

7 September 2022

ASX Release

NEW HIGH-GRADE LITHIUM ROCK CHIPS OVER TAMBOURAH NORTH LITHIUM PROJECT

HIGHLIGHTS

- New rock chip sampling over the Central and Southern Zone has identified more extensive pegmatites hosting visible lithium mineralisation within the Tambourah North Project area.
- Three lithium rich zones have been identified within the Project area
- **Zone 1** April 2022 consists of spodumene rich pegmatites hosted within the Apex Basalt located in the northern portion of the tenement.
 - **MRR028: 2.56% Li₂O, 1.59% Li, 115 ppm Cs, 40 ppm Ta**
 - **MRR040: 1.91% Li₂O, 1.19% Li, 518 ppm Cs, 370 ppm Ta**
- **Zones 2 & Zone 3** consists of lepidolite and spodumene rich pegmatites hosted on the contact of the Petroglyph Gneiss and Apex Basalt South of Spodumene Zone 1. Lithium mineralisation varies from:
 - **MRR050: 0.78% Li₂O, 1128 ppm Cs, 40 ppm Ta**
 - **MRR051: 1.01% Li₂O, 194 ppm Cs, 94 ppm Ta**
 - **MRR052: 1.48% Li₂O, 200 ppm Cs, 63 ppm Ta**
 - **MRR053: 1.49% Li₂O, 1550 ppm Cs, 181 ppm Ta**
- **Zone 2 and Zone 3** has elevated tin, tantalum and rubidium results varying from **63 to 181 ppm** and **rubidium assays from 1,172 to 1,550 ppm Rb**.
- Central-Southern Zone geological mapping yielded the following:
 - Further 500m of pegmatite extension hosting lithium mineralised extensions from rock chip sample location **(MRR040 1.91% Li₂O, 1.19% Li into Zone 3)**.
 - Surface Lithium mineralisation based on visual observations appears mostly to be lepidolite within thin spodumene bearing pegmatites veins cross-cutting main pegmatites at 290°.
 - Pegmatites follow the orientation of the granite-greenstone contact, multiple stacked sheeted pegmatites range up to 250m in length with widths up to 15m.
 - Palyku (Traditional Landowners) Jartayi Aboriginal Corporation Native Heritage Survey over Tambourah completed.
 - Native Heritage Survey findings and final reporting underway.
 - Programme of Works has been approved from the WA Mines Department for drilling to commence on final Heritage Survey ground clearance.
 - RC Drilling will commence at Tambourah as first pass drilling over Sisters the Moolyella Drill Programme are completed in the next quarter.

MinRex Resources Limited (ASX: MRR) (“MinRex” or “the Company”) is pleased to announce the detail field reconnaissance program over the Tambourah North Lithium Project in the East Pilbara of WA. In August 2022, MinRex conducted the second pass ground geological mapping program over the Tambourah North Lithium Project, which highlighted the identification of more extensive pegmatites on the ground which were previously unknown. The assay results have further validated the previously reported lithium mineralisation from MinRex’s initial rock chip program which yielded high grade lithium-tantalum-rubidium mineralisation (*ASX Release 30 May 2022, New Larger Pegmatite identified over Tambourah North in East Pilbara*).

MinRex Resources Limited Managing Director Mr Karageorge commented:

“We are delighted to have further ground confirmation of lithium mineralisation identified from outcropping pegmatites over the Tambourah North Project areas. This rich lithium stacked sheeted pegmatites have extensive width, strike and zonation which have all the hallmarks of a potential Pilgangoora, Archer and Wodgina Lithium Deposits”.

“Based on the surface geochemistry we have delineated 3 lithium bearing mineralised zones ready to be drill tested in the upcoming RC drill programme. Now that the Heritage Survey and WA Mines Department have approved MinRex application to drill, the Company is currently working on the first maiden RC drillhole program to test the extensive stacked pegmatites over its 100% owned Project.”

Tambourah North Lithium Project

Tambourah is located approximately 200 km south southeast of Port Hedland and 80km southwest of Marble Bar within the Pilbara Mineral Field. Access is via the Great Northern Highway or the Marble Bar – Port Hedland Road and the connecting Hillside Woodstock Road.

Within untested zone 1, a series of stacked pegmatites hosting spodumene striking 330° over 1 km with approximately 50m in width were located within the greenstone belt. Spodumene rich pegmatites were identified in the northern portion of the tenement within the Apex Basalt greenstone belt (Figure 1 and 3).

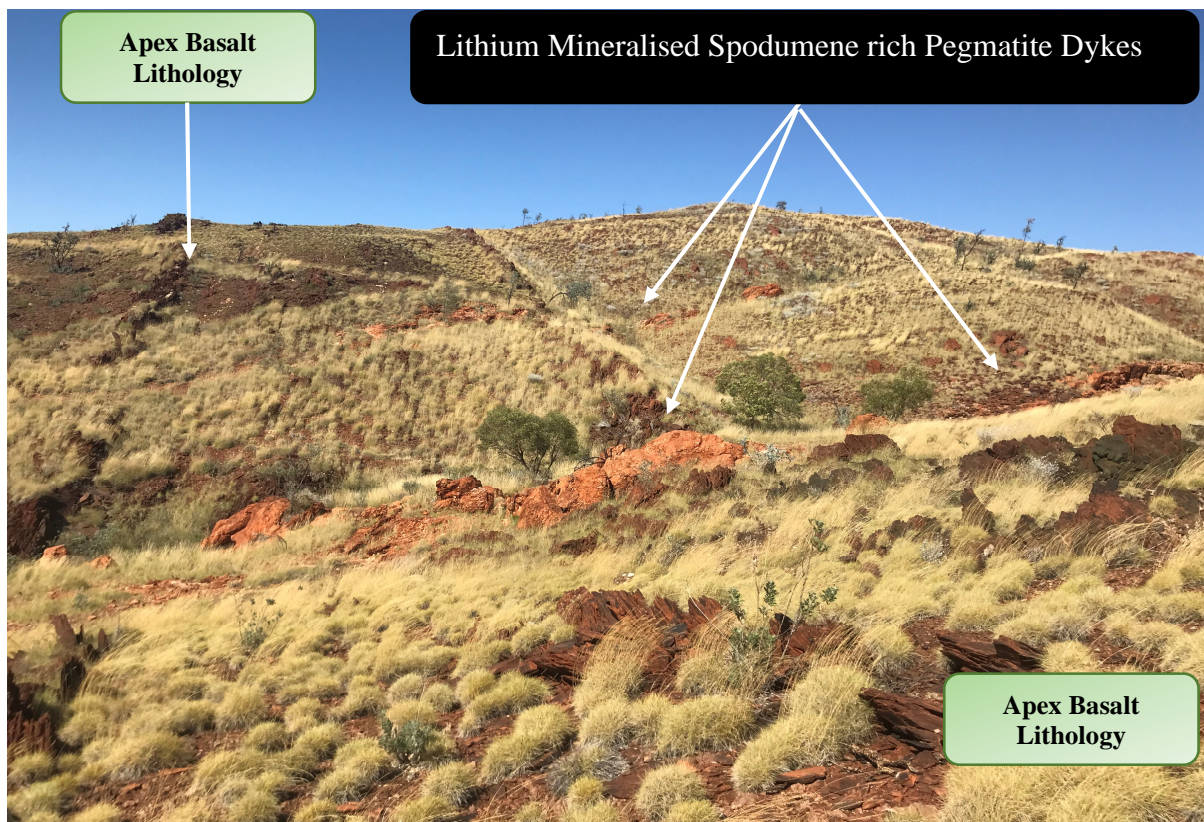


Figure 1 – Tambourah North Untested Zone 1 highlighting stacked series of pegmatites striking over 280m in length hosted with the Apex Basalt Greenstone Lithology

