



ASX Release: 2 November 2022

IRIS Contracts An Initial 10,000m RC Drilling Program For Resource Definition at Beecher; Bulk Sampling For Metallurgical Test Work Of Lithium Spodumene Pegmatite Commenced.

Highlights:

- Drill site preparation commenced at the Beecher Project to ensure year-round access and drill capability.
 - RC drill rig contracted for initial 10,000m program with options to extend.
 - Drilling to test beneath the **Black Diamond lithium mine** and along strike of the **Beecher lithium mine**.
 - The State of South Dakota has issued IRIS' local US partner **mining licences covering the Black Diamond lithium mine**.
 - **Independent Metallurgical Operations (IMO)** and **SGS Canada (SGS)** contracted to carry out metallurgical test work on the spodumene rich Beecher pegmatite.
 - IRIS is now licenced to mine spodumene pegmatites on two patented properties that have a history of producing lithium-spodumene ore.
 - Past lithium production from the Beecher pegmatite mines in South Dakota is amongst the **most prolific in the USA**.
 - Discussions are near completion to acquire the remaining patented mining claims of the Beecher trend.
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Executive Technical Director and Head of Exploration, Chris Connell, commented: *“Securing full access to patented claims with historic lithium production and granted mining licences has significantly expedited drill permitting. The RC rig is on its way to the Black Hills for an initial 10,000m with an exclusive option to extend the program. We have geologists in the historic mines mapping and sampling the zones of lithium spodumene and earth moving equipment preparing the sites for a sustained drilling program. We have also engaged metallurgical consultants IMO to manage lithium spodumene separation test work. There is large volumes of lithium spodumene rich material exposed in pit walls and floors available for our field teams to begin bulk sampling for processing test work.”*

Mr. Connell further commented that: *“We are skipping initial exploration and going straight to resource definition activities at the Beecher.”*



RC Drilling Program

IRIS Metals Limited is pleased to announce that it has contracted with an RC drilling rig to commence a 10,000 m program at its South Dakota Lithium Project, aimed at resource definition. The drilling program will be targeting the Black Diamond Mine and the Beecher Mine pegmatites.

The Black Diamond Mine is located on a freehold patented mining claim and was predominantly mined for beryllium back in the 50's and 60's (**Figure 2**). The walls on both sides of the open cut contain logs of spodumene, and mapping conducted by USGS geologist back in 1945 indicate the potential for significant volumes of this spodumene rich zone. The LCT-pegmatite extends north over a 950m strike length with widths up to 60m wide. Historic diamond drilling conducted in the early 40's demonstrated that the pegmatite is open to at least 60m below surface (drill core was not assayed for lithium)¹.

Spodumene is mapped over the entire length of the Black Diamond pegmatite supported by the strong lithium readings returned when testing the pegmatite with a LIBS analyser.

Drill testing of the southern extension of the Beecher Mine is also planned. The Beecher Mine historically produced lithium concentrate along with other commercial minerals.

