INDUSTRIAL MINERALS LTD
ABN 87 648 183 297

ASX ANNOUNCEMENT
19th July 2022

STOCKYARD PROJECT METALLURGICAL UPDATE

METALLURGICAL RESULTS INDICATE REDUCED IRON OXIDE CONTENT TO 185PPM Fe_2O_3 - SUITABLE FOR HPSS MARKET

Highlights

- **Metallurgical Testwork program progressing on composite bulk samples across each silica sand deposit within the Stockyard Project Mining Lease Application**
- **Initial test achieved promising results, with key impurity Fe_2O_3 reduced to 185 ppm resulting from Heavy Liquid Separation and Attritioning**
- **The results support the promotion of IND's High Purity Silica Sand to potential customers**

Industrial Minerals Ltd (ASX: **IND** or the **Company**) is pleased to provide an update on the Metallurgical Testwork program for the Stockyard Project. The Company has engaged KeyPointE Pty Ltd (KeyPointE) to complete a program designed to determine the quality of High Purity Silica Sand that can be achieved from the Stockyard Project. The samples were subject to a series of tests designed to remove impurities to achieve a high purity silica sand product.

IND's Managing Director Jeff Sweet commented,

*"The initial results from the sighter testwork completed by KeyPointE have been very positive. To have reduced iron oxide to **185 ppm** Fe_2O_3 presents an opportunity to access a wider market for our High Purity Silica Sand. We look forward to seeing the results for all individual deposits within the Mining Lease application area, with a key aim of the testwork program designed to enable IND to present its product to potential customers."*

Table 1. Stockyard Project Sighter Testwork Results Summary

Screen at 1mm and Deslime at 75µm + Gravity Separation of Sand Fraction + Attritioning							
Stream	**Mass**	**SiO2**	**Al2O3**	**Fe2O3**	**MgO**	**TiO2**	**LOI**
	%	%	ppm	ppm	ppm	ppm	%
>1 mm Oversize	4.47	99.40	452	616	69	1173	0.36
< 75 µm Slimes	10.15	97.90	3033	2222	194	9857	0.37
HLS Sink	0.27	17.54	137367	68268	3814	426366	0.00
Float <75 µm Att Slimes	2.40	99.00	0	0	0	0	
Float Att Sand	82.71	**99.70**	276	**185**	41	1021	0.11
Total	100.00	99.26	933	593	67	3067	0.14

Metallurgical Sample Details

An initial ~150kg bulk sample (MET0002) was taken from within the proposed Pit 2 area, located within the Stockyard Mining Lease Application. The sample was taken from a depth of 1.0 to 1.5 metres which included some organic material and is considered representative of ROM (run of mine) ore material. A ~3kg Headfeed sub-sample was split from the bulk sample and provided to KeyPointE for initial sighter testwork.

