

20<sup>th</sup> December 2023

## BULK SAMPLING AND TEST PIT PROGRAM COMPLETED AT THE LAKE HOPE HPA PROJECT, WA

A significant bulk sampling and test pits program has recently been completed at Impact Minerals Limited's (ASX:IPT) flagship Lake Hope High Purity Alumina (HPA) project located 500 km east of Perth in Western Australia. The program is a critical component of the Pre-Feasibility Study on Lake Hope, which is currently underway following a positive Scoping Study on the project that indicated the project may be the lowest-cost producer of HPA globally by a significant margin (ASX Release 9<sup>th</sup> November 2023).

Impact has the right to earn an 80% interest in the Lake Hope project by completing the Pre-feasibility Study (ASX Release 21<sup>st</sup> March 2023).



A total of 5.5 tonnes of material was collected from twenty-five bulk samples taken from test pits across West Lake and East Lake, which host the alumina deposit at Lake Hope. The deposit contains a resource of **3.5 million tonnes at 25.1% alumina ( $\text{Al}_2\text{O}_3$ ) for a contained 880,000 tonnes of alumina**, of which about 88%, or about 775,000 tonnes of alumina, is in the higher confidence Indicated Resource category (ASX Release 19<sup>th</sup> June 2023).

Impact confirms that no new information exists, and all modifying factors remain the same as at the time of the first publication of the resource.

In addition, earthworks for access tracks and drill pads for water bores for groundwater monitoring were also completed.



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Managing Director Dr Mike Jones said: *“This bulk sampling program marks another significant milestone in our journey towards the production of High Purity Alumina (HPA) from Lake Hope and caps off a very busy and successful nine months since acquiring the rights for this exceptional project.*

*In that time, we have completed a maiden resource statement, obtained heritage clearance from the Ngadju First Nations people, completed most of the first phase of metallurgical test work using the unique Playa One sulphate process, and completed a Scoping Study. The results of that study were outstanding and demonstrated the potential of Lake Hope to produce HPA at a cost much less than any other supplier globally, and this has given us the confidence to progress the pre-feasibility study aggressively. The bulk samples will set us up for the forthcoming stages of development, which will include the commissioning of a mini-pilot plant once the initial test work is completed.*

*Our focus for 2024 will be to complete the PFS, which will include setting up the mini-pilot plant and, in particular, producing HPA in bulk for potential customers and off-take partners. As part of this strategy, we have already started reaching out to key groups in the battery and LED market, and the demand is there. We look forward to a watershed year for Lake Hope, Impact and its shareholders”.*

## About the Bulk Sampling and Earthworks Program

Impact commissioned Pinnacle Site Services to undertake an earthwork and bulk sampling program. A backhoe was used to refurbish the existing access track to the site, construct access tracks to the lakes and a drill pad for a water monitoring bore.

A total of 5.5 tonnes of aluminous mud was collected from 25 pits, 13 from West Lake and 12 from East Lake (Table 1 and Figure 1). Ground conditions during excavation of the lake surfaces were excellent, with the mud hard, dry and easily dug. Groundwater was absent in most excavations, likely due to the dry summer conditions, which emulate the three-yearly summer mining campaigns proposed in the Scoping Study (ASX Release 9<sup>th</sup> November 2023).

A number of the sample sites were left open for geotechnical studies on the performance of the mud with respect to slope stability and groundwater levels, both of which will be monitored over the next 12 months before rehabilitation.

These ground-disturbing activities were enabled after successful Aboriginal Culture and Archaeological surveys were completed in July with the Ngadju Native Title group (ASX Release 27<sup>th</sup> July 2023). The survey identified no sites of cultural or archaeological significance, which is critical for Impact lodging a Mining Lease Application.

## Update on the Pre-Feasibility Study

Impact has continued to progress the Preliminary Feasibility Study on Lake Hope.

The Baseline Flora and Fauna Survey data collection process is complete, with a final report due early in Q1 2024. Once received, the results will be used to finalise the location of mining lease boundaries and infrastructure corridors. A Mineralisation Report, a critical requirement of a mining lease application, has been completed, and the application will be lodged as soon as practicable in Q1 2024.

