

22 August 2022

# DRILLING COMMENCES OVER SISTER'S LITHIUM PROJECT

## HIGHLIGHTS

- Maiden RC drilling has commenced over the Sister Lithium Project adjacent Global Lithium Limited (ASX; GL1) Archer Lithium Deposit (10.5Mt @ 1.0% Li<sub>2</sub>O) in the East Pilbara.
- The first RC drillhole has intersected 2 pegmatites from 20m (6m thick) and from 44m (4m thick).
- The first phase of drilling will include 18-20 RC drill holes, totalling 2,500m-3000m over the previously identified stacked sheeted lithium bearing pegmatites.
- Reconnaissance mapping and rock chip sampling continues to target phase 3 RC drilling program.
- The second phase drill pads will be prepared in September.

**MinRex Resources Limited (ASX: MRR) ("MinRex"** or "the **Company**") is pleased to announce the commencement of RC drilling at the Sisters Lithium-Tin-Tantalum Project near Marble Bar. The first phase of drilling will incorporate 18 RC drillholes totalling approximately 2,500m.

## MinRex Resources Limited Managing Director Mr Karageorge commented:

"We are excited to have commenced drilling over the Sisters Lithium Project proximal to the Archer Lithium Deposit. Based on the first RC drillhole we have intersected 2 zones of pegmatites varying from 4m to 6m thick which indicates a series of stacked pegmatites. We aim to drill 10,000m over 4-6 phases of drilling programs over Sisters and Moolyella North in the next 2 quarters "

## Sisters Lithium Project

The Sisters Project is situated 1.75km east of Global Lithium Ltd Archer Lithium Deposit, which hosts 10.5Mt @ 1.0% Li<sub>2</sub>O. The project hosts the same greenstone belt as the Archer Deposit. Reconnaissance concentrated on the identification of outcropping lithium rich pegmatites in areas between the greenstone belt and the Homeward Granite contact.

Extensive pegmatites were delineated within granite-greenstone "goldilocks zone". These zones are typical of all major lithium deposits in the Pilbara region of Western Australia. Two zones of spodumene rich pegmatites were located in the southern zone of E45/5871 striking in a north-south direction with the greenstone lithology. This lithium rich zone is approximately 500m in length by 250m in width.

These pegmatites are striking between 20<sup>0</sup> and 55<sup>0</sup> with individual pegmatites ranging from 50m to 300m in length. Some of the pegmatites range from 0.5m to 3.5m in width with some lepidolite pegmatite dykes trending the same orientation as the main pegmatites.

On the 2 August 2022, the Company announced the high-grade rock chip sample results, which yielded **3.42% Li<sub>2</sub>O**, **<u>1.59% Li</u>**, **105 ppm Cs**, **80 ppm Ta**, **120 ppm Nb**, **130 ppm Sn**, **1,980 ppm Rb** from the stacked pegmatites. Drilling has concentrated around the newly identified lithium-rich pegmatites.





Photo 1 – Commencement of drilling within the Sister Lithium Project



Photo 2 – MBRC002 drillhole intersecting 6 metres of altered Pegmatite from 20m to 26m





Photo 3 – MBRC002 drillhole intersecting 4 metres of Pegmatite from 44m to 47m





Figure 1 – Sisters Project highlighting the proximal Archer Lithium Resource Areas



This ASX announcement has been authorised for release by the Board of MinRex Resources Limited.

-ENDS-

#### For further information, please contact:

George Karageorge Managing Director MinRex Resources Limited T: +61 8 9481 0389 M: 0419 944 484 George.Karageorge@minrex.com.au info@minrex.com.au

#### About MinRex Resources Ltd

MinRex Resources Limited (ASX: MRR) is an Australian based ASX-listed emergent battery metals explorer with Lithium-Tin-Tantalum Projects in the Pilbara (WA) in close proximity to world-class Lithium and Tantalum producers Pilbara Minerals, Mineral Resources, and Global Lithium. MinRex also has a highly prospective portfolio of Gold-Copper projects in the Murchison and Pilbara Regions (WA) and Gold-Silver-Copper and other metals projects in the Lachlan Fold Belt (NSW). The Company's tenements package cover 1,000km<sup>2</sup> of highly prospective ground targeting multi-commodities type deposits. The Company also currently has JORC 2012 Resources totalling 352,213 oz gold at its Sofala Project (NSW).

