ASX Announcement



16 September 2022

SECOND ROUND OF POSITIVE RESULTS RECEIVED FROM PRELIMINARY METALLURGICAL TEST WORK AT MARBLE BAR LITHIUM PROJECT

Preliminary whole floatation test work achieved a grade of 5.76% Li₂O with a recovery rate of 85%

Key Highlights

- GL1 has received a second round of preliminary whole floatation metallurgical test work results
 of lithium diamond core samples from the 100% owned Marble Bar Lithium Project
- Results achieved include 5.76% Li₂O spodumene concentrates at very high lithium recoveries up to 85%
- Further metallurgical test work will be carried out at the MBLP to focus on optimising the flowsheet to improve concentrate grade
- Results independently reviewed by SRK Consulting China Ltd ("SRK"), which has significant experience in spodumene processing, metallurgy and plant design
- Ongoing enquiries with SRK to process the spodumene concentrate into a battery grade lithium hydroxide

Growing multi-asset West Australian lithium company Global Lithium Resources Limited (**ASX: GL1**, "**Global Lithium**" or "the **Company**") is pleased to announce excellent results have been received from the second round of preliminary metallurgical test work carried out on diamond core samples from the Marble Bar Lithium Project (**MBLP**) in the Pilbara region of Western Australia.

BGRIMM Technology Group ("**BGRIMM**") has been engaged by Global Lithium to carry out laboratory metallurgical test work in Beijing, China.

Excellent results were achieved in this preliminary metallurgical test work program and potential processing options with recommended flow sheets will be developed based on best market practise.

These results follow the initial Metallurgical Test Work carried out by GR Engineering Services Limited (refer ASX Announcement 19th August 2022).

Global Lithium Managing Director, Ron Mitchell commented,

"This second round of preliminary results from the ongoing metallurgical test work for our MBLP continue to impress with grades and recoveries produced meeting industry expectations. Achieving lithium recoveries of 85% is certainly something we are excited about.

These results, as did the initial results released in August, fully support the prospect of MBLP becoming a standalone lithium operation in the years to come."

Test Work Details

The test composite sample, which returned a head assay of 1.17% Li₂O, was made from two PQ size drill holes sourced from the MBLP (holes MBDD001 and MBDD002). Sample MBDD001 weighed 50kg with a grade of 1.02% Li₂O, sample MBDD002 weighed 20kg with a grade of 1.50% Li₂O.

The BGRIMM test work program consisted of mineralogy study and a series of condition optimal tests on flotation with Beijing tap water. Those tests included grinding size, type and dosage of activating agents, NaOH dosage and stirring time, type and dosage of collecting agents, Na₂CO₃ dosage, type and dosage of inhibitor agent. Under the optimal conditions derived from the above tests, open circuit flotation test and closed-circuit flotation test are conducted.

The lithium mineral in the ore is spodumene. Spodumene normally appears in columnar monomer, followed by intergrowth with gangue minerals such as quartz and feldspar, with a trace amount wrapped in the gangue minerals. Such embedded characteristics indicate that spodumene is easy to be liberated by grinding, which is conducive to processing recovery.

Under the grind size 70% passing 74 μ m, a concentrate grade of 5.76% Li₂O and recovery of 85.28% Li₂O were obtained in the closed flotation circuit.

Further magnetic separation test work, using a magnetic field strength of 1 Tesla, on the flotation concentrate to reduce the Fe₂O₃ content was performed. The final flotation concentrate, after magnetic separation, assayed 5.92% Li₂O and 0.96% Fe₂O₃ and overall flotation and magnetic test work lithia recovery of 78.66% Li₂O.

Laboratory test work only provides an indication of the expected processing performance of the sample that has been tested. This test work does not account for changes in performance that may occur from scale up to full plant operation. Further test work and studies are required before the expected recovery across the deposit or for an operating plant can be estimated. This test work has only been conducted on



a composite sample from two drill core samples and more test work is required to determine whether these samples are representative of the broader deposit.

