

23 May 2017

## **Due Diligence on Barari, Obotan and Merlink Completed**

### **Farm-in and Joint Venture Agreements Signed, Ghana, West Africa**

### **First Pass Exploration Reveals Exceptional High-Grade, Broad Lithium Pegmatite Trenching Results**

IronRidge Resources Limited (AIM: IRR, "IronRidge" or the "Company") is pleased to report that Farm-in Agreements with Barari Developments Ltd ("Barari"), Obotan Minerals Ltd ("Obotan") and Merlink Resources Ltd ("Merlink") for the Saltpond, Apam and Winneba Projects (collectively called the "Cape Coast Project") are now binding and unconditional. Exceptional high-grade and broad lithium pegmatite trenching results have been reported at the Cape Coast Project in Ghana, West Africa.

The Joint Venture arrangements provide IronRidge with exclusive rights to three exploration licenses and two applications for lithium and associated minerals in Ghana, West Africa, and access rights to a highly prospective historic (non JORC) lithium (spodumene) pegmatite resource of 1.48Mt at 1.66% Li<sub>2</sub>O. Conditional Term Sheets were first announced on 6<sup>th</sup> September and 20<sup>th</sup> October 2016.

#### **HIGHLIGHTS:**

- **Barari, Obotan and Merlink satisfy all terms to binding and unconditional farm-in arrangements with IronRidge, providing access rights to 314km<sup>2</sup> of highly prospective ground.**
- **High-grade 'hard rock' lithium pegmatite results received in trenching and bulk surface rock-chip sampling over broad, continuous widths and multiple mapped pegmatites.**
- **Access rights secured for 3 licenses and 2 applications covering 314km<sup>2</sup> within a rediscovered and highly prospective, high-grade 'hard rock' lithium pegmatite field.**
- **First pass exploration programme including 86 individual rock chip samples, 100m of trenching, 270m of channel sampling and over 130m of bulk surface rock-chip sampling for a combined total of 1,545kg of samples across the project areas completed.**
- **Broad, continuous and high-grade whole-rock trenching results received of 100m at 1.57% Li<sub>2</sub>O (at 1% Li<sub>2</sub>O cut-off) over the entire trench length; including 40m at 1.93% Li<sub>2</sub>O and 15m at 2.18% Li<sub>2</sub>O and remains open in both directions.**
- **Exceptional high-grade, whole-rock bulk surface rock-chip sampling results over 10m width at 2.41% Li<sub>2</sub>O, 25m at 2.29% Li<sub>2</sub>O and 25m at 2.41% Li<sub>2</sub>O across a second pegmatite.**
- **High-grade pegmatite outcrops and boulder float zones identified over 100m x 400m area.**
- **Multiple untested pegmatite occurrences identified with anomalous lithium rock-chip sampling results, in addition to tin, tantalum, niobium caesium and beryllium targets throughout the Project portfolio.**

- Hard-rock, pegmatite hosted mineralisation with dominant coarse grained, lithium rich spodumene mineralogy; simple process flow-sheet envisaged.
- Licenses and applications adjacent to the coast and within 100km of the capital city of Accra; excellent infrastructure, logistics and services support for potential rapid development.
- Supportive Government with a pro-mining investment framework and rich mining history.
- Global demand for lithium is increasing at an unprecedented rate.

Commenting on the Company’s latest progress, Vincent Mascolo, Chief Executive Officer of IronRidge, said:

