

# HIGH QUALITY SILICA SAND ADDED CLOSE TO ALBANY PORT

Initial sampling proves potential for High Purity Silica Sand

## Highlights

- 470km<sup>2</sup> of Exploration Licences granted for Albany High Purity Silica Sand (HPSS) Project within 40km of the Port of Albany
- Several prospective HPSS targets identified from hand auger sampling across the Albany Project
- Test results show low Fe<sub>2</sub>O<sub>3</sub> levels for in-situ composite auger samples, providing encouragement that potential premium PV Glass Silica Sand specification can be achieved.
- Project surrounds AustSand's Mindijup Silica Sand Mine, owned by the consortium of Tochu Corporation, Tsuneishi Group and Toyota Tsusho Corporation

Industrial Minerals Ltd (ASX: **IND** or the **Company**) is pleased to announce exceptional HPSS results for samples taken from its recently granted Albany HPSS Project ("**Albany Project**" or the "**Project**"), located in southwestern Western Australia, within 40km of the Port of Albany.

Results being reported follow a successful initial sampling program, which included positive engagement with private landholders.

### IND's Managing Director Jeff Sweet commented:

"IND has moved swiftly to engage with local landowners and stakeholders within the Albany HPSS Project area, resulting in rapid access to collect samples for initial silica sand testwork and assessment.

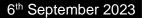
"The initial test results are encouraging, with raw samples returning iron oxide levels as low as 180ppm  $Fe_2O_3$ . We believe that with limited beneficiation on site, there is potential to achieve a premium grade product suitable for supplying directly into the PV Glass market.

"The proximity to the Port of Albany is another huge advantage, with the potential to limit associated transport costs, further enhancing the economics of the project."

	SiO <sub>2</sub> %	Al <sub>2</sub> O <sub>3</sub> ppm	Fe₂O₃ ppm	TiO₂ ppm	LOI-1000°c %
Average	98.9	1168	404	2220	0.71
Range	98.4 - 99.3	254 - 3172	180 - 890	1114 - 4595	0.35 – 1.33

Table 1. Summary of the Albany Project assay results – SiO<sub>2</sub> >98%







## **Albany Silica Sand Project**

The Albany Project is located 40km north-east of the Port of Albany and consists of 3 granted exploration licences covering an area of 470km<sup>2</sup>. The project surrounds AustSand's Mindijup Silica Sand Mine, which has been operating and exporting HPSS since 1994.

IND identified the potential for HPSS within the project and continues to explore for silica sand within cleared farmland, avoiding the need for large scale clearing of native vegetation. The added benefit of targeting farmland is that by removing the nutrient poor surficial sand, agricultural productivity of the land is improved as crops are exposed to improved soils and are closer to the water table.

IND has been proactive in contacting landholders within the Project area, with initial discussions largely promising, and access already granted to several properties, allowing IND to commence surface sampling immediately.

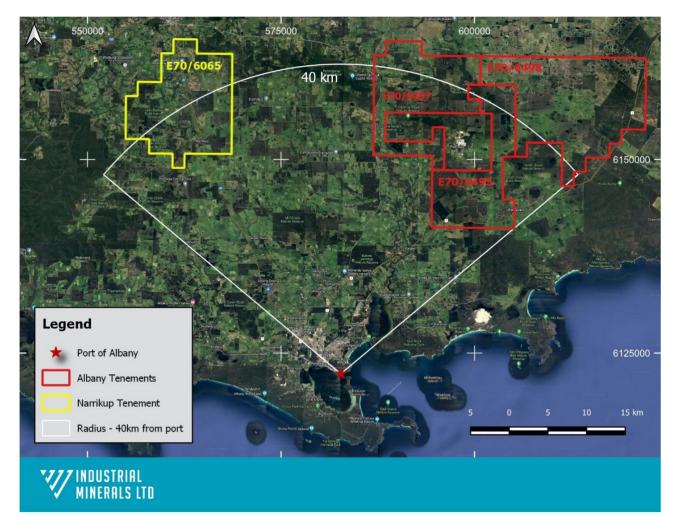


Figure 1: IND's HPSS Projects in close proximity to Port of Albany<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> For further details on Narrikup Project, refer to ASX announcement dated 17<sup>th</sup> April 2023 INDUSTMIN.COM



