## **AUSTRALIAN SILICA QUARTZ GROUP LIMITED**

**Preliminary Exploration Results – Albany White Hill Project** 



## **HIGHLIGHTS**

- The Company has completed initial exploration for silica sand at the Albany White Hill Silica Sand Project located 70 km east north east of the port of Albany
- Results of two surface grab samples from the prospective sand deposit on E70/5262 show good potential for very low iron high grade silica sand with grades of 99.84 & 99.93% SiO<sub>2</sub> and 39 & 41 ppm Fe<sub>2</sub>O<sub>3</sub>
- Hand auger drilling highlights potential for scale, 16 holes drilled for 60.1 m with 12 holes remaining open at depth having intersected clean white silica sand up to 7.5 m from surface
- Preliminary exploration work allows the Company to assign an exploration target of 9 to 27 Mt to the deposit targeting a high-grade silica sand with Fe<sub>2</sub>O<sub>3</sub> below 100ppm
- Initial particle size analysis of surface samples indicates potential to produce very fine-grained silica sand products as sought by export markets for specialty glass and other industrial applications
- Resource definition vacuum drilling planned for the project expected to be underway in the coming weeks



Hand auger drilling by ASQG of silica sand in a tree farm at the Albany White Hill Silica Sand Project

#### 2 November 2020

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Australian Silica Quartz Group Limited (ASX:ASQ, "ASQG" or "the Company") has entered into an Exploration and Mining Access agreement ("Mining Agreement") on a property located 70 km east of Albany ("Property")(See Figure 1). The Property has been selected following extensive desktop assessment and roadside reconnaissance over the last +18 months.

The Mining Agreement covers an area of 189 Ha located on ASQ's 100% owned exploration licence E70/5262 and covers access for both exploration and also for mining should the project progress to development. The area of interest is former grazing property planted into a blue gum tree plantation and as such would not require clearing of native vegetation for mining.

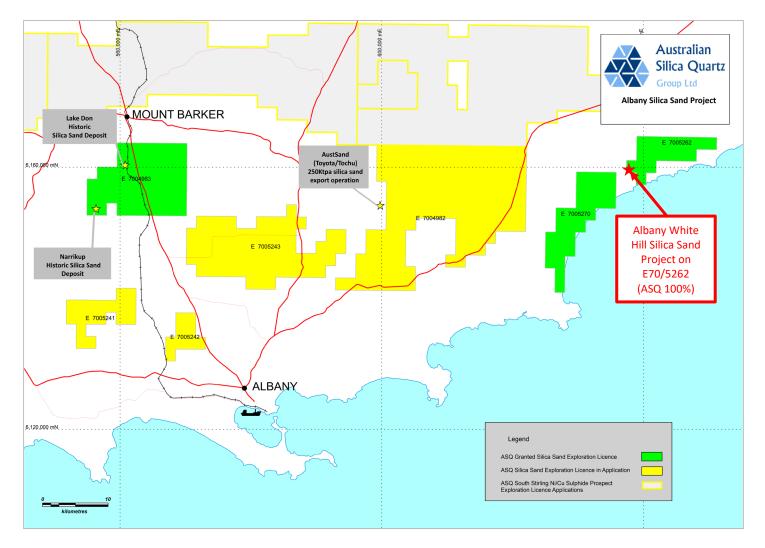


Figure 1: Location of the Albany White Hill Silica Sand Project on E70/5262 east north east of Albany. ASQ South Stirling Ni-Cu Sulphide tenements shown for context. Other holder tenements not shown.

### SURFACE SAMPLES

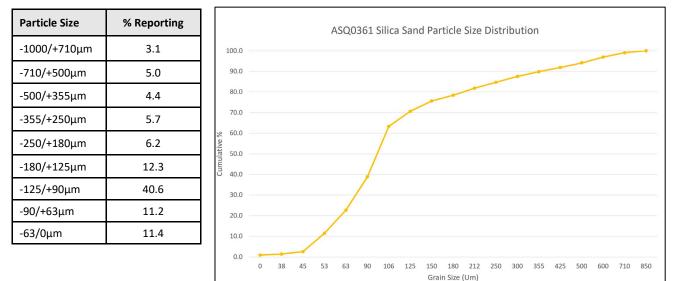
Two reconnaissance surface samples have been collected from the Property and analysed for mineral chemistry and particle size distribution (see tables 1 & 2 and figures 2 & 3). Prior to analysis the samples were screened to remove slimes and then the heavy mineral fraction was removed by Heavy Liquid Separation (HLS) to replicate the expected washing, screening and spirals circuit processing.