Future Work Plan

- Further test work is required to improve the rejection of iron bearing gangue minerals, and therefore improve the concentrate grade and Li₂O recovery.
- Further investigation into the influence of site water on flotation performance.
- Further investigation into grindability of the ore.
- Further investigation into recovery of beryllium, tantalum and niobium.

About BGRIMM

BGRIMM is the largest comprehensive research and design institution focusing on mining and metallurgical science and engineering technology in China. Its core business includes technical and engineering services in mineral resource development and utilisation, new material technologies development and production, and mineral resources recycling and environmental protection. BGRIMM is a national leader in scientific research and technology development in the field of comprehensive utilisation of mineral resources in China.

One of BGRIMM's many strengths lie in mineral metallurgical testing, including testing and analysis on spodumene ore. Selected relevant lithium and Australian experience is listed below:

- Sinomine Resources BIKITA Lithium Mine metallurgical test, Zimbabwe;
- Integrated demonstration of key technologies for the development and high-quality utilization of hard rock-type lithium deposits under special environment;
- Metallurgical study on Dangba spodumene ore, Sichuan Province of China;
- Metallurgical test on Arcadia Lithium Mine in Zimbabwe;
- Jingu Ltd., Lushi spodumene ore metallurgical test, Henan Province of China;
- Spodumene ore heavy liquid beneficiation study for Dexin Mine, Sichuan Province of China;
- Feasibility study on lithium feldspar powder recovery from fine-grained (-74 micron) tailings of Yichun Tantalum-Niobium Mine, China;
- Metallurgical study on iron remove and niobium tantalum recovery from Jiajika spodumene ore,
 Sichuan Province of China;
- Recovery improvements through processing optimization in Northparkes Copper-Gold Mines Australia;
- Test work on natural flake graphite for Black Earth Minerals NL, Australia;
- Processing test work on fresh graphite ore, Battery Metals Limited, Australia;



Approved by the board of Global Lithium Resources Limited.

For more information:

Ron Mitchell

Managing Director

info@globallithium.com.au

+61 8 6103 7488

Victoria Humphries

Media & Investor Relations

victoria@nwrcommunications.com.au

+61 (0) 431 151 676

About Global Lithium

Global Lithium Resources Limited (ASX:GL1, Global Lithium) is a diversified West Australian focussed mining exploration company with multiple assets in key lithium branded jurisdictions with a primary focus on the 100%-owned Marble Bar Lithium Project (MBLP) in the Pilbara region and the 80%-interest in the Manna Lithium Project in the Goldfields, Western Australia.

Global Lithium has now defined a total Inferred Mineral Resource of 18.4Mt @ 1.06% Li2O at its MBLP and Manna Lithium projects, confirming Global Lithium as a new lithium player in Western Australia, on which it will progress exploration during 2022.

Global Lithium's major shareholders include Suzhou TA&A Ultra Clean Technology Co. Limited (Suzhou TA&A), a controlling shareholder of Yibin Tianyi Lithium, a joint venture between Suzhou TA&A (SZSE: 300390) (75%) and CATL (SZSE: 300750) (25%), the world's largest EV battery producer, and ASX listed Mineral Resources Limited (ASX: MIN).

Directors

Warrick Hazeldine
Ron Mitchell
Dr Dianmin Chen
Greg Lilleyman
Hayley Lawrance
Non-Executive Chair
Managing Director
Non-Executive Director
Non-Executive Director

Global Lithium - Mineral Resources

Project (equity)	Category	Tonnes (mt)	Li₂O%	Ta₂O₅ ppm
Marble Bar (100%)	Inferred	10.5	1.0	53
Manna (80%)	Inferred	7.9	1.14	49
Combined Total		18.4	1.06	51



Competent Persons Statement:

Metallurgical Results

The information in this release that relates to metallurgy and metallurgical test work has been reviewed by Mr Lanliang Niu. Mr Niu is not an employee of the company but is employed by SRK Consulting China Ltd who are providing services as a contract consultant. Mr Niu is a member of the AuslMM (MAuslMM), he has sufficient experience with the style of processing response and type of deposit under consideration, and to the activities undertaken, to qualify as a competent person as defined in the 2012 edition of the "Australian Code for the Reporting of Exploration Results, Mineral Resources and Ore Reserves" (The JORC Code). Mr Niu consents to the inclusion in this report of the contained technical information in the form and context as it appears.