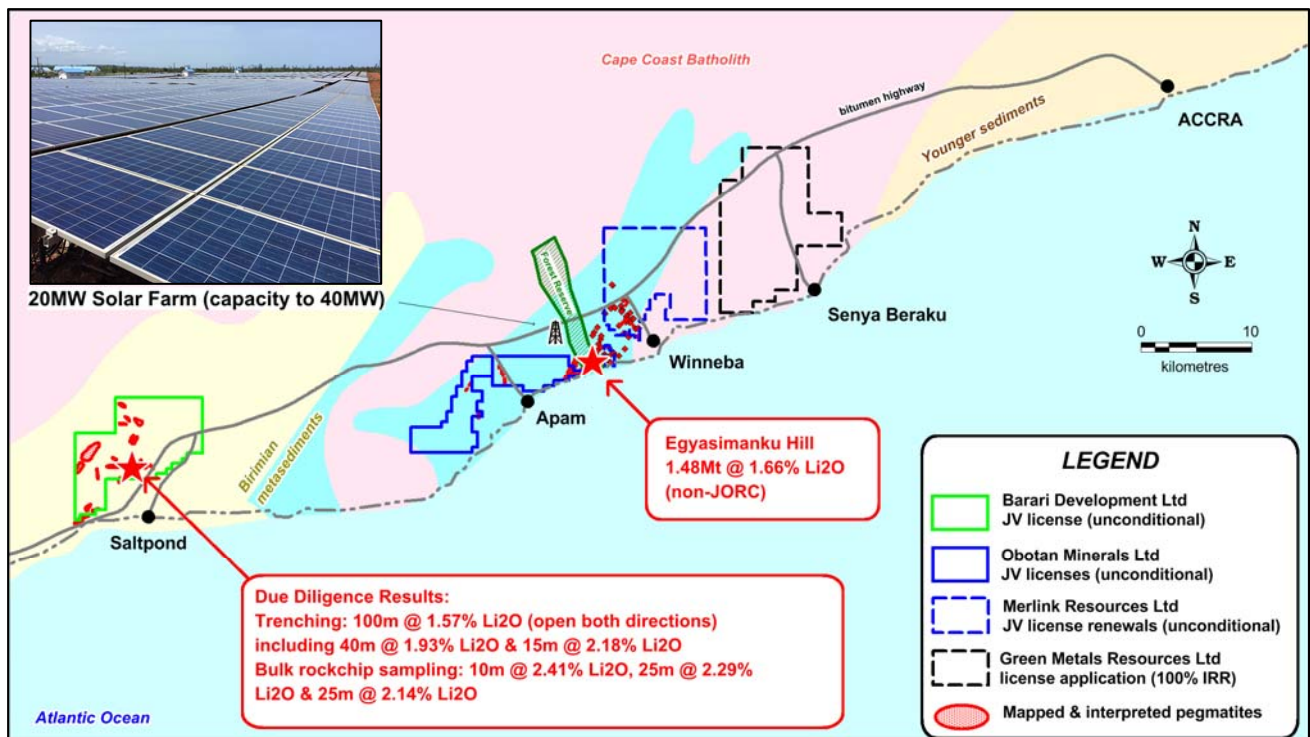
*“This recent discovery is a resounding endorsement of our global search initiatives and the IronRidge team.*

*“We are ideally positioned to take advantage of the current and expanding renewable energy initiatives in Ghana and globally. We see huge potential in stored energy with the potential of complementing the circa 280MW solar farms spread across Ghana, including the 20MW Onyadnze solar farm within 5km of our project area.*

*“We look forward to working with the relevant Ghanaian authorities across the mineral and energy sectors.”*

### Project Area and Geology

The project area is located on the southern margin of the Cape Coast Batholith, a major 100km by 200km granitic intrusive complex occurring along the southern-central coastline of Ghana and part of the West African shield. A window of older Birimian metasediments is surrounded by the batholith and occurs along the intrusive contact; possibly representing a roof pendent of older metasediments underlain by granitic intrusives.



**Figure 1** | License and application locations on geology background with historic lithium resource (non JORC) and new due diligence sampling results

Smaller kilometre scale, more fractionated granitic intrusive bosses occur within the metasediments and are spatially associated with pegmatitic vein swarms. These intrusive bodies are believed to be the more fractionated end-members, and accordingly more prospective zones for lithium rich pegmatites.

The project area is well located, being easily accessible within 100km from the capital city of Accra along a bitumen highway, is adjacent to grid power with transmission lines traversing the project areas and well serviced by infrastructure and logistics needs for potential rapid development.

