



# ASX ANNOUNCEMENT



17 JULY 2017

## Drilling Program Completed At Mallina

### Highlights

- 18 holes totalling 1,343m completed in the first phase of drilling at Mallina
- Five spodumene pegmatites targeted with pegmatite intersected in each area
- Assay results return anomalous lithium with up to 5m @ 1.00% Li<sub>2</sub>O from 46m in hole SMRC012 and with a peak assay value of 1.62% Li<sub>2</sub>O over one metre from 27m in hole SMRC005

Sayona Mining Limited (ASX: SYA) ("Sayona" or the "Company") is pleased to report an exploration update at its Mallina spodumene pegmatite project in the Pilgangoora district of Western Australia.

A total of 18 reverse circulation drill holes for a total 1,343 metres have been completed, testing five spodumene pegmatites.

At each target drilling has intersected pegmatite. The eastern group of pegmatites (see figures below) returned the broadest zones of pegmatite, with up to 19 metres downhole width (recorded in SMRC001). The pegmatites have been variably altered by silicification, which results in zones of green, fine grained silica rich replacement pegmatite.

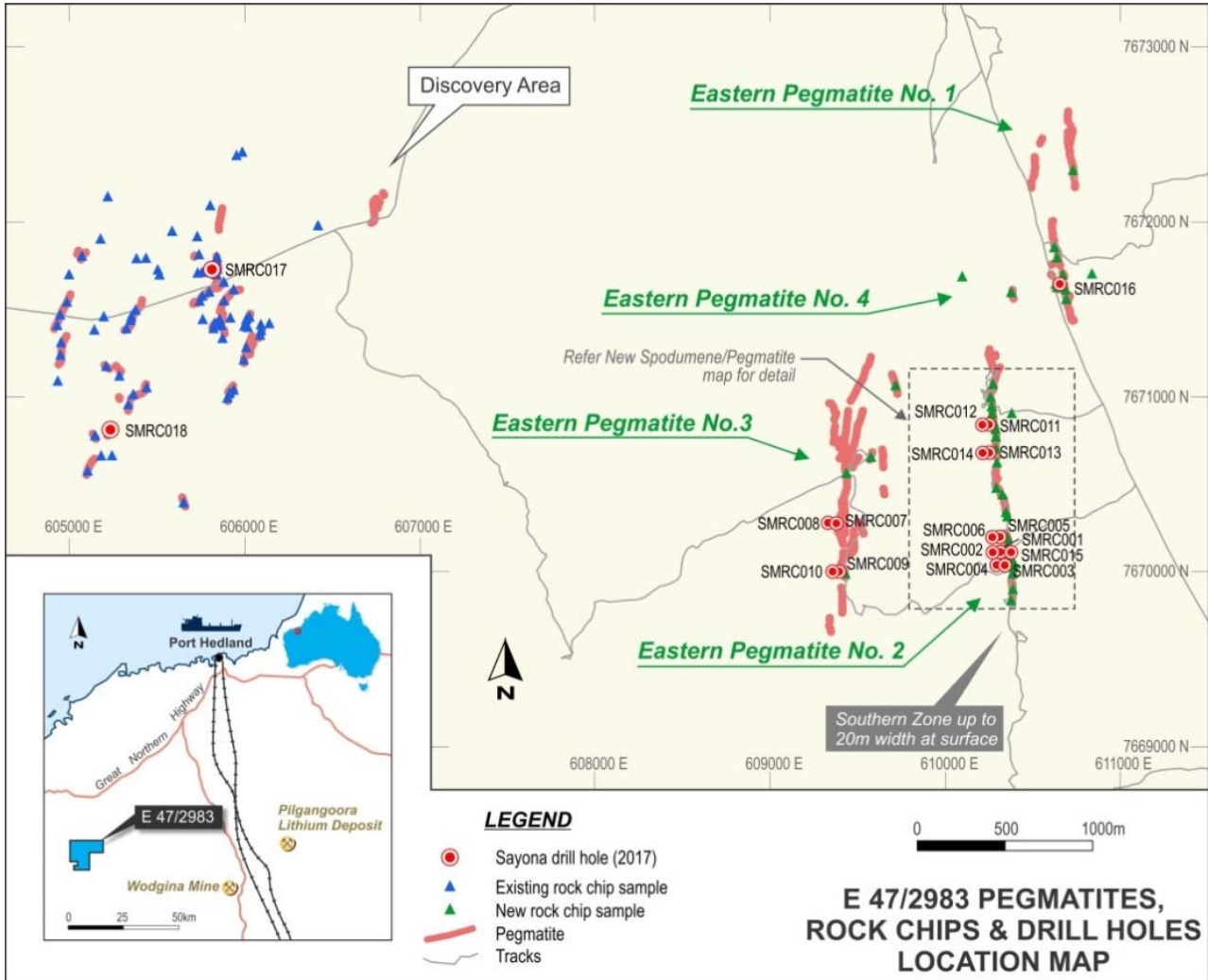
Spodumene, observed during logging, has good correlation with assay results (see Table 1). Intercepts include up to 5m @ 1.00% Li<sub>2</sub>O from 46 metres in hole SMRC012 and a peak assay result of 1.62% Li<sub>2</sub>O from 27 metres to 28 metres in hole SMRC005. The drilling results are disappointing as they do not correspond with the surface rock sampling results, which returned mineralisation across the full width of surface pegmatite.