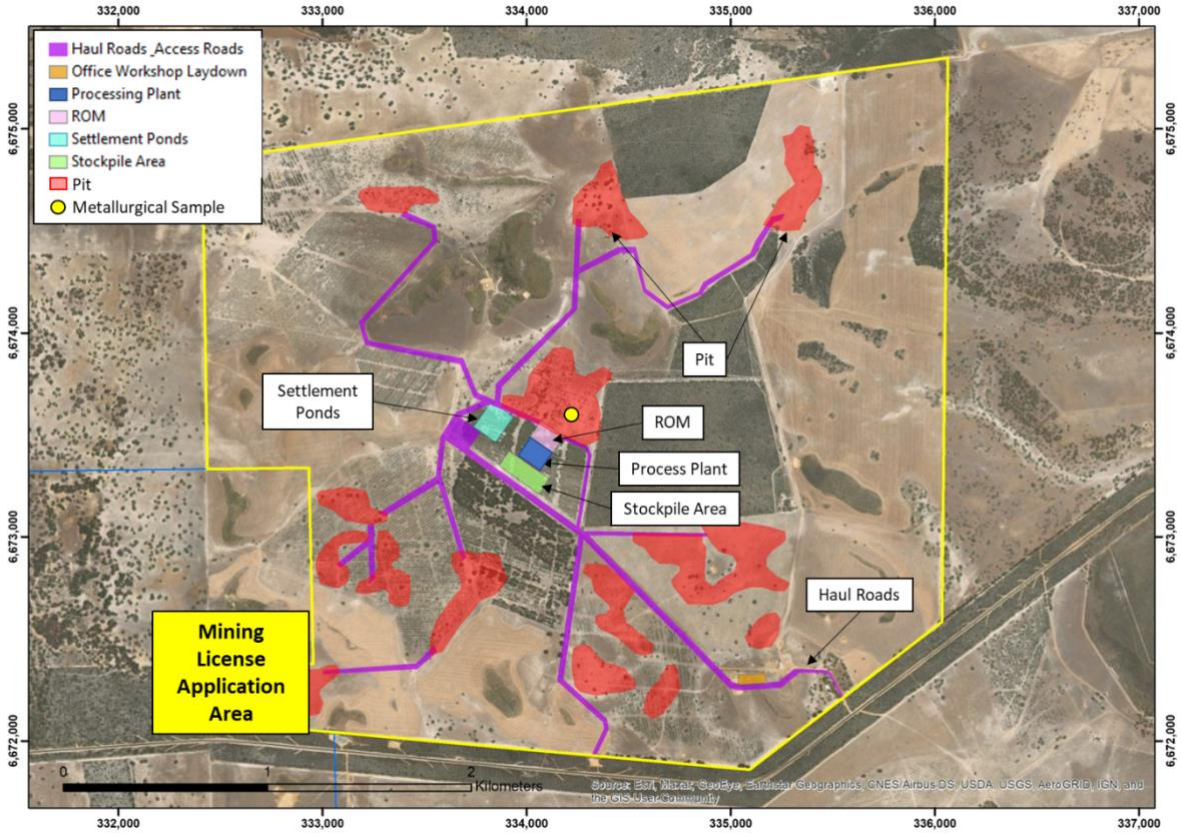


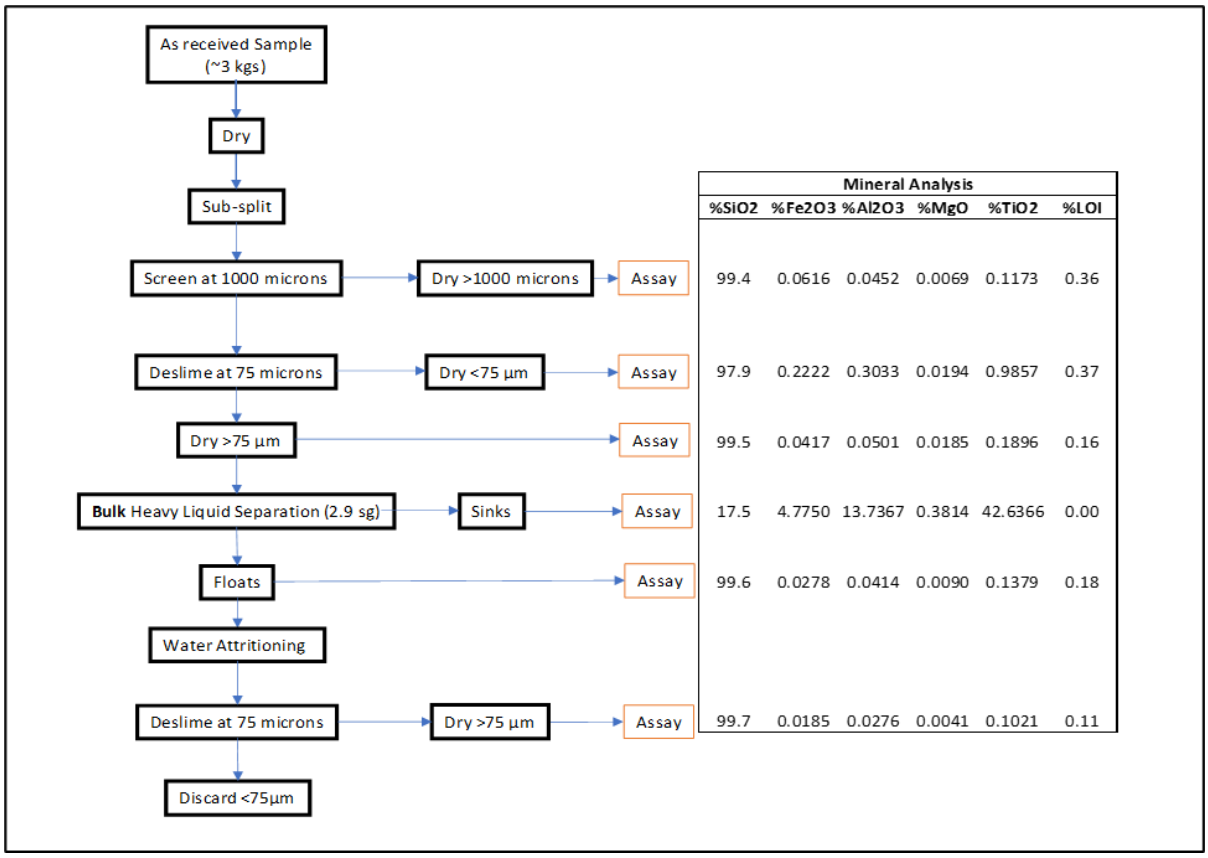
Figure 1. Stockyard Project proposed infrastructure layout displaying pit locations and metallurgical sample taken from pit 2

Sighter Testwork

The series of testwork procedures involved were performed sequentially and are listed below:

1. The screening of the ROM headfeed sample at 1 mm to reject and oversize
2. Desliming the <1 mm fraction at 75 microns to reject a slimes fraction
3. A heavy liquid separation (*2.9 sg*) of the sand fraction (*<1 mm >75 µm)* to remove a heavy mineral sink fraction (*this step is used as a proxy for gravity separation*)
4. The attritioning of the heavy liquid float fraction with water

Figure 2. Schematic diagram illustrating Stockyard Metallurgical Sighter Testwork procedure



Mineral Analysis

The resulting samples produced at each stage of the process were sent to Intertek Genalysis for mineral analysis. The >2.9sg sample was tested by XRF to account for the heavy mineral content, while the remaining samples were tested by ICP/OES.

Results

Results from the initial bulk sample sighter testwork show a potential DSO product with 99.5% SiO_2 and 417 ppm Fe_2O_3. IND will be able to achieve this result by processing the ore through a wet screening plant and desliming with a cyclone. Modular sand washing plants required for this process are readily available within Australia.

Table 2. Stockyard Project Sighter Testwork Results – DSO Product

Screened <1mm and Deslime at 75µm – DSO Product							
Stream	**% Mass**	**SiO2** %	**Al2O3** ppm	**Fe2O3** ppm	**MgO** ppm	**TiO2** ppm	**LOI** %
>1 mm Oversize	4.47	99.40	452	616	69	1173	0.36
< 75 µm Slimes	10.15	97.90	3033	2222	194	9857	0.37
> 75 µm Sand (**DSO Product**)	85.38	99.50	501	417	185	1896	0.16
Total (Headgrade)	100.00	99.33	756	609	181	2672	0.19

With the addition of gravity separation (using the heavy liquid separation result as a proxy) and attritioning, the results show that the key contaminant, Fe_2O_3, can be reduced to 185 ppm. This is important as it indicates the high quality of product that IND's potential customers can achieve.

Table 3. Stockyard Project Sighter Testwork Results – HLS + Attritioning

Screened <1mm and Deslime at 75µm + Gravity Separation of Sand Fraction + Attritioning							
Stream	**Mass**	**SiO2**	**Al2O3**	**Fe2O3**	**MgO**	**TiO2**	**LOI**
	%	%	ppm	ppm	ppm	ppm	%
>1 mm Oversize	4.47	99.40	452	616	69	1173	0.36
< 75 µm Slimes	10.15	97.90	3033	2222	194	9857	0.37
HLS Sink	0.27	17.54	137367	68268	3814	426366	0.00
Float <75 µm Att Slimes	2.40	99.00	0	0	0	0	
Float Att Sand	82.71	**99.70**	276	**185**	41	1021	0.11
Total	100.00	99.26	933	593	67	3067	0.14

Further Testwork

Composite samples have been prepared for the remaining Pits across the Stockyard Mining Lease application area. KeyPointE has completed the metallurgical testwork program for these composites and the samples have been submitted for mineral analysis. Once received, the results will be used to develop a range of Product Specifications for the project.

Next Steps and Upcoming News flow

- Stockyard Mineral Resource estimate nearing completion
- Further metallurgical testwork being completed over other proposed pit areas to assess variability of DSO product
- DSO Product shipment to potential offtake partners
- Mining Licence Application- key workstreams underway
- Further exploration drilling to test identified targets and expand the currently defined mineralisation footprint

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

This announcement has been approved by the Industrial Minerals Board.

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Competent Person

The information in this announcement that relates to the metallurgical results at the Stockyard Project is based on and fairly represents information compiled by Ms Melanie Leighton, an experienced geologist engaged by Industrial Minerals Ltd. Ms Leighton is a Member of the Australasian Institute of Geologists (MAIG) and has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which she 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". Ms Leighton 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: Table of Results

Table 1 – Metallurgical Sample Location

Sample	Easting	Northing
MET0002	334,217	6,673,604

Appendix 2: JORC Tables 1 and 2

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.* • *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.*	• The bulk metallurgical sample was obtained using a hand shovel • Sampling techniques and quality are considered appropriate for this style of mineralisation.
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).*	• No Drilling 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.*	• No Drilling 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, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• No logging undertaken
Subsampling 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.*	• The subsampling technique is described in the body of the announcement • The metallurgical sample size taken is appropriate for the sand being targeted.

Criteria	JORC Code explanation	Commentary
	• *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.*	

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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.*
		• Bulk samples were submitted to KeyPointE, and subsamples sent 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.
		  ○ The assay method for the Heavy Mineral fraction consisted of XRF with Nickel Crucible Fusion OES Individual Elements.

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 reported.
Location of data points	• *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.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• The position of the metallurgical sample location was determined by a GPS model Garmin GPS Map 64s with an accuracy of 5 m. • The Grid system used was GDA2020 Zone 50.
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.*	• Bulk metallurgical samples have been collected across each of the proposed pits at Stockyard, results for these samples will be released as they come to hand.
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.*	• It is expected that the sand stratum sampled is relatively flat dipping and as such is representative of that layer of sediment. • There is not considered to be any mineralised structures that would cause any sampling bias from the orientation of drilling utilised.
Sample security	• *The measures taken to ensure sample security.*	• Metallurgical samples have been bagged and removed from site under the care of the contract senior geologist and field sampling supervisor. • Metallurgical samples were delivered to KeypointE Perth.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• An audit of sampling techniques and data has not been undertaken.

JORC Table 1 – Section 2: Reporting of Exploration Results

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, 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.*	• The Stockyard project is 100% held by Industrial Minerals. The underlying land is held as pastoral freehold land and IND has entered into an agreement with the landowner to access and explore the property. • There were no impediments on a licence to operate at time of reporting.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Past exploration by others targeting heavy mineral sands, IND is the first company to explore for silica sands at the project.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Unconsolidated Quaternary coastal sediments, part of the Perth Basin. Aeolian quartz sand dunes overlying Pleistocene limestones and paleo-coastline.
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 drillholes:* – easting and northing of the drillhole collar – elevation or RL (Reduced Level – elevation above sea level in metres) of the drillhole collar – dip and azimuth of the hole – downhole 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.*	• Exploration Results are not being reported.
Data aggregation methods	• *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.* • *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 Significant intercepts are being reported. • No metal equivalents were reported.
Relationship between mineralisation 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 drillhole angle is known, its nature should be reported.* • *If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'downhole length, true width not known').*	• Not applicable.

Criteria	JORC Code explanation	Commentary
Diagrams	• *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.*	• Plan views illustrating drilling completed and significant intercepts are included in body of report.
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 practiced to avoid misleading reporting of Exploration Results.*	• All results were included in the body of this report.
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.*	• All information is included in body of report. • No substantive exploration data not already mentioned in the announcement has been used.
Further work	• *The nature and scale of planned further work (e.g. 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.*	• Further metallurgical testwork programs are underway to test the variability and repeatability of metallurgical testwork results for the Stockyard project to date.