

# Spodumene Reaffirmed as Dominant Lithium Phase Across Ewoyaa Project Cape Coast Lithium Portfolio, Ghana, West Africa

IronRidge Resources Limited (AIM: IRR, 'IronRidge' or the 'Company'), the African focussed minerals exploration company, is pleased to announce that additional X-Ray Diffraction ('XRD') analysis of metallurgical composites reaffirms spodumene as the dominant lithium mineral phase; one of several targets within the Cape Coast Lithium Portfolio, located in Ghana, West Africa.

# **HIGHLIGHTS:**

- Additional X-Ray Diffraction ('XRD') results returned for metallurgical test-work on gravity concentrates and residues reaffirm spodumene as the dominant lithium mineral phase in all ten (10) composites analysed.
- Majority of lithium reports to spodumene providing confidence in simple process flow-sheet design and good customer acceptance; very low level to trace amounts of undesirable petalite, eucryptite, lepidolite and amblygonite observed.
- > Very low level to trace lithium phases reporting in residue material; minimal lithium losses to waste envisaged.
- Good spread of tested metallurgical composites across the Ewoyaa deposit footprint; provides confidence in continuity of spodumene dominant mineralogy with simplified process flowsheet and mine planning envisioned.

Commenting on the Company's latest progress, Len Kolff, Chief Operating Officer of IronRidge, said:

"We are delighted that the XRD results for ten of our metallurgical composites continue to confirm spodumene as the dominant lithium mineral phase, with little to no contamination and consistency across all samples tested.

"This re-confirms results from the initial metallurgical test-work and provides further confidence in favourable spodumene consistency across the deposit footprint.

"All results to date point towards a simplified process flow-sheet design with remarkable mineralogical consistency in all ten metallurgical composites analysed."



#### XRD Results:

XRD results have been received for ten (10) metallurgical composites tested. Results have confirmed spodumene as *the* dominant lithium phase; the preferred lithium phase for simple process flow-sheet design and feedstock for end users.

Results are for a spread of composites, including both concentrate and residues generated at a coarse 6.3mm crush with Heavy Liquid Separation ('HLS') from across the Ewoyaa deposit footprint (*refer* **RNS** of **21 May 2019**, and **Figure 1**).



Figure 1 | Metallurgical composite sample locations showing good spread across the Ewoyaa deposit footprint

Results demonstrate mineralogical continuity across the currently drilled deposit footprint and that spodumene is the dominant lithium mineral phase. From the XRD results, spodumene represents greater than 91% and up to 98% of the available lithium within all pegmatite types tested, with trace lepidolite, petalite, eucryptite, amblygonite, triphylite and other secondary lithium-phosphate phases.

Only trace lithium mineral phases were observed in the residue fraction confirming minimum losses at a coarse 6.3mm crush, and no significant contaminants were recorded (*refer Table 1*).





**Table 1** | XRD Mineral abundance analysis for selected concentrate and residue composites (linked to metallurgical test-work results summary; refer Figure 1 and RNS of 21 May 2019)



# Location:

The Ewoyaa deposit is well located within 1km of a bitumen highway and adjacent to grid power, within 100km of an operating deep-sea port and within the pro-mining, stable jurisdiction of Ghana (*refer Figure 2*). Multiple additional pegmatite targets occur adjacent to Ewoyaa including the drill tested Abonko deposit, the developing Ewoyaa West target and additional exploration targets, as well as the historical Egyasimanku Hill deposit (1.48Mt @ 1.66% Li<sub>2</sub>O, non JORC) further to the east.



Figure 2 | Ewoyaa Project location relative to major infrastructure

Certain information contained in this announcement would have been deemed inside information for the purposes of Article 7 of Regulation (EU) No 596/2014 until the release of this announcement.

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# **Competent Person Statement:**

Information in this report relating to the exploration results is based on data reviewed by Mr Lennard Kolff (MEcon. Geol., BSc. Hons ARSM), Chief Geologist of the Company. Mr Kolff is a Member of the Australian



Institute of Geoscientists who has in excess of 20 years' experience in mineral exploration and is a Qualified Person under the AIM Rules. Mr Kolff consents to the inclusion of the information in the form and context in which it appears.

The information in this announcement that relates to metallurgical results is based on information compiled by Mr Noel O'Brien, Director of Trinol Pty. Limited. Mr O'Brien is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and 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 December 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code). Mr O'Brien consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

## Notes to Editors:

IronRidge Resources is an AIM-listed, Africa focussed minerals exploration company with a lithium pegmatite discovery in Ghana, extensive grassroots gold portfolio in Cote d'Ivoire and a potential new gold province discovery in Chad. The Company holds legacy iron ore assets in Gabon and a bauxite resource in Australia. IronRidge's strategy is to create and sustain shareholder value through the discovery and development of significant and globally demanded commodities.

#### Ghana

The Company entered into earn-in arrangements with Obotan Minerals Limited, Merlink Resources Limited, Barari Developments Limited and Joy Transporters Limited of Ghana, West Africa, securing the first access rights to acquire the historical Egyasimanku Hill spodumene rich lithium deposit, estimated to be in the order of 1.48Mt at 1.67% Li<sub>2</sub>O and surrounding tenements. The portfolio covers some 684km<sup>2</sup> with the newly discovered Ewoyaa project including drill intersections of 128m @ 1.21% Li<sub>2</sub>O from 3m and 111m @ 1.35% Li<sub>2</sub>O from 37m, and a further identified 20km strike of pegmatite vein swarms. The tenure package is also highly prospective for tin, tantalum, niobium, caesium and gold, which occur as accessory minerals within the pegmatites and host formations.

## Chad

The Company entered into an agreement with Tekton Minerals Pte Ltd of Singapore concerning its portfolio covering 900km<sup>2</sup> of highly prospective gold and other mineral projects in Chad, Central Africa. IronRidge acquired 100% of Tekton including its projects and team to advance the Dorothe, Echbara, Am Ouchar, Nabagay and Kalaka licenses, which host multiple, large scale gold projects. Trenching results at Dorothe, including 84m @ 1.66g/t Au (including 6m @ 5.49g/t & 8m @ 6.23g/t), 4m @ 18.77g/t Au (including 2m @ 36.2g/t), 32m @ 2.02g/t Au (including 18m @ 3.22g/t), 24m @ 2.53g/t Au (including 6m @ 4.1g/t (including 2m @ 6.2g/t) and 2m @ 6.14g/t), 14.12g/t Au over 4m, 34.1g/t over 2m and 63.2g/t over 1m, have defined significant gold mineralised quartz veining zones over a 3km by 1km area including the steep dipping 'Main Vein' and shallow dipping 'Sheeted Vein' zones.

## Côte d'Ivoire

The Company entered into conditional earn-in arrangements in Côte d'Ivoire, West Africa; securing access rights to highly prospective gold mineralised structures and pegmatite occurrences covering a combined 3,584km<sup>2</sup> and 1,172km<sup>2</sup> area respectively. The projects are well located within access of an extensive bitumen road network and along strike from multi-million-ounce gold projects and mines.

#### Australia

Monogorilby is prospective for province scale titanium and bauxite, with an initial maiden resource of 54.9MT of premium DSO bauxite. Monogorilby is located in central Queensland, within a short trucking distance of



the rail system leading north to the Port of Bundaberg. It is also located within close proximity of the active Queensland Rail network heading south towards the Port of Brisbane.

May Queen is located in Central Queensland within IRR's wholly owned Monogorilby license package and is highly prospective for gold. Historic drilling completed during the 1980s intersected multiple high-grade gold intervals, including 2m @ 73.4 g/t Au (including 1m at 145g/t), 4m @ 38.8g/t Au (at end of hole) and 3m @ 18.9g/t Au, over an approximate 100m strike hosting numerous parallel vein systems, open to the north-west and south-east.

Wholly owned Quaggy contains highly anomalous platinum, palladium, nickel, cobalt and copper exploration targets and is located in Central Queensland, within a short trucking distance of the dormant rail system to the Port of Bundaberg. It is also located within close proximity of the active Queensland Rail network heading south towards the Port of Brisbane.

#### Gabon

Tchibanga is located in south-western Gabon, in the Nyanga Province, within 10-60km of the Atlantic coastline. This project comprises two exploration licenses, Tchibanga and Tchibanga Nord, which cover a combined area of 3,396km<sup>2</sup> and include over 90km of prospective lithologies and the historic Mont Pele iron occurrence.

Belinga Sud is Located in the north east of Gabon in the Ogooue-Ivindo Province, approximately 400km east of the capital city of Libreville. IRR's licence lies between the main Belinga Iron Ore Deposit, believed to be one of the world's largest untapped reserves of iron ore with an estimated 1bt of iron ore at a grade >60% Fe, and the route of the Trans Gabonese railway, which currently carries manganese ore and timber from Franceville to the Port of Owendo in Libreville.

#### Corporate

IronRidge made its AIM debut in February 2015, successfully securing strategic alliances with three international companies: Assore Limited of South Africa, Sumitomo Corporation of Japan and DGR Global Limited of Australia. Assore is a high- grade iron, chrome and manganese mining specialist. Sumitomo Corporation is a global resources, mining marketing and trading conglomerate. DGR Global is a project generation and exploration specialist.