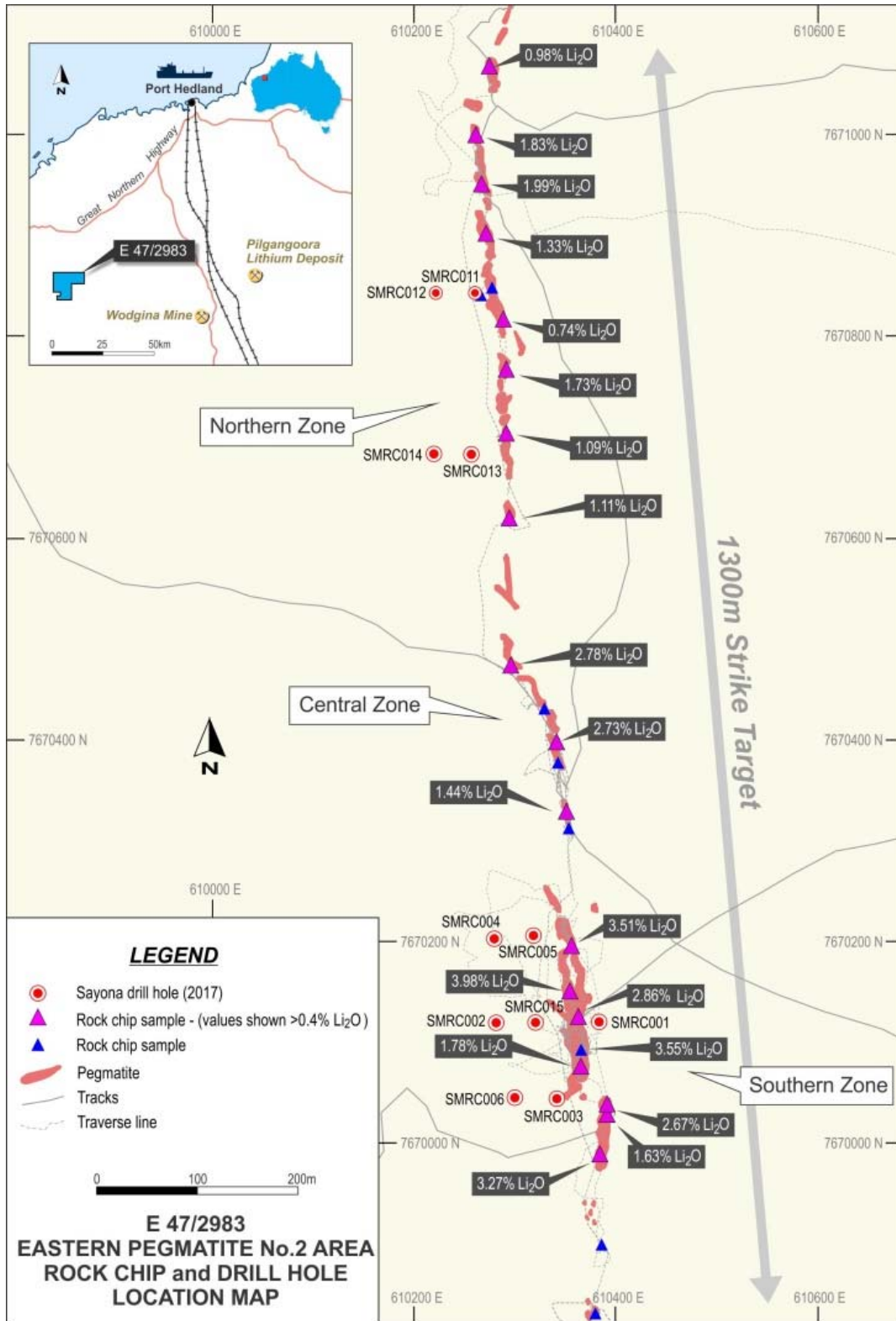
The timing of the silicification event, which appears to have led to the replacement of spodumene with silica is unclear. Similar late stage magmatic silicification events however are described in other pegmatite systems worldwide. Drilling has tested fresh bedrock and surface weathering does not appear to have caused the effects.