Sample ID	East (mGDA94)	North (mGDA94)	Sample Depth (m)	SiO2 (%)	Al2O3 (ppm)	Fe2O3 (ppm)	TiO2 (ppm)	LOI 1,000c
ASQ0361	641431	6160036	0.5	99.84	116	38.5	354	0.06
ASQ0362	640780	6159909	3.5 <sup>(1)</sup>	99.93	109	40.5	402	-0.03

Table 1: Surface sample chemical analysis for key deleterious elements

<sup>(1)</sup> - Sample ASQ0362 was collected an estimated 3.5m below the natural land surface in a small historic sand pit

Table 2 & Figure 2: Particle size distribution for surface sample ASQ0361



## HAND AUGER DRILLING

The Company has now followed up the highly encouraging surface sample results with some hand auger drill holes to determine the potential scale of the sand deposit and to help locate additional vacuum drill holes required to complete a resource estimation. A total of 16 holes have been completed for 60.1 m. The intersected sand profile has been visually logged by ASQG geologists with 12 of the holes drilled as deep as the equipment and conditions would allow entirely within clean white silica sand after clearing away the surface topsoil layer which is generally less than half a metre. Six holes penetrated clean white sand to a depth of 5 m without encountering the lower limit of the sand profile. One hole was drilled to 4 m entirely in clean white silica sand from the base of a small historic sand pit. The base of the pit was estimated to be 3.5 m below the natural surface indicating a sand profile thickness of more than 7.5 m. Loose sand caused hole collapse in a number of holes resulting in early termination of the hole. (see table 3 for hole details and figure 3 for hole locations).



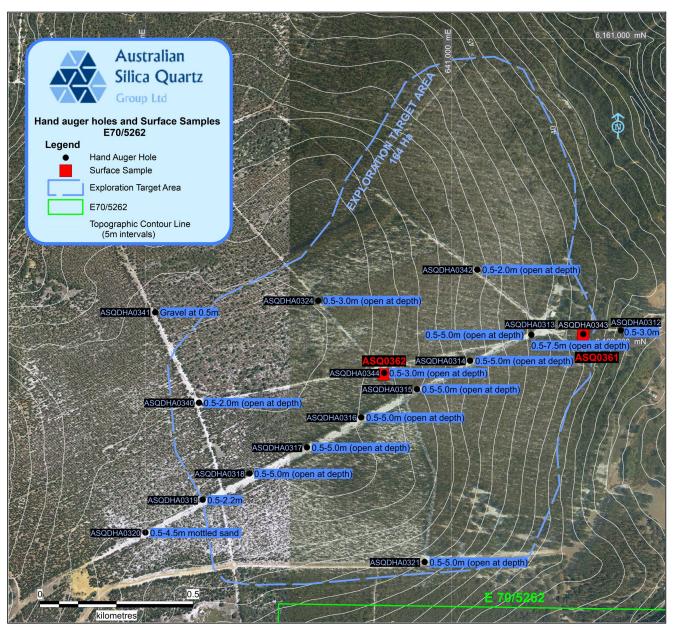


Figure 3: Hand auger holes with silica sand intersections and surface sample locations – E70/5262

## **EXPLORATION TARGET**

A conservative exploration target of 9 to 27 Mt can be assigned to the White Hill Silica Sand Project using the following assumptions detailed below. The Company cautions the reader of this report that the potential quantity and grade of the exploration target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Assumptions used to calculate the exploration target:

- 1. A total target area of 165 Ha resulting from Company interpretation of hand auger drilling results, the digital elevation model for the area, and aerial imagery (see target area in figure 2)
- 2. An in-situ bulk density of  $1.6 \text{ t/m}^3$

An exploration target of 9 Mt is considered appropriate for an average white sand profile thickness of 3.6 m (the arithmetic average of clean white sand intersections from existing hand auger holes within the target area, all open at depth).