### **Due Diligence Results**

Results were received for technical and legal due diligence programmes completed over the Saltpond, Apam and Winneba license and application areas. Collectively, Barari, Obotan and Merlink satisfied all terms to agree binding and unconditional farm-in agreements with IronRidge.

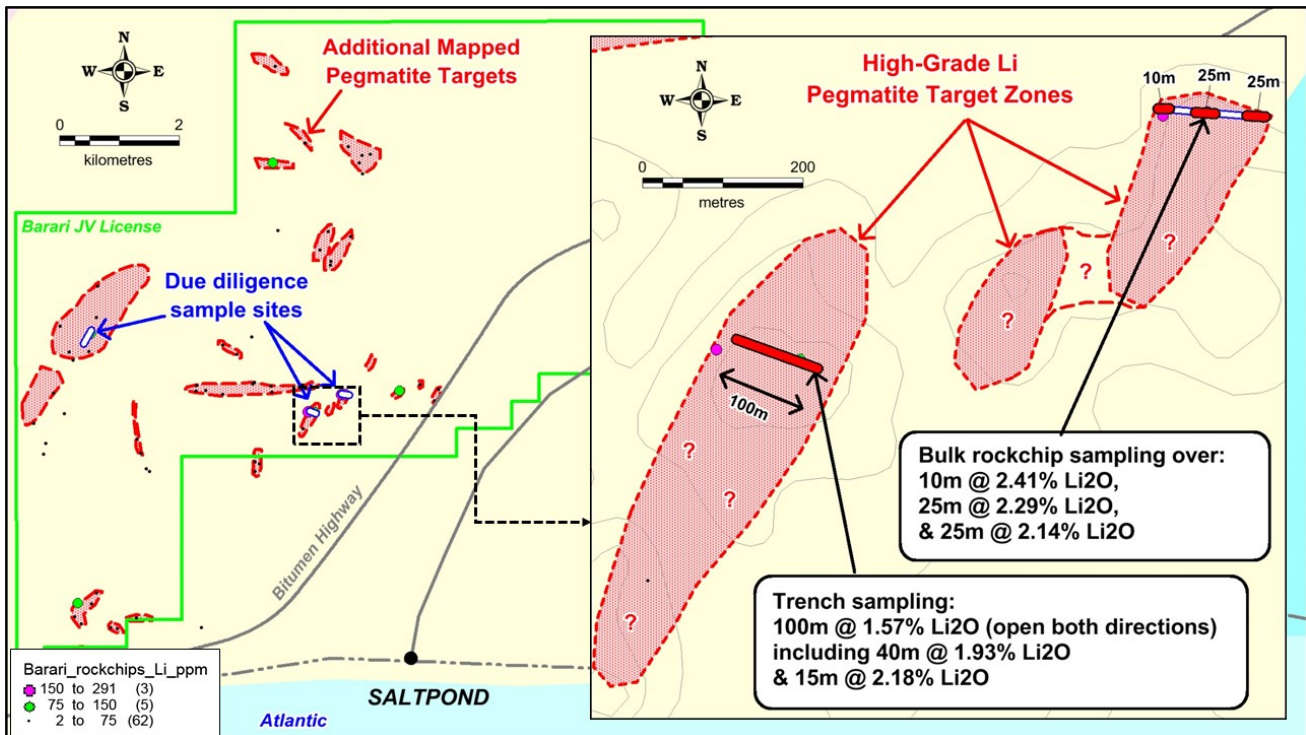
A first pass field programme including 86 individual rock chip samples, 100m of trenching, 270m of channel sampling and over 130m width of bulk surface rock-chip sampling for a total of 1,545kg of sample (not including Quality Assurance/Quality Control 'QA/QC' samples) and reconnaissance mapping was completed across the project areas.

