IRIS METALS

ASX Announcement/Press Release | 30 October 2023

IRIS Metals Limited (ASX:IR1)

Diamond Drilling Intersects continuous 93.5m pegmatite at Black Diamond

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- **Diamond drilling rig has completed two holes of ongoing larger drilling program at the Beecher Project in South Dakota.**
- **The first hole, BDD-23-001 intersected 39m of pegmatites (est true width) containing visual spodumene but was discontinued at 90m.**
- **The second hole BDD-23-002 was continued past an initial 30m wide pegmatite and commencing at 85m intersected an additional and continuous 93.5m wide (downhole intersection) pegmatite zone including a solid spodumene crystal over 1 meter in length (Fig 2)**
- **The second hole confirms our geological understanding of the possibility of blind pegmatites existing beneath outcropping zones.**
- **Results from a further 20 RC holes are imminent with results from a further 12 RC holes to follow.**

IRIS Metals Limited **(ASX:IR1) ("IRIS"** or **"the Company")** is pleased to announce the successful start of diamond drilling at the 100% owned Beecher Project.

IR1 Technical Director Chris Connell commented: *"We are very excited by the discovery of a new, wide pegmatite at our Black Diamond target. We have known from inspecting our projects all over the Black Hills that outcropping pegmatites are only a small part of the potential of the Black Hills. Many pegmatites are blind, or where they do outcrop are zoned with the lithium rich zones, not exposed. The discovery of an additional blind 93.5m pegmatite at Black Diamond is testament to the dedication of our geological team and their growing understanding of the district. We expect that given our aggressive drill programs planned that more discoveries such as this will be made."*

Diamond Drilling Program

The Beecher Project is located 7km from the township of Custer in the Black Hills of South Dakota. The Project is located on a 15-acre patented claim, surrounded by 20,300 hectares of Bureau of Land Management (BLM) staked claims. Patented claims effectively bestow rights to mine to the owner. The Beecher Project includes the historic Longview, Beecher and Black Diamond mines. Longview was mined in the 1950s for lithium, with lithium rich spodumene ore sent to Hill City for processing.

An extensive diamond drilling program planned to test the strike and depth extensions of the Beecher pegmatites is underway with the first two holes now completed (**Figure 1**).

Both holes intersected significant widths of pegmatite with visual spodumene mineralization logged.

- The first hole BDD-23-001 intersected **39m of pegmatite** (est. true width).
- The second hole BDD-23-002 initially intersecting **30m of pegmatite** (est. true width). A decision to continue the hole deeper **intersected a much wider 93.5m intersection of pegmatite** containing zones rich in spodumene (**Figure 2**).

The second, wider pegmatite may represent the true extension of the Black Diamond Mine that is contained in a 80m -100m wide pegmatite. Most of the RC holes drilled along strike to the north of the Black Diamond mine only intersected 30m – 40m wide zones of mineralized pegmatite which are now interpreted as a flat lying pegmatite offshoot of the larger Black Diamond pegmatite. Additional holes are required before the geometry of the western Beecher pegmatites can be modelled with confidence.

