ASX Code: IPT

FEBRUARY 19, 2024 **CORPORATE RELEASE**

Key milestone of 99.99% (4N) High Purity Alumina (HPA) achieved at the Lake Hope Project, WA

- Better than 99.99% (4N+) High Purity Alumina (Al_2O_3) produced from Lake Hope mud via the proprietary and patented Playa One Sulphate Process.
- The Sulphate Process underpins the recent Scoping Study, which demonstrated an NPV_8 of A$1.3 billion for the project and an estimated operating cost to produce 4N HPA up to 50% lower than anyone else globally at less than US$4,000 per tonne.
- Production of larger quantities of HPA can now commence using the now-optimized Sulphate Process to demonstrate consistent quality to potential customers.
- Preliminary discussions with potential customers indicate very strong demand for 4N HPA.
- Other possible process routes to produce HPA from Lake Hope may be possible, with initial results due shortly.
- The Pre-Feasibility is on schedule to be completed in late 2024.

Impact Minerals Limited's Managing Director, Dr Mike Jones, said, "*The production of 4N HPA is a major milestone and exciting result for Impact and its shareholders as we have now shown that we can produce this high-value product, which commands prices of US$20,000 per tonne or more, from the mud in the top two metres of Lake Hope. It underpins the results of the Scoping Study, which showed an NPV_8 of A$1.3 billion for the project and, at less than US$4,000 per tonne, possibly the lowest cost of production of HPA globally by a significant margin of up to 50%.*

We have also optimized the Playa One Sulphate Process and have already started batch production of HPA to demonstrate consistent quality to our potential customers. We have discovered from our marketing that there is very strong demand for this high-value product, so we will continue progressing the Pre-Feasibility Study as quickly as possible. In addition, we recently uncovered two other possible process routes to produce HPA from these remarkable clays, which may offer yet further reductions in operating cost and capital expenditure if our initial test work is positive, and we are looking forward to getting those results soon," Dr Jones said.

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High Purity Alumina (HPA) at greater than 99.99% (4N) purity has been produced from the metallurgical processing of lake clays from Impact Minerals Limited's (ASX:IPT) Lake Hope Project, located 500 km east of Perth in Western Australia (Figure 1). Impact can earn an 80% interest in Playa One Pty Limited, which owns the Lake Hope project, by completing a Pre-Feasibility Study (PFS) on the project which is in progress (ASX Release March 21st 2023 and November 9th 2023).

The 4N HPA was produced via a proprietary and patented metallurgical process called the 'Sulphate Process' which is owned by Playa One. The replication and optimization of this process for Lake Hope has been the key focus of Impact's Pre-Feasibility Study to date, and therefore, these new results are a key milestone in the development of the project (ASX Releases March 21st 2023 and October 18th 2023).

The clays at Lake Hope occur in the top two metres of two small salt lakes on E63/2086 in a deposit containing about 880,000 tonnes of alumina (Al_2O_3) in various minerals. The deposit comprises Indicated (88%) and Inferred Resources (12%) of 3.5 million tonnes at an average grade of 25.1% alumina (see the Resource Estimate below and ASX Release 19th June 2023).

The lake clays contain a unique combination of naturally extremely fine-grained minerals, which delivers significant cost advantages to the mining and processing of the ore to produce HPA. The clays are free-digging and require no crushing, screening or other on-site preparation, and it is envisaged that the clay will be trucked offsite to a pre-permitted industrial site, most likely either in Kalgoorlie or Perth (Figure 1 and ASX Release March 21st 2023 and November 9th 2023).