Samples collected were submitted to Intertek for elemental analysis. Initial test results have been returned and are promising for HPSS potential. Of the 22 samples taken across the project, 18 holes returned results for raw samples above the 98% cut-off, for an average grade of 98.9% SiO<sub>2</sub>. Importantly for high quality silica sand end-users the  $Fe_2O_3$  values are considered low, averaging 404ppm and the lowest result being 180ppm. While these in-situ results are good, it is anticipated that higher SiO<sub>2</sub> and lower  $Fe_2O_3$  values in line with the premium specification required for PV solar glass can be achieved with minimal beneficiation. Process flow test work has begun to determine the most suitable beneficiation process to achieve an optimal product.

The deposits identified consist of white, fine grained, silica sand and are interpreted as reworked alluvial terrace sand infilling fluvial palaeochannels and overlying basement highs. The sand is white at the surface either becoming orange-brown to dark brown sand near the base or terminating on laterite/hardpan. In some holes the sand grades into sandy grits. The maximum thickness of the HPSS unit encountered during drilling was 4.0m (open at depth) with an average thickness of 1.4m.



Plate 1: White silica sand exposed at surface at Albany HPSS Project





Figure 2: Albany Project initial sampling program

## **Next Steps**

IND's primary objectives for the Albany HPSS Project are:

- Finalise land access agreements with land owners followed by systematic auger drilling to assess the potential scale of HPSS mineralisation
- Complete metallurgical test work on the identified sand deposit including particle size and grade distribution to assess preferred processing routes
- Progress discussions with the Port of Albany regarding port access options

IND's low impact and low-cost rapid exploration and resource definition technique give the Company a significant advantage in its efforts to rapidly explore and develop its highly prospective tenure and pipeline of quality projects.

The Company looks forward to providing further updates as results come to hand.





#### This announcement has been approved by the Board of Industrial Minerals.

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#### **Competent Person**

The information in this announcement that relates to exploration activities on the Projects is based on information compiled and fairly represented by Mr Robert Andrew Jewson, who is a Member of the Australian Institute of Geoscientists and consultant to Industrial Minerals Ltd. Mr Jewson is also a shareholder of Industrial Minerals Ltd. Mr Jewson has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which he has undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Jewson consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

#### Forward-looking Statements

Certain statements contained in this document may be 'forward-looking' and may include, amongst other things, statements regarding production targets, economic analysis, resource trends, pricing, recovery costs, and capital expenditure. These 'forward–looking' statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by IND, are inherently subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements. Forward-looking statements are often, but not always, identified by the use of words such as 'believe', 'expect', 'anticipate', 'indicate', 'target', 'plan', 'intends', 'budget', 'estimate', 'may', 'will', 'schedule' and others of similar nature. IND does not undertake any obligation to update forward-looking statements even if circumstances or management's estimates or opinions should change. Investors should not place undue reliance on forward-looking statements as they are not a guarantee of future performance.

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#### Appendix 1: Details of Assay Results

								Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	TiO <sub>2</sub>	LOI
Project	BHID	sample_ID	easting	northing	from	to	interval	ppm	ppm	%	ppm	%
Albany	AB-AU23-001	ABX001	591158	6162012	0.0	1.8	1.8	1810	0.062	98.6	3964	0.69
Albany	AB-AU23-002	ABX003	589822	6161732	0.5	1.3	0.8	3316	0.071	97.4	5989	1.57
Albany	AB-AU23-003	ABX004	589163	6161286	0.4	4.0	3.6+	295	0.021	99.1	4595	0.43
Albany	AB-AU23-004	ABX005	588915	6161285	0.5	3.0	2.5+	254	0.018	99.1	4329	0.39
Albany	AB-AU23-005	ABX006	595402	6151899	0.0	1.0	1.0	560	0.023	98.8	2071	0.91
Albany	AB-AU23-006	ABX007	595923	6153000	0.0	1.7	1.7	409	0.022	98.4	1953	1.33
Albany	AB-AU23-007	ABX009	610751	6162494	0.0	1.2	1.2	1053	0.042	97.3	2137	2.31
Albany	AB-AU23-009	ABX010	610663	6156986	0.0	0.9	0.9	931	0.058	98.9	1287	0.82
Albany	AB-AU23-010	ABX011	610702	6159945	0.0	1.1	1.1	830	0.033	98.9	2054	0.79
Albany	AB-AU23-011	ABX012	605906	6157171	0.3	1.0	1.0	3172	0.089	98.6	1760	0.74
Albany	AB-AU23-012	ABX013	606191	6157480	0.0	2.6	2.6+	1227	0.036	99	1392	0.60
Albany	AB-AU23-013	ABX014	606859	6157417	0.0	1.2	1.2	477	0.028	98.5	1555	1.20
Albany	AB-AU23-014	ABX015	606866	6158081	0.0	0.8	0.8	1108	0.044	98.9	1640	0.71
Albany	AB-AU23-015	ABX016	606085	6158382	0.0	0.8	0.8	1881	0.058	98.6	1896	0.93
Albany	AB-AU23-016	ABX017	605285	6158480	0.2	1.2	1.0	747	0.027	99.1	1478	0.60
Albany	AB-AU23-017	ABX018	604973	6158133	0.0	1.1	1.1	1240	0.032	99	2245	0.59
Albany	AB-AU23-018	ABX019	604468	6157636	0.0	0.6	0.6	4724	0.104	97.8	2970	1.10
Albany	AB-AU23-019	ABX020	603971	6157319	0.0	0.8	0.8	1494	0.047	98.8	2348	0.74
Albany	AB-AU23-020	ABX021	604670	6157011	0.0	0.7	0.7	1482	0.056	99.1	2226	0.46
Albany	AB-AU23-021	ABX022	603961	6156639	0.0	1.1	1.1	1957	0.043	98.9	2052	0.53
Albany	AB-AU23-022	ABX023	604717	6156709	0.0	1.0	1.0	4653	0.077	97.8	1803	1.18
Albany	AB-AU23-023	ABX024	606441	6157261	0.0	1.1	1.1	1155	0.031	99.3	1114	0.35



## Appendix 2: JORC TABLE 1

## JORC Table 1 – Section 1: Sampling Techniques and Data

Criteria		JORC Code explanation		Commentary
Sampling techniques	•	Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole 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.	•	Hand auger drill/surface samples were taken from private properties and public roadsides Sampling techniques and quality are considered appropriate for this style of mineralisation.
	•	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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.		
Drilling techniques	•	Drill type (e.g. core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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).	•	Cased hand auger drilling using a 50mm spiral auger inside PVC casing. The casing is pushed into the substrate as the auger advances to prevent oversampling of the drilled sediment.
Drill sample recovery	•	Method of recording and assessing core and chip sample recoveries and results assessed.	•	All targeted sediment recovered is retained in a container. Depth of recovery measured when sediment changes.
	•	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.		The auger is extracted from the casing and all the recovered sediment collected in a container which is then transferred to a calico bag, labelled and sealed. The recovered sample is passed over splitter if too large.