Reconnaissance mapping and rock-chip sampling identified prospective pegmatites within the project areas; however, returned low level anomalous lithium (Li) assay results. It was recognised that the small sample volume used in rock chip sampling combined with tropical weathering could explain the low-level anomalous Li results and a follow-up sampling strategy was required to adequately test the targets. Accordingly a combined trenching, bulk surface rock-chip sampling and channel sampling programme was designed over three selected pegmatite targets within the Barari license to confirm or otherwise high-grade lithium results.

A total of 1,545kg for 63 samples was collected at an average individual sample weight of 24.5kg, over 100m of trenching, 270m of channel sampling and 130m of surface bulk sample rock-chip sampling. All samples were delivered in their entirety to ALS Ghana for sample preparation and representative pulps sent to ALS Johannesburg for multi-element geochemical analysis by sodium peroxide fusion (ICP-OES and ICP-MS finish, lab code ICM90A) for 54 elements.

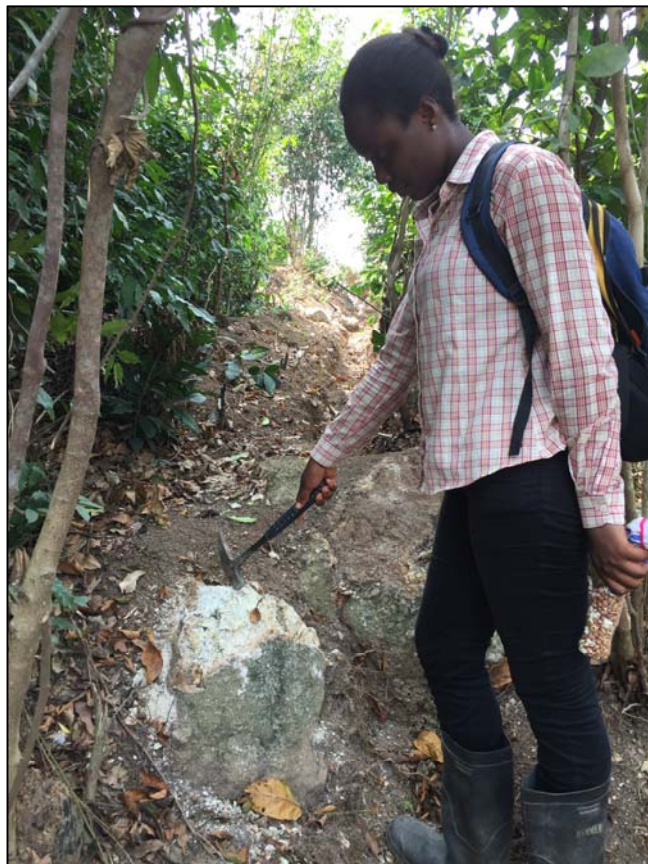
Multiple high-grade lithium results were received over significant and continuous broad widths over two of the three pegmatites initially tested. Broad, continuous high-grade trenching results of 100m at 1.57% Li<sub>2</sub>O including 40m at 1.93% Li<sub>2</sub>O which includes 15m at 2.18% Li<sub>2</sub>O were returned. Additional surface bulk rock-chip sampling results over 10m width at 2.41% Li<sub>2</sub>O, 25m at 2.29% Li<sub>2</sub>O and 25m at 2.14% Li<sub>2</sub>O were returned from an adjacent pegmatite (see **Figure 2** and **Figure 4**).

Additional multiple mapped pegmatites remain untested with significant lithium exploration upside within the Barari license area and across the Cape Coast project portfolio (see **Figure 2**).