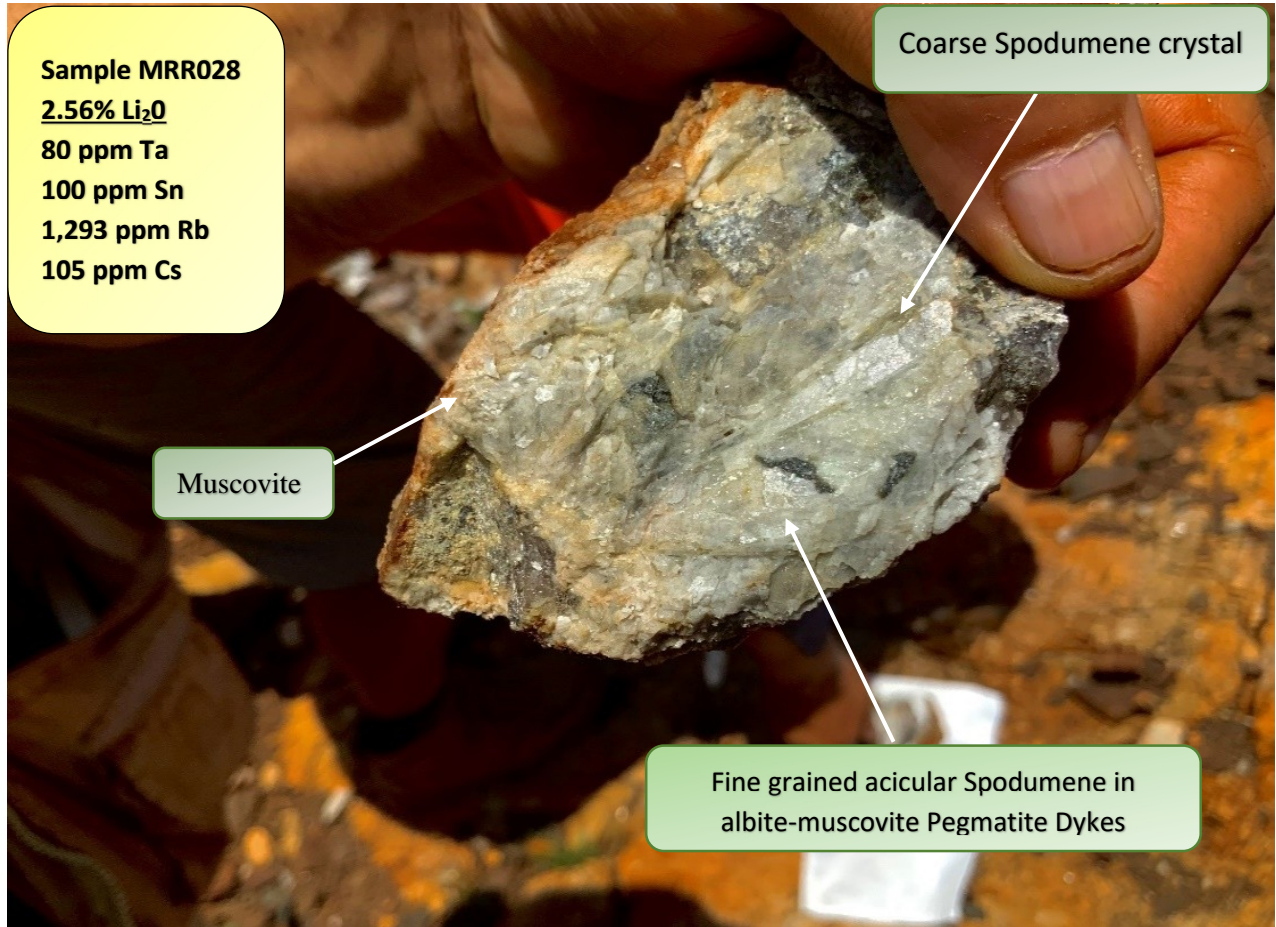


Figure 2 – Sample MRR028 Tambourah North assaying high-grade lithium at 2.56% Li₂O

