IRIS METALS

ASX Announcement/Press Release | 13th September 2023

**IRIS Metals Limited (ASX:IR1)**

# Second Phase RC Drilling Program Completed at The Beecher Project in South Dakota

**Highlights**

- **A further RC drilling program comprising 1,130m in 12 holes has been completed at the Beecher Project in South Dakota.**
- **The drilling targeted the strike extension of the Black Diamond pegmatite and the northern portion of the Longview pegmatite.**
- **A total of 50 RC holes have now been drilled at Beecher demonstrating the continuity of the pegmatites that host the historic lithium mineralization.**
- **Assays from the initial 32 holes have not yet been sighted and remain pending.**
- **Samples from the additional 12 holes have been sent to the laboratory and remain pending.**
- **Drilling at the north end of the Longview pegmatite suggests the pegmatite widens at depth with pegmatite widths of up to 80m noted in logging.**
- **A diamond drilling rig has been mobilized and should be on site by mid-September to continue testing at depth the mineralized Beecher Project pegmatites.**

IRIS Metals Limited **(ASX:IR1) ("IRIS"** or **"the Company")** is pleased to announce the completion of a second phase of RC drilling program at the now 100% owned Beecher Project. The program consisted of 1,130m covering 12 holes.

**IR1 Technical Director, commented**: "*Following our exciting first batch of lithium drill results, we recognised the importance of maintaining the momentum by keeping the rig turning. The second round of drilling looks just as promising as the first, with good widths of pegmatites being intersected very close to surface. We now await new drill permits and the arrival of the diamond rig to drive the Beecher Project towards a maiden mineral resource estimation."*

**RC 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.

This RC program comprised 1,130m of RC drilling in 12 holes (**Table 1**) with samples sent to SGS Laboratory in Canada.

A total of 50 RC holes have now been completed at the Beecher Project. RC drilling has shown the spodumene pegmatites continue as expected along strike and at depth and remain open in all directions. Deeper holes testing under the northern extension of the Longview pegmatite demonstrate that the pegmatite is potentially getting wider at depth with 80m of pegmatite intersected in BDH-23-48.

Drilling the northern extensions of the Black Diamond pegmatite also demonstrated the pegmatite extends the length of the project.

Apart from the previously announced RC results, no further results have been received from the laboratory. Additional results from the first program are expected to arrive shortly.

**Future Work**

Applications have been prepared for additional drill pads to be used at the Beecher Project for diamond drill testing of deeper mineralized targets. Diamond drilling enables technical personnel to collect improved geological, metallurgical and geotechnical data for engineering and mining studies. A diamond drilling rig is due to arrive at the Beecher Project around mid-September to continue testing lithium mineralization at depth.

Geological mapping and sampling at the recently acquired Edison Lithium Mine will help delineate priority targets for drill testing. Once drill pad locations are identified applications will be submitted which generally take 30 days to obtain.

Regional mapping and soil sampling programs will continue throughout the summer with results to be announced during the year. These regional programs will identify new pegmatites for future drill testing.

| Hole Id | East | North | RL | Azimuth | Dip | Depth |
|---|---|---|---|---|---|---|
| BDH-23-039 | 614739 | 4840140 | 1684 | 330 | 85 | 30 |
| BDH-23-040 | 614573 | 4840162 | 1711 | 350 | 85 | 58 |
| BDH-23-041 | 614565 | 4840150 | 1710 | 258 | 50 | 100 |
| BDH-23-042 | 614580 | 4840122 | 1708 | 245 | 50 | 100 |
| BDH-23-043 | 614576 | 4840081 | 1705 | 260 | 50 | 100 |
| BDH-23-044 | 614588 | 4840050 | 1706 | 265 | 50 | 100 |
| BDH-23-045 | 614606 | 4839955 | 1697 | 281 | 50 | 100 |
| BDH-23-046 | 614577 | 4840598 | 1708 | 85 | 60 | 100 |
| BDH-23-047 | 614584 | 4840556 | 1713 | 92 | 60 | 100 |
| BDH-23-048 | 614582 | 4840521 | 1715 | 85 | 60 | 118 |
| BDH-23-049 | 614583 | 4840249 | 1709 | 270 | 50 | 118 |
| BDH-23-050 | 614581 | 4840198 | 1709 | 270 | 50 | 106 |

**Table 1**: Details of the RC drill holes completed at the Beecher Project.

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## 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.

