$1.25 million required to purify and upgrade the mined sand
- Urban will run the mine operations using its current staff and equipment together with the additional equipment to be acquired by ASQ, with each party providing its services at its cost and profits will be split equally
- ➤ BRL will also retain the services of Stephen Elliott, sole director of Urban, as a consultant to the Company
- Stephen has worked for over 30 years in the sand mining industry focussed on processed sands for supply to the construction industry as well as export silica with his former employer Rocla

BRL's CEO, Sam Middlemas, commented as follows "This is an exciting time for the Company as it seeks to make the move from an explorer to a silica sand producer. This is a potentially lucrative market that continues to expand and with the high tech uses for the high grade silica sand ever expanding, markets need the quality of supply."

DATE: 17 January 2019

**ASX Code: BAU** 

BAUXITE RESOURCES LTD ABN: 72 119 699 982

## DIRECTORS:

**Robert Nash** 

Non Executive Chairman

**Luke Atkins** 

Non Executive Director

**Neil Lithgow** 

Non Executive Director

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#### Sam Middlemas

Chief Executive Officer and Company Secretary

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## Further Details of the Transaction

Urban has been operating its Silica Sand deposit for the last five years, and last year produced over 1 million tonnes from the deposit which was used as part of the Northern Bypass upgrade in Bullsbrook. It is anticipated that the current deposit has up to an 8 year mine life at 1Mtpa. Urban has a second granted Mining Lease in the same vicinity that will supplement the existing operation when it runs out or be able to run concurrently depending on logistics and profitability.

The sand deposit has been tested and once washed, it is expected to produce a silica sand product with around 99.95% silica and iron levels less than 0.012% which is highly sought after by mainly overseas customers that have sought out silica sand from ASQ.

The Term Sheet is subject to a number of conditions precedent including the procurement of an overseas buyer of at least 50,000 tonnes of Silica Sand at not less than \$70 per tonne, all necessary shareholder approvals being obtained, and the undertaking of a legal due diligence by ASQ's solicitors. The Term Sheet also provides for the parties to enter into a more formal and detailed agreement within 150 days.

ASQ has an exploration tenement close to Urban's deposit that is considered prospective for silica sands, however given Urban is currently producing sand, and has all the approvals in place, it is a good fit for the Company to enter this exciting market.

Under the Term Sheet, ASQ will run the marketing and sales operations, and will fund the additional equipment up to \$1.25 million required to upgrade the current sand produced to the higher grades required to meet the overseas markets requirements. Urban will be the mine operator using its current staff and equipment (together with the additional equipment acquired by ASQ) with each party providing its services at its cost and profits will be split equally.

It is anticipated that the operation will start with around 50,000 tonnes per annum of the high grade silica sand and the plant will have the capacity to produce up to 250,000 tonnes/annum. The additional equipment will take around 4 months to install once ASQ has secured the customers, and additional capacity will be considered once operations attain reasonable profitability.

As part of the operation, BRL has also been able to secure the services of Stephen Elliott, the sole director of Urban, as a consultant to the Company. Stephen has worked for over 30 years in the sand mining industry focussed on processed sands for supply to the construction industry. He ran the sand operations of Rocla Quarry Products (now part of the Hanson group) in WA for a period 19 years before founding Urban, this included implementing Rocla's overseas sales operations with exports up to a million tonnes per annum of silica sand. Urban now has a turnover in excess of \$40m and employs over 40 people at its various operations around WA.

In consideration for Stephen's services, Urban will be awarded 2 million performance rights on the same terms and conditions as those currently on issue to the directors and senior management of BRL upon their appointment, and will be compensated with bonuses once the first 20,000 tonnes of Silica Sand is shipped through the Kwinana port and a further 20,000 tonnes of Silica Sand is shipped through the Albany Port.

## Testing completed on the Urban Silica Sand

In collaboration with Urban, ASQ has completed spiral classification tests on 600kg of washed sand from the existing Urban mining operation. The selected bulk sample is not intended to be representative of the entire deposit, however it indicates the type of silica sand that is presently available. The consolidated results of the testing are presented below and represent the specification of sand ASQ expects to produce once production is commenced.

Expected chemistry specifications for washed and spiralled Urban sand:

Yield %	SiO2 (%, by difference)	SiO2 (%, by difference less LOI)	TiO2 (%)	Al2O3 (%)	Fe2O3 (%)
95%	99.95%	99.85%	0.024%	0.012%	0.008%



Expected sizing specifications for washed and spiralled Urban sand:

Screen Aperture	% Retained	% Passing	
1mm	0.01	99.99	
0.710mm	1.53	98.46	
0.500mm	16.30	82.16	
0.355mm	34.75	47.41	
0.25mm	27.46	19.95	
0.180mm	13.21	6.74	
0.125mm	5.58	1.15	
0.090mm	0.86	0.29	
0.063mm	0.11	0.18	
0.045mm	0.01	0.17	
Pan	0.17	0.00	

ASQ has a Research & Development programme underway that is looking to increase the silica sand to over 99.99% or higher. High grade silica currently has a wide range of uses and applications and in general the volume used is inversely proportional to the overall purity and price with "high purity" silica (>99.95% SiO2) achieving greater than US\$300/tonne (Table 1).

All indications suggest the high purity silica market is expected to grow strongly in the near future with greater demand from the PV Solar, Electronics, and Speciality Glass industries.

Table 1: Global Silica Market

Type or Application	SiO <sub>2</sub> minimum %	Other Elements maximum %	Other Elements maximum ppm	Market Size Mtpa	Typical price US\$/tonne
Clear glass- grade sand	99.5	0.5	5,000	>70	\$30
Semiconductor filler, LCD and optical glass	99.8	0.2	2,000	2	\$150
'Low grade' HPQ	99.95	0.05	500	0.75	\$300
'Medium grade' HPQ	99.99	0.01	100	0.25	\$500
'High grade' HPQ*	99.997	0.003	30	<0.1	>\$5,000

Modified from Richard Flook and Industrial Minerals December 2013 p25.

For further company details please visit <a href="www.bauxiteresources.com.au">www.bauxiteresources.com.au</a> or contact:

## **Bauxite Resources Ltd**

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## Competent persons statement

The information in this document that relates to the testing of the Urban Resources Silica Sand is based on data collected under the supervision of Mr Nick Algie, in his capacity as Exploration Manager for Bauxite Resources. Mr Algie is a registered member of the Australian Institute of Mining and Metallurgy (AusIMM) and has sufficient experience that is relevant to the type of deposit and style of mineralisation under consideration to qualify as a competent person under the 2012 edition of the "Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Algie consents to the inclusion of the data in the form and context in which it appears.