Petrology and other studies are being carried out to understand the drill results further. A zonation may be identified and areas with potential for preserved spodumene, or targets where the remobilised lithium has migrated to may be identified. Also, additional prospective pegmatite systems which remain untested may be highlighted. On completion targets can be considered for further drill testing.

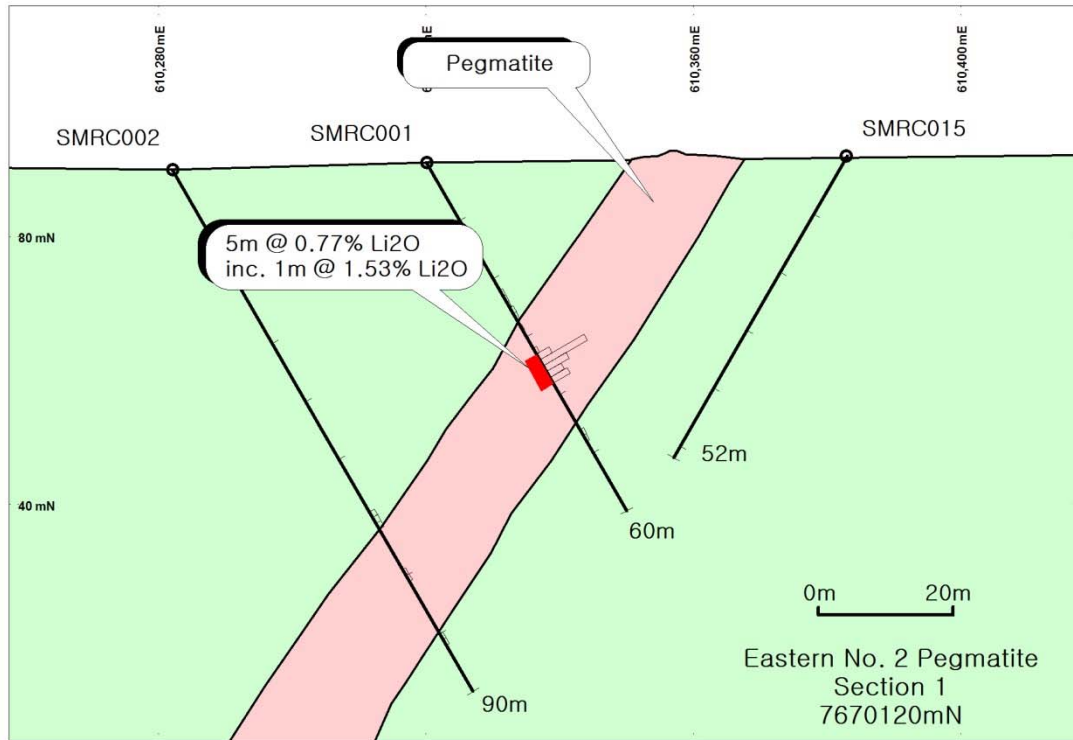
Table 1 - Drill assay intercepts above 0.25% Li <sub>2</sub> O						
Hole ID	Prospect	Easting	Northing	From	To	Intercept
SMRC001	Eastern No.2	610320	7670117	33m	38m	5m @ 0.77% Li <sub>2</sub> O
<b>including</b>				34m	35m	1m @ 1.53% Li <sub>2</sub> O
SMRC002	Eastern No.2	610282	7670117	No significant results		
SMRC003	Eastern No.2	610342	7670042	45	50	5m @ 0.73% Li <sub>2</sub> O
SMRC004	Eastern No.2	610300	7670043	59	62	3m @ 0.35% Li <sub>2</sub> O
SMRC005	Eastern No.2	610318	7670203	24	29	5m @ 1.01% Li <sub>2</sub> O
<b>including</b>				27m	28m	1m @ 1.62% Li <sub>2</sub> O
SMRC006	Eastern No.2	610280	7670201	85	89	4m @ 0.41% Li <sub>2</sub> O
SMRC007	Eastern No.3	609379	7670280	13m	19m	6m @ 0.56% Li <sub>2</sub> O
<b>And</b>				23m	25m	2m @ 0.51% Li <sub>2</sub> O
<b>And</b>				38m	43m	5m @ 0.30% Li <sub>2</sub> O
SMRC008	Eastern No.3	609341	7670283	Not sampled		
SMRC009	Eastern No.3	609400	7670006	No significant results		
SMRC010	Eastern No.3	609363	7670003	No significant results		
SMRC011	Eastern No.2	610260	7670841	14m	19m	5m @ 0.78% Li <sub>2</sub> O
SMRC012	Eastern No.2	610223	7670840	46m	51m	5m @ 1.00% Li <sub>2</sub> O
SMRC013	Eastern No.2	610257	7670680	30m	32m	2m @ 0.90% Li <sub>2</sub> O
SMRC014	Eastern No.2	610220	7670681	Not sampled		
SMRC015	Eastern No.2	610383	7670118	Not sampled		
SMRC016	Eastern No.1	610661	7671640	No significant results		
SMRC017	Discovery	605818	7671720	51m	54m	3m @ 0.46% Li <sub>2</sub> O
SMRC018	Discovery South	605239	7670812	No significant results		

Note: Datum is Australian Geodetic MGA Zone 50 (GDA94). Intercepts calculated using a 0.25% lower cut. All samples collected at 1m except hole SMRC017 which is a 3m composite.





A typical drill cross section, 7670120mN is displayed below.



Drill Collar Locations							
Hole_ID	Prospect	Easting	Northing	RL (m)	EOH	Azi	Dip
SMRC001	Eastern No.2	610320	7670117	91	60	90	-60
SMRC002	Eastern No.2	610282	7670117	90	90	90	-60
SMRC003	Eastern No.2	610342	7670042	91	72	90	-60
SMRC004	Eastern No.2	610300	7670043	90	108	90	-60
SMRC005	Eastern No.2	610318	7670203	86	72	90	-60
SMRC006	Eastern No.2	610280	7670201	87	108	90	-60
SMRC007	Eastern No.3	609379	7670280	92	96	90	-60
SMRC008	Eastern No.3	609341	7670283	91	97	90	-60
SMRC009	Eastern No.3	609400	7670006	90	72	90	-60
SMRC010	Eastern No.3	609363	7670003	92	114	90	-60
SMRC011	Eastern No.2	610260	7670841	91	60	90	-60
SMRC012	Eastern No.2	610223	7670840	92	78	90	-60
SMRC013	Eastern No.2	610257	7670680	92	54	90	-60
SMRC014	Eastern No.2	610220	7670681	90	60	90	-60
SMRC015	Eastern No.2	610383	7670118	89	52	270	-60
SMRC016	Eastern No.1	610661	7671640	81	48	90	-60
SMRC017	Discovery	605818	7671720	83	72	90	-60
SMRC018	Discovery South	605239	7670812	87	30	270	-60

Note: Datum is Australian Geodetic MGA Zone 50 (GDA94)

For more information, please contact:

Corey Nolan  
Chief Executive Officer  
Phone: +61 (7) 3369 7058  
Email: info@sayonamining.com.au

Sayona Mining Limited is an Australian, ASX-listed (SYA), company focused on sourcing and developing the raw materials required to construct lithium-ion batteries for use in the rapidly growing new and green technology sectors. Please visit us as at [www.sayonamining.com.au](http://www.sayonamining.com.au)

### Competent Person Statement

The information in this report is based on information compiled by Mr. Simon Attwell, a Competent Person, and who is a Member of The Australasian Institute of Mining and Metallurgy. Mr. Attwell is an employee of Attagold Pty Ltd (“Attagold”) which provides geological services to Sayona.

Mr. Attwell has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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’. Mr. Attwell consents to the inclusion in the report of the matters based on his information in the form and context in which it appears

### JORC Code, 2012 edition – Table 1 (section 1; Sampling Techniques and Data)

Criteria	JORC Code explanation	Commentary
<i>Sampling techniques</i>	<ul style="list-style-type: none"> <li><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></li> <li><i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li><i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li><i>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</i></li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation drilling collected 1m drill spoil which was geologically logged and a 1m riffle split samples collected. These 1m split samples approximate to a 3kg representative of the metre drilled. This work is considered industry standard.</li> <li>One drillhole, SMRC017 included samples composited over 3m of drill cutting, with sample material collected by scoop in equal quantity between the drill cuttings.</li> <li>Samples for assay submission were collected following geological logging, with all pegmatite material (the host for lithium mineralisation) being sampled.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>detailed information.</i>	
<i>Drilling techniques</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Drilling was carried out by reverse circulation methods.</li> </ul>
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• No loss of sample recovery or quality was noted during drilling. Appropriate use of downhole air pressure kept cuttings dry. They are considered representative of the zone being drilled. It is not believed a bias has been introduced into the sampling system.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <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></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Logging information is of insufficient detail to support any Mineral Resource Estimation.</li> <li>• All drill cuttings have been geologically logged.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <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></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• No core drilling has been undertaken.</li> <li>• Drill samples have been collected at the time of drilling by riffle splitter. The vast majority of the samples collected were dry.</li> <li>• Sampling of cuttings has been carried out in an industry standard way.</li> <li>• Field duplicates of 1m drill samples have been collected from selected intervals to help QA/QC assessment. It is believed the sampling is representative of the drilled material. The collection methodology is considered appropriate for this RC drilling method.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <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></li> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• Analysis was carried out by ALS, Brisbane which is a certified laboratory in compliance with AS/NZS-9001:2000. Analysis, of a 48 element suite, was determined by mixed acid digest followed by ICP-MS61. This is considered a total digest appropriate to the samples submitted.</li> <li>• Certified Reference Material (approximately 1 in 25 samples), blanks and duplicates, (together approximately 1 in 25 samples) have been inserted into the sampling submitted to the Laboratory. Results confirm acceptable accuracy and precision.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Verification of sampling and assaying</i>	<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>The results have been reviewed by multiple geologists. The company conducts internal data verification protocols which have been followed.</li> <li>Li has been converted to Li<sub>2</sub>O for the purposes of reporting. The conversion used was Li<sub>2</sub>O = Li x 2.153. No other adjustments to assay data has been undertaken</li> </ul>
<i>Location of data points</i>	<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>Drill collars have been located by handheld GPS with an error of approximately +/-5m.</li> <li>The grid system used is Australian Geodetic MGA Zone 50 (GDA94).</li> <li>The level of topographic control offered by the handheld GPS is considered sufficient for the work undertaken</li> </ul>
<i>Data spacing and distribution</i>	<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>There was no predetermined grid spacing to drilling. Locations are provided.</li> <li>The data spacing and distribution is not sufficient to establish the degree of geological and grade continuity appropriate for Mineral Resource estimation procedures.</li> <li>Samples have not been composited.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<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>Drilling has been carried out over small areas of the project and it is not known if results are representative.</li> <li>Drilling has been sited orthogonal to pegmatite targets. There is not enough information to determine if the target has been fully tested by the drillholes which have been completed.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Industry standard sample security and storage were undertaken.</li> </ul>
<i>Audits or reviews</i>	<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>No audits or reviews of the data have been conducted at this stage</li> </ul>