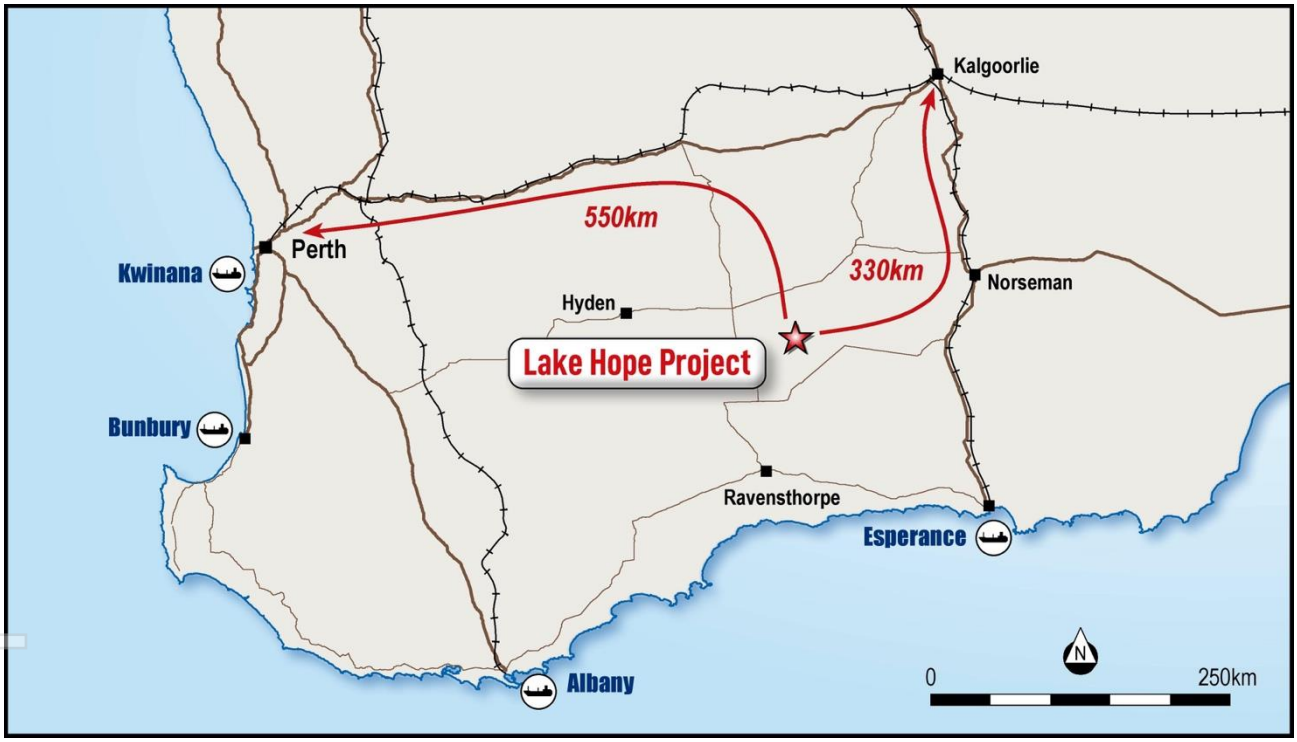

Figure 1. Location of the Lake Hope Project.

The Playa One Sulphate Process is straightforward and comprises five stages based around very modest amounts of sulphuric acid (Figure 2): Stage 1 Wash circuit, Stage 2 Sulphuric acid leach and roast circuit, Stage 3 Intermediate alumina salt production, Stage 4 purification by conventional hydrochloric acid gas sparging and Stage 5 calcining to produce HPA. Results from the optimization of the first three Stages of the Process were reported to the ASX on October 18th 2023.

Figure 2. Summary of the Sulphate Process.

Intermediate salts from Stage 3 were submitted for Stage 4 purification by hydrochloric acid-gas sparging, which removes contaminants such as iron, and Stage 5 calcining (heating) to produce HPA. Material from Stage 5 was submitted for assay for 66 elements with ultra-low level detection limits at Labwest in Perth.

Two assays of the material were completed, and both returned >99.99% Al_2O_3 and are trending towards 99.999% (5N). Assays that demonstrate the very low levels of elements considered key contaminants for HPA are shown in Table 1 and this is very encouraging. Other elements are not material and are not reported but add up to a total of 44.15 ppm and 39.8 ppm for the 66 elements analysed in the two samples.