(ASX Release on the 11 April 2022 “Outstanding Lithium Assays at MinRex Tambourah North Project”)

During the geological mapping and rock chip sampling programme, a series of stacked pegmatites were identified in the central-southern area of E45/4953 (Figure 3). The central-southern zone identified and mapped a stacked series of lepidolite-albite-muscovite rich pegmatites on the contact zone between the Petroglyph Gneiss (granite lithology) and Apex Basalt greenstone belt. These pegmatites follow the same orientation of the granite-greenstone for approximately 830m in length with individual pegmatites ranging from 40m to 250m in length.

Extensive lithium mineralisation was also delineated 500m from MRR040 (1.91% Li₂O), with the pegmatites ranging from 0.5m to 15m in width with lepidolite pegmatite veins cross cutting the main pegmatites (Figure 3). This new target area has been classified as Zone 3 with the upcoming drilling programme concentrating over an area of 450m in strike length by 200m in width to test the newly identified lepidolite rich stacked pegmatites along strike and depth.

Table 1 – Tambourah North (Central-Southern Zone) Rock Chip Assay Results

Sample Id	East GDA 94	North GDA 94	Zone	Li ICP004 ppm	Li ₂ O %	Be ICP004 ppm	Nb ICP004 ppm	Cs ICP004 ppm	Rb ICP004 ppm	Sn ICP004 ppm	Ta ICP004 ppm
MRR050	725817	7596719	50	3610	0.78	150	80	304	1181	20	139
MRR051	725740	7596878	50	4670	1.01	121	60	194	1172	36	94
MRR052	725760	7597083	50	6870	1.48	78	50	200	1613	19	63
MRR053	725792	7597158	50	6900	1.49	62	70	487	1550	14	181