If the average white sand profile thickness is 7.0 m (the maximum observed white sand profile thickness, still open at depth at hole ASQDHA0343) then an exploration target of 19 Mt can be applied.

If the sand thickness is 10m on average, then an exploration target of 27 Mt can be applied.

Drill Hole ID	East (mGDA94)	North (mGDA94)	Zone	White Sand Intersection	End of Hole (m)
ASQDHA0312	641554	6160048	50	0.5-3.0m	3.2
ASQDHA0313	641261	6160034	50	0.5-5.0m (open at depth)	5.0
ASQDHA0314	641061	6159949	50	0.5-5.0m (open at depth)	5.0
ASQDHA0315	640887	6159856	50	0.5-5.0m (open at depth)	5.0
ASQDHA0316	640705	6159764	50	0.5-5.0m (open at depth)	5.0
ASQDHA0317	ASQDHA0317 640527		50	0.5-5.0m (open at depth)	5.0
ASQDHA0318	640339	6159581	50	0.5-5.0m (open at depth)	5.0
ASQDHA0319	QDHA0319 640186 6		50	0.5-2.2m	2.5
ASQDHA0320	639999	6159388	50	0.5-4.5m mottled sand	4.8
ASQDHA0321	640912	6159292	50	0.5-5.0m (open at depth)	5.0
ASQDHA0324	640564	6160145	50	0.5-3.0m (open at depth)	3.0
ASQDHA0340	640174	6159812	50	0.5-2.0m (open at depth)	2.0
ASQDHA0341	640031	6160107	50	Gravel at 0.5m	0.6
ASQDHA0342	641084	6160246	50	0.5-2.0m (open at depth)	2.0
ASQDHA0343	641431	6160036	50	0.5-7.5m (open at depth)	4.0
ASQDHA0344	640780	6159909	50	0.5-3.0m (open at depth)	3.0

Table 3: Hand auger drill hole collar summary and logged sand intersections

A vacuum drilling program designed to define a silica sand resource is planned to be completed by the end of 2020. Environmental approvals for this drilling program have been received.

If successful, the drilling will be followed by resource estimation and metallurgical test work.

This announcement has been authorised by the board.

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Sam Middlemas, CEO, Australian Silica Quartz Group Ltd 2 November 2020

#### **Competent Persons Statement**

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Nick Algie, a Competent Person who is a registered member of the Australian Institute of Mining and Metallurgy (AusIMM). Mr Algie is a full-time employee of the Company in his capacity as Exploration Manager. Mr Algie has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a competent person as defined in the 2012 edition of the 'Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Algie consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Forward Looking Statements**

This report may include forward looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", or other similar words and may include, without limitation, statements regarding plans, strategies, and objectives of management. Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the company's actual results, performance and achievements to differ materially from anticipated results, performance or achievements. Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control. Accordingly, readers are cautioned not to place undue reliance on forward looking statements.

#### About Australian Silica Quartz Group Limited

#### ASQ DEVEX 50/50 JV (non-dilutable at ASQ's election)

ASQ has entered into a joint venture with DevEx Resources ("DevEx" ASX:DEV) on it's 100% owned E70/3405 tenement located along strike from Chalice Gold Mines ("Chalice" ASX:CHN) nickel copper platinum group elements Julimar discovery in WA. The first \$3M expenditure on the JV area is to be fully funded by DevEx to earn 50%. ASQ has the option to jointly fund future expenditure to maintain 50% share or opt to allow DevEx to fund the next \$3M to earn a further 20% share in non-bauxite minerals. Initial geochemical and geophysical exploration work has returned positive results with the establishment of multiple drill targets. (refer full detail in the 1 June 2020 announcement *ASQ reaches agreement for funding of exploration on its tenement in Julimar Region, WA*, 8 October 2020 announcement *Update on Geophysics Targets at ASQ/DevEx JV in Julimar Region, WA*, and 19 August 2020 announcement *Update on ASQ/DevEx 50/50 JV in Julimar Region, WA*.).