#### Competent Persons Statement

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Ian Shackleton. Mr. Shackleton is the Non-Executive of MinRex Resources Limited and is a Member of the AIG of whom have sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported 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. Mr. Shackleton has verified the data disclosed in this release and consent to the inclusion in this release of the matters based on the information in the form and context in which it appears.

#### **Forward Statement**

This release includes forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning MinRex's planned exploration programs and other statements that are not historical facts. When used in this release, the words such as "could", "plan", "estimate", "expect", "anticipate", "intend", "may", "potential", "should", "might" and similar expressions are forward-looking statements. Although MinRex believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve known and unknown risks and uncertainties and are subject to factors outside of MinRex's control. Accordingly, no assurance can be given that actual results will be consistent with these forward-looking statements.

#### References

Burton J., C58/2015 – Marble Bar Project Annual Report for the Period 1st February 2017 to 31st January 2018.

Hickman A. H. and Lipple S. L. 1978. 1:250,000 Geological Series-Explanatory Notes. Marble Bar, Western Australia, Sheet SF50-8 International Index. Geological Survey of Western Australia.

Lamerand J., 2008 Annual Report on E45/2680, Talga Project, for the Period 30 March 2007 to 29 March 2008. Montezuma Mining Company Ltd.

London, D. 1992 The application of experimental petrology to the genesis and crystallization of granitic pegmatites. The Canadian Mineralogist, 30(3), pp. 499-540.

Shackleton. I. C58/2015 – Marble Bar Project Annual Report for the Period 1st February 2019 to 31st January 2020. Global Lithium Resources Pty Ltd.





Figure 2 – MinRex Resources Project Location Map highlighting the proximity to known Lithium-Gold Resources and Operational Mines



#### Appendix 1

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 techniques	Nature and quality of sampling (eg 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. In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.	<ul> <li>Proposed 18 RC drill holes over the Sisters Project, totalling approximately 2,500m.</li> <li>Sample type was drilling cuttings from RC drilling, sampled every 1 metre. Every sample weighted between 3 and 5 kgs.</li> <li>Industry standard practices will used to ensure sample representation. Nagrom Laboratories in Perth applied QA-QC for sample preparation and appropriate instrument calibration.</li> <li>Individual samples were collected from the static cone splitter below the cyclone into calico bags for analysis.</li> <li>Duplicates, and standards will be submitted to ensure results are repeatable and accurate. Laboratory comparison checks will also be completed. With no statistically significant lab errors or biasing shown at this stage.</li> <li>Intervals were geologically logged by a geologist currently on the drilling programme.</li> </ul>
Drilling techniques	Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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).	KLW 700 RC drill rig using a 5¼" hammer at an inclination of 60° east and west will be completed as part of the drill program. Drill samples are homogenised by collection in the cyclone and split via astatic cone splitter prior to sampling.
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	All one metre intervals were logged, and sample recoveries were estimated by geologist on site. All samples were dry or moist with minimal ground water encountered during drilling thus the representative nature of the sample remained the same.



## ASX Code: MRR

Logging	bias may have occurred due to preferential loss/gain of fine/coarse material. 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	Dry and slightly moist RC samples have an exceptionally low potential for sample bias. All RC drilling is qualitatively and quantitatively logged for geological attributes in their entirety including as appropriate major & minor lithologies, alteration, vein
	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.	<ul> <li>minerals, , lepidolite and spodumene percentage, colour, weathering and, grain size.</li> <li>All RC holes were geological logged from the start to the end of hole.</li> <li>The Project areas is currently classified as early stage of exploration and no Mineral Resource estimation is applicable with all samples logged based on their alteration, grain size and mineral composition.</li> <li>All fields' descriptions are qualitative in nature.</li> </ul>
		some sample photos have been included highlighting the pegmatites intersected.
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.	All RC holes were sampled and split every 1 metre using a cone splitter to produce a sample between 3 and 5 kgs sub-sample for submission to Nagrom Labs in Perth.
	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.	Approx. 7% of submitted samples are in the form of standards, and duplicates and will be submitted once the drilling programme has been completed. The sample sizes are appropriate to the grain size and likely grade of the material been 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,	All samples will be submitted to Nagrom Labs in Perth for analysis. Geophysical Tools: Not Applicable
	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.	A nominal one in twenty (6%) of all samples analysed is a duplicate. In addition, re- splits if required are also analysed to determine the precision of the sample preparation and analytical procedures.
		Reference material (standards) have been inserted as part of the accuracy levels.
Verification of sampling	The verification of significant intersections by either independent or alternative	N/A
and assaying	company personnel. The use of twinned holes.	N/A



	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data.	
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.	All drill holes collars were taken using a GPS on site. Down hole surveying was completed by the drilling company at the completion of the hole using a Reflex GYRO SPRINT-IQ north seeking gyro in multi-shot mode. Project used for the programme was GDA94, 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.	Data spacings and distribution at this stage is not considered satisfactory for estimation of a Mineral Resource or Ore Reserve.
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 drilling program was planned use 60° east and west dipping drill holes with the objective of achieving unbiased sampling of the potential mineralisation. The relationship between the drilling orientation and the orientation of the mineralisation is not considered to have introduced any material sampling bias.
Sample security	The measures taken to ensure sample security.	Sub-samples will be stored on site prior to being transported to the laboratory for analysis. The sample pulps will be stored at the laboratory and will be returned to the Company and stored in a secure location.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been undertaken

## 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	Sister Lithium Project (E45/5871) is 100% held by True Fella Pty Ltd with all battery mineral rights, including spodumene and lepidolite, held 100% by MinRex Resources Ltds.
	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.	E45/5871 was granted by the DMIRS for an initial 5-year term on the 01/07/2022.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Apart from extensive soil geochemical sampling on a nominal 400m by 100m spacing and limited rock chip sampling very little lithium exploration has been undertaken



		over these proje has been histori	ect areas. No cally complet	ed.	physics and	very litt	le geologi	cal mapping
Geology	Deposit type, geological setting, and style of mineralisation.	The deposit types been explored includes the Archer Lithium Deposit						
Drill hole Information	rill 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: <ul> <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> <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>	Table 1: <u>Summa</u> Hole Id MBPRC001	ry of Propose Easting 793685	d RC Drillhole Northing 7663025	Azimuth	<b>Dip</b> -60	<b>Depth</b> 100	
			702640	7662025	270	-00	209	
		MBPRC004	793700	7663065	270	-60	100	
		MBPRC005	793725	7663065	270	-60	184	
		MBPRC006	793795	7663050	270	-60	100	
		MBPRC007	793835	7663050	270	-60	184	
		MBPRC008	793785	7662990	270	-60	100	
	MBPRC009	793805	7662990	270	-60	184		
		MBPRC010	793665	7662960	270	-60	100	
		MBPRC011	793685	7662960	270	-60	184	
		MBPRC012	793775	7662930	270	-60	100	
		MBPRC013	793795	7662930	270	-60	184	
		MBPRC014	793715	7662930	90	-60	184	
		MBPRC015	793730	7662855	270	-60	100	
		MBPRC016	793750	7662855	270	-60	184	
	MBPRC017	793815	7663250	270	-60	100		
		MBPRC018	793835	7663250	270	-60	262	
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.	N/A						



	The assumptions used for any reporting of metal equivalent values should be clearly stated.	
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').	At this stage one RC hole has been completed and the relationship between the hole and geometry of the pegmatites intersected is not known.
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.	Figure 1 have been presented within the announcement and the locations outlined in Table 1.
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.	N/A
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.	N/A
Further work	The nature and scale of planned further work (eg 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.	Refer to the main body of the announcement.