

# ARCADIA TRIAL MINING SAMPLING DELIVERS AVERAGE GRADES OF 2.5% Li<sub>2</sub>O

## Highlights:

- Exceptional results generated from grade control/channel sampling of the Main Pegmatite at Arcadia
  - Average grade of 2.51% Li<sub>2</sub>O from all samples, with a maximum grade of 4.69% Li<sub>2</sub>O
  - Average grade of 108ppm Ta<sub>2</sub>O<sub>5</sub> from all samples, with a maximum grade of 520ppm Ta<sub>2</sub>O<sub>5</sub>
- Trial mining of Main Pegmatite at Arcadia now complete with over 260t of material being generated:
  - Additional 8t of material delivered to Johannesburg for additional DMS and flotation test work
- Offtake and project financing discussions continuing

Prospect Resources Ltd (ASX: PSC) (the "Company") is pleased to announce the results from its in pit grade control sampling program completed at the Arcadia Lithium Project in Zimbabwe. Trial Mining has now been completed with some 260t of Main Pegmatite being generated to supply additional material for ongoing metallurgical test work in Johannesburg, as well as to provide feed to the lithium carbonate pilot plant that has been established by the Company in Zimbabwe. The Company has also made good progress with a number of potential offtake investors as well as with financial investors, debt providers and EPC (Engineering, Procurement and Construction) companies.

Mr Hugh Warner (Chairman) was extremely encouraged by the results - "The results from the trial mining sampling are very significant in that it confirms Arcadia's pedigree as a significant high grade lithium deposit. The additional material mined will be utilised to further enhance our metallurgical recoveries work in parallel with providing feed for our inhouse lithium carbonate pilot plant in Zimbabwe.

I am also happy to say that we continue to make good progress on our various offtake and financing discussions.".

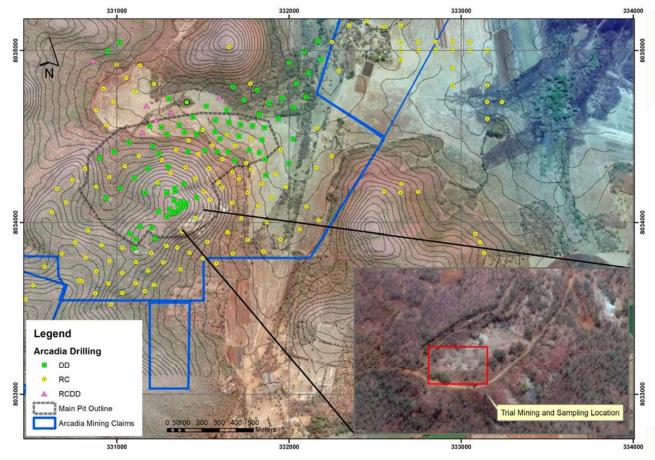


#### **Trial Mining Sampling**

Trial mining has focused on the western part of the existing Open Pit that exposes the Main Pegmatite at Arcadia (Figure 1). Approximately 260t of Main Pegmatite was generated from three 1.2m benches and following completion of the blast and cleaning of bench faces, 3 x 3kg samples were hand chipped along 1m channels at a 1m spacing along all the bench faces. An average grade of 2.51%  $Li_2O$  was defined from all the samples taken, including:

- 13% greater than 4% Li<sub>2</sub>O
- 34% greater than 3% Li<sub>2</sub>O
- 56% greater than 2% Li<sub>2</sub>O
- A maximum grade of 4.69% Li<sub>2</sub>O





These results are considered significant in that these *in situ* average grades are considerably higher than the Mineral Resource estimate block model generated (please refer to Announcement 3 August 2017) that defines an average grade of 1.51% Li<sub>2</sub>O. As expected tantalum grades averaged 108ppm Ta<sub>2</sub>O<sub>5</sub> with a maximum grade of 520ppm Ta<sub>2</sub>O<sub>5</sub>.

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#### Metallurgical Test work

An additional 8t of Main Pegmatite has been submitted to FT Geolabs in Johannesburg for additional flotation testwork as well as to DMS suppliers for process optimisation. Remaining material will be used as feed to the Company's lithium carbonate pilot plant that has been established in Kwekwe, Zimbabwe.