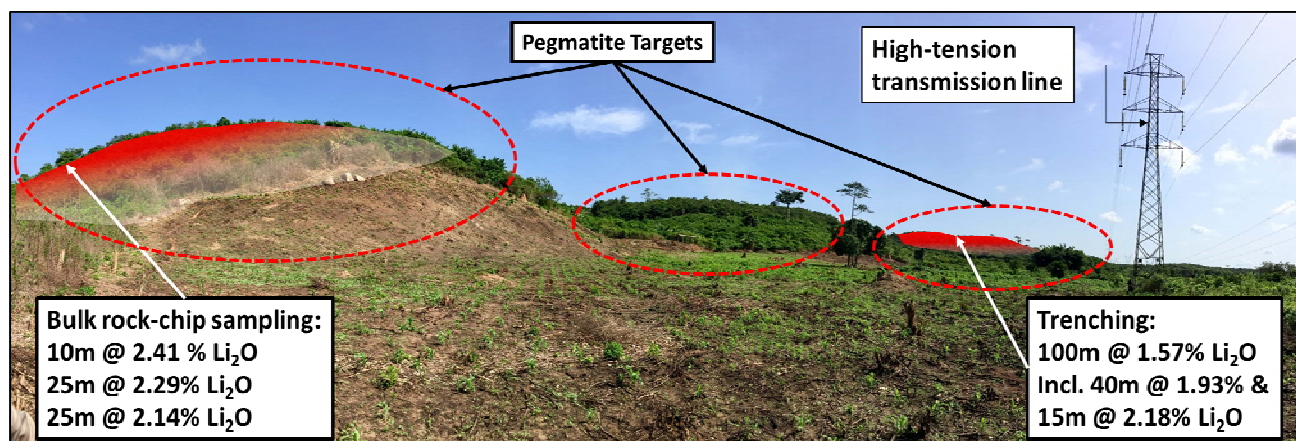


**Figure 2 |** Due diligence sample sites with *INSERT*: High-grade trenching and bulk surface rock-chip sampling results returned at the Barari Project area with multiple mapped pegmatite targets yet to be tested

The outcropping pegmatites are characterised by coarse crystalline spodumene (a lithium rich pyroxene mineral and the preferred feedstock of hard-rock lithium mining projects). IronRidge proposes to investigate the leaching of lithium and then to precipitate a lithium carbonate product (see **Figure 3**). In addition to lithium, the licenses are also prospective for tin, tantalum, niobium, beryllium, caesium and gold which occur as accessory minerals within the pegmatites and host formations. Additional anomalous beryllium and caesium was identified within the multi-element geochemistry assay results.



**Figure 3** | *TOP*: High-grade, coarse spodumene bearing (elongate crystals sub-parallel to pen in photo) pegmatite outcrops observed and *BOTTOM*: Field geologist standing within high-grade trench at the Barari Project site

