

14 March 2023

Spodumene-bearing Pegmatites Up to 27.45m Thick in Latest Drilling Intercepts at Mavis Lake

Highlights

- Drilling program continues to deliver excellent results with intercepts at both the Main Zone and South Zone at Mavis Lake
- Significant intercepts include:
 - Drill hole MF23-191 with 27.45m of spodumene mineralisation from 222.35m downhole
 - Drill hole MF23-192 with 11.75m of spodumene mineralisation from 181.95m downhole
 - Drill hole SZ23-012 with 6.05m of spodumene mineralisation from 227.5m downhole
 - Drill hole SZ23-021 with 5.60m of spodumene mineralisation from 34.5m downhole
- All results to be incorporated into Mavis Lake's JORC 2012 compliant Maiden Mineral Resource Estimate

Overview

Lithium development company Critical Resources Limited **ASX:CRR** ("Critical Resources" or "the Company") is pleased to advise of further excellent drilling results at the Company's 100%-owned Mavis Lake Lithium Project in Ontario, Canada. A summary of key exploration results can be seen below, with full exploration results in Appendix 1.

Step out Drilling Success

The Company's strategy to test new outcrops, adjacent to the Main Zone, as well as concurrently testing extensions of the Main Zone (laterally and at depth) builds upon recent success. Intercepts in the South Zone surround outcrops which have not previously been drill tested.

Mapped pegmatites 8, 10, 11, 12, and 20 have now all been drill tested and found to contain spodumene mineralisation. The Company's drilling program will continue to test and assess these and other mapped pegmatites, in order to develop a greater understanding of the sub-surface structures and associated mineralisation. These early-stage drilling targets are already showing great potential. Key intercepts from the South Zone can be seen in Table 1¹.

The testing of the down-dip extension of the Main Zone continues to intercept thick spodumene-bearing pegmatites. The Main Zone remains open at depth. Key Intercepts from the Main Zone can be seen in Table 2¹.



All results will be incorporated into the Maiden Mineral Resource Estimate currently being prepared. Delivery of assay data, currently backlogged at the laboratory, will dictate the timeline to complete the mineral resource estimate.



Figure 1 – Drill Hole MF23-191 with 27.45 meters of spodumene-bearing pegmatite from 222.35m downhole, with further intercepts from 252.65m downhole ¹

Table 1 – Key intercepts and visual assessments from South Zone drilling¹

Hole ID	From	To	Length	Visual Estimate of Spodumene
SZ23-012	227.5	228.95	1.45	45%
and	232.55	237.15	4.6	45%
SZ23-014	84.9	85.3	0.4	30%
SZ23-016	78.45	80.25	1.8	34%
and	83.7	84.45	0.75	16%
SZ23-020	44.35	45.75	1.4	10%
and	56.95	59.6	2.65	20%
SZ23-021	34.5	35.45	0.95	18%
and	40.2	41.4	1.2	5%
and	45.3	48.75	3.45	10%

¹ In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analysis. The reported intersections are down hole measurements and are not necessarily true width. Descriptions of the mineral amounts seen and logged in the core are qualitative, visual estimates only. Refer to Cautionary Note – Visual Estimates



Table 2 – Key intercepts and visual assessments from Main Zone drilling¹

Hole ID	From	To	Length	Visual Estimate of Spodumene
MF23-191	222.35	249.8	27.45	15%
and	252.65	254.55	1.9	7%
and	286.6	288.8	2.2	<5%
MF23-192	140.55	142.55	2	5%
and	181.95	193.7	11.75	5%
and	199.3	205.05	5.75	Trace
and	221.65	222.95	1.3	15%
and	250.1	254.2	4.1	5%

Future Work

In addition to an ongoing drilling program at Mavis Lake, technical and environmental studies are underway to support a pending Scoping Study for the Mavis Lake Project.

The Company is awaiting assays from samples collected from more than 47 individual drill holes and will update the market as details are made available.