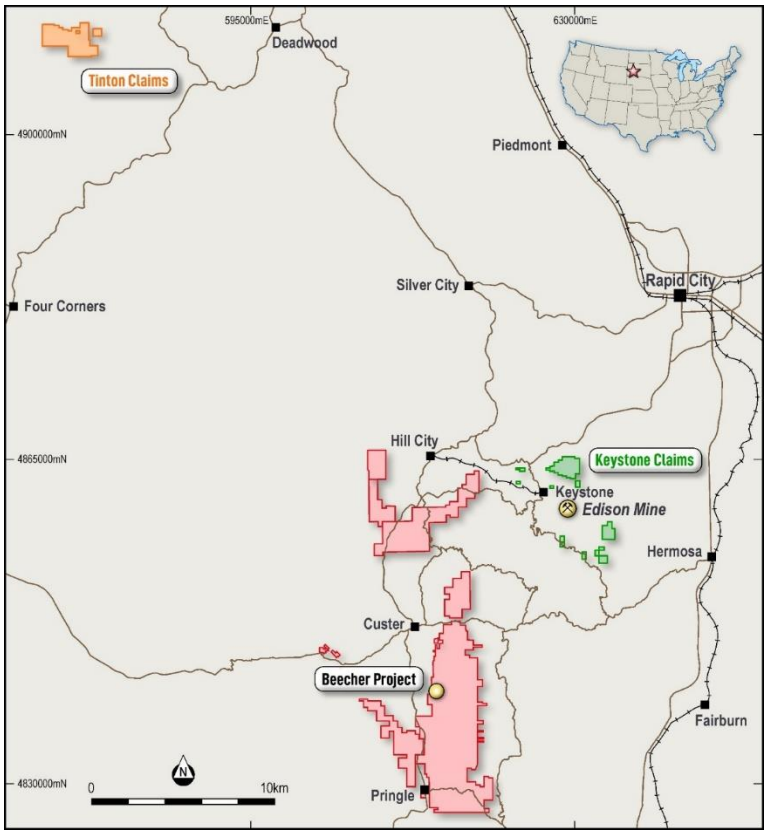
Existing project areas include:

- 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.*

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

**For further information, please contact:**

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## 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.

# 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* | RC drilling was carried out by Scion Drilling Pty Ltd with a 5 inch bit. |

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| | *and if so, by what method, etc).* | |
| *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.* | No assay drill results are included in this report. |
| *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 |

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| | • *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.* | This release contains no assay results for the RC drilling. |
| | • *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. |

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| *Verification of sampling and assaying* | • *The verification of significant intersections by either independent or alternative company personnel.* | The identification of pegmatites was corroborated by two Senior Geologists with lithium exploration experience. No twin holes were drilled. Data and observations are captured in digital systems. No assays are released in this announcement. |
| | • *The use of twinned holes.* | |
| | • *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.* | Not applicable for resource estimation. |
| | • *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. |

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| | • *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. |

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| *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:*<br>○ *easting and northing of the drill hole collar*<br>○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*<br>○ *dip and azimuth of the hole*<br>○ *down hole length and interception depth*<br>○ *hole length.*<br>• *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.* | The relevant table is provided in Table 1 of the text. |
| *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 |

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| | • *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.* | NA |
| | • *The assumptions used for any reporting of metal equivalent values should be clearly stated.* | NA |
| *Relationship between mineralisation widths and intercept lengths* | • *These relationships are particularly important in the reporting of Exploration Results.* | . |
| | • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* | The pegmatite widths stated are based on visible pegmatite observations where the pegmatite is at least 50% of the 1m interval. A maximum internal waste interval of 2 metres is allowed. Widening of the pegmatite is allowed if the adjacent outer interval exceeds 20% pegmatite. The orientations of the intercepted pegmatites have not yet been determined with the limited data to-date, and hence intercepts are reported as down-hole lengths. |
| | • *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').* | Stated in the text. |

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| *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.* | NA |
| *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.* | NA |
| *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.* | NA |
| *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 |