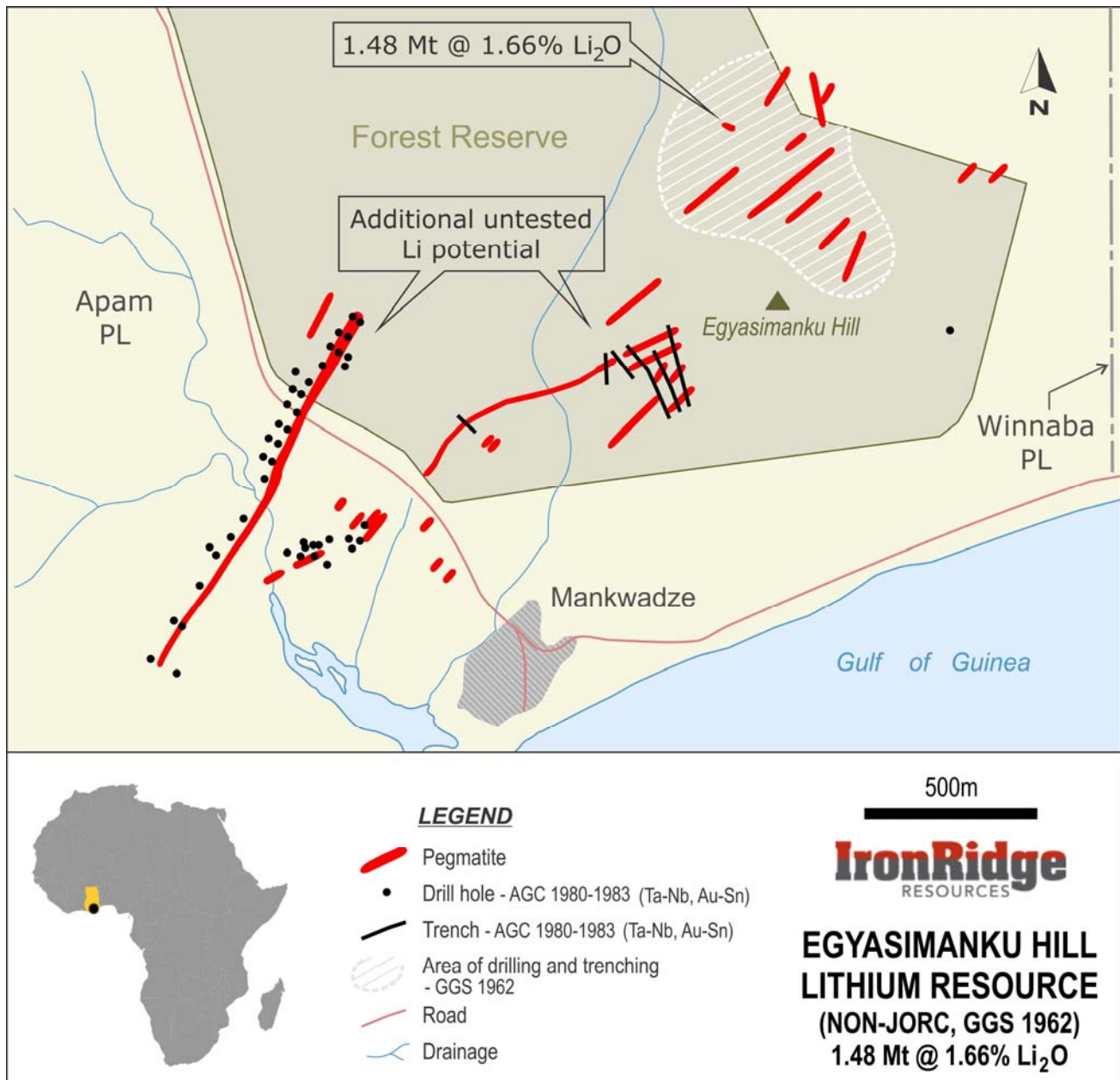


**Figure 4** | View looking south-west towards high-grade outcropping lithium pegmatite hills and zones of trenching and bulk surface rock-chip sampling

### Historic Lithium Resource

Through the Joint Venture Agreement with Obotan Minerals and Merlink resources, the Company has secured first rights to apply for ownership of the historic Egyasimanku Hill lithium resource. The deposit was drilled by the Ghana Geological Survey during 1962 and a resource estimate of 1.48Mt at 1.66% Li<sub>2</sub>O reported (non JORC).

The Egyasimanku Hill Lithium deposit occurs within the Yenku Forest Reserve, a designated forested area set aside for the local population. Access rights for minerals exploration and development within a forest reserve are granted to an adjacent exploration license holder on approval from the Forestry Commission, Environmental Protection Agency and the local landholders. The application to access the Yenku Forest Reserve has been lodged by the Joint Venture partner and approval is pending; no certainty to the grant of access can be assigned at this stage.



**Figure 5 |** Reported yet unconfirmed Egyasimanku Hill historic lithium rich spodumene resource location and surrounding prospectivity

The unconditional binding Farm-in and Joint Venture Agreements with Barari, Obotan and Merlink on the three license and two application areas, provides the Company with over 45km strike of prospective ground with highly anomalous due-diligence sampling results and exciting exploration targets along rediscovered lithium bearing pegmatite trends that hosts the historic 1.48Mt Egyasimanku Hill resource at 1.66% Li<sub>2</sub>O (non JORC).

In addition to the securing licenses and applications, and the first right to apply for ownership of the historic lithium resource through the Joint Venture, the Company has also submitted a license application through its wholly owned local subsidiary Green Metals Resources Ltd, over an area to the east of the historic resource and along interpreted extensions of the lithium pegmatite trend. The application is pending approval.