Critical Resources Managing Director Alex Cheeseman said:

“Our exploration strategy at Mavis Lake continues to deliver excellent results, which will directly feed into the maiden mineral resource estimate. Our drilling campaign and concurrent studies are laying a solid foundation for the next development phase of this highly prospective project.

With each set of assay results, our understanding of the asset grows and so too does our confidence in the project, we are pushing hard to receive all outstanding assays so we can complete our maiden mineral resource estimate as quickly as possible.”

This announcement has been approved for release by the Board of Directors.

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ABOUT CRITICAL RESOURCES LIMITED

Critical Resources is advancing and developing critical metals projects for a decarbonised future. The Company holds a suite of lithium prospects across Ontario, Canada, including Mavis Lake, Graphic Lake, Plaid and Whiteloon Lake. The Company's other projects include the Block 4 and Block 5 copper project, located in Oman, and the Halls Peak Project in NSW, Australia, a high-quality base metals project with significant scale potential.

The Company's primary objective is the rapid development of its flagship Mavis Lake Lithium Project. Mavis Lake is an advanced exploration project with near-term development potential. The Company completed over 19,500m of drilling in 2022 and has commenced another significant drilling program in 2023. The Company has also commenced initial studies that will underpin the transition from explorer to developer.

CAUTIONARY NOTE – VISUAL ESTIMATES

The Company stresses that the reported visual estimated percentages in Tables 1 and 2 relate specifically to the abundance of spodumene logged in the drill core and is not estimated lithium grade for the interval. In relation to the



disclosure of visual mineralisation, the Company cautions that visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the widths and grade of the visible mineralisation reported in preliminary geological logging. The Company will update the market when laboratory analytical results become available. The reported intersections are down hole measurements and are not necessarily true width. Descriptions of the mineral amounts seen and logged in the core are qualitative, visual estimates (they are listed in order of abundance of estimated combined percentages). Quantitative assays will be completed by Activation Lab.

COMPETENT PERSONS STATEMENT

The information in this ASX Announcement that relates to Exploration Results is based on information compiled by Mr. Troy Gallik (P. Geo), a Competent Person who is a Member of the Association of Professional Geoscientists of Ontario. Troy Gallik is a full-time employee of Critical Resources. Mr. Gallik 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. Gallik consents to the inclusion in this Announcement of the matters based on his information in the form and context in which it appears.

FORWARD LOOKING STATEMENTS

This announcement may contain certain forward-looking statements and projections. Such forward looking statements/projections are estimates for discussion purposes only and should not be relied upon. Forward looking statements/projections are inherently uncertain and may therefore differ materially from results ultimately achieved. Critical Resources Limited does not make any representations and provides no warranties concerning the accuracy of the projections and disclaims any obligation to update or revise any forward-looking statements/projects based on new information, future events or otherwise except to the extent required by applicable laws. While the information contained in this report has been prepared in good faith, neither Critical Resources Limited or any of its directors, officers, agents, employees or advisors give any representation or warranty, express or implied, as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this announcement.



