

# High Grade Assay Results Returned from the First Five Drill Holes at the Arcadia High Grade Lithium Project

Prospect Resources Ltd (ASX: **PSC**) (**Prospect** or the **Company**) is pleased to report high grade assay results from its first 5 diamond drill holes ACD001 – 005.

Drilling to date has covered approx. 15% of the Company's Mining Licence area. The drilled strike of the stacked pegmatites now extends more than 1km SW-NE and some 300m down dip to NW. The Company's ground position now covers more than **500 hectares of granted Mining Licences**. Results for diamond drill holes ACD006 – ACD016 and RC drill holes ACR001 – 032 are awaited.

		From			Grade
Hole	Unit	(m)	To (m)	Thickness	LiO₂
ACD001	Main Pegmatite	25.54	33.65	8.25	1.74%
	L1 Pegmatite	36.62	39.28	2.66	1.51%
	Lower Main Pegmatite	58.43	61.87	3.44	0.38%
ACD002	Main Pegmatite	21.68	29.45	7.77	1.74%
	Lower Main Pegmatite	56.60	59.58	2.98	0.97%
ACD003	Main Pegmatite	30.58	43.43	12.85	0.61%
	L4 Pegmatite	56.51	57.54	1.03	1.57%
	Lower Main Pegmatite	66.82	71.53	4.71	1.49%
ACD004	U2 Pegmatite	29.00	30.40	1.40	1.56%
	Main Pegmatite	36.07	41.38	5.31	1.86%
	L5 Pegmatite	56.60	58.13	1.53	1.54%
	Lower Main Pegmatite	64.68	71.04	6.36	1.44%
ACD005	Main Pegmatite	22.10	32.08	9.98	1.46%
	L3 Pegmatite	54.00	57.36	3.36	2.15%
	Lower Main Pegmatite	59.60	65.00	5.40	1.64%

### Summary of Significant Assays – Diamond Drill Holes ACD001-005

The above results are generated from 138 results received from 6 batches covering 5 diamond drill holes. **Peak Assay value of 3.99% Li<sub>2</sub>O.** 

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### Map of the Completed Diamond drill collars (white) and RC drill holes (green), with the Recent Assays in red



## ARCADIA LITHIUM DRILL GRID – August 29th

#### **Development Timetable**

- Maiden JORC mineral resource estimate is expected to be completed before the end of October 2016
- Mine feasibility study planned for completion prior to 31 December 2016
- First ore production planned for pre 30 June 2017
- Off-take discussions underway with Asian lithium carbonate and lithium hydroxide producers and agreements are expected to be completed prior to 31 December 2016





For further information, please contact:

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#### **Competent Person's Statement**

The information in this announcement that relates to Exploration Targets, Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Mr Roger Tyler, a Competent Person who is a member of The Australasian Institute of Mining and Metallurgy and The South African Institute of Mining and Metallurgy. Mr Tyler is the Company's Senior Geologist. Mr Tyler has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Tyler 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 report template

# Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	<ul> <li>At the Arcadia Project, diamond drilling was undertaken with the recent drill holes being collared with HQ size single tube core (63.5mm). The balance of the hole being drilled with NQ sized core (47.6mm) Core was split with a rock saw. The drill core sampling intervals were lithologically controlled, the maximum sampling interval was 1m and the minimum sampling interval was 0.25m.</li> </ul>
	<ul> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> </ul>	<ul> <li>Standards, blanks and field duplicates were inserted into the sample shipment (5% of total sample number)</li> </ul>
	• 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.	• Samples will be shipped to Zimlabs laboratory where they will be crushed and pulverized to produce a 30g charge and then dispatched by courier to ALS Johannesburg. All samples will be analysed by multi-element ICP (ME-MS61). Overlimits on lithium analysed by LiOG63 method, after four acid dissolution.
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).	<ul> <li>Single tube Diamond Drill Core. Initially HQ3 to account for weathered nature of the country rock.</li> </ul>
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> </ul>	<ul> <li>Downhole distances provided by the driller were correlated with measured lengths of the core provided.</li> </ul>
	<ul> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	• RQD, core loss or gain was measured and recorded by summing of the lengths of the core recovered, measuring only those pieces of core that are 10cm or more in length.
		<ul> <li>Sample recovery in diamond drill holes was very good, with the exception of core from the top 3m weathered metabasalts. Prospect utilized HQ drilling to minimize the core loss in the weathered zones</li> </ul>

Criteria	JORC Code explanation	Commentary
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate</li> <li>Minore L Program and importing minimum environments.</li> </ul>	<ul> <li>Core was marked and logged in detail with records kept of the total length and of any core loss.</li> </ul>
	studies.	<ul> <li>Standard Prospect Resources geological codes were used for detailed geological logging, using different logging parameters</li> </ul>
	<ul> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> </ul>	for texture, structures, alteration, mineralisation, lithology and weathering. Core was photographed (wet and dry) in natural light
	• The total length and percentage of the relevant intersections logged.	and each photo run labeled.
Sub-sampling techniques	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> </ul>	• The drill core will be first cut into half along the cutting line, and then the lower half of the core will be cut into two quarters. The
and sample preparation • If w	<ul> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> </ul>	half core will be submitted for laboratory analysis and the other quarters retained for polished thin section production and possible met test work and reference.
	<ul> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> </ul>	<ul> <li>Quality control was provided by insertion of standards, duplicates and blanks. (5% of total). This included the insertion</li> </ul>
	<ul> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> </ul>	of fine duplicates split after the pulverizing process by the pre- preparation labs. These returned acceptable results, indicating no evidence of contamination or mixing
<ul> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> </ul>		<ul> <li>The laboratory's own repeat analysis returned acceptable results.</li> </ul>
	• Whether sample sizes are appropriate to the grain size of the material being sampled.	
Quality of assay data and	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	<ul> <li>All samples will be analysed by multi-element ICP (ME-MS61). Overlimits on lithium analysed by LiOG63 method, after four acid disolution.</li> </ul>
tests	<ul> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> </ul>	To be advised
	• 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 of sampling and	The verification of significant intersections by either independent or alternative company personnel.	<ul> <li>Core inspected by more than one staff member, and external parties, including Geological Survey, and independent</li> </ul>

Criteria	JORC Code explanation	Commentary
assaying	The use of twinned holes.	consultants.
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	<ul> <li>No holes have been twinned to date. Though twinning is taking place on historically drilled holes (from 1970s)</li> </ul>
	Discuss any adjustment to assay data.	Logging and assay data captured electronically on excel spreadsheet
Location of	Accuracy and quality of surveys used to locate drill holes (collar and down hole out rough) transhop mine workings and other locations	No Mineral Resource estimate has been carried out.
uala points	used in Mineral Resource estimation.	<ul> <li>The first drill hole was completed and down-hole surveyed using a Azimuth Point System (APS) Single Shot survey method down-hole</li> </ul>
	Specification of the grid system used.	instrument at a minimum of every 50m and measured relative to
	Quality and adequacy of topographic control.	magnetic North. These measurements have been converted from magnetic to UTM Zone 35 South values. No significant hole deviation is evident in plan or section
<ul> <li>Data spacing and distribution</li> <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> </ul>		• Drill holes are planned to be drilled at an average of 50m intervals
		along strike. This is sufficient to establish geological and grade continuity, Further infill drilling is planned to take place as a second campaign to infill this to 25m where possible using RC drilling.
	Whether sample compositing has been applied.	
Orientation of data in relation to	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.	<ul> <li>Mineralised structures are flat lying pegmatites and drilling was planned in a straightforward manner to intersect these structures without bias.</li> </ul>
<ul> <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>		
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples will be placed in sealed bags to prevent movement and mixing. Minimal preparation was done on site.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	To be advised.

# Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Comment	tary					
Mineral	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, pative title interests</li> </ul>		Arcadia V claim, held by JV partner Paul Chimbodza.					
tenement and			<ul> <li>No environmental or land title issues.</li> </ul>					
status	historical sites, wilderness or national park and environmental	Rural farmland - fallow						
	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.							
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	<ul> <li>Two rounds of historical drilling were done. Three EXT holes were drilled in 1969 at site of current pit. These logs are available, and the lithologies observed are consistent with that seen by Prospect Resources' drilling. The sites of at least 10 NQ sized boreholes have also been identified in the field. The detailed records of this programme have been lost. But the work done in the 1970's was recorded by the Geological Survey in their 1989 bulletin, where historical estimates of 18mt at up to 5% Li were recorded.</li> </ul>				les were and the Prospect les have of this 70's was h, where		
Geology	• Deposit type, geological setting and style of mineralisation.	<ul> <li>Na-Li pegmatite, with spodumene, eucryptite, petalite and amblygonite. In addition to disseminated tantalite and beryl.</li> </ul>						
Drill hole	A summary of all information material to the understanding of the	Bhs	Eastings	Northings	Elev	Azimuth	Dip	Depth
mornauon	for all Material drill holes:	ACD001	331,375	8,034,080	1,403	145	80	67.1
	$\circ$ easting and northing of the drill hole collar	ACD002	331,340	8,034,060	1,404	148	79	104.7
	<ul> <li>elevation or RI (Reduced Level – elevation above sea level in</li> </ul>	ACD003	331,331	8,034,126	1,405	144	80	86.7
	metres) of the drill hole collar	ACD004	331,375	8,034,160	1,400	135	80	80.7
	<ul> <li>dip and azimuth of the hole</li> </ul>	ACD005	331,408	8,034,109	1,398	135	80	71.6
	<ul> <li>down hole length and interception depth</li> </ul>	ACD006	331,386	8,034,223	1,391	135	80	77.7
	$\circ$ hole length	ACD007	331,290	8,034,030	1,404	135	80	74.3
	f the evolution of this information is justified on the basis that the	ACD008	331,238	8,034,075	1,399	135	79	53.6
	<ul> <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>	ACD009	331,200	8,033,965	1,404	142	80	62.7
		ACD010	331,109	8,033,900	1,402	135	80	67.3
e.		ACD011	331,209	8,033,903	1,403	135	80	32.7

Criteria	JORC Code explanation	Comment	ary					
		ACD012	331,100	8,033,850	1,402	135	80	72
		ACD013	331,072	8,033,937	1,370	145	79	60
		ACD014	331,291	8,034,168	1,345	150	78	86.7
		ACD014( b)	331,287	8,034,176	1,342	135	80	29.75
		ACD015	331,135	8,033,973	1,375	158	79	58
		ACD016	331,460	8,034,144	1,343	135	80	85
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum e truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values</li> </ul>	Boreho averag used. 1 veins.	le intersection ing methods The mineralis	ons were re . No maxim sation is we	ported using um or minim Il constraine	i downho ium gradd d in pegn	le weighte e truncatic natites and	d ons were d quartz
	should be clearly stated.							
Relationship between mineralisation	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole</li> </ul>	<ul> <li>The first drilled to intersect the shallow dipping pegma drill holes were drilled with an azimuth of 135°. The d is -80°.</li> </ul>					natite vein dip of all t	is. All he holes
intercept	angle is known, its nature should be reported.	• The first hole intersected the main pegmatite as planned.						
lengths	<ul> <li>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').</li> </ul>							
Diagrams	<ul> <li>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul> <li>Maps a</li> </ul>	are attached	and cross s	sections are	being cre	ated	
Balanced reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	The Co comply	ompany belie with balanc	eves that all ed reporting	results have j.	e been re	ported and	t
Other substantive	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical	<ul> <li>Channe was mi</li> </ul>	el sampling a ned in the '7	also carried ′0s. Geologi	out at the a ical mapping	djacent d i and gral	ormant pit	, that g was

Criteria	JORC Code explanation	Commentary
exploration data	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.	undertaken on a surveyed grid, down-dip and along strike of the pit.
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	<ul> <li>Infill and extension drilling is being planned for Q3 2016</li> </ul>
	<ul> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	