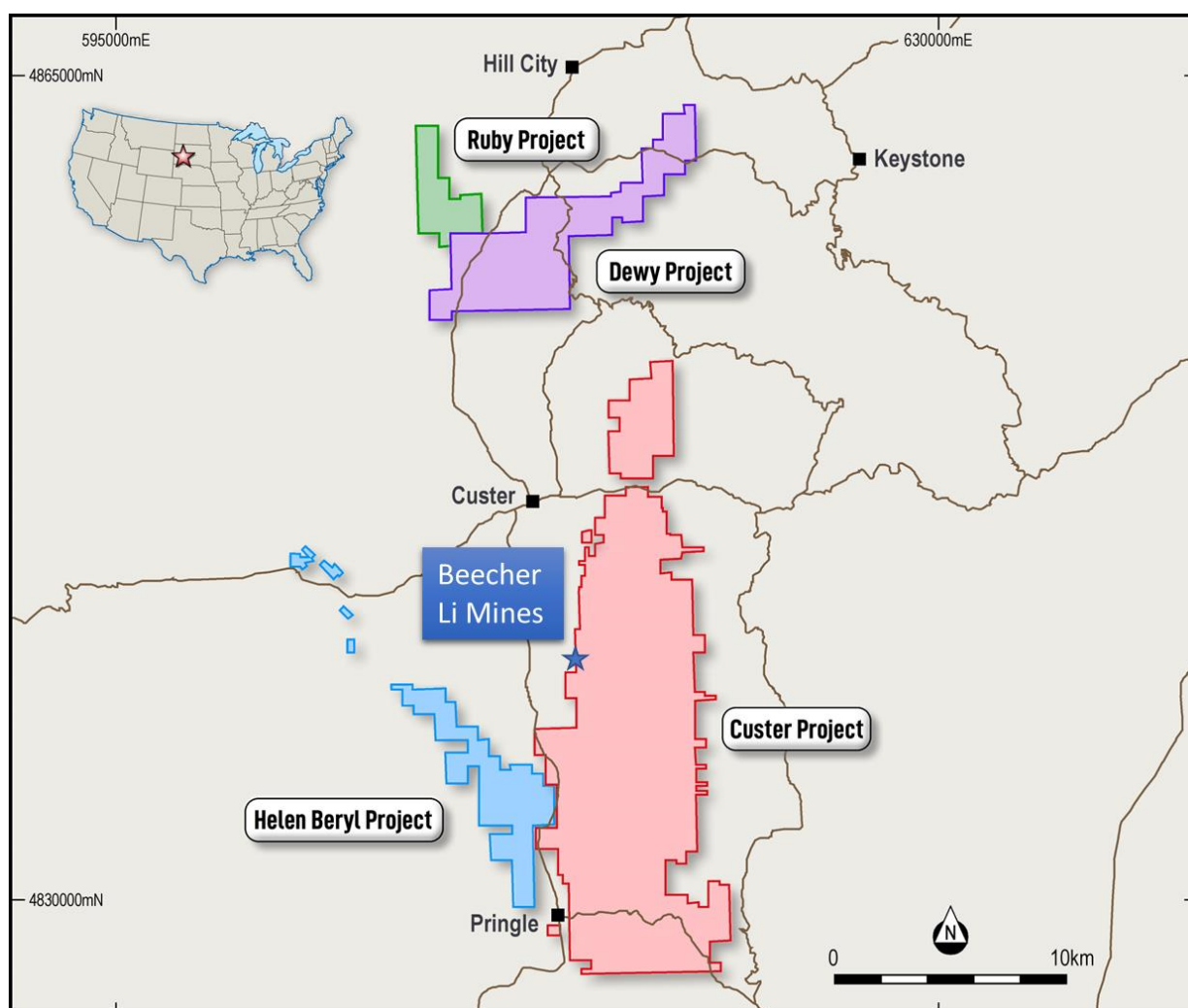


Figure 1: Location of IRIS' BLM and patented claims.

¹ sourced from Page LR, 1953 USGS report



As Black Diamond and Beecher Extended are on patented claims, the approval process for drilling is far easier than for a BLM Claim. Considering this expedited process for obtaining drilling permits IRIS has contracted an RC drilling company to carry out an initial 10,000m drilling program. This program will initially focus on testing under and along strike of the historic Black Diamond mine as well as testing the southern strike extension of the mineralized Beecher pegmatite. RC drilling is also planned to be carried out on the Beecher extended patented claim. This will test for lithium spodumene directly along strike of the historic Beecher Lode mine. The Beecher Lode was the largest historical lithium producing mine in the Black Hills.

Drill sites are being prepared on both these properties, including sheeting the drill lines with all-weather material to allow year-round access (Figure 3).