APPENDIX 1 – EXPLORATION RESULTS

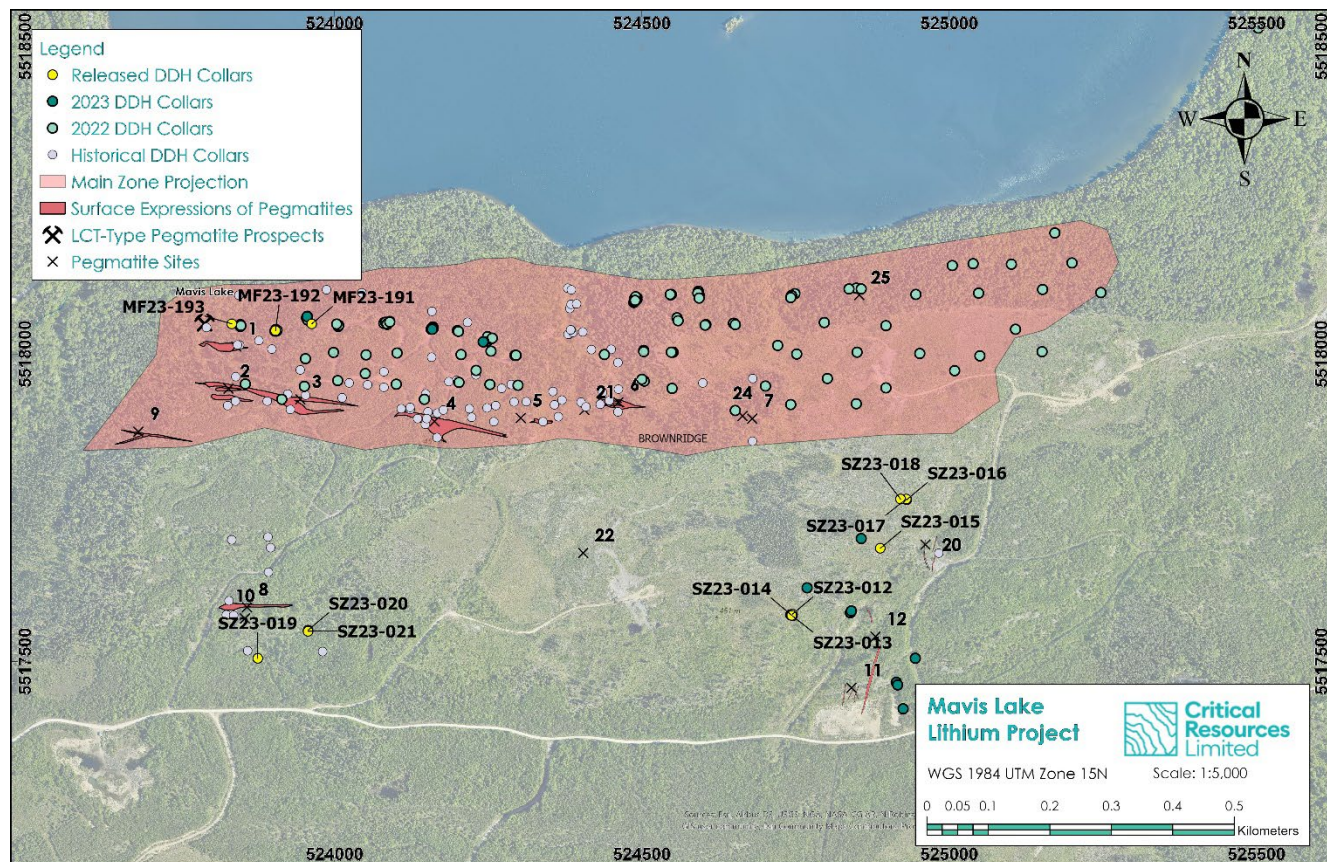


Figure 2 - Plan Map of the Main Zone

Table 2 – Drill Hole Summary MF23-191 to MF23-193 and SZ23-012 to SZ23-021

Hole ID	Date Drilled		UTM Zone 15N (NAD83)			Collar Orientation		Metres Drilled	
	Start Date	End Date	Easting	Northing	Elevation	Az	Dip	Casing Depth	End Depth
MF23-191	15-Feb-23	21-Feb-23	523963	5518049	431	20.4	-67.6	3	308
MF23-192	22-Feb-23	25-Feb-23	523904	5518038	421	339.9	-69.7	3	327.75
MF23-193	26-Feb-23	28-Feb-23	523833	5518049	402	340.1	-70	3	200
SZ23-012	13-Feb-23	15-Feb-23	524745	5517577	430	108.8	-65	3	254
SZ23-013	16-Feb-23	17-Feb-23	524745	5517574	430	130	-45	3	212
SZ23-014	18-Feb-23	20-Feb-23	524744	5517575	430	129.8	-65.2	3	290
SZ23-015	21-Feb-23	24-Feb-23	524888	5517684	430	142.7	-50	3	233
SZ23-016	24-Feb-23	25-Feb-23	524931	5517763	434	142.8	-45	3	134
SZ23-017	26-Feb-23	27-Feb-23	524930	5517764	434	155.2	-64.9	3	140
SZ23-018	27-Feb-23	01-Mar-23	524921	5517764	434	110.1	-45.1	3	203
SZ23-019	02-Mar-23	02-Mar-23	523875	5517505	424	359.8	-50	3	68
SZ23-020	04-Mar-23	04-Mar-23	523957	5517551	431	179.9	-50	3	122
SZ23-021	04-Mar-23	05-Mar-23	523957	5517549	431	359.9	-50	3	86