## **Next Steps**

The Company and its farm-in and Joint Venture counter-parties are currently planning a staged exploration programme which will focus on advancing through detailed mapping, trenching and sampling the currently defined spodumene bearing pegmatites, whilst in parallel executing a 'ultra-high' definition magnetics and radiometrics airborne survey over the project areas to facilitate exploration target definition and target ranking. Pending results of the detailed trenching programme and exploration activities, the Company may execute a drilling programme.

## **Commercial Terms of Farm-in and JVA**

The Company has entered into a Farm-in and Joint Venture Agreement with Obotan Minerals Ltd and Merlink Resources Ltd of Ghana, West Africa, under which IronRidge can acquire up to 100% of the projects through staged earn in arrangements and expenditure to Feasibility Study within a 4-year period subject to Obotan and Merlink retaining a NSR of 2.5% of which 50% may be acquired for US\$3 million at any stage. Funding will be used to undertake further exploration work and, pending results, defining a maiden resource and complete project studies.

The Company has also entered into a Farm-in and Joint Venture Agreement with Barari Developments Limited ("BDL") of Ghana, West Africa, under which IronRidge can acquire up to 100% of the projects through staged earn-in arrangements and expenditure to Feasibility Study within a 4-year period. Barari Developments Limited will retain a Net Smelter Return Royalty ("NSR") of 2% capped at US\$2m of which 50% may be acquired for US\$2m at any stage. Funding will be used to undertake further exploration work and, pending results, define a maiden resource and complete project studies.

## **Lithium Outlook**

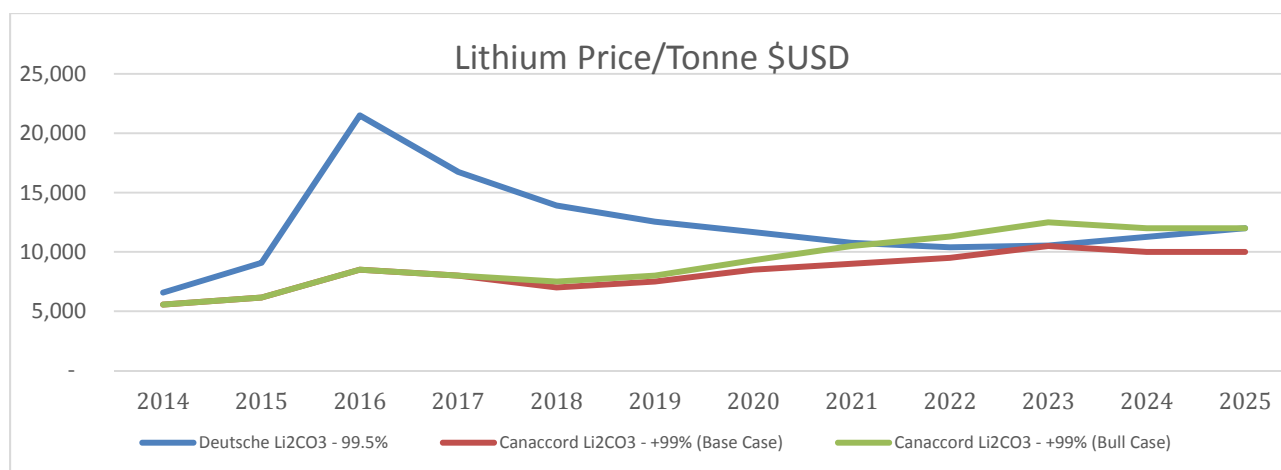
Global demand for lithium is increasing at an unprecedented rate since the emergence of consumer electronics, the electric vehicle and energy storage markets, driven by a desire to reduce carbon emissions and improve efficiencies.

In its purified form, lithium (Li) possesses some unique characteristics. It is the lightest of all metals, has a high electrochemical potential with an exceptionally small ionic radius and therefore exceptionally high charge to radius ratio. These unique characteristics make it ideal for use in lightweight, rechargeable batteries currently undergoing rampant growth in global demand.