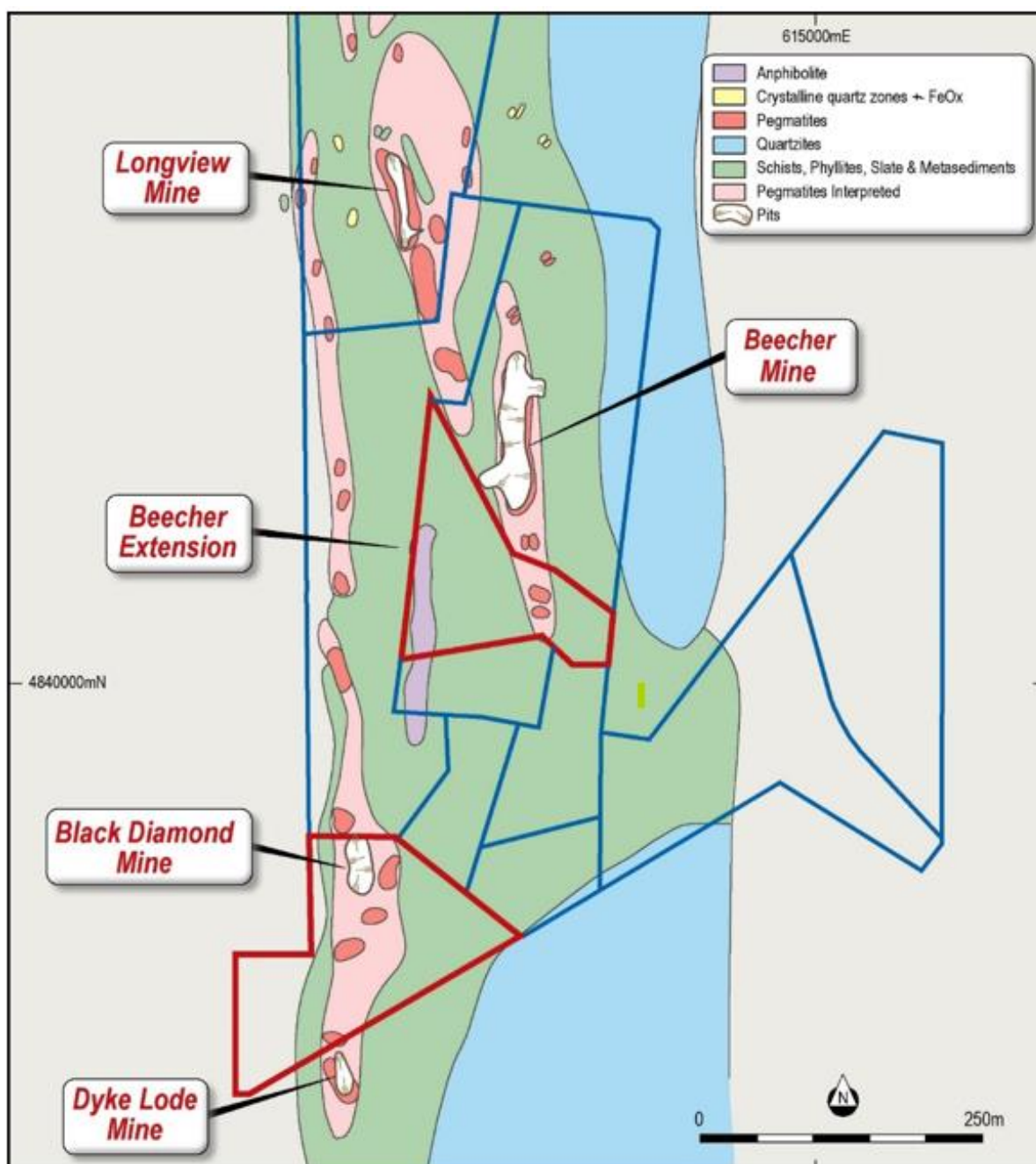


Figure 2: The Beecher Lithium Mine trend showing locations of the Beecher Extension and the Black Diamond Mine claims (accessible claim boundaries shown in red)

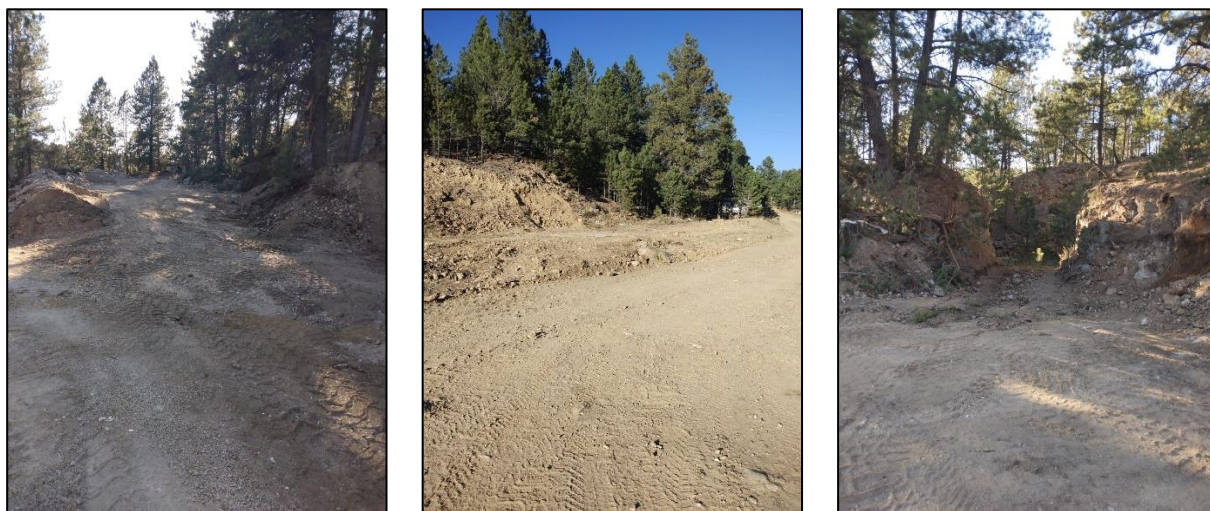


Figure 3: Drill site preparation at the Black Diamond and Beecher Extended patented claims.