## JORC Code, 2012 edition – Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<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>The Mallina project, E47/2983 is part of a larger tenement portfolio held under Option Agreement with Great Sandy Pty Ltd. The Option terms and tenement details have been previously reported, for example in 21<sup>st</sup> December 2016 ASX release titled 'Option to Acquire New Pilbara Spodumene Discovery'.</li> <li>There are no impediments that have been identified for operating in the project areas</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li><i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<ul style="list-style-type: none"> <li>At Mallina past exploration has focused on the gold and base metal potential of the area.</li> <li>Together with government data provided by GSWA past information has allowed recognition of the projects potential.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li><i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<ul style="list-style-type: none"> <li>Lithium is being targeted within rare metal pegmatites which represent the most fractionated and evolved pegmatite type. Sayona's main focus is in discovery of albite-spodumene pegmatite types which host high grade lithium mineralisation. Rare metal pegmatites are uncommon, typically hosted in greenstone rocks near to granite intrusion.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li><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> <ul style="list-style-type: none"> <li><i>easting and northing of the drill hole collar</i></li> <li><i>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i></li> <li><i>dip and azimuth of the hole</i></li> <li><i>down hole length and interception depth</i></li> <li><i>hole length.</i></li> </ul> </li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Drill information is contained in the main body of this report</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li><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></li> <li><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></li> <li><i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i></li> </ul>	<ul style="list-style-type: none"> <li>No variation to laboratory reported assays has been made.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li><i>These relationships are particularly important in the reporting of Exploration Results.</i></li> <li><i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i></li> <li><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></li> </ul>	<ul style="list-style-type: none"> <li>Exploration is at an early stage and information contains insufficient data points to allow these relationships to be reported</li> </ul>
<i>Diagrams</i>	<ul style="list-style-type: none"> <li><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</i></li> </ul>	<ul style="list-style-type: none"> <li>No significant discovery is reported. Collar plan figures and a cross section displaying geology are included in the main body of this release.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>locations and appropriate sectional views.</i>	
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• All relevant assay results are reported herein.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <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></li> </ul>	<ul style="list-style-type: none"> <li>• The exploration reported herein is at a very early stage but results are consistent with geological and other data</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>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></li> </ul>	<ul style="list-style-type: none"> <li>• Further work includes studies to determine the nature of observed silicification and if a zonation (at depth or along strike) is present within the target pegmatites and offer scope for further drill testing of the targets.</li> </ul>