The metallurgical test work has progressed to final purification testing, with preliminary results expected in January 2024 (Stages 4 and 5 of the Playa One Sulphate Process, ASX Release 18<sup>th</sup> October 2023). Design of the by-product circuit and re-design of acid and reagent handling strategy is underway to investigate options for reduced capital and energy costs. A comprehensive test work regime is under design to inform a mini-pilot plant configuration, with quotes being sought.

Mine planning is progressing, with work underway to refine equipment selection and identify blocks within the mineral resource sufficient for an initial 25-year mine life.

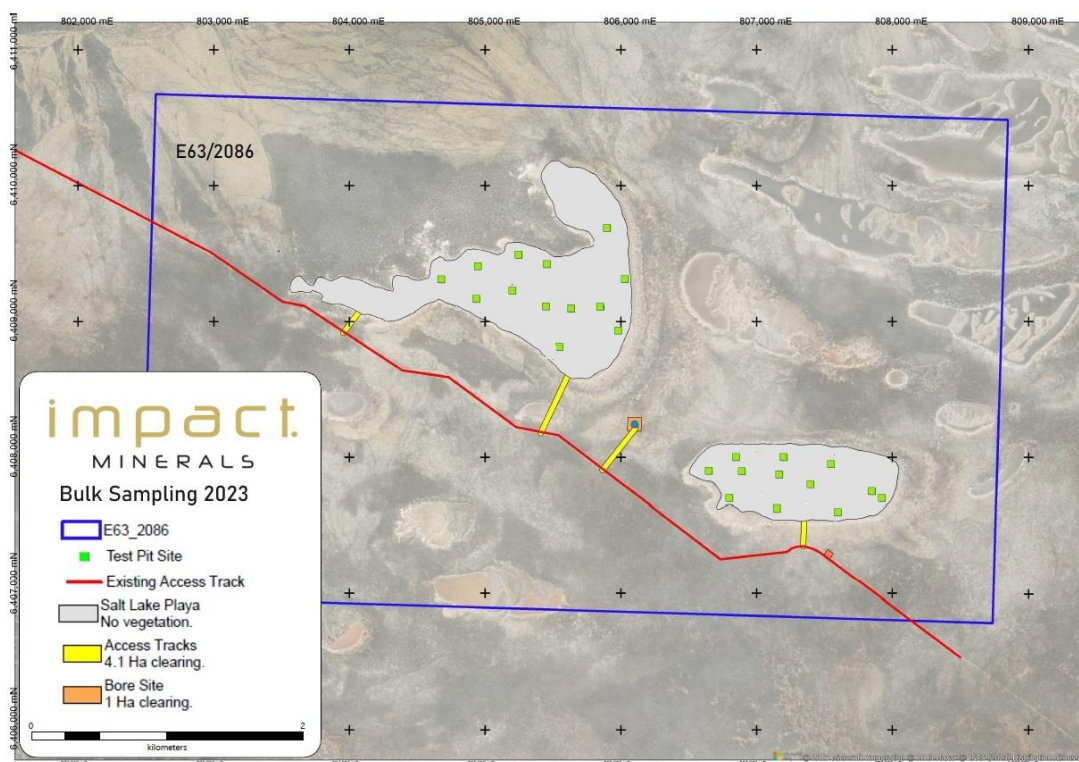


Figure 1. Test pit and bulk sample locations on West Lake and East Lake on E63/2086.

*Michael G Jones*

Dr Michael G Jones  
Managing Director

#### Competent Persons Statements

*The information in this report related to Exploration Results and metallurgical test work is based on and fairly represents information and supporting documentation prepared by Roland Gotthard, a consultant geologist to Impact Minerals Limited. Mr Gotthard is a Member of the Australasian Institute of Mining and Metallurgy. He has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity that has been undertaken 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 consents to including these matters in this release based on the information in the form and context in which they appear.*

*The data in this report that relates to Mineral Resource estimates is 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, a Director of H&S Consultants Pty Ltd, consents to including the Mineral Resource in the report in the form and context in which it appears.*

