BAUXITE RESOURCES LIMITED



Bauxite Resources Limited ("BRL" or the "Company") advises that it has an Update to the previously announced "High Grade Silica Sand Term Sheet for Operating DSO Export Venture Executed with Urban Resources" that was lodged with ASX on 17 January 2019 which is attached to this Announcement.

At the request of ASX, the Company retracts the following comments that were made in the 17 January 2019 Announcement:

"It is anticipated that the current deposit has up to an 8 year mine life at 1Mtpa" and the reference to "the operation starting with around 50,000 tonnes per annum of high grade silica sand" – these comments have been deleted from the Updated Announcement attached.

The reasons for these retractions is that there is not a JORC resource to support these comments, and as a consequence the Company and shareholders are advised that they should not rely on them.

As Urban Resources Pty Ltd ("Urban") is a private company, it has never had a requirement to complete a JORC resource. Urban has been operating the mine for the last 5 years and in 2017/18 produced over 1 million tonnes from the mine.

The Company will propose to complete JORC resources over the Urban's Mining Leases in the future.

DATE: 21 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 Zhaozhong Wang Non Executive Director

Sam Middlemas Chief Executive Officer and Company Secretary

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BAUXITE RESOURCES LIMITED



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

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 99.93% 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."

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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. 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 99.93% 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.

The additional equipment will have a capacity of up to 250,000 tonnes/annum throughput and will take around 4 months to install once ASQ has secured the initial offtake from overseas customers.

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%	99.93%	99.85%	0.024%	0.012%	0.008%



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

Expected sizing specifications for washed and spiralled Urban sand:

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.

Type or Application	SiO ₂ 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

*High grade high purity quartz, with <30ppm, is the standard is the standard high purity material produced by Unimin Corp. and TQC at Spruce Pine

Note 1: Specific other elements may be limited by application. E.g. Fe2O3<100ppm for float glass and <40ppm for low-iron float glass

Note 2: Generally 'high purity'quartz has Fe2O3 <15ppm, Al2O3 <300ppm, and alkali and alkali earth oxides <150ppm

Note 3: In some applications Al2O3 can substitute for some SiO2, e.g. up to 1.5% Al2O3 in float glass

Note 4: Limits can vary according to the composition of other raw materials in the application

From Richard Flook and Industrial Minerals December 2013 p25.



For further company details please visit <u>www.bauxiteresources.com.au</u> or contact:

Bauxite Resources Ltd Sam Middlemas, CEO Tel: (08) 9200 8200 Mb: 0419 936 040

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.



Appendix A: JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	 Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	 A bulk sample of 600kg of silica sand was collected from the Run of Mine production and loaded into a bulka bag for transport to the laboratory. It cannot be determined if this material is representative of the material remaining. 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.
Drilling techniques	 Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	 Not relevant – no drilling has been undertaken
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	 Not relevant – no drilling has been undertaken
Logging	 Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, 	 Not relevant – no drilling has been undertaken



Criteria	JORC Code explanation	Commentary
	 channel, etc) photography. The total length and percentage of the relevant intersections logged. 	
Sub-sampling techniques and sample preparation	 If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	 Bulk sand from the ongoing sand mining operation on M70/326 was processed through the existing Urban Resources Pty Ltd washing plant with a wet screening top size of 1.0mm and hydro-cyclone to remove slimes. 600kg of washed sand was loaded wet into a bulka bag by front end loader. The selected bulk sample is not intended to be representative of the entire deposit and further work would be required to establish the degree of geological and grade continuity appropriate for mineral resource estimation. No sub-samples, duplicates or replicates were performed. The sample size was determined by what was considered adequate to perform the spiral test work. The 600kg bulk sample was run through mineral sands spiral test rig at Allied Mineral Laboratories in Osborne Park. The spiral rig was set up to split the sand into 7 arbitrary cuts. Once stable feed and operation was established a timed product run was collected in clean bags. Due to the minimal volume of cuts 1 and 2 these were combined for analysis.
Quality of assay data and laboratory tests	 The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	 Analysis was performed by TSW Analytical Laboratory in Bibra Lake. The sample was accurately weighed and digested in a mixture of nitric/perchloric/hydrofluoric acids. The digestate was taken to dryness and the residue was dissolved in high purity nitric (0.7mL) and hydrochloric (0.2mL) acids and high purity water (25mL). This solution was then suitably diluted for ICP-AES and ICP- MS analysis. ASQ Marella Cut1&2 did not dissolve after the three acid digest indicating the presence of a heavy mineral fraction resistant to this digestion protocol. This sample was fused in a lithium borate flux before dissolution and analysis by ICP-AES and ICP-MS. A sample of non-certified 99.99% pure Silica was submitted with the washed and spiraled material to check laboratory performance with results within acceptable limits. Assay results were reported as elemental concentrations (in ppm) and oxide percentages (calculated by TSW with assumptions made on the oxides present). The individual assay results for each cut and cuts 1&2 combined were considered and used to determine cuts 4-7 as most representative of an optimized processing plant product. Cuts 4 -7 were combined according to the spiral deportment weights and a grab sample of this combined material was analysed at TSW Analytical



Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	 The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	 using the method described above to give the result reporting in the body of the preceding announcement No independent verification has been completed at this stage. Analysis results have been reviewed by alternative company personnel. No adjustments have been made to assay data.
Location of data points	 Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	 No record of the sample location was made as the source area has been mined and sand from that specific location is no longer available.
Data spacing and distribution	 Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	 A single bulk sample was collected. The selected bulk sample is not intended to be representative of the entire deposit and further work would be required to establish the degree of geological and grade continuity appropriate for mineral resource estimation
Orientation of data in relation to geological structure	 Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	 A single bulk sample was collected from the Run of Mine production without specific reference to the sample orientation. The selected bulk sample is not intended to be representative of the entire deposit and further work would be required to establish the degree of geological and grade continuity appropriate for mineral resource estimation.
Sample security	• The measures taken to ensure sample security.	 The sample was collected and delivered to Allied Mineral Laboratories by Urban Resources staff. Bauxite Resources Geological staff inspected the laboratory and checked sample and subsample labelling.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	 No audits or reviews of the sampling techniques or data have been completed.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	 Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, 	 The bulk sample was collected from the M70/326 mining lease where an existing mining operation exists. M70/326 is owned by Stefanelli Developments Pty Ltd (Stefanelli). Urban Resources Pty Ltd operate the mining lease under an agreement



Criteria	JORC Code explanation	Commentary
	 wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	with Stefanelli whereby Urban pay Stefanelli a royalty on sand mined. The royalty rate is considered commercial in confidence.
Exploration done by other parties	 Acknowledgment and appraisal of exploration by other parties. 	 27 vacuum Drill holes were completed by Silica Sales Pty Ltd within the area of M70/326 in 1984. This work has been excluded from any assessment made by Bauxite Resources.
Geology	• Deposit type, geological setting and style of mineralisation.	• The targeted silica sand occurs within the aeolian sand dunes of the Bassendean sand.
Drill hole Information	 A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	 The results presented were obtained from a single 600kg bulk sample collected from the Run of Mine production without specific reference to the sample location or orientation as the source area has been mined and sand from that specific location is no longer available. The selected bulk sample is not intended to be representative of the entire deposit and further work would be required to establish the degree of geological and grade continuity appropriate for mineral resource estimation
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	 No data aggregation methods have been employed
Relationship between mineralisatio n widths and intercept lengths	 These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	 The results presented were obtained from a single 600kg bulk sample collected from the Run of Mine production without specific reference to the sample location or orientation as the source area has been mined and sand from that specific location is no longer available. The selected bulk sample is not intended to be representative of the entire deposit and further work would be required to establish the degree of geological and grade continuity appropriate for mineral resource estimation
Diagrams	 Appropriate maps and sections (with scales) and tabulations of intercepts should be 	• The results presented were obtained from a single 600kg bulk sample collected from the Run of Mine



Criteria	JORC Code explanation	Commentary
	included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	production of M70/326 without specific reference to the location as the source area has been mined and sand from that specific location is no longer available. The selected bulk sample is not intended to be representative of the entire deposit and furthe work would be required to establish the degree of geological and grade continuity appropriate for mineral resource estimation
Balanced reporting	 Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be 	 The reported results are from a composite of spiral cuts 4-7. For completeness the analysis results for all seven spiral cuts are given below:
	practiced to avoid misleading reporting of Exploration Results.	Sample Deportment SiO ₂ (by difference) ⁻ TiO ₂ Al ₂ O ₃ Fe ₂ C
	Exploration Results.	Spiral Cuts 1.5% 93.50% 3.14% 0.41% 1.76
		Spiral Cut 3 3.1% 99.55% 0.30% 0.04% 0.08%
		Spiral Cut 4 20.3% 99.92% 0.03% 0.02% 0.01
		Spiral Cut 5 24.6% 99.93% 0.03% 0.02% 0.01
		Spiral Cut 6 15.3% 99.94% 0.02% 0.01% 0.01'
		• Spiral Cut 7 35.1% 99.94% 0.02% 0.01% 0.01
Other substantive exploration data	 Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	 No other exploration work has been completed by the company on the sand deposit on M70/326 as the mining and processing of the sand will be undertaken by the existing mine operator.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	 Trial mining through the proposed processing plant will be completed along with further analysis to determine product variability so that specification commitments can be established.