#### SILICA

ASQ has established a range of silica sand and hardrock projects held via exploration licence applications 100% owned by ASQ's subsidiary Australian Silica Quartz Pty Ltd. These projects now consist of 12 granted exploration licences and 8 applications covering approximately 1,500 km<sup>2</sup> within Western Australia and Queensland.

High grade silica (99.5-99.9% SiO2) and high purity silica (>99.95% SiO2) currently have a wide range of applications. All indications suggest the high grade and high purity silica market is currently growing strongly due to greater demand from the PV Solar, TFT glass, Electronics, Flat Glass and Speciality Glass industries. This is reinforced by the level of enquiries received from qualified end user customers the Company has received primarily from China and South East Asia.

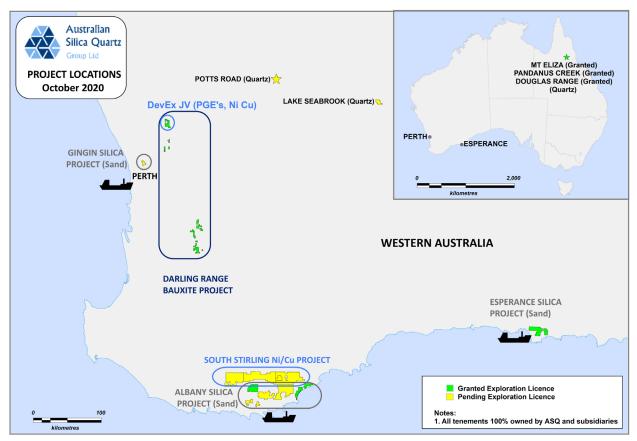
#### SILICA SAND

ASQ's high grade silica sand projects are located in the regions of Albany, Gingin and Esperance in the south west of Western Australia.

In the shorter term these projects potentially present the opportunity for the company to produce a washed DSO silica sand product with longer term potential to enter the higher value higher grade silica sand market with a niche processed product.



In addition to it's wholly owned silica exploration projects ASQ has reached an agreement with an existing local sand producer. In 2019 the Company executed a binding terms sheet with Urban Resources Pty Ltd (Urban) to jointly exploit Urban's Silica Sand deposit located in Bullsbrook, Western Australia. Urban has operated the mine for the last six years and produced over 1Mt from the deposit in last two years. The ASQ/Urban Resources agreement presents the Company with the opportunity to potentially fast track it's entry into the DSO silica sand export market. ASQG have completed a JORC 2012 Inferred Mineral Resource on the raw sand at Urban's Maralla Road tenement M70/326 (refer full detail in the 7 May 2019 announcement *Update on Maralla Road Silica Sand Deposit Maiden Resource* and 29 January 2020 announcement *Spiral and Classifier Testwork Results for the M70/326 Silica Sand Products*).



#### HARDROCK QUARTZ R&D

The Company is undertaking an R&D program aiming to develop a high purity, high value silica quartz product. To this end the Company has secured a number of hardrock quartz tenements and is progressing with a research and development project in this area. Assays from rock chip sampling of ASQ's hard rock tenements reported grades of up to 99.993% SiO2 with processed hard rock samples demonstrating further grade improvement. (refer full detail in the 14 December 2017 announcement *Silica Sand and Hardrock Quartz Project Updates*)

#### SOUTH STIRLING Ni/Cu PROJECT

ASQ has established the South Stirling Ni/Cu Project by way of four exploration lease applications lodged covering 1,603 km2 over the Albany Fraser Mobile Belt, South Western WA where the Company has identified a historic end of hole aircore drilling assay of 1.5m at 0.79% Ni, 934 ppm Cu, 832 ppm Co from 28.5m that was never followed up. ASQ considers the application area has potential for Nickel-Copper magmatic sulphide mineralisation associated with mafic-ultramafic intrusions emplaced into granulite facies country rocks. (refer full detail in the 23 September 2020 announcement *Exploration Update*.)