Sample ID	Total 66 elements ppm	%HPA Elemental	As ppm	B ppm	Ca ppm	Cr ppm	Cu ppm	Fe ppm	K ppm	Mg ppm	Na ppm	Ni ppm	P ppm	S ppm	Si ppm
HY17154	44.15	99.996	0.005	2.668	5.382	0.234	1.411	2.412	1.176	0.357	0.711	1.637	0.104	14.3	10.14
HY17154	39.80	99.996	0.005	1.103	5.477	0.202	1.604	1.676	1.21	0.129	0.539	1.821	0.127	14.03	7.625

Table 1. Assays results for Lake Hope HPA. Assays units are parts per million (ppm).

The Sulphate Process allows direct leaching of the lake clays using a cheaper and more environmentally friendly acid than other methods being trialled to produce HPA, particularly the hydrochloric acid (HCl) leaching of kaolin. The HCl-kaolin process also requires upfront energy-intensive calcining, which is not needed for the Playa One process and is a major contributor to the lower operating cost at Lake Hope (ASX Releases October 18th 2023 and November 9th 2023).

Both the Sulphate Process and hydrochloric-kaolin process use hydrochloric acid and calcining in the later stages of purification to produce HPA but on much smaller volumes of material.

Update on the Lake Hope Pre-Feasibility Study and Next Steps

The production of HPA from Lake Hope clay is an outstanding result and provides further impetus to the ongoing PFS, which is progressing on schedule and is due for completion in late 2024. Metallurgical test work is the critical component of the work to be completed for the PFS and is still the focus of the forward work programme.

The initial optimization of the Sulphate Process, which is now complete, was done stepwise in individual stages, with an optimal result determined from numerous experiments at each stage (ASX Release October 18th 2023). A “full run” of all five stages of the Sulphate Process is now in progress to demonstrate production of HPA in bulk at a consistent purity to satisfy end-user requirements.

As part of ongoing metallurgical research, Roland Gotthard of Playa One and the Lake Hope project manager for Impact has identified other potential pathways to HPA which may offer a simplified low-temperature flow sheet that may significantly reduce reagent and energy costs compared to the Sulphate Process. Two processes show promise; results from initial test work on one process are due shortly, and the second process is due at the start of next Quarter.

A report on the baseline flora and fauna surveys completed in late 2023 is expected in the current Quarter. Preliminary advice is that minor adjustments to the haul road corridor may be required to avoid sensitive flora communities. This will not affect mining on the lake.

Preparation for a Mining Lease Application continues and is pending the final flora and fauna report.

Dr Michael G Jones
Managing Director

Assay and Metallurgical Information

All testing was undertaken at ALS Metallurgy Pty Ltd, Balcatta, Western Australia, under the supervision of a qualified metallurgist. All data is presented as received. Assays were conducted at Labwest using a microwave digest with HF/multi-acid digestion and analysis by ICPMS/OES.

Mineral Resource Estimate

The Mineral Resource Estimate for Lake Hope is:

Category	Million tonnes	Alumina %	Al_2O_3 Tonnes
West Lake			
Indicated	2.09	25.5%	534,600
Inferred	0.23	23.2%	52,300
Total	**2.32**	**25.3%**	**586,900**
East Lake			
Indicated	1.10	24.8%	273,400
Inferred	0.08	24.1%	19,400
Total	**1.18**	**24.8%**	**292,800**
Combined			
Indicated	3.19	25.3%	808,000
Inferred	0.31	23.4%	71,700
Total	**3.50**	**25.1%**	**879,700**

The resource statement was first made to the ASX on June 19th 2023. There are no factors that Impact is aware of that have changed the material assumptions made at that time.

Competent Persons Statement

The review of metallurgical results contained in this report is based on information compiled by Mr Roland Gotthard, a Member of the Australasian Institute of Mining and Metallurgy and a consultant to Impact Minerals Limited. He has sufficient experience which is relevant to the style of mineralisation and types of deposits under consideration and to the activity that he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). Mr Gotthard has consented to including the matters in the report based on his information in the form and context in which it appears.