JORC Table 1 – MF23-191 to MF23-193 and SZ23-012 to SZ23-021

Exploration Results

Section 1: Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC-Code Explanation	Commentary
Sampling techniques	<i>Nature and quality of sampling (e.g., 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>	• Oriented NQ core was cut in half using a diamond saw, with a half core sent for assay and half core retained. • No other measurement tools other than directional survey tools have been used in the holes at this stage.
	<i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i>	• Oriented core was placed V-rail and a consistent cut-line drawn along core to ensure cutting (halving) of representative samples.
	<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 (e.g., '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 (e.g., submarine nodules) may warrant disclosure of detailed information.</i>	• Sampling is conducted based on core logging, 100% of drill hole core is logged. The core logger is a geologist, has experience in lithium mineralisation, and determines the intervals of samples. All pegmatite intersections are sampled regardless of the visual presence of lithium minerals/spodumene. Host rock is typically not sampled as lithium mineralisation is localized to pegmatites (spodumene mineral) or their alteration halos (holmquistite mineral) within mafic volcanic host rock. • Determination of mineralisation has been based on geological logging and photo analysis. • Diamond Core drilling was used to obtain 3m length samples from the barrel which are then marked in one metre intervals based on the drillers core block measurement. • Assay samples are selected based on geological logging boundaries or on the nominal metre marks. • Samples will be dispatched to an accredited laboratory (ActLabs) in Dryden, Ontario, Canada for sample preparation and shipment to analysis.



Criteria	JORC-Code Explanation	Commentary
Drilling techniques	<i>Drill type (e.g., core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether</i>	• NQ2 diamond double tube coring by Cyr EF-50 rig was used throughout the hole. • Core orientation was carried out by the drilling contractor.
Drill sample recovery	<i>Method of recording and assessing core and chip sample recoveries and results assessed.</i>	• Lithological logging, photography. • Core samples were measured with a standard tape within the core trays. Length of core was then compared to the interval drilled, and any core loss was attributed to individual rock units based on the amount of fracturing, abrasion of core contacts, and the conservative judgment of the core logger. Results of core loss are discussed below.
	<i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i>	• Experienced driller contracted to carry out drilling. • In broken ground the driller produced NQ core from short runs to maximise core recovery.
	<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>	• Core was washed before placing in the core trays. • Core was visually assessed by professional geologists before cutting to ensure representative sampling. • See "Aspects of the determination of mineralisation that are Material to the Public Report" above.
Logging	<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>	
	<i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i>	



Criteria	JORC-Code Explanation	Commentary
	<i>The total length and percentage of the relevant intersections logged.</i>	• Core samples were not geotechnically logged. • Core samples have been geologically logged to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. • The core logging was qualitative in nature. • All core was photographed. Total length of the MF23-191 was 308m • 100% of the relevant intersections were logged. Total length of the MF23-192 was 327.75m • 100% of the relevant intersections were logged. Total length of the MF23-193 was 200m • 100% of the relevant intersections were logged Total length of the SZ23-012 was 254m • 100% of the relevant intersections were logged. Total length of the SZ23-013 was 212m • 100% of the relevant intersections were logged. Total length of the SZ23-014 was 290m • 100% of the relevant intersections were logged. Total length of the SZ23-015 was 233m • 100% of the relevant intersections were logged. Total length of the SZ23-016 was 134m • 100% of the relevant intersections were logged. Total length of the SZ23-017 was 140m • 100% of the relevant intersections were logged. Total length of the SZ23-018 was 203m • 100% of the relevant intersections were logged. Total length of the SZ23-019 was 68m • 100% of the relevant intersections were logged. Total length of the SZ23-020 was 122m • 100% of the relevant intersections were logged. Total length of the SZ23-021 was 86m • 100% of the relevant intersections were logged.
Sub-sampling techniques and sample preparation	<i>If core, whether cut or sawn and whether quarter, half or all core taken.</i>	
	<i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i>	
	<i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i>	