Mineral Resources

Information on historical exploration results and Mineral Resources with respect to the MBLP presented in this Announcement, together with JORC Table 1 information, is contained in the Independent Geologists Report within the Company's Prospectus dated 22 March 2021, which was released as an announcement on 4 May 2021. Information on historical exploration results and Mineral Resources for the Manna Lithium Project presented in this announcement, together with JORC Table 1 information, is contained in an ASX announcement released on the 17 February 2022

The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcements, and that the form and context in which the Competent Persons findings are presented have not been materially modified from the original announcements.

Where the Company refers to Mineral Resources in this announcement (referencing previous releases made to the ASX), it confirms that it is not aware of any new information or data that materially affects the information included in that announcement and all material assumptions and technical parameters underpinning the Mineral Resource estimate in that announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons findings are presented have not materially changed from the original announcement.

JORC Code, 2012 Edition - Table 1 Report

Section 1 Sampling Techniques and Data (Criteria in this section apply to all succeeding sections)

Criteria **JORC Code explanation Commentary** Sampling Nature and quality of sampling (e.g. cut Diamond drilling was undertaken to produce channels, random chips, or specific core for geological logging, assaying and techniques specialised industry standard metallurgical test work. measurement tools appropriate to the Selected core was be submitted to laboratories minerals under investigation, such as in Perth where it was examined, digitally down hole gamma sondes, or handheld scanned for optical imagery and XRF analysis, XRF instruments, etc). These examples and then cut, sampled, crushed and taken should not be taken as limiting the broad through preliminary metallurgical test work. meaning of sampling. Select intervals of cut 1/4 core samples were Include reference to measures taken to crushed and riffle split to 2 to 2.5 kg for ensure sample representivity and the pulverising to 80% passing 75 microns. appropriate calibration of any Prepared samples are to be fused with sodium measurement tools or systems used. peroxide and digested in dilute hydrochloric acid. Aspects of the determination of The resultant solution is analysed by ICP by mineralisation that are Material to the



Criteria **JORC Code explanation** Commentary Public Report. Jinning Testing and Inspection Laboratory in In cases where 'industry standard' work has been done this would be relatively The assay technique is considered to be robust simple (eg 'reverse circulation drilling as the method used offers total dissolution of the was used to obtain 1 m samples from sample and is useful for mineral matrices that which 3 kg was pulverised to produce a may resist acid digestions. 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 (eg submarine nodules) may warrant disclosure of detailed information. Drilling Drill type (eg core, reverse circulation, Drilling was undertaken using a McCulloch open-hole hammer, rotary air blast, techniques DR800 MK2 diamond rig operated by TopDrive auger, Bangka, sonic, etc) and details Drillers Australia. (eg core diameter, triple or standard PQ3 sized core was drilled from surface for the tube, depth of diamond tails, facesampling bit or other type, whether core entire length of each of the two diamond drill is oriented and if so, by what method, holes. etc). Core was orientated using a Reflex ACT III digital core orientation tool. All diamond drill holes were angled at approximately -60 degrees, drilled to 270 degrees (west), unless otherwise noted in the drilling statistics Table. Drill Method of recording and assessing core Core recovery is recorded each metre by the onand chip sample recoveries and results site geologist. sample Logging of the diamond core confirmed a assessed. recovery recovery of >90% throughout each of the holes Measures taken to maximise sample recovery and ensure representative and is very good through the zones with visually observed spodumene. nature of the samples. Whether a relationship exists between No relationship between grade and recovery sample recovery and grade and whether was identified. sample bias may have occurred due to preferential loss/gain of fine/coarse material. Logging Whether core and chip samples have Geological logs exist for all drill holes with been geologically and geotechnically lithological codes via an established reference legend. logged to a level of detail to support appropriate Mineral Resource Logging and sampling were carried out to estimation, mining studies and industry standards to support a Mineral Resource metallurgical studies. estimate. Whether logging is qualitative or Drill holes have been geologically logged in their quantitative in nature. Core (or costean, Where logging was detailed, the entirety. channel, etc) photography. subjective indications of spodumene content The total length and percentage of the were estimated and recorded. relevant intersections logged. All drill holes were logged in full, from start to finish of the hole.



Criteria **JORC Code explanation** Commentary Sub-If core, whether cut or sawn and whether Select zones of core were submitted to a quarter, half or all core taken. laboratory. Core will be cut, sampled, crushed, sampling If non-core, whether riffled, tube and pulverised ahead of assay. techniques sampled, rotary split, etc and whether Sample preparation is according to industry and standards, including oven drying, coarse crush, sampled wet or dry. sample and pulverisation to 80% passing 75 microns. For all sample types, the nature, quality and appropriateness of the sample Field standards, laboratory standards and preparation laboratory repeats will be used to monitor quality preparation technique. Quality control procedures adopted for of analyses. all sub-sampling stages to maximise Sample sizes are considered to be appropriate representivity of samples. and correctly represent the style and type of Measures taken to ensure that the mineralisation. 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 The nature, quality and appropriateness The assay technique is considered to be robust of the assaying and laboratory as the method used offers total dissolution of the assay data procedures used and whether the sample and is useful for mineral matrices that and technique is considered partial or total. may resist acid digestions. laboratory For geophysical tools, spectrometers, Multielement analysis will be carried out on tests handheld XRF instruments, etc, the assay samples for the following elements: Al, parameters used in determining the Be, Ca, Cs, Fe, Ga, K, Li and Li2O, Mg, Mn, Mo, analysis including instrument make and Nb, P, Rb, S, Si, Sn, Ta, Ti and V. model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. Verification The verification of significant The 2021 diamond and RC drilling campaigns intersections by either independent or were supervised by the staff from the consultancy of alternative company personnel. Resource Potentials. sampling The use of twinned holes. The Li assays from previous programs showed a and Documentation of primary data, data correlation with the mineralised pegmatite assaying entry procedures, data verification, data intersections via elevated downhole grades. The 2 diamond holes were designed to twin storage (physical and electronic) previous drilled RC holes with anomalous Li protocols. MBDD001 assays intervals twinned Discuss any adjustment to assay data. MBRC0035 and MBDD002 twinned MBRC0114. Drill logs exist for all holes as electronic files and hardcopy. Logging was completed on paper logs at time of drilling and electronically sent to Perth daily for data-entry to digital logs. All digital logs are exported to an external Database Administrator, validated and loaded to a database and validated prior to use. No adjustments made to primary assay data.



Criteria **JORC Code explanation** Commentary Location of Accuracy and quality of surveys used to Prior to drilling, collar coordinates are situated locate drill holes (collar and down-hole using handheld GPS (considered accurate to data points surveys), trenches, mine workings and within 4 m). other locations used in Mineral Resource • DGPS collar surveying was completed post estimation. program to improve location and elevation Specification of the grid system used. accuracy. Quality and adequacy of topographic Grid used is MGA94 datum Zone 50 SUTM control. ("MGA") projection. All diamond holes have been surveyed with a Reflex GYRO SPRINT-IQ north seeking gyro to determine hole deviation. Data Previous first pass exploration drilling has not Data spacing for reporting of Exploration been drilled on a grid pattern, rather drilling has Results. spacing been conducted on targeted lines across Whether the data spacing and and geochemical anomalies, outcropping pegmatite distribution is sufficient to establish the distribution degree of geological and grade and extension (+ infill) of previous drill lines. continuity appropriate for the Mineral Drill spacing varies between 100m by 50m in Resource and Ore Reserve estimation selected areas, through to 400m by 50m grid or is on isolated targets where exploration holes procedure(s) and classifications applied. targeting specific geochemical, outcrops or Whether sample compositing has been structural targets are not on a uniform grid applied. spacing. Historic (BCIM) drilling undertaken was very close spaced (nominal 10 m apart) along 4 separate lines targeting outcrop and geochemical anomalies. Soil grid: 400 m by 100 m (majority), 200m by 100m (selected areas), 50m by 50m (small southern area). No sample compositing applied. Orientation Drilling has been angled to achieve the most Whether the orientation of sampling representative (near perpendicular) intersections achieves unbiased sampling of possible of data in structures and the extent to which this is through mineralisation (i.e. angled holes for relation to known, considering the deposit type. moderately dipping pegmatite bodies) and to geological most accurately twin the existing RC holes in line If the relationship between the drilling structure orientation and the orientation of key with the objectives of the program. mineralised structures is considered to The identified target lithium bearing pegmatites have introduced a sampling bias, this are generally moderately dipping (30° to 50°) should be assessed and reported if eastwards in nature. The true width of material. pegmatites is generally considered 80% to 90% of the intercept width, with minimal opportunity for sample bias. Sample The diamond core samples are taken from the The measures taken to ensure sample security. drilling rig by experienced personnel, stored security securely and transported to the laboratory by a registered courier and handed over by signature. Audits or The results of any audits or reviews of No audits have been undertaken to date. sampling techniques and data. reviews



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. 	 The Archer lithium deposit is situated entirely within tenement WA exploration licence E45/4309. All tenure is wholly owned by Global Lithium Resources Limited. The portfolio of mineral tenements, comprising three granted exploration licences are in good standing.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 Mineral exploration over the Marble Bar project area has been undertaken for a number of commodities, including gold, base metals, diamonds, tin and tantalum by various companies since the 1960s. Cominco Exploration Pty Ltd (Cominco) explored the area for Witwatersrand style gold and uranium mineralisation during the late 1960s. Poor drilling results led Cominco to surrender the ground. Endeavour Resources Limited (Endeavour) undertook exploration for alluvial, eluvial, deep lead and pegmatite hosted tin-tantalum mineralisation in the area between 1965 and 1985. Haoma Mining NL and joint venture partner De Beers explored the area for diamonds during the late 1990s to early 2000s. Montezuma Mining Company Limited (Montezuma) held the licences covering the current Marble Bar project area in 2006. Work by Montezuma included a small rock chip sampling program and the collection and assaying of over 2,000 soil geochemical samples. Montezuma defined some discrete >80 ppb gold anomalies in the northeast portion of E45/4309. Lithex Resources Limited (Lithex) acquired the Project area in August 2010 and completed a geological mapping and rock chip sampling program, which was then followed up by auger sampling program and later a reverse circulation (RC) drilling program over the area of the Moolyella Tin Field to the southeast of the project area. Lithex relinquished the tenements in 2013. In 2017, BCI Minerals Limited (BCIM) conducted a series of exploration programs





exploration by the Company.

The MBLP pegmatites have intruded the greenstone belt North Star Basalt, which lies between the Homeward Bound Granite and Jenkins Granodiorite. The source fluids are

Criteria	JORC Code explanation	Commentary
		generally accepted to have come from the Split Rock Supersuite granites located to the southeast of the project area, and which probably extend beneath the project area itself.
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. 	RL is poorly constrained by hand-held GPS and was surveyed later using a DGPS system accurate to within <10cm.
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg 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 cutting to intercept grades has been undertaken. No aggregation of samples undertaken. Assays are reported as pure elements such as Li, Ta, Nb and Sn, and converted to oxides using atomic formulas.
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 drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	 All drilling is angled. The lithium bearing pegmatites identified to date are generally moderately dipping (30° to 50°) eastwards in nature. The true width of pegmatites is generally 80% to 90% of the intercept width, with minimal opportunity for sample bias.



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 drill hole collar locations and appropriate sectional views. 	No maps or sections were used in this announcement
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 available exploration results related to the diamond drilling program have been reported.
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 meaningful and material data have been reported either within this JORC table or within the body of the release above.
Further work	 The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale stepout 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. 	 The drillhole core was scanned for digital imagery and XRF analysis, then cut and samples for assaying and metallurgical test work. The cumulative results provided by the diamond drilling program will be used to confirm RC drilling results, plan further drilling and the re-estimation of Mineral Resources and provide preliminary metallurgical information for scoping and feasibility studies.