Criteria		JORC Code explanation		Commentary
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, channel, etc) photography. The total length and percentage of the relevant intersections logged.	•	All auger primary information was initially captured in a written log on site by a geologist including depths when sediment changed.
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 subsampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in-situ material	•	A riffle type sample splitter was used to halve the sample Half of the sand sample was submitted for analysis. The samples were submitted to Intertek Genalysis Perth for drying, further splitting, and pulverisation in a zircon bowl. A subsample of 200 g with -75 μm particle size was utilised for analysis. Laboratory replicates are completed routinely at the splitting stage and results are included in precision analysis. The laboratory sample size taken is appropriate for the sand being targeted.
Quality of assay data and laboratory tests		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. 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	•	Auger sand samples were submitted to: Intertek Laboratory in Maddington, Perth, Western Australia. The assay method for multi-element analysis consisted of four-acid digest including hydrofluoric, nitric, perchloric and hydrochloric acids in Teflon beakers with inductively coupled plasma (ICP)-optical (atomic) emission spectrometry finish. Silica is reported by difference.
	•	and their derivation, etc. Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	•	No geophysical tools were utilised for the process. No quality control procedures have been used for auger sand samples, although standard assay laboratory quality control protocols have been adhered to.
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.	•	No significant intersections have been compiled; only individual (unaggregated) results are reported. All sampling procedures were documented and monitored on site by a geologist and/ or field technician.



Criteria	JORC Code explanation	Commentary
		<ul> <li>All primary information was initially captured in a written log on site by a field technician, data entered, imported then visually validated and stored in a geological database. No data quarantine function is enabled at this time.</li> </ul>
		<ul> <li>A set of conversion factors, to 5 decimal places are developed from molecular weights and applied to elements to achieve oxide values.</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used. Quality and adequacy of topographic control.</li> </ul>	sample locations was determined by a GPS
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>collected over targeted landforms and where white sand was exposed on the surface.</li> <li>Samples of the target sand were composited over the depth collected and submitted as whole auger samples.</li> </ul>
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul> <li>is relatively flat dipping and as such is representative of that layer of sediment.</li> <li>There is not considered to be any mineralised structures that would cause any sampling bias from the orientation of drilling utilised.</li> </ul>
Sample security	• The measures taken to ensure sample security.	<ul> <li>All samples have been bagged and removed from site and are under the care of the contract senior geologist and field sampling supervisor.</li> <li>Auger samples were delivered to Intertek Genalysis Perth. The laboratories provided a sample reconciliation report which was audited against the sample submission sheet.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	No Audits or reviews have been undertaken.



Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>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.</li> </ul>	<ul> <li>Industrial Minerals Ltd. The underlying land is held as freehold land and IND has been granted permission by the landowners to access and explore part of their properties.</li> <li>There are no impediments on a licence to operate at the time of reporting.</li> </ul>
Exploration done by other parties	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	occurred in the Albany Project area in the past. Hanson Construction drilled a number of holes within E70/6497 and E70/6495 in 2019 which proved positive for construction sand.
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>Aeolian quartz sand dunes overlying basement highs and Pleistocene sandplain deposits. Unconsolidated Quaternary coastal sediments.</li> </ul>
Drill hole information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drillholes:         <ul> <li>easting and northing of the drillhole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar</li> <li>dip and azimuth of the hole</li> <li>downhole length and interception depth</li> <li>hole length.</li> <li>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.</li> </ul> </li> </ul>	of this announcement.
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually material and should be stated.</li> </ul>	been applied to reporting of exploration results.



Criteria	JORC Code explanation	Commentary
	<ul> <li>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.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drillhole angle is known, its nature should be reported.</li> <li>If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g.</li> </ul>	<ul> <li>Target deposits typically approximate a sub-horizontal accumulation over a variable basement topography, so downhole length is effectively true width.</li> </ul>
Diagrams	<ul> <li>'downhole length, true width not known').</li> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drillhole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Plan views illustrating auger sample locations of significant intercepts are included in body of the report.</li> </ul>
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	• A full listing of all auger sample locations and their results are included in the body of the report - Appendix 1.
Other substantive exploration data	<ul> <li>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.</li> </ul>	surface and are readily identified by colour and absence of induration.
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further auger drilling programs are planned at the Albany Project to test silica sand mineralisation targets identified from the reconnaissance auger drilling subject to execution of land access agreements.</li> </ul>