Criteria	JORC-Code Explanation	Commentary
		•Oriented core was placed V-rail and a consistent cut-line drawn along core to ensure cutting (halving) of representative samples. •Oriented NQ core was cut in half using a diamond saw, with half core sent for assay and half core retained.
	<i>Quality control procedures adopted for all sub-sampling stages to maximise representation of samples.</i>	
	<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>	•Core sample intervals were based in logged mineralisation •No duplicates or second half-sampling • Appropriate method: oriented NQ core cut in half using a diamond saw, with a half core sent for assay and half core retained
	<i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i>	
Quality of assay data and laboratory tests	<i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i>	• Assays methods appropriate for style of mineralisation: UT-7 (Li up to 5%) QOP Sodium Peroxide (Sodium Peroxide Fusion ICPOES + ICPMS). •Samples have been sent to an accredited laboratory – Activation Laboratories Ltd. (ActLabs).
	<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>	• Either standards or blanks are inserted every 10th sample interval as a part of a QAQC process. Standard and blank results from recent drilling are within acceptable margins of error. • Activation Laboratory performs internal QA/QC measures. Results are released once all internal QA/QC is verified and confirmed to be acceptable.
	<i>Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.</i>	• No assay results have been reported, results are pending.
Verification of sampling and assaying	<i>The verification of significant intersections by either independent or alternative company personnel.</i>	
	<i>The use of twinned holes.</i>	
	<i>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</i>	



Criteria	JORC-Code Explanation	Commentary
	<i>Discuss any adjustment to assay data.</i>	• No independent verification completed at this stage. • No holes are twins of previous holes. • Core measured, photographed and logged by geologists. Digitally recorded plus back-up records. • All assay results are provided. • No adjustments to the assay data. • No assay cut off grades are applied.
Location of data points	<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>	• Drill collars recorded with Garmin GPS that has an accuracy in the order of ± 3 metres for location. A registered surveyor will be contracted to accurately survey all drill collars at completed of drill program.
	<i>Specification of the grid system used.</i>	• WGS 1984 UTM Zone 15N.
	<i>Quality and adequacy of topographic control.</i>	• No specific topography survey has been completed over the project area.
Data spacing and distribution	<i>Data spacing for reporting of Exploration Results.</i>	• Not relevant to current drilling.
	<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>	• Not relevant to current drilling. • Core sample intervals were based in logged mineralisation and no sample composting applied. Reporting of final results includes many weighted average- composting of assay data.
	<i>Whether sample compositing has been applied.</i>	
Orientation of data in relation to geological structure	<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>	• The orientation of the mineralisation is unknown. The drilling program is aimed at determining orientation of the mineralisation. • If orientation of mineralisation is known or thought to be known, drill holes are planned to intersect at an appropriate angle relative to true width of the mineralisation. Intercepts with
	<i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have</i>	



Criteria	JORC-Code Explanation	Commentary
	<i>introduced a sampling bias, this should be assessed and reported if material.</i>	mineralisation released are given as downhole widths, not true widths unless true widths are stated. It is uncertain whether sampling bias has been introduced, or whether the thickness drilled is a true thickness.
Sample security	<i>The measures taken to ensure sample security.</i>	Core samples were stored at the Dryden core yard and core shack under lock and key before delivery to ActLabsGroups in Dryden, Ontario for analysis.
Audits or reviews	<i>The results of any audits or reviews of sampling techniques and data.</i>	Not undertaken at this stage.