Metallurgical Test Work

IRIS has contracted Independent Metallurgical Operations (IMO) to manage the metallurgical test work of spodumene pegmatite ore material sampled from the Beecher lithium trend. IMO will oversee the heavy liquid separation (HLS) and dense media separation (DMS) test work to be carried out by SGS laboratories in Canada. Bulk material comprising 240kg of fresh mineralized pegmatite will be sampled from various locations at the Beecher project. Geologists will select representative material from sites with varying sized spodumene minerals.

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 Metals or not currently considered material by the company. IRIS Metals 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.

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 an-Executive Director to IRIS Metals Limited. Chris Connell is an exploration geologist with over 25 years' experience in gold and base metal exploration including gold 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.

This release is approved by the Board of IRIS Metals Limited.



APPENDIX - About IRIS Metals Limited:

IRIS Metals (ASX:IR1) is an Australian-based explorer with an extensive suite of assets prospective for gold, nickel and lithium in Western Australia and South Dakota, USA. Its wholly owned WA tenement portfolio includes a compelling landholding in central Kookynie - a gold camp renowned for its historical high grade gold production and bonanza gold grades, and strategic tenure in the highly prospective Tier-1 mining jurisdiction of Leonora. The hard rock lithium South Dakota Project provides the Company and its shareholders with exposure to the battery metals space in a mining friendly jurisdiction with a history of past production. IRIS is pursuing a strategy of rapid prospect evaluation in recognised mineral fields, with a view to making economic discoveries, thereby enhancing shareholder value.

Additional Information About Black Diamond and Beecher (previously released)

Black Diamond Patented Claim

The Black Diamond claim is hosted in a north – south trending pegmatite that has predominantly been mined for beryl and feldspar in the past. The narrow open cut has focussed on the zone within the pegmatite with the richest beryl and feldspar and produced a substantial quantity of tantalite.

The walls on both sides of the open cut contain logs of spodumene, and mapping conducted by USGS geologist back in 1945 indicate the potential for significant volumes of this spodumene rich zone. The Black Diamond LCT-pegmatite extends north over a 950m strike length with widths up to 60m wide. Spodumene is mapped over the entire length of the Black Diamond pegmatite supported by the strong lithium readings returned when testing the pegmatite with a LIBS analyzer.

Historic Beecher Lithium Trend

IRIS has obtained access agreements over patented properties located in its Custer project. Patented mining claims are freehold land whereby the owner holds both surface and underground mineral rights. Patented mining claims are not subject to the same obligations as BLM claims that are governed by both Federal and State authorities including the National US Forrest Service.

These access agreements cover sections of the historic Beecher lithium-bearing pegmatite mining trend (**Figure 1**). 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 licences permitting lithium pegmatite mining for these patented claims. These mining licences 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.**





The Black Diamond opencut mine with spodumene crystals in the wall.

Beecher Extended Patented Claim

The Beecher Extended patented claim represents the southern portion of the Beecher Mine pegmatite.

The Beecher Mine is located on a private patented claim that IRIS is currently in negotiation to purchase or lease (**Figure 5**) and comprises 3 relatively large open cuts that have produced spodumene, beryl, coltan, feldspar, amblygonite, and mica.

The quartz-spodumene pegmatite is exposed discontinuously for 750m along strike and up to 130m in width comprising two thirds zoned spodumene (according to USGS reports).

Spodumene crystals 6m by 1.5m have been recorded in this mine. Six diamond drill holes are recorded at the Beecher. Whilst the detailed geology logs are not available, some general data is recorded by the USGS. Widths of spodumene pegmatite at the main Beecher mine are recorded to 30m but drilling didn't completely traverse the entire width of the pegmatite. Based on detailed historic mapping and sampling of the mine, the USGS geologists in 1945 estimated potential volumes of **18,404t per vertical metre at an average grade of 1.8% Li₂O (Page LR, 1953*)**.



Large lithium spodumene minerals in the pit walls of the historic Beecher mine.

Mining Permit

As noted, IRIS' in-country partner has applied for a mining permit across the patented Beecher Claims. This permit has been granted by the State of South Dakota providing IRIS the ability to mine and extract lithium from pegmatites situated on the properties.

Currently, there is only one producing lithium mine in the entire USA, located in Nevada. US lithium production comprises less than 2% of production globally. This is especially significant given that the recently invoked Inflation Reduction Act which stipulated that 50% of battery parts and 40% of battery minerals must be sourced domestically or from countries which the US have an FTA in place for individuals to be eligible for government grants.

IRIS is extremely well positioned to assist the US in achieving its goals of domestic production, to achieve its clean energy goals and lessen its reliance on other countries in order to secure its battery metal minerals.

Staking activities

Field teams have continued staking claims over fertile lithium trends in South Dakota. A further update will be made to market in due course.