Sample ID	MGA51_E	MGA51_N	Weight kg
LHEB-01	243178	6409217	266.5
LHEB-02	243322	6409372	239.5
LHEB-03	243632	6409203	225
LHEB-04	243706	6409138	307
LHEB-05	243394	6409030	252
LHEB-06	242971	6409410	232.5
LHEB-07	242938	6409286	228
LHEB-08	242937	6409039	194
LHEB-09	242589	6409098	235
LHEB-10	242426	6409281	155
LHEB-11	242619	6409390	298
LHEB-12	242671	6409291	184.5
LHWB-01	240381	6410562	299
LHWB-02	240636	6410431	191.5
LHWB-03	240642	6410685	260.5
LHWB-04	240934	6410777	218
LHWB-05	240899	6410520	212.5
LHWB-06	241267	6410128	224.5
LHWB-07	241181	6410430	245.5
LHWB-08	241148	6410712	140.5
LHWB-09	241370	6410425	174.5
LHWB-10	241699	6410267	173
LHWB-11	241565	6410432	164
LHWB-12	241730	6410639	174.5
LHWB-13	241580	6411019	164

**Table 1.** Bulk Sample locations and sample weights.

# JORC Code, 2012 Edition – Table 1

## Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
<b>Sampling techniques</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>Description of 'industry standard' work</li> </ul>	<ul style="list-style-type: none"> <li>Bulk sampling of representative mineralization</li> <li>Test pits dug to 1.5m depth using back hoe</li> <li>Excavations monitored by geologist to ensure extraction of representative material</li> </ul>
<b>Drilling techniques</b>	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling reported</li> </ul>
<b>Drill sample recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Not applicable to bulk sampling</li> </ul>
<b>Logging</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Geologist noted the depth to the footwall sand or granite, colour, composition and layering of the lake sediments</li> </ul>
<b>Sub-sampling techniques and sample preparation</b>	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>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.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>No sub-sampling has been performed on the bulk samples at this stage</li> </ul>
<b>Quality of assay data and laboratory tests</b>	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No laboratory assays of the bulk sample material have been performed at this stage</li> </ul>
<b>Verification of sampling and assaying</b>	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Excavated material was weighed on a commercial bulk spring scale using a telehandler to derive the bulk sample weight</li> <li>This is considered accurate to +/- 5kg which is sufficient for estimating total bulk material recovered</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Handheld GPS to 3m accuracy</li> <li>Datum is MGA 2020 Zone 51 South</li> <li>Topographic control on RL is adequate for exploration results</li> <li>RL will not affect the position of the results (lake bed is nearly perfectly flat)</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>The metallurgical bulk sample is to be processed through a pilot plant facility</li> <li>The 5.5t sample mass will be akin to a composite grade of the average run-of-mine</li> <li>Impact expects to blend the samples to simulate the proposed head grade of the operation</li> <li>The distribution of sample pits is sufficient to provide a variety of grades and material types for further testing</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Test pits have excavated the full depth of the mud and as such are a reasonable approximation of the mineralised thickness</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples were delivered to the laboratory by company personnel</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>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.</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 style="list-style-type: none"> <li>E63/2086 Lake Hope</li> <li>E63/2317 Hope North</li> <li>E63/2318 Exclamation Lake</li> <li>E63/2319 Hope South</li> <li>E74/673 Mends South</li> <li>74/674 Mends North</li> <li>E63/2370</li> <li>E74/779</li> <li>100% Playa One Pty Ltd, Impact earning in</li> <li>Native Title Agreements are in place with Native Title parties</li> <li>No known impediment to exploitation is known</li> <li>No national parks, nature reserves or other licenses interact tenure</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>None</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Lacustrine evaporite clays hosted within flat-lying salt lake deposits</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>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: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </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>	<ul style="list-style-type: none"> <li>All bulk sample locations and masses are provided in Table 1</li> <li>No drill collars are reported so no survey or RL data are reported</li> <li>RL is corrected to surveyed DTM</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <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> <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>	<ul style="list-style-type: none"> <li>No compositing of the bulk samples for grade and mass has occurred at this time</li> <li>No lower cut-off grade is used at this time</li> <li>No upper cut-off is used as the material is homogeneous</li> </ul>
<b>Relationship between mineralisation widths and intercept lengths</b>	<ul style="list-style-type: none"> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>pits dug into flat-lying mineralisation</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <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 drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>A map showing tenement locations has been included</li> <li>Maps showing test pit locations is provided</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Not applicable to bulk sampling</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>No other meaningful exploration information is excluded</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Metallurgical compositing and pilot plant testing</li> <li></li> </ul>