Lithium and its compounds have several industrial, medicinal and biological applications, including heat-resistant glass and ceramics, lithium grease lubricants, flux additives for iron, steel and aluminum production, lithium and lithium-ion batteries, mental health treatment and bacteriostatic properties. These uses consume more than three quarters of lithium production.

Commentary, from industry experts, suggests lithium consumption will increase significantly over the coming years; especially due to increasing global battery demand.





PRICE (US\$)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Deutsche Li <sub>2</sub> CO <sub>3</sub> - 99.5%	6,577	9,081	21,509	16,748	13,908	12,548	11,675	10,773	10,388	10,544	11,265	12,000
Canaccord Li <sub>2</sub> CO <sub>3</sub> - +99% (Base Case)	5,569	6,160	8,500	8,000	7,000	7,500	8,500	9,000	9,500	10,500	10,000	10,000
Canaccord Li <sub>2</sub> CO <sub>3</sub> - +99% (Bull Case)	5,569	6,160	8,500	8,000	7,500	8,000	9,300	10,500	11,300	12,500	12,000	12,000

**Figure 6 | Forecast lithium price per tonne in USD.**

The Board is delighted with the progress that the Company has made in 2017 and looks forward to keeping shareholders updated as further news becomes available.

For any further information please contact:

**IronRidge Resources Limited**

Vincent Mascolo (Chief Executive Officer) Tel: +61 7 3303 0610

Nicholas Mather (Executive Chairman) Tel: +61 7 3303 0610

**SP Angel Corporate Finance LLP**

Tel: +44 (0)20 3470 0470

Nominated Adviser and Broker

Jeff Keating

**Yellow Jersey PR Limited**

Tel: +44 (0) 7544 275882

Charles Goodwin

Harriet Jackson

**Competent Person Statement:**

Information in this report relating to the exploration results is based on data reviewed by Mr Nicholas Mather (B.Sc. Hons Geol.), an Executive Director of the Company. Mr Mather is a Fellow of the Australasian Institute of Mining and Metallurgy who has in excess of 25 years' experience in mineral exploration and is a Qualified Person under the AIM Rules. Mr Mather consents to the inclusion of the information in the form and context in which it appears.

**Notes to Editors:**

IronRidge Resources is an AIM listed mineral exploration company with frontier assets in both Australia and West Africa, with two province scale projects in Gabon, and promising and advanced titanium and bauxite projects in Queensland Australia. IronRidge's corporate strategy is to create and sustain shareholder value through the discovery of world-class and globally demanded commodities.

**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 IRRs 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.

**Chad**

The Company entered into an agreement with Tekton Minerals Pte Ltd of Singapore concerning its portfolio covering 1,400km<sup>2</sup> of highly prospective gold and other mineral projects in Chad, Central Africa. Under the terms of the agreement, IronRidge currently owns 6% and will acquire a total of 60% of Tekton, including its projects and team, to advance the Dorothe, Echbara and Am Ouchar licenses, which host multiple, potentially nation-building gold projects. Initial trenching results at Dorothe, including 14.12g/t Au over 4m, 34.1g/t over 2m and 63.2g/t over 1m, have defined significant gold mineralised quartz veining over a confirmed 1km strike at an average of 2m and up to 5m true width across multiple stacked vein zones up to 200m wide with new hard-rock artisanal workings potentially extending strike to >3km.

**Ghana**

The Company has farm-in and joint venture arrangements with Obotan Minerals Limited, Merlink Resources Limited and Barari Developments Limited of Ghana, West Africa, securing the first access rights to apply for the ownership of the historical Egyasimanku Hill spodumene rich lithium resource, estimated to be in the order of 1.48Mt at 1.67% Li<sub>2</sub>O and surrounding tenements. The portfolio covers some 314km<sup>2</sup> with a further identified 20km strike of pegmatite vein swarms, tenure package is also highly prospective for tin, tantalum, niobium and gold which occur as accessory minerals within the pegmatites and host formations.

### ***Ivory Coast***

The Company entered into conditional joