

### **About Legacy Iron Ore**

Legacy Iron Ore Limited ("Legacy Iron" or the "Company") is a Western Australian based Company, focused on iron ore, base metals, tungsten and gold development and mineral discovery.

Legacy Iron's mission is to increase shareholder wealth through capital growth, created via the discovery, development and operation of profitable mining assets.

The Company was listed on the Australian Securities Exchange on 8 July 2008. Since then, Legacy Iron has had a number of iron ore, manganese and gold discoveries which are now undergoing drilling and resource definition.

#### **Board**

Amitava Mukherjee, Non-Executive Director Vishwanath Suresh, Non-Executive Director Devanathan Ramachandran, Non-Executive Director

Rakesh Gupta, Director and Chief Executive Officer

Ben Donovan, Company Secretary

### **Key Projects**

Mt Bevan Iron Ore Project South Laverton Gold Project East Kimberley Gold, Base Metals and REE Project

#### **Enquiries**

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31 July 2023

The Company Announcements Office ASX Limited

Via E Lodgement

# REPORT FOR THE QUARTER ENDED 30 June 2023

The Company's Quarterly Activities Report is attached.

Yours faithfully LEGACY IRON ORE LIMITED

Rakesh Gupta
Chief Executive Officer

# **HIGHLIGHTS**

### **EXPLORATION AND DEVELOPMENT**

# **South Laverton Project**

#### Mount Celia

- Executed the Mining Agreement, State Deed and granted a Mining Lease (M39/1145)
- Progressed talks with the prospective mills to finalise toll treatment agreement
- · Advanced discussions with potential contractors for key mining activities
- Submitted remaining proposals and applications for regulatory approval
- Completed grade control drilling
- Commenced drafting the Mine Safety Management System (MSMS)

#### Patricia North

· Finalised plan to drill test targets

#### Sunrise Bore

Completed early exploration drilling program

# **Mount Bevan Project**

# Iron Ore -Magnetite

Progressed Pre-Feasibility Studies (PFS) by the JV Partner Atlas Iron Ltd

#### Lithium and Other Minerals

- Executed a new earn-in and JV agreement with Hancock Magnetite Holdings Pty Ltd (Hancock) and Hawthorn Resources Ltd (Hawthorn
  - The JV will focus on exploring all non-magnetite minerals, primarily lithium pegmatites, along the Mt Ida fault at Mt Bevan.
  - Hancock has spent \$4 million to earn an initial 7.5% in the JV and may spend a further \$22 million to earn 51% of the non-magnetite minerals.
  - Hancock is to undertake PFS on completion of the agreed exploration milestones.

# **East Kimberley Project**

# Taylor Lookout, Sophie Downs and Ruby Plains

Completed interpretation of the drone magnetics survey data

### **EXPLORATION**

### **Projects Overview**

Legacy Iron Ore (**Legacy Iron** or the **Company**) is committed to exploring and developing gold, iron ore, base metals, and critical mineral deposits in Western Australia. The Company has ten promising projects encompassing 24 tenements in the Western Australian known mineralised belts, Figure 1. The Company is advancing the projects into higher stages of exploration and development through systematic exploration activities.

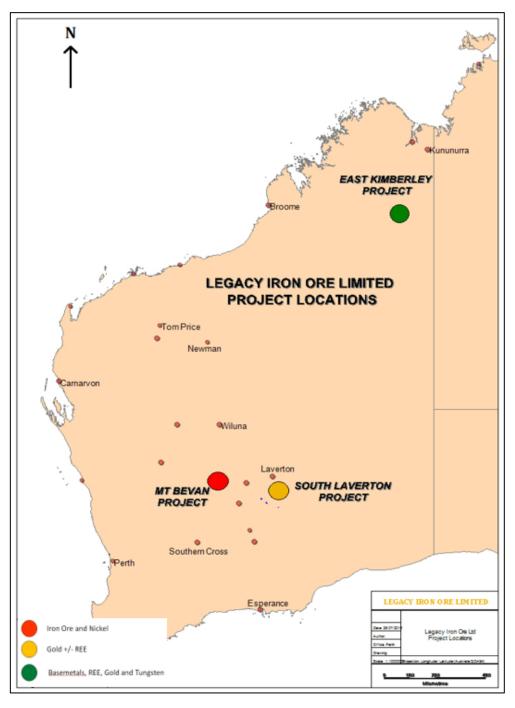


Figure 1 Legacy Iron – Project Location

# **South Laverton Project**

Legacy Iron's South Laverton Gold Project includes the Mt Celia deposits, Yerilla, Yilgangi, Sunrise Bore and Patricia North prospects, Figure 2.

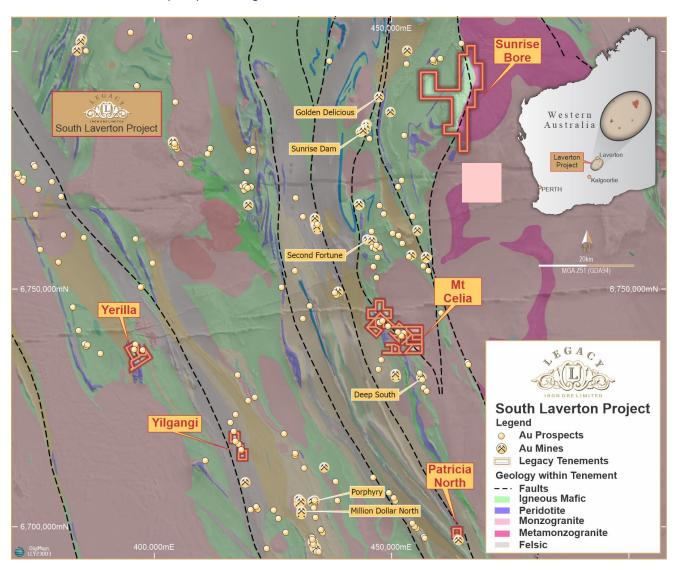


Figure 2 Legacy Iron's South Laverton Gold Projects on regional geology

#### Mount Celia

The Mount Celia gold deposits lie within the Laverton Tectonic Zone, 40 kilometres south of the Sunrise Dam Gold Mine. The deposits contain known gold occurrences, particularly Kangaroo Bore and Blue Peter, which cover Mining Leases M39/1145, M39/1127 and M39/1128. The combined deposits have a Mineral Resource of 6.97 million tonnes at 1.39 g/t for 312,600 ounces. Refer to the ASX announcement dated 3 March 2022.

The Company is working towards completing the pre-feasibility study and transitioning these Mount Celia deposits to production towards the end of 2023.

#### **Quarter Activities**

The following activities were either commenced or completed:

- Progressed talks with prospective mill to finalise an Ore Processing Agreement (OPA)
- Executed Mining Agreement with the traditional owners (Nyalpa Pirniku)
- Executed State Deed with the Department of Mining Industry Regulation and Safety (DMIRS)
- Granted approval of the Mining Lease (M39/1145) by the DMIRS
- Submitted the mining proposal and closure plan for approval by the DMIRS
- Submitted the native vegetation clearing permit application and supporting documents for approval by the Department of Water and Environment Regulation (DWER)
- Progressed discussions with various mining and ore haulage contractors for proposed mining activities
- Completed grade control drilling for Blue Peter and Kangaroo Bore starter pits.
  - Sampling was completed by Reverse Circulation drilling with a collar spacing of 10 metres by 10 metres. A total of 35 drill holes were completed in May-June 2023 for 5,371 metres designed to intersect gold mineralisation in the Blue Peter and Kangaroo Bore deposits, Figures 3 & 4.

The drill samples were sent to the SGS Laboratory, Kalgoorlie, for gold analysis by fire assay method. The analytical results from the samples have been received. They will be incorporated into the next Mt Celia Mineral Resource model update to improve ore body definition and confidence in grade estimates.

 Commenced drafting the Mine Safety Management System (MSMS) with SHEQ Management Consultants

#### **Next Quarter Activities**

- Update the Mount Celia geology and mineral resource models with logging and analytical data collected from recent RC drilling
- Finalise mining, ore haulage contracts and toll treatment agreement
- Assess proposed mine site infrastructure and other contract requirements

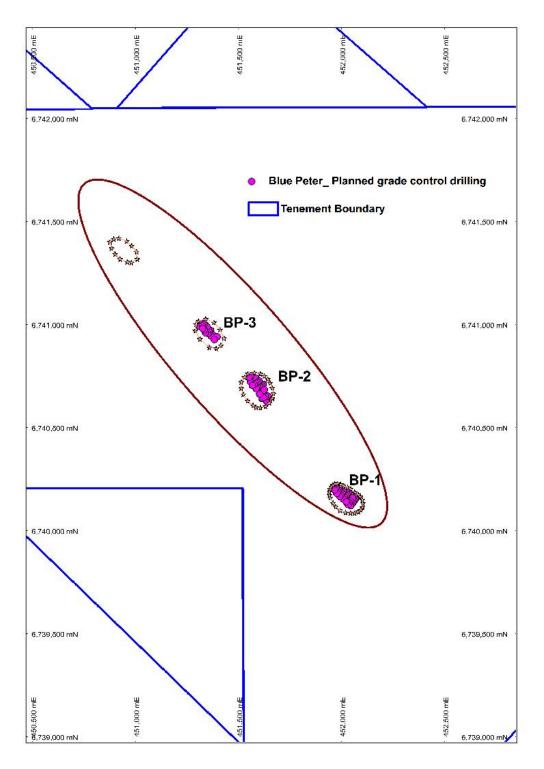


Figure 3: Grade control in starter pits of Blue Peter (BP) deposit

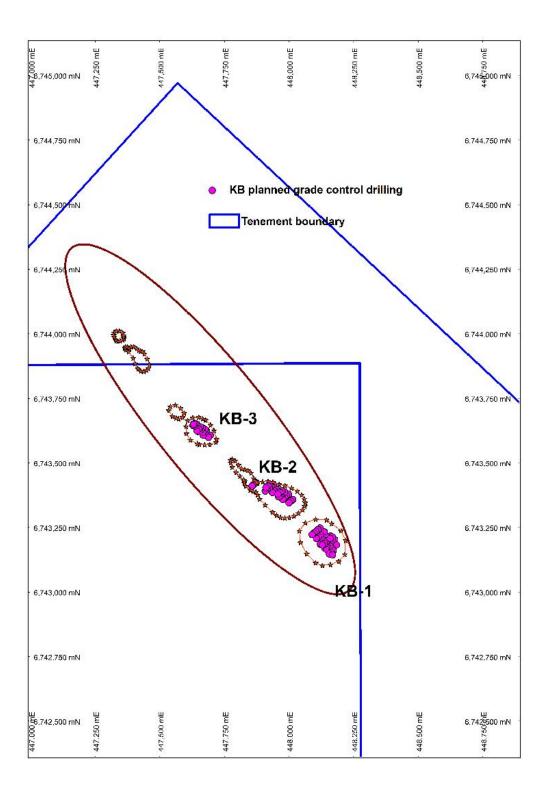


Figure 4: Grade control drilling in starter pits of Kangaroo Bore (KB) deposit

#### Patricia North

Patricia North is part of the South Laverton Gold Project and comprises Exploration Licence E 31/1034. The tenement is considered highly prospective for gold mineralisation and is one kilometre north of the now-closed Patricia Open Cut Mine. The tenement is situated on the eastern margin of the Norseman-Wiluna Archaean Greenstone Belt within the Kurnalpi Terrane of the Yilgarn Craton. The tenement overlies part of the north-northwest trending stratigraphy comprising mafic and felsic volcanics and metasediments of the Mulgabbie formation. Several northwest and northeast trending mafic dykes cross-cut the regional stratigraphy. In addition, the NNW trending Mt. Celia Tectonic Lineament passes through the project area.

#### **Quarter Activities**

The Company plans to drill test targets selected from a review of earlier work, including surface traverses and mapping, surface sampling, Rotary Air Blast (RAB) and Air Core (AC) drilling. This evaluation work enabled the completion of the following goals.

 Finalised the RC drill plan (1,000 metres) to test gold mineralisation's interpreted dip and strike

#### **Next Quarter Activities**

Execute RC drilling, sampling and analytical work

#### Sunrise Bore

The Sunrise Bore prospect is approximately 12 kilometres east of the world-class Sunrise Dam Gold Mine operated by AngloGold Ashanti. Several prospective shear structures have been identified within the project area spatially associated with gold anomalism noted in earlier fieldwork and/or nugget gold found by recent prospecting.

#### **Quarter Activities**

• Completed 15 RC drill holes for a total of 1,710 metres. The drilling was undertaken to test the continuity of intersected mineralisation's in the previous RC drill campaign.

The drill samples have been submitted to SGS laboratory, Kalgoorlie, for gold analysis by fire assay method. The analytical reports are pending at the time of writing of this report. The drill hole locations are shown in Figure 5.

#### **Next Quarter Activities**

 Interpret the geological and analytical data collected from the June 2023 RC drilling program and determine further exploration of potential targets

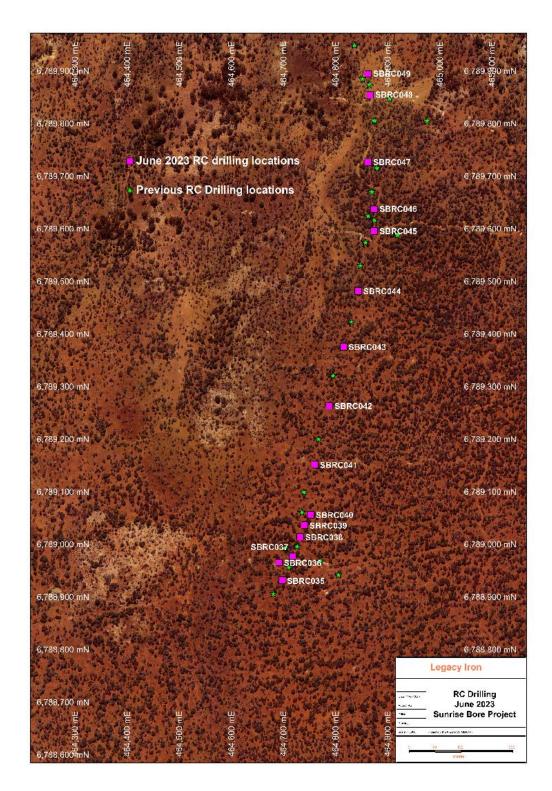


Figure 5: Sunrise Bore RC Drilling location map

# **Mount Bevan Project**

The Mount Bevan project is 250km north of Kalgoorlie in Western Australia. The Project is on an extensive exploration tenement (E29/510), which hosts 1,170 Mt of magnetite resource @ 34.9% Fe. Refer to the ASX announcement dated 17 December 2013.

# Iron Ore - Magnetite

The Company aims to progress the world-class magnetite project through a JV partnership with Hancock & Hawthorn Resources, simultaneously exploring lithium and nickel-copper mineralisation in the tenement.

#### **Quarter Activities**

Progressed Pre-Feasibility Studies (PFS) by the JV Partner Atlas Iron Ltd, including.

- Commenced mineral resource estimation studies with the addition of recently completed drilling
- Commenced metallurgical test work, with comminution tests completed to enable engineering work on the crushing and grinding circuit
- Commenced mine geotechnical, logistics options (rail and port) and hydrogeology studies

#### **Next Quarter Activities**

Progress the Mount Bevan project to PFS.

#### Lithium and Other Minerals

Legacy recognises the considerable potential of the Mount Bevan project in the exploration of lithium and other minerals. The Mount Ida fault is spatially related to what is acknowledged as an emerging lithium, caesium, tantalum (LCT) pegmatite corridor, following recent discoveries along the fault by neighbouring companies, Delta Lithium (ASX:DLI) and St. George Mining (ASX:SGQ), refer to Figure 6.

Given Mount Bevans' exploration and strategic importance, Legacy executed a new earn-in and JV for lithium and other minerals agreement with Hancock Magnetite Holdings Pty Ltd (Hancock) and Hawthorn Resources Ltd (Hawthorn), signed on 15 June 2023. The key terms of the new lithium agreement include:

- Hancock has provided an unconditional initial investment of \$4 million for a 7.5 percent interest in the Project, with \$2.4 million cash being paid to Legacy Iron and \$1.6 million to Hawthorn
- Hancock may fund additional exploration and development activities to earn additional rights in the Project. If Hancock meets all earn-in requirements, it will hold a 51 percent interest in the Project, and Legacy Iron and Hawthorn will hold 29.4 percent and 19.6 percent, respectively
- Legacy and Hawthorn are entitled to an additional cash payment of up to \$10 million if a lithium pegmatite JORC-compliant mineral resource exceeds certain thresholds
- Legacy has a right to acquire up to 75 percent of the end product produced by the joint venture, with Hawthorn retaining a right to take 10 percent and Hancock retaining a right to take 15 percent of the end product.

Refer to the announcement Hancock Executes Lithium Earn-in and Joint Venture at Mt Bevan, 15 June 2023.

#### **Next Quarter Activities**

 Commence planning lithium and other minerals exploration by Hancock as per the JV terms and conditions

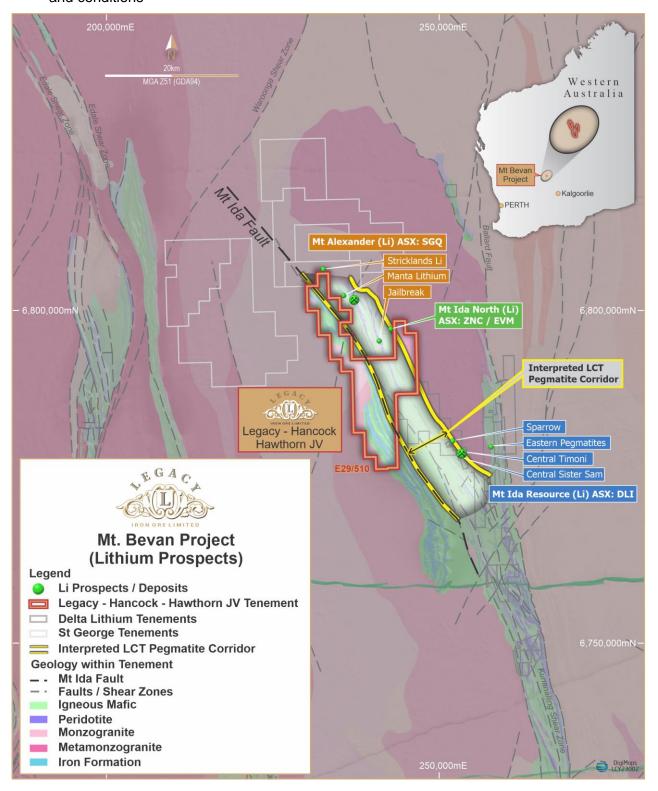


Figure 6 Mount Bevan Project, LCT pegmatite corridor

# **East Kimberley Projects**

The East Kimberley Project is in the Halls Creek area, 350 km south of Kununurra and is readily accessible via the Great Northern Highway. The Project comprises Koongie Park (E80/4221) and the Sophie Downs (E80/5067), Ruby Plains (E80/5068) and Taylor Lookout (E80/5066) tenements.

This Projects' tenements remain relatively underexplored, allowing Legacy to reveal the inherent potential of known polymetallic, base metals, gold, and rare earth mineralisation occurrences.

# Taylor Lookout, Sophie Downs and Ruby Plains

#### **Quarter Activities**

- Interpreted drone magnetics survey data by Newexco consultants and Legacy geologists.
- Generated follow-up targets for ground truthing and surface sampling for planning additional exploration activities.

#### **Next Quarter Activities**

- Assess and test Newexco targets by ground truthing and surface sampling
- Continue lithium and other minerals exploration by Eastern Resources as per the JV terms and conditions.

The map showing interpreted targets for the Project is shown in Figures 7,8 & 9.

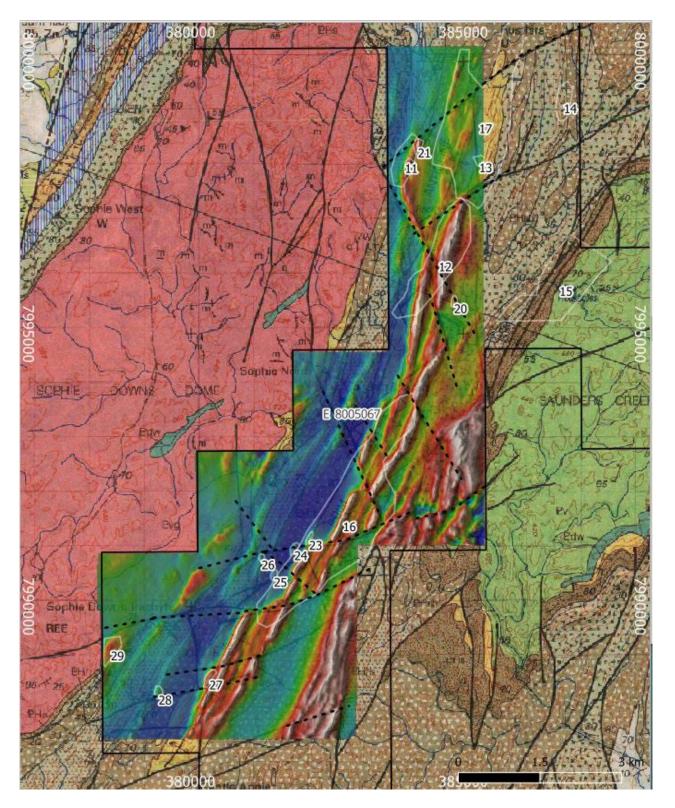


Figure 7: Interpreted targets in the Sophie Downs prospect

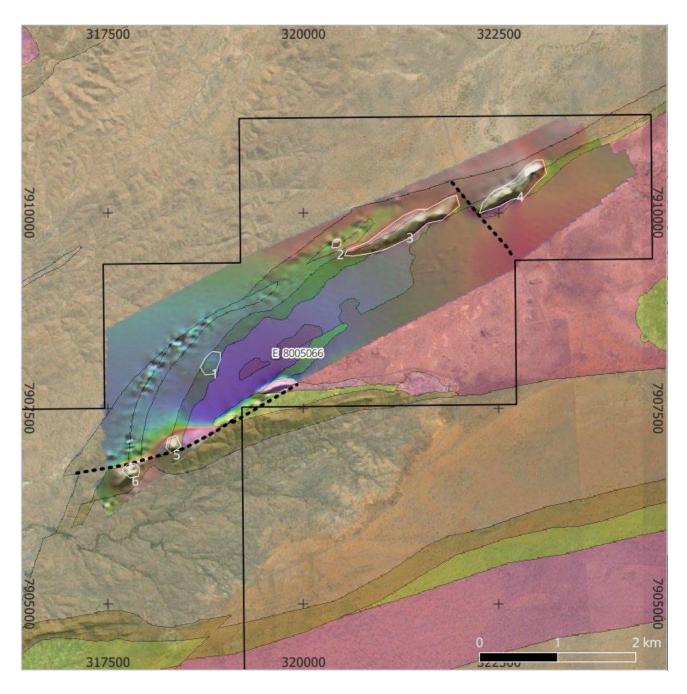


Figure 8: Interpreted targets in the Taylor Lookout prospect

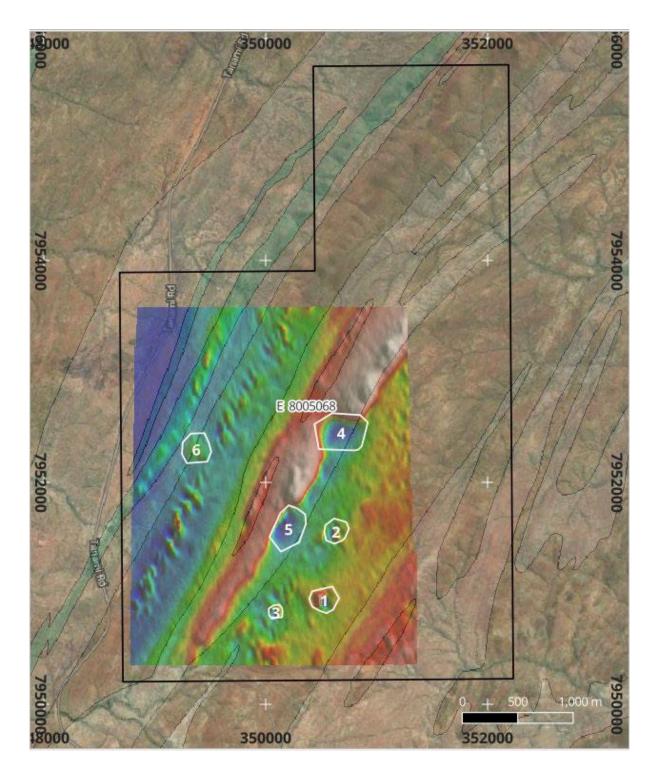


Figure 9: Interpreted targets in the Ruby Plains prospect

For Section 6 of Appendix 5B, all payments made to related parties have been paid in relation to director fees.

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

Information in this report that relates to Exploration is based on information reviewed or compiled by Peter Preston, BSc (Hons), who is a member of the Australasian Institute of Mining and Metallurgy. Peter Preston is the Geology Manager of Legacy Iron Ore Ltd. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the 'Australasian Code for Reporting of Exploration Results and Mineral Resources'. Peter Preston consents to the inclusion of this information in the form and context in which it appears in this report.

The information in this report references ASX announcements previously released by the Company which contain all geological data and the required competent person sign-off. These announcements are:

- Significant Resource Upgrade at Mt Bevan Iron Ore Project, 17 December 2013
- Hancock Executes Lithium Earn-in and Joint Venture at Mt Bevan, 15 June 2023
- Revised Resource Estimates of the Mt Celia Gold Project, 3 March 2022

The Company confirms that no new information or data materially affects the mineral resource estimate announced on 17 December 2013 and that all assumptions underpinning the estimate continue to apply and have not materially changed.

### Tenement Schedule in accordance with ASX Listing Rule 5.3.3

Table 1	<b>Tenements</b>	held at the	end of the	June 2023	Quarter
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Location	Tenement	Project	Date of Grant	Equity (%) Held at the start of the quarter	Equity (%) Held at the end of the quarter
WA	E80/4221	Koongie Park	14/12/2009	100%	100%
WA	E31/1034	Patricia North	19/09/2013	100%	100%
WA	M31/0426	Yilgangi	12/01/2009	100%	100%
WA	M31/0427	Yilgangi	12/01/2009	90%	90%
WA	E31/1019	Yilgangi	10/04/2013	90%	90%
WA	E31/1020	Yilgangi	10/04/2013	90%	90%
WA	E39/1443	Mt. Celia	10/11/2009	100%	100%
WA	M39/1125	Mt Celia	7/06/2018	100%	100%
WA	M39/1126	Mt Celia	7/06/2018	100%	100%
WA	M39/1127	Mt Celia	7/06/2018	100%	100%
WA	M39/1123	Mt Celia	7/11/2018	100%	100%
WA	M39/1124	Mt Celia	7/11/2018	100%	100%
WA	M39/1128	Mt Celia	7/11/2018	100%	100%
WA	E39/2262	Mt. Celia	15/11/2022	100%	100%
WA	E39/2348	Mt. Celia	06/02/2023	NA	100%
WA	E39/1748	Sunrise Bore	1/07/2014	100%	100%
WA	E29/0510	Mt. Bevan	7/07/2005	42%	42%
WA	E80/5066	Taylor Lookout	18/07/2018	100%	100%
WA	E80/5067	Sophie Downs	18/07/2018	100%	100%
WA	E80/5068	Ruby Plains	18/07/2018	100%	100%
WA	E39/2040	Kangaroo Bore North	18/09/2018	100%	100%