#### For further information, please contact:

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

The information in this announcement that relates to Exploration Targets and Exploration Results, 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 Chief 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 in this section apply to all succeeding sections.)

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> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul> <li>At the Arcadia Project, during the bulk sampling exercise approximately 300kg of material was blasted from the western end of the old pit. The main purpose was to produce material for bulk metallurgical test work. After each of the 4 blasts used to produce the material, the newly exposed faces were sampled.</li> <li>3 x 3 kg samples were hand chipped from 1m spaced vertical channels; at 1m vertical intervals. Samples were collected in triplicate, one of which was sent for pulverizing and assaying, in addition to a smaller sample retained for reference and logging.</li> <li>Certified Reference Materials (CRM) produced by AMIS of Johannesburg, blanks and field duplicates were inserted into each sample batch. (5% of total being CRMs, 5% blanks, 5% field duplicates and 5% laboratory duplicates). This was done by Zimlabs who undertook the sample preparation, as well as blank and CRM insertion, under instruction from Prospect Resources.</li> <li>The AMIS CRMs used were; AMIS0339 ; 2.15% Li and AMIS0340 ; 1.43% Li,</li> <li>All samples were taken in Company transport to Zimlabs laboratory in Harare, where they were pulverized to produce a 30g charge and then dispatched by courier to ALS Johannesburg. All samples were analysed by multi-element ICP (ME-MS61, following four acid digestion with ICP or AAS finish),</li> </ul>
Drilling techniques	<ul> <li>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).</li> </ul>	• N/A
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <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</li> </ul>	<ul> <li>Chip samples were bagged directly in the field.</li> <li>The samples were then riffle split to produce 3 subsamples (a primary, field duplicate and reference sample) of approximately 3kg each.</li> <li>Material seems largely homogenous, and no relationship has been detected between grain size and assayed grade. Results from the 2 lab duplicates generated from the milled core in the Phase 3 samples show a correlation of</li> </ul>

Criteria	JORC Code explanation	Commentary
	loss/gain of fine/coarse material.	over 95%, and an under read bias of less than 10%, which is not considered material.
Logging	<ul> <li>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.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>A sample of the chips were washed and retained in small plastic bags. Chip samples have been geologically logged at 1m intervals, with data recorded in spreadsheet format using standardized codes. Sample weight, moisture content, lithologies, texture, structure, induration, alteration, oxidation and mineralisation were recorded.</li> <li>The work is undertaken according to Prospect Resources' standard procedures and practices, which are in line with international best practice, and overseen by the Competent Person (CP). The CP considers that the level of detail and quality of the work is appropriate to support the current Mineral Resource estimation.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <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> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	supervision of a qualified geologist or experienced geotechnician from Prospect Resources.
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <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> <li>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.</li> </ul>	<ul> <li>All samples were analysed by multi-element ICP (ME-MS61). Over limits on lithium were analysed by LiOG63 method, after four acid dissolution. All assays were performed at ALS Vancouver.</li> <li>For QAQC a 10% tolerance on CRM &amp; duplicate results was permitted. Of the 2 CRMs, 2 field duplicates and 2 blank all fell within acceptable limits</li> <li>The conclusion is that ALS accuracy is considered good and, Zimlabs sample preparation procedures were acceptable.</li> </ul>

Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul> <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> <li>Prospect Resources' Chief Geologist was on site during most of the drilling and sample pre-preparation. The significant intersections and geological were also shown to Zimbabwe Geological Survey staff.</li> <li>All hard copies of data are retained at the Prospect Resource Exploration offices. All electronic data resides in Excel<sup>™</sup> format on the office desktop, with back-ups retained on hard-drives in a safe, and in an Access<sup>™</sup> database in a data cloud offsite.</li> <li>Logging and assay data captured electronically on an Excel<sup>™</sup> spreadsheet, and subsequently imported into an Access<sup>™</sup> database.</li> <li>All assay results reported as Li ppm and over limits (&gt;5,000ppm) as %, adjusted to the same units and expressed as Li<sub>2</sub>O %. Similarly, Ta assays are reported in ppm, but expressed as Ta<sub>2</sub>O<sub>5</sub>. Fe<sub>2</sub>O<sub>3</sub> assays were reported in %.</li> </ul>
Location of data points	<ul> <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> <li>The whole pit, including the western end sampled in this exercise, were surveyed using a High Target DGPS system, from Fundira Surveys. The topography in the greater project area was surveyed to 30cm accuracy using a Leica 1600 DGPS. Permanent survey reference beacons have been erected on site.</li> <li>All surveys were done in the WGS84 datum on grid UTM 36S, and subsequently converted to ARC1950 datum.</li> </ul>
Data spacing and distribution	<ul> <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>	Channels were sampled at 1m intervals.
Orientation of data in relation to geological structure	<ul> <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>	• Mineralised structures are shallow dipping (10° northwest) pegmatites hosted within meta-basalts. The channels were sampled at regular intervals perpendicular to the dip. Though the target pegmatites can show considerable mineralogical and to a lesser extent grade variation, the geology is relatively simple.
Sample security	The measures taken to ensure sample security.	• Samples were placed in sealed bags to prevent movement and mixing. Minimal preparation was done on site. Samples were transported in company vehicles accompanied by a senior technician to the pre-preparation laboratory (Zimlabs)

Criteria	JORC Code explanation	Commentary
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• The Mineral Resource estimate CP (Ms Gayle Hanssen) of DMS, is continually auditing sampling and logging practices.

### 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	<ul> <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> <li>Arcadia H, claim is held by Examix investments, JV between Prospect Resources (90%) and local partner Paul Chimbodza.</li> <li>No environmental or land title issues or impediments. EIA certificate of approval granted by the Environmental Management Agency, to cover all of the Company's exploration activities.</li> <li>Old pit within rural farmland – fallow, effectively defunct commercial farm.</li> </ul>
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 with support from the Geological Survey of Zimbabwe, at the site of the historic pit. These logs are available, and the lithologies observed are consistent with that seen by Prospect Resources' drilling.</li> <li>The sites of at least 10 previously drilled 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 late 1970's by Rand Mines, was recorded by the Geological Survey in its 1989 Harare bulletin, where an estimate of 18Mt is recorded.</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>The deposit comprises a number of pegmatites hosted in meta-basalts of the Arcturus Formation within the Harare Greenstone Belt.</li> <li>The pegmatites belong to the Petalite subclass of the Rare-Element pegmatite deposit class and belong to the LCT pegmatite family.</li> <li>The pegmatites are poorly to moderately zoned (but not symmetrically or asymmetrically zoned and have no quartz core). The main lithium bearing minerals are dominantly petalite and spodumene, with sub-ordinate eucryptite, and minor bikitaite. In addition, disseminated tantalite is present. Gangue minerals are quartz, alkali feldspars and muscovite.</li> <li>The pegmatite exposed and sampled in the old pit is the 5 – 7m thick Main Pegmatite.</li> </ul>
Drill hole Information	<ul> <li>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:</li> <li>easting and northing of the drill hole collar</li> </ul>	• N/A

Criteria	JORC Code explanation	Commentary
	<ul> <li>elevation or RL (Reduced Level – elevation above sea level in meters) 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>	
Data aggregation methods	<ul> <li>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.</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 should be clearly stated.</li> </ul>	• N/A
Relationship between mineralisation widths and intercept lengths	<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 angle is known, its nature should be reported.</li> <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>	All channels were sampled without deliberate bias at 1m intervals perpendicular to the dip.
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>	Maps and are attached in the body of the report
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.	The Company states that all results have been reported and comply with balanced reporting.

Criteria	JORC Code explanation	Commentary
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.	<ul> <li>Prior to the 5 phases of drilling used to define the Mineral Resource estimate, channel sampling had been carried out throughout the old pit, previously mined in the 1970s. Continuous 1m samples were channel sampled and hand sampled along cut lines, every 2m on the pit face. Approximately 3kg samples were collected, and assayed at ALS after crushing and milling at Zimlabs. Assays were incorporated into the Mineral Resource estimate.</li> <li>Geological mapping was undertaken down-dip and along strike of the pit and has been incorporated into the current Mineral Resource estimate.</li> <li>Soil sampling orientation lines have produced lithium geochemical anomalies that coincide with sub-outcropping projections of the pegmatites.</li> </ul>
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> <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>	• Following the completion of the metallurgical test work on the bulk samples collected during this