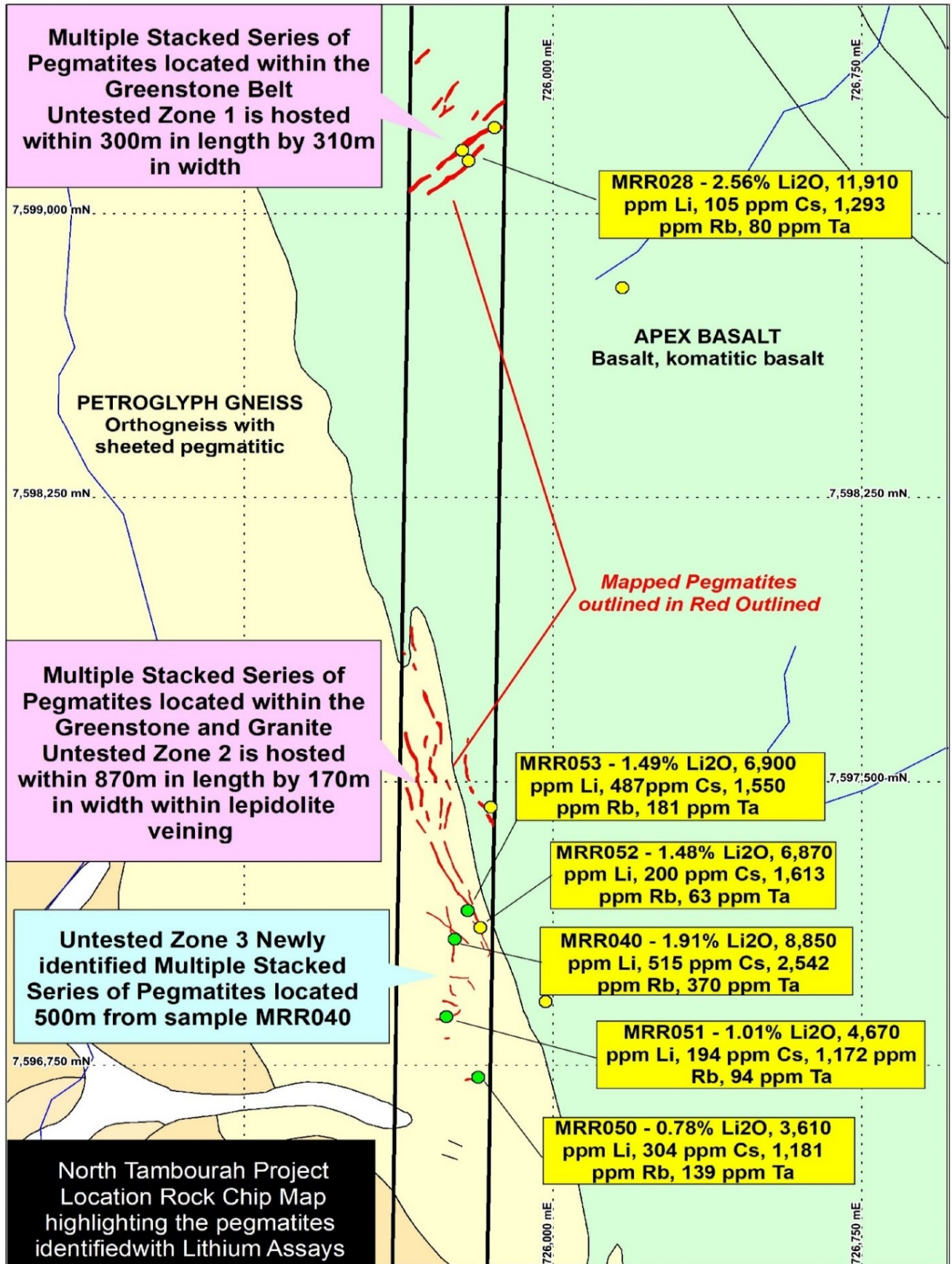


Figure 3 – Tambourah North Project highlighting the Recent Identification of Pegmatites with Rock Chip Assay Results

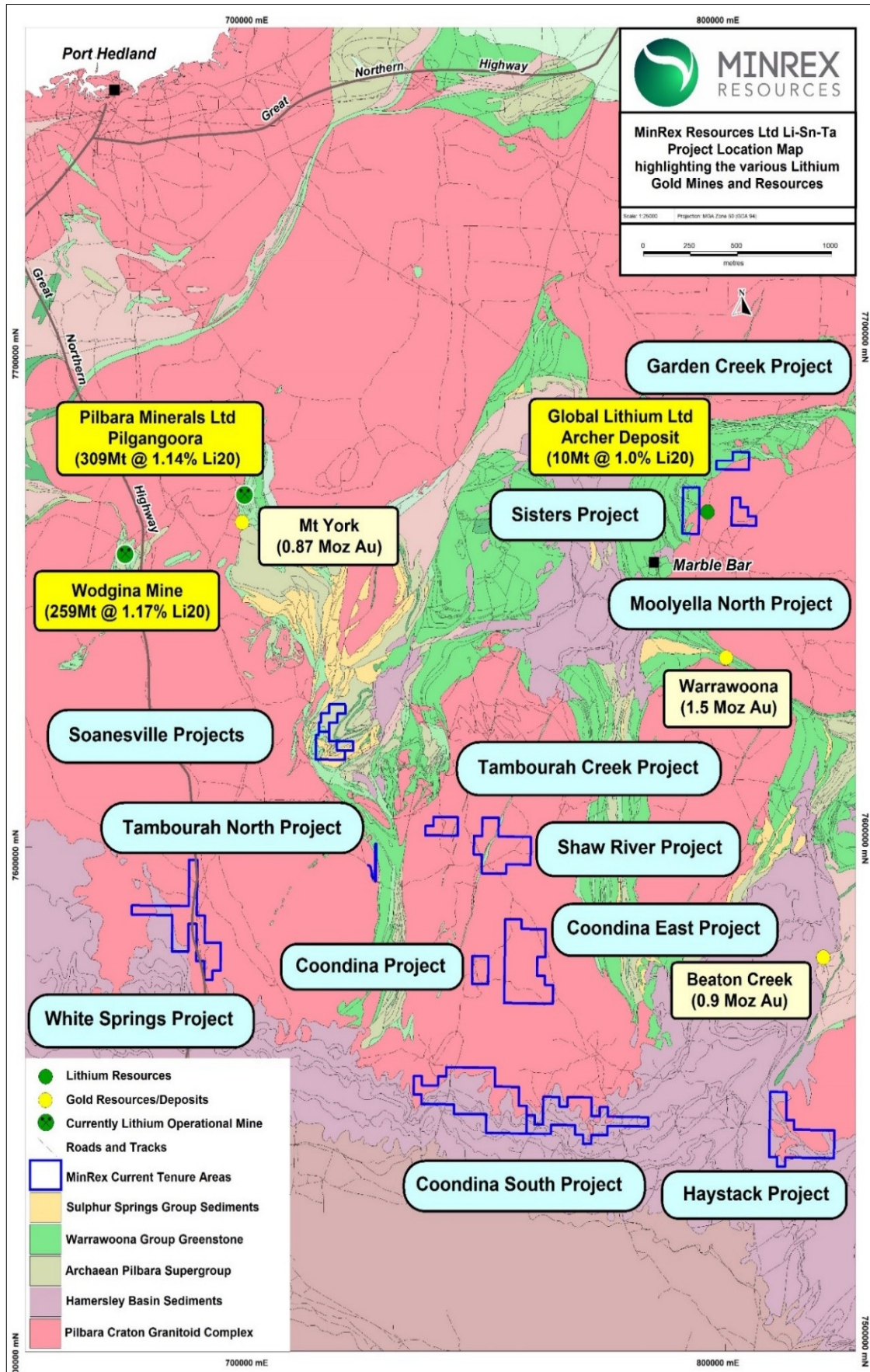


Figure 4 – MinRex Resources Project Location Map highlighting the proximity to known Lithium-Gold Resources and Operational Mines

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

-ENDS-

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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 Mercherson and Pilbara Regions (WA) and Gold-Silver-Copper and other metals projects in the Lachlan Fold Belt (NSW). The Company's tenements package cover 1,000km² 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 Pedro Kastellorizos. Mr. Kastellorizos is the Non-Executive of MinRex Resources Limited and is a Member of the AUSIMM 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. Kastellorizos have 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

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The Geology and Mineralogy of the Pilgangoora Li-Ta Pegmatite Deposit-Marcus T Sweetapple, John Holmes, John Young, Mike W Grigson, Lauritz Barnes & Stuart Till-Centre of Exploration Targeting, UWA, Western Australia 2017

A Preliminary Deposit Model for Li-Ce-Ta (LCT) Pegmatites, Dwigg Bradley and Andrew McCauley, USGS Open File 2013-1008 REE-Enriched Granitic Pegmatites-T Scott Ercit, Canadian Museum of Nature, 2014. 5. DMIRS WAMEX Report.

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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.

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	<p><i>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.</i></p> <p><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></p> <p><i>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.</i></p>	<p>Total of 3 rock chip samples were collected with the sample varies from 1 kg to 3 kg based on pegmatite outcrop as this maybe potential lithium indicative target mineralogy.</p> <p>All samples were collected by geologists on site with samples dispatched to Nagrom Labs in Perth.</p> <p>Nagrom used industry standard method for pegmatite analysis using ICP detection.</p>
Drilling techniques	<p><i>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).</i></p>	N/A – No drilling was undertaken
Drill sample recovery	<p><i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></p> <p><i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></p> <p><i>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.</i></p>	N/A – No drilling was undertaken
Logging	<p><i>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.</i></p> <p><i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></p> <p><i>The total length and percentage of the relevant intersections logged.</i></p>	<p>N/A – No drilling was undertaken.</p> <p>The Project areas is currently classified as early stage of exploration and no Mineral Resource estimation is applicable</p> <p>Some sample photos have been included along with outcropping pegmatites.</p>
Sub-sampling techniques and sample preparation	<p><i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></p> <p><i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></p> <p><i>For all sample types, the nature, quality and appropriateness of the sample preparation</i></p>	All rock chip samples were collected from pegmatite outcrop in the field using geological hammers