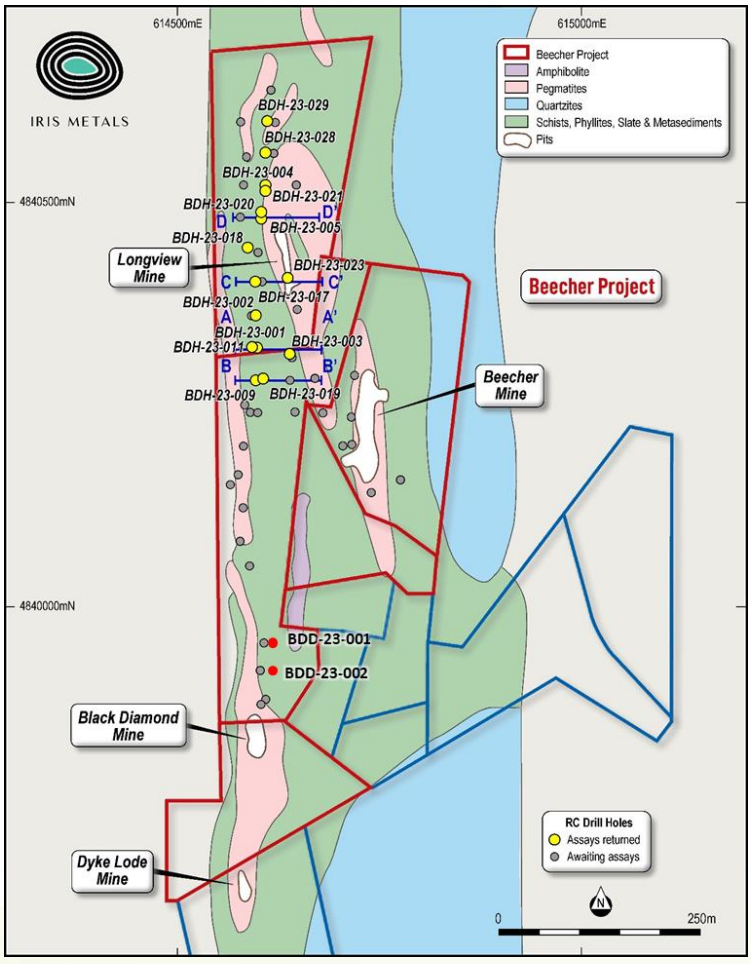


Figure 1: Location plan of diamond and RC holes

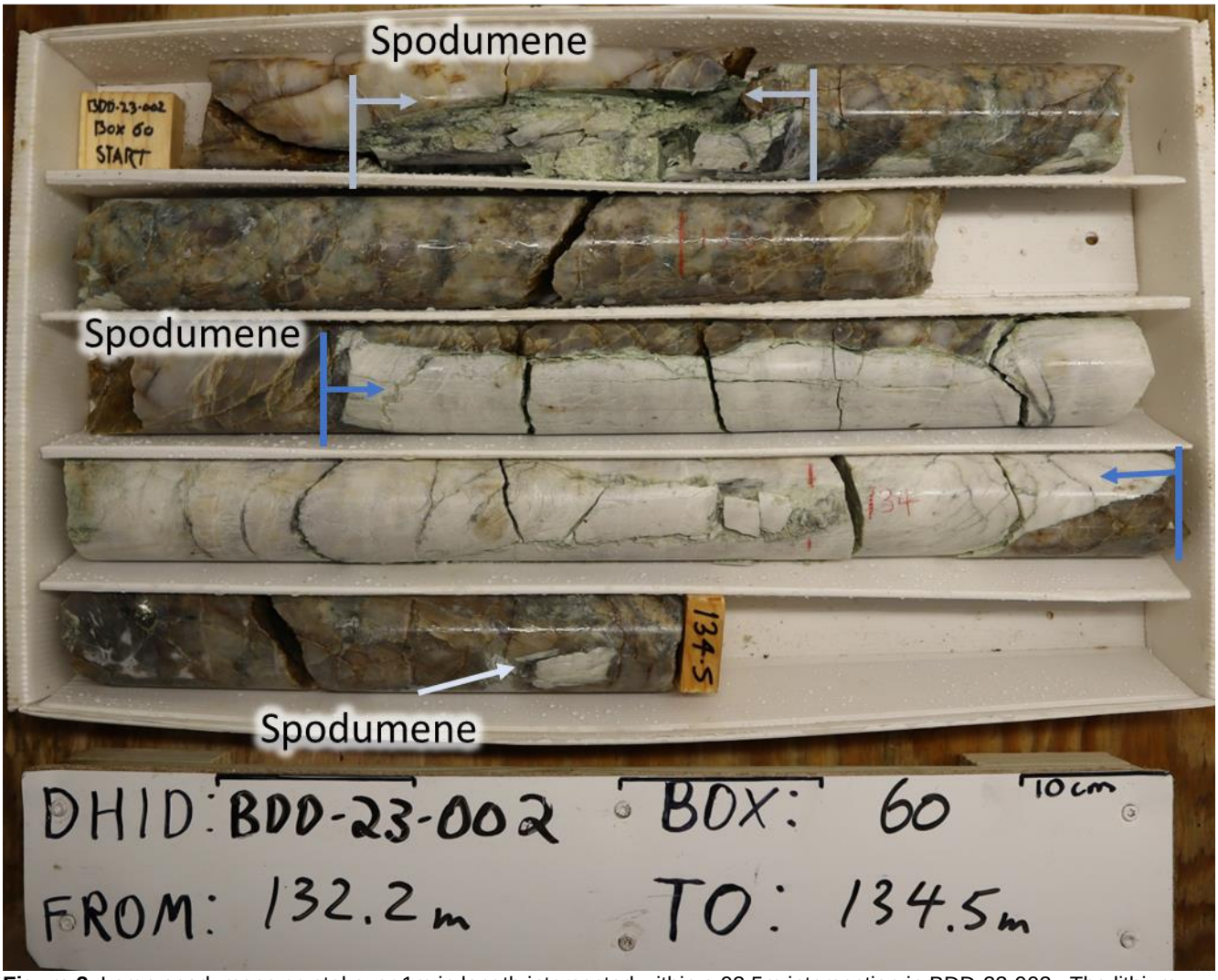


Figure 2: Large spodumene crystal over 1m in length intersected within a 93.5m intersection in BDD-23-002. The lithium mineralization is in the form of primary magmatic spodumene crystals disseminated within the outer core of a zoned LCT pegmatite. The minerals present in the above 2.3m of core shown in Figure 2 include spodumene, feldspar, quartz and muscovite (**Table 2**). The core will be sampled and sent to SGS Canada for assay expected to take between 2 – 3 months depending on capacity.

The initial diamond holes are designed to follow-up the maiden RC drilling program completed in early August that comprised 5,207m across 50 holes – refer to appendix 1 for significant results.

IRIS has received results for the first 18 RC holes from SGS laboratories in Canada with results from an additional 20 holes expected shortly. Results from an additional 12 RC holes are expected to follow next month.

Hole ID	North	East	RL	Azimuth	Dip	Depth
BDD-23-001	4839955	614606	1694	270	-70	89.6m
BDD-23-002	4839920	614600	1696	270	-70	221.40m

Table 1: Hole coordinates

Mineral	Estimated abundance %
Spodumene	45
Feldspar	25
Quartz	25
Muscovite	5

Table 2: Estimated mineral abundance in the 2.3m of pegmatite core shown in Figure 2.

About The South Dakota Project

The Black Hills of South Dakota are famous for historic lithium mining dating back to 1898 when Li-bearing spodumene, and amblygonite was first mined near the township of Custer. IRIS has staked 2,387 BLM claims and has agreements over two patented claims.

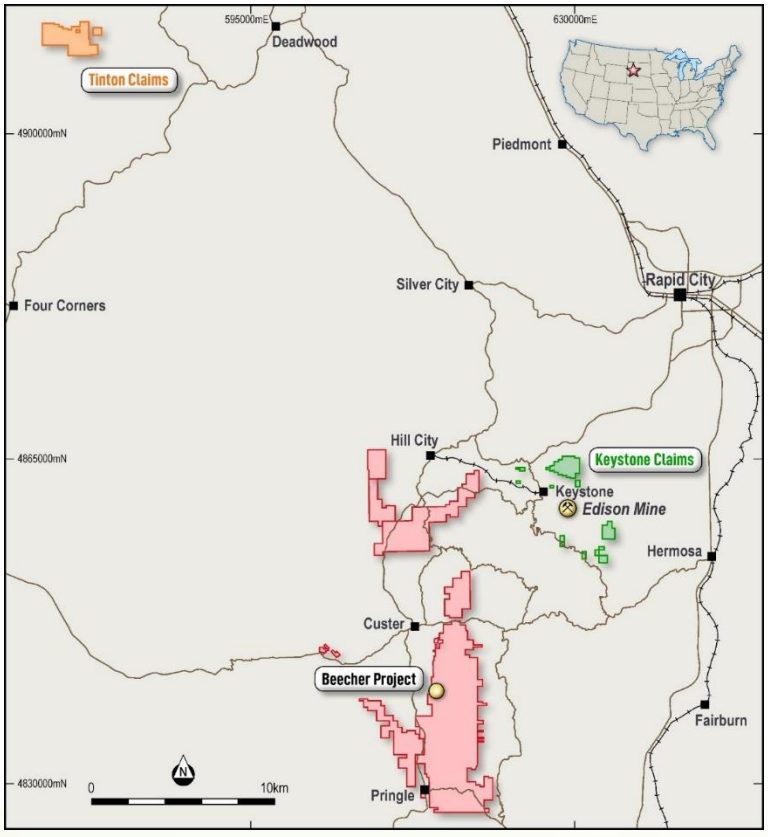
Existing project areas include:

- Beecher Project – including Longview and Black Diamond
- Edison Project
- Dewy Project
- Custer Project
- Ruby Project
- Helen Beryl Project
- Tinton Project
- Keystone Project

The Beecher pegmatite trend was mined sporadically between the 1920's and 1950's for lithium, beryllium, tantalum, mica and feldspar. Limited amounts of lithium spodumene ore from the Beecher mines was shipped to Hill City during the 1940's where it was processed through a flotation circuit.

IRIS' local partner has been granted mining licenses permitting lithium pegmatite mining for these patented claims.

These mining licenses permitted by the State of South Dakota, enables IRIS to fast-track all exploration and mining activities including the right to explore and mine lithium bearing pegmatites.



Location of IRIS' BLM and patented claims

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This ASX announcement has been authorised by the Board of IRIS Metals Limited

For further information, please contact:

IRIS Metals Limited
E: admin@irismetals.com

Forward looking Statements:

This announcement may contain certain forward-looking statements that have been based on current expectations about future acts, events and circumstances. These forward-looking statements are, however, subject to risks, uncertainties and assumptions that could cause those acts, events and circumstances to differ materially from the expectations described in such forward-looking statements. These factors include, among other things, commercial and other risks associated with exploration, estimation of resources, the meeting of objectives and other investment considerations, as well as other matters not yet known to IRIS or not currently considered material by the company. IRIS accepts no responsibility to update any person regarding any error or omission or change in the information in this presentation or any other information made available to a person or any obligation to furnish the person with further information.

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About IRIS Metals (ASX:IR1)

IRIS Metals (ASX:IR1) is an exploration company with an extensive suite of assets considered to be highly prospective for hard rock lithium located in South Dakota, United States (US). The company's large and expanding South Dakota Project is located in a mining friendly jurisdiction and provides the company with strong exposure to the battery metals space, and the incentives offered by the US government for locally sourced critical minerals. The Black Hills have a long and proud history of mining dating back to the late 1800s. The Black Hills pegmatites are famous for having the largest recorded lithium spodumene crystals ever mined. Extensive fields of fertile LCT-pegmatites outcrop throughout the Black Hills with significant volumes of lithium spodumene mined in numerous locations.

To learn more, please visit: www.irismetals.com

Competent Persons Statement:
The information in this announcement that relates to exploration results is based on information reviewed by Chris Connell a Competent Person who is a member of Australian Institute of Geologists and Technical Executive Director to IRIS Metals Limited. Chris Connell is an exploration geologist with over 25 years' experience in lithium exploration including lithium exploration and resource definition in the Eastern Goldfields and has sufficient experience in the styles of mineralisation and type of deposit under consideration and to the activity undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Chris Connell has consented to the inclusion in this Public Report of the matters based on his information in the form and context in which it appears.

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Appendix 1:

Significant assay results for the initial 18 holes were reported on the 9th August and the 10th of October 2023, with exceptional wide and shallow intersections including;

- **60m @ 1.21% Li_2O** (true width) **from 16m** in BDH-23-001, including:
  - **40m @ 1.40% Li_2O** from 36m; and
  - **22m @ 1.90% Li_2O** from 46m

- **54m @ 1.30% Li_2O** (true width) **from 1m** in BDH-23-009, including:
  - **35m @ 1.58% Li_2O** from 4m and
  - **13m @ 2.10% Li_2O** from 24m

- **40m @ 1.10% Li_2O** (true width) **from 48m** in BDH-23-002, including:
  - **11m @ 1.53% Li_2O** from 48m and
  - **10m @ 1.97% Li_2O** from 78m

- **78m @ 1.03% Li_2O** (70m true width) **from 19m** in BDH-23-020, including:
  - **46m @ 1.36% Li_2O**
  - **10m @ 2.00% Li_2O**

- **62m @ 1.02% Li_2O** (60m true width) **from 15m** in BDH-23-011, including:
  - **25m @ 1.30% Li_2O**

- **27m @ 1.54% Li_2O from 9m** in BDH-23-019, including:
  - **21m @ 1.81% Li_2O**

JORC Code, 2012 Edition – Table 1

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	*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.*	RC drilling (RC) has been carried out by the vendors and Iris Metals at the Beecher Project. Samples representing one metre down-hole intervals have been collected, with the corresponding interval logged and preserved in chip trays. The drill-hole samples have been submitted for laboratory analyses.
	· *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.*	*Samples collected on the RC drill rig are split using a riffle splitter mounted beneath a cyclone return system to produce a representative sample.*
	· *Aspects of the determination of mineralisation that are Material to the Public Report.*	Lithium bearing minerals including spodumene weather to clays in the oxidised regolith and are not recognised when drilling encounters pegmatites at shallow depths.
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).*	RC drilling was carried out by Scion Drilling with a 5 inch bit.

Drill sample recovery	· *Method of recording and assessing core and chip sample recoveries and results assessed.*	RC recoveries are being visually assessed. All samples are dry and recovery is good. No sample bias has been noted.
	· *Measures taken to maximise sample recovery and ensure representative nature of the samples.*	Dry drilling conditions have supported sample recovery and quality.
	· *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.*	RC drill recoveries were visually estimated from volume of sample recovered. The majority of sample recoveries reported were dry and above 90% of expected. RC samples were visually checked for recovery, moisture and contamination and notes made in the logs. The rigs splitter was emptied between 1m samples by hammering the cyclone bin with a mallet. The set-up of the cyclone varied between rigs, but a gate mechanism was used to prevent inter-mingling between metre intervals. The cyclone and splitter were also regularly cleaned by opening the doors, visually checking, and if build-up of material was noted, the equipment cleaned with either compressed air or high-pressure water. This process was in all cases undertaken when the drilling first penetrated the pegmatite mineralization, to ensure no host rock contamination took place.
Logging	· *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.*	All drill holes are routinely logged by Senior geologists with extensive experience in LCT pegmatites. Chip samples are collected and photographed.

	· *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.*	Logging is considered qualitative in nature. Chip samples are collected and photographed. The geological logging adheres to the Company policy and includes lithological, mineralogical, alteration, veining and weathering.
	· *The total length and percentage of the relevant intersections logged.*	All holes were logged in full.
Sub-sampling techniques and sample preparation	· *If core, whether cut or sawn and whether quarter, half or all core taken.*	NA.
	· *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.*	All samples are split with a riffle splitter. All samples are dry.
	· *For all sample types, the nature, quality and appropriateness of the sample preparation technique.*	Samples are collected in a labelled calico bag, with each representing 1m downhole
	· *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.*	Standards and duplicates were inserted every 20 samples - blanks were inserted every 50 samples.
	· *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.*	Results of standards, duplicates and blanks will be compared to the expected results for quality control
	· *Whether sample sizes are appropriate to the grain size of the material being sampled.*	The ideal mass of 2kg-3kg samples is appropriate to the sampling methodology and the material being sampled.

Quality of assay data and laboratory tests	· *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	Core samples collected were shipped to SGS Canada's laboratory in Vancouver, for standard sample preparation (code PRP89) which includes drying at 105°C, crush to 75% passing 2 mm, riffle split 250 g, and pulverize 85% passing 75 microns. The samples were homogenized and subsequently analyzed for multi-element (including Li and Ta) using sodium peroxide fusion with ICP-AES/MS finish (codes GE_ICP91A50 and GE_IMS91A50). The assay techniques are considered appropriate for the nature and type of mineralization present, and result in a total digestion and assay for the elements of interest. The Company relies on both its internal QAQC protocols (systematic quarter-core duplicates, blanks, certified reference materials, and external checks), as well as the laboratory's internal QAQC. For assay results disclosed, samples have passed QAQC review.
	· *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.*	NA.
	· *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.*	Standards and duplicates were inserted every 20 samples - blanks were inserted every 50 samples. Along with standard laboratory check methods.
Verification of sampling and assaying	· *The verification of significant intersections by either independent or alternative company personnel.*	Intervals are reviewed and compiled by the VP Exploration and Project Managers prior to disclosure, including a review of the Company's internal QAQC sample analytical data.

	· *The use of twinned holes.*	No twinned holes have been completed. Data is stored directly into excel templates, including direct import of laboratory analytical certificates as they are received. The Company employs various on-site and post QAQC protocols to ensure data integrity and accuracy. Adjustments to data include reporting lithium and tantalum in their oxide forms, as it is reported in elemental form in the assay certificates. Formulas used are Li2O = Li x 2.1527.
	· *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.*	
	· *Discuss any adjustment to assay data.*	
Location of data points	· *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.*	Sample locations were recorded using a hand held GPS using the NAD83_13 Datum.
	· *Specification of the grid system used.*	
	· *Quality and adequacy of topographic control.*	
Data spacing and distribution	· *Data spacing for reporting of Exploration Results.*	Sampling undertaken was of a reconnaissance nature and widespread across the pegmatite bodies.
	· *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.*	Holes are generally drilled on a 40m grid. Based on the nature of the mineralization and continuity in geological modelling, it is believed that a 40 m spacing will be sufficient to support a mineral resource estimate.
	· *Whether sample compositing has been applied.*	Compositing was only applied to non-pegmatite material.

Orientation of data in relation to geological structure	· *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Drill holes were generally designed orthaganal to the general trend of the pegmatites as mapped at surface. No bias is determined.
	· *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.*	
Sample security	· *The measures taken to ensure sample security.*	Chain of custody is maintained by Iris personnel on site and sent in sealed pallets and bags to the Laboratory.
Audits or reviews	· *The results of any audits or reviews of sampling techniques and data.*	Results were reviewed and deemed reliable for the nature of the testing.

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 project is located in South Dakota USA, the project comprises free-hold patented claims owned by Iris Metals
	· *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.*	No known impediments.
Exploration done by other parties	· *Acknowledgment and appraisal of exploration by other parties.*	No modern exploration has been conducted at this Project

Geology	· *Deposit type, geological setting and style of mineralisation.*	LCT-pegmatite hosted lithium spodumene mineralisation similar in nature to other zoned lithium pegmatite deposits mined around the world
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:*	The relevant table is provided in Table 1 of the text.
	o *easting and northing of the drill hole collar*	
	o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*	
	o *dip and azimuth of the hole*	
	o *down hole length and interception depth*	
	o *hole length.*	
	· *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.*	
Data aggregation methods	· *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.*	NA.
	· *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.*	No specific grade cap or cut-off was used during grade width calculations. The lithium and tantalum average of the entire pegmatite interval is calculated for all pegmatite intervals over 2 m core length, as well as higher grade zones at the discretion of the geologist. Pegmatites have inconsistent mineralization by nature,

		resulting in most intervals having a small number of poorly mineralized samples throughout the interval included in the calculation. Non-pegmatite internal dilution is limited to typically <4 m where relevant intervals indicated where assays are reported.
	· *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No metal equivalents have been reported.
Relationship between mineralisation widths and intercept lengths	· *These relationships are particularly important in the reporting of Exploration Results.*	Relationship between mineralisation widths and intercept lengths
	· *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.*	Geological modelling is ongoing; however, current interpretation supports a large pegmatite body (Longview) of flat dipping 45 degrees towards the west. Two other pegmatite bodies have been drilled but dip is uncertain at this stage. All reported widths are very close to true widths but may vary from hole to hole based on the drill hole angle and the highly variable nature of pegmatite bodies, which tend to pinch and swell aggressively along strike and to depth. i.e. The dip of the mineralized pegmatite body may vary in a dip sense and along strike, so the true widths are not always apparent until several holes have been drilled in any particular drill-fence.
	· *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').*	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.
Diagrams	· *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.*	Provided in the text.

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.*	Please refer to the table(s) included herein as well as those posted on the Company's website. Results for every individual pegmatite interval that is greater than 2 m has been reported.
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.*	Various mandates required for advancing the Project towards economic studies have been or are about to be initiated, including but not limited to, metallurgy, geomechanics, hydrogeology, hydrology, stakeholder engagement, geochemical characterization, as well as transportation and logistical studies.
Further work	· *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Future Drill testing is being planned, further mapping and rock chip collection is also ongoing.
	· *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	Will be provided when drill testing is reported.