The Mineral Resource estimates for the Lake Hope Project are based on information evaluated by Mr Simon Tear, who is a Member of The Australasian Institute of Mining and Metallurgy (MAusIMM) and who has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the "JORC Code"). Mr Tear is a Director of H&S Consultants Pty Ltd, and he consents to the inclusion in the presentation of the Mineral Resources in the form and context in which they appear.

JORC Code, 2012 Edition – 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 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. • Description of 'industry standard' work	• Sampling comprised a representative 10kg sample dug from a pit • Samples were obtained from 0.5 to 1m depth with a weight of ~10kg, with the whole sample bagged in plastic buckets. • Sample preparation and analysis was completed at a commercial laboratory (Intertek WA) using industry standard practices. • Metallurgical samples are representative powders produced in the laboratory using normal metallurgical processes
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).	• Not applicable to metallurgical sample
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 applicable to metallurgical sample
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.	• Mineralisation collected in the sample is visually and chemically identical to material throughout the East Lake • Mineralogy is impossible to determine visually • Logging is qualitative in nature as the grain size is too fine to allow visual identification of mineralogy even under hand lens or electron microscope
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.	• Metallurgical samples were collected by Impact Minerals staff • Metallurgical samples were prepared, treated, and prepared for assay by ALS Metallurgy using industry standard techniques • Quality control measures are observed by the metallurgical laboratory • The metallurgical results are consistent with initial test work stages and are not the final embodiment of the process • The grain size of the mud sample is nanometre size and sample size is appropriate • Sub-sample sizes presented for metallurgy are considered appropriate and representative • LHMET001 is considered representative of higher grade material from the Lake Hope mineral resource
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.	• Microwave digest with HF/multi-acid; analysis by ICP-MS/OES at Labwest and is considered a total digest • The assay method is considered appropriate for the material and elements reported • Sampling methodology at ALS and Labwest is considered industry standard for metallurgical processing test work • Percent extractions are calculated by ALS Metallurgy based on solid and liquid assays and sample masses • High Purity Alumina is defined by summing the known elemental concentrations of all elements besides aluminium, oxygen, nitrogen and hydrogen, where known, and subtracting from 100%
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.	• LHMET001 has been assayed at Intertek • Metallurgical samples have not been independently verified • Data is stored on a professional relational database maintained by Impact Minerals Limited • Assays below detection limit of the respective methodology are highlighted.
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.	• A table of sample locations is provided in the report • Sample locations recorded with handheld GPS accurate to within 1m • MGA Zone 50 South • Topographic control is provided by DGPS and drone topographic control
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.	• No new exploration results are reported here • Not applicable as there was no drilling.

Criteria	JORC Code explanation	Commentary
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.	• The mineralization is considered representative of the mineral deposit from which is sourced
Sample security	• The measures taken to ensure sample security.	• Samples were sealed in individually numbered plastic buckets and bags with zip ties • Samples were delivered to the laboratory directly by company personnel to ensure complete chain of custody
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or reviews of sampling techniques and 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, 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.	• E63/2086 Lake Hope • E63/2317 • E63/2318 • E63/2319 • E64/673 • E64/674 • 100% Playa One Pty Ltd • Native Title Agreements are in place with Native Title parties • Heritage Surveys have been conducted and no Aboriginal Cultural Heritage exists over the mineralization or Mineral Resource • No national parks, nature reserves or other licences interact with E63/2086
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• *Nil*
Geology	• *Deposit type, geological setting and style of mineralisation.*	• *Mineralisation comprises a flat-lying evaporitic lake sequence and is bound by the margins of the lake by sand dunes* • *Mineralisation comprises light brown to light grey, dense, plasticine consistency salt* • *The salt is a nanometre sized colloidal precipitate of aluminium minerals and silica* • *Salt lakes within evaporitic basins within the granite terrane of the Yilgarn Craton, Western Australia* • *Lacustrine evaporite sulphate salts hosted within flat-lying sheet deposits*
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.*	• *All drill hole information has previously been 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 exploration results are reported in this disclosure*