	<p><i>technique.</i></p> <p><i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></p> <p><i>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.</i></p> <p><i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></p>	
Quality of assay data and laboratory tests	<p><i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></p> <p><i>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.</i></p> <p><i>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.</i></p>	<p>All samples will be submitted to Nagrom Labs in Perth for analysis.</p> <p>Geophysical Tools: Not Applicable</p> <p>All samples were dried, crushed and pulverized to at less 85% passing <75um. Li20% was calculated from Li ppm using a conversion factor of 2.153 at the lab.</p> <p>Nagrom used 6 standards and 2 repeats</p> <p>Acceptable levels of accuracy for these rock chips were concluded.</p>
Verification of sampling and assaying	<p><i>The verification of significant intersections by either independent or alternative company personnel.</i></p> <p><i>The use of twinned holes.</i></p> <p><i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i></p> <p><i>Discuss any adjustment to assay data.</i></p>	<p>Rock chip samples areas were documented in the field by qualified geologist with photos taken from each site.</p> <p>All samples were collected by GPS and validated through aerial photography.</p> <p>All field data was collected then transferred into a computer database.</p>
Location of data points	<p><i>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.</i></p> <p><i>Specification of the grid system used.</i></p> <p><i>Quality and adequacy of topographic control.</i></p>	<p>All photo locations were recorded with a handheld GPS with +/- 5m accuracy</p> <p>Project used for the programme was GDA94, Zone 50</p>
Data spacing and distribution	<p><i>Data spacing for reporting of Exploration Results.</i></p> <p><i>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.</i></p> <p><i>Whether sample compositing has been applied.</i></p>	<p>Data spacings and distribution at this stage is not considered satisfactory for estimation of a Mineral Resource or Ore Reserve.</p>
Orientation of data in relation to geological structure	<p><i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></p> <p><i>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.</i></p>	<p>Samples were collected along strike and width of all identified pegmatites in the field.</p>
Sample security	<p><i>The measures taken to ensure sample security.</i></p>	<p>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.</p>
Audits or reviews	<p><i>The results of any audits or reviews of sampling techniques and data.</i></p>	<p>No audits or reviews have been undertaken</p>

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	<i>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.</i>	Tambourah North Project is 100% held by MinRex Resources Ltd.
Exploration done by other parties	<i>Acknowledgment and appraisal of exploration by other parties.</i>	Very little lithium exploration has been undertaken over these project areas. No ground geophysics and very little geological mapping has been historically completed.
Geology	<i>Deposit type, geological setting, and style of mineralisation.</i>	Lithium-Caesium-Tantalum pegmatites with structurally deformed greenstone similar to Greenbushes, Pilgangoora and Wodgina Lithium Deposit
Drill hole Information	<p><i>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:</i></p> <ul style="list-style-type: none"> ○ <i>easting and northing of the drill hole collar</i> ○ <i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i> ○ <i>dip and azimuth of the hole</i> ○ <i>down hole length and interception depth</i> ○ <i>hole length.</i> <p><i>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.</i></p>	N/A no drilling undertaken
Data aggregation methods	<p><i>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.</i></p> <p><i>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.</i></p> <p><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></p>	N/A
Relationship between mineralisation widths and intercept lengths	<p><i>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.</i></p> <p><i>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’).</i></p>	N/A

Criteria	JORC Code explanation	Commentary
Diagrams	<i>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.</i>	Figure 1 have been presented within the announcement and the locations outlined in Table 1.
Balanced reporting	<i>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.</i>	N/A
Other substantive exploration data	<i>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.</i>	N/A
Further work	<i>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.</i>	Refer to the main body of the announcement.