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 environmental settings.	The Mavis Lake Lithium Project consists of 189 unpatented Single Cell Mining Claims and six separate surface leases which secure the surface rights of the land required for the Project footprint.							
	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.	All claims and leases are active and in good standing. The leases have a term of 21 years and are not set to expire until 2032, at which time they can be renewed for an additional 21 years if required.							
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	• Previous exploration has been conducted by a number of parties including Lun-Echo Gold Mines Limited (1956), Selco Mining Corporation (1979-1980), Tantalum Mining Corporation of Canada Limited (1981-1982), Emerald Field Resources (2002), International Lithium Corp (2006-2021) and Pioneer Resources Limited/Essential Metals Limited (2018-2021).							
Geology	Deposit type, geological setting and style of mineralisation.	• The Fairservice and Mavis Lake Prospects host zoned pegmatites that are prospective for lithium and tantalum							
Drill 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:	Hole ID	Easting	Northing	Elevation	Az	Dip	End Depth	
		MF23-191	523963	5518049	431	20.4	-67.6	308	
		MF23-192	523904	5518038	421	339.9	-69.7	327.75	
		MF23-193	523833	5518049	402	340.1	-70	200	
		SZ23-012	524745	5517577	430	108.8	-65	254	



Criteria	JORC-Code Explanation	Commentary						
	<i>Easting and northing of the drill hole collar</i>	SZ23-013	524745	5517574	430	130	-45	212
		SZ23-014	524744	5517575	430	129.8	-65.2	290
	<i>Elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</i>	SZ23-015	524888	5517684	430	142.7	-50	233
		SZ23-016	524931	5517763	434	142.8	-45	134
		SZ23-017	524930	5517764	434	155.2	-64.9	140
	<i>Dip and azimuth of the hole</i>	SZ23-018	524921	5517764	434	110.1	-45.1	203
	<i>down hole length and interception depth</i>	SZ23-019	523875	5517505	424	359.8	-50	68
		SZ23-020	523957	5517551	431	179.9	-50	122
	<i>hole length.</i>	SZ23-021	523957	5517549	431	359.9	-50	86
	<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>	• All drill collars are re-surveyed at a later date upon completion of drill hole for accurate collar coordinates.						
Data aggregation methods	<i>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades) and cut-off grades are usually Material and should be stated.</i>	• Uncut.						
	<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>	• All aggregate intercepts detailed on tables are weighted averages.						
	<i>The assumptions used for any reporting of metal equivalent values should be clearly stated.</i>	• None used.						
Relationship between mineralisation widths and intercept lengths	<i>These relationships are particularly important in the reporting of Exploration Results.</i>	• True width is calculated from logging geologists structural measurements from upper and lower contacts of pegmatite dyke and the host rock. Both apparent downhole lengths and true widths are provided.						
	<i>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</i>	• The precise geometry is not currently known but is being tested by the planned drilling, with diamond drill hole azimuths designed to drill normal to the interpreted mineralised structure.						
	<i>If it is not known and only the down hole lengths are reported, there should be a clear statement to this</i>	• Down-hole length reported, true width not known.						



Criteria	JORC-Code Explanation	Commentary
	<i>effect (e.g., 'down hole length, true width not known').</i>	
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</i>	• The drilling is aimed at clarifying the structure of the mineralisation.
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>	• Representative reporting of all relevant grades is provided in tables to avoid misleading reporting of Exploration Results.
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</i>	• Overview of exploration data leading to selection of drill targets provided.
Further work	<i>The nature and scale of planned further work (e.g., tests for lateral extensions or depth extensions or large-scale step-out drilling).</i>	• Further drilling underway to confirm, infill and extend known mineralisation. • A total of 20,000m has been approved with consideration for further extensions at the Board's discretion.