#### **BAUXITE JV**

ASQ has a joint venture with HD Mining & Investments Pty Ltd (HDM). HDM is currently working towards obtaining a 40% interest in the bauxite rights of several tenements under the joint venture which are wholly owned by ASQ. Exploration activities are fully funded by HDM. Should HDM and ASQ make a subsequent decision to mine, then HDM will earn an additional 20% interest in bauxite rights on the tenements. ASQ maintains 100% interest in all other minerals. A ninety five million tonne Bauxite JORC resource has been identified under this JV. (refer Company Annual Financial Report for 2020 - Mineral Resources and Ore Reserves section)



#### **BAUXITE ROYALTY**

Following the sale of the Bauxite Resources Joint Venture Bauxite Project to Yankuang Group a royalty on future bauxite sales from the project of 0.9% of FOB price payable to ASQ was negotiated. The Yankuang Group bauxite project contains in excess of 300 million tonnes in the world class bauxite region in the Darling Range, Western Australia. ASQ is entitled to a royalty of 0.9% of the FOB price on the first 100 million tonnes mined (under current prices of Bauxite this royalty would equate to approx. A\$0.50/tonne)(refer full detail in 30 November 2015 announcement *Final Agreements signed with Yankuang for sale of Joint Venture Interest and Buy Back of Shares*)

## APPENDIX 1 - JORC 2012 Table 1

## Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<ul> <li>Samples were collected by hand dug excavation with between 2 and 10kg of sample collected for each location</li> </ul>
Drilling techniques	<ul> <li>A hand auger was used to drill, 80mm diameter holes up to 5m deep</li> </ul>
Drill sample recovery	<ul> <li>Hand auger holes were completed by ASQG geological staff with care taken to reduce down hole contamination where possible</li> <li>Where free flowing dry sand was found on the surface this material was dug back to prevent downhole contamination prior to commencing hand auguring</li> <li>No sample recovery measurement was employed other than visual assessment</li> </ul>
Logging	Logging consisted of simply noting the colour and general grainsize
Sub-sampling techniques and sample preparation	<ul> <li>Entire samples were submitted to ALS Laboratory where they were dried and riffle split to 1kg</li> <li>The subsamples were then wet screened at 0.053mm and 1.0mm with the -1/+0.053mm fraction dried and riffle split down to 200grams for heavy liquid separation at 2.6 and 2.7 kg/dm<sup>3</sup></li> <li>ALS used Tetrabromoethane in centrifuge to split out the +2.6-2.7 kg/dm<sup>3</sup> which was collected by ASQ geological staff and taken to TSW Analytical Laboratory for analysis</li> <li>No duplicate or repeat samples were employed</li> </ul>
Quality of assay data and laboratory tests	<ul> <li>The samples were submitted to TSW Analytical Laboratory for analysis where the sample was accurately weighed and digested in a mixture of nitric/perchloric/hydrofluoric acids</li> <li>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 (35mL). This solution was then suitably diluted for ICP-AES and ICP-MS analysis with elements converted to the most common oxides</li> <li>Where SiO<sub>2</sub> % is given it is calculated by difference using the oxide values</li> <li>A non-certified minimum 99.99% SiO2 standard was supplied by ALS for blind analysis by TSW with the exploration samples. Results were within acceptable limits</li> </ul>
Verification of sampling and assaying	<ul> <li>As these exploration results are preliminary in nature they have not been independently verified</li> <li>No twin holes were completed</li> <li>Paper logs and records have been transferred to electronic computer files for storage and cloud based backup</li> <li>Hole positions have been plotted and checked for validity within mapping systems</li> </ul>
Location of data points	<ul> <li>Sample and drill hole locations have been recorded using GPS applications on a smartphone that has been checked for accuracy against a known base station.</li> <li>The coordinate system employed was GDA94 Zone 50.</li> <li>The location accuracy using this method is thought to be +/-5m for X &amp; Y coordinates</li> </ul>
Data spacing and distribution	<ul> <li>Samples were collected opportunistically without reference to any particular sample spacing</li> <li>Drill holes were located approximately every 200m along an east west oriented line with several holes located transversely off the central line to assist with an understanding of the extent of the deposit</li> </ul>



Criteria	Commentary
	<ul> <li>This spacing is not sufficient, nor was it intended to be sufficient, to establish any conclusions about geological continuity</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>All hand auger holes were drilled vertically on a broad dune structures which is not expected to introduce any bias into the sampling</li> <li>The sampling is preliminary in nature and not designed to accurately define the extent or scale of the deposits therefore the orientation is considered appropriate</li> </ul>
Sample security	• The samples were collected by and remained in the possession of ASQG geological staff who delivered the samples to ALS and TSW laboratories in person. Sample receipt lists were manually checked against collection lists and results
Audits or reviews	<ul> <li>No internal or external audits have been completed as these results are considered preliminary in nature and further, more systematic work will be required to accurately define the scale and geological continuity of the deposits</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	<ul> <li>All samples were collected from private property on E70/5262</li> <li>All samples have been collected from areas where ASQ has a Mining and Exploration Land Access Agreement in place and where there is no known impediment to ongoing access for exploration</li> </ul>
Exploration done by other parties	No previous exploration for silica sand has been recorded in the area of interest
Geology	The sand targets are aeolian sand dunes formed in quaternary sand deposits.
Drill hole Information	<ul> <li>The locations of each sample is given in the results tables within the report</li> <li>The elevation has not been recorded and Is not considered material to these results</li> <li>All hand auger holes were drilled vertically in a broad dune structure which is not expected to introduce any bias into the sampling</li> <li>The hole depth and interception depths are given in the tables in the body of this report</li> </ul>
Data aggregation methods	<ul> <li>No weighted averages, cutoff grades or metal equivalents are used</li> </ul>
Relationship between mineralisation widths and intercept lengths	• The extent of mineralization is unknown at this stage
Diagrams	See figures in body of text
Balanced reporting	This announcement is considered to be a balanced report
Other substantive exploration data	No other exploration data is considered material to this report
Further work	• A vacuum drilling program is planned with the aim of defining the extent and characteristics of the deposits and if possible Resource Estimate will be calculated.

#### Appendix 2

Full Assay Tables:

# Concentrations are reported as micrograms per gram (ug/g) in the solid unless otherwise stated, measured against AccuTrace High Purity multi-element standards (Choice Analytical).

Element	Li	Be	В	Na	Mg	Al	Ρ	S	K	Ca	Sc	Ti	V
ASQ0361	4.02	0.016	< 2.3	23.6	7.30	116	1.92	< 2	11.8	18.9	0.454	354	< 0.01
ASQ0362	4.91	0.024	< 2.3	17.1	6.58	109	1.48	< 2	11.6	14.1	0.440	402	0.054

Element	Cr	Mn	Fe	Со	Ni	Cu	Zn	Ga	Ge	As	Se	Rb	Sr
ASQ0361	0.356	0.381	38.5	< 0.01	< 0.03	0.511	1.37	0.087	0.086	< 0.01	0.026	0.071	0.458
ASQ0362	0.309	0.770	40.5	< 0.01	< 0.03	0.448	1.38	0.065	0.088	< 0.01	< 0.02	0.078	0.225

Element	Y	Zr	Nb	Mo	Cd	In	Sn	Sb	Cs	Ва	La	Ce	Pr
ASQ0361	0.508	16.9	0.933	0.063	< 0.01	< 0.01	0.115	0.023	< 0.01	2.05	0.184	0.371	0.041
ASQ0362	0.301	12.7	0.716	0.160	0.010	< 0.01	0.167	0.037	0.013	0.809	0.227	0.408	0.044

Element	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Та
ASQ0361	0.144	0.040	< 0.01	0.047	0.011	0.075	0.018	0.062	0.011	0.081	0.014	0.520	0.465
ASQ0362	0.145	0.034	< 0.01	0.038	< 0.01	0.046	0.011	0.035	< 0.01	0.049	< 0.01	0.362	< 0.01

Element	Tu	Hg	TI	Pb	Bi	Th	U	LOI (%)	SiO2 purity (%)
ASQ0361	0.050	< 0.01	< 0.01	0.368	< 0.01	0.294	0.118	0.06	99.84
ASQ0362	0.069	< 0.01	< 0.01	0.312	< 0.01	0.275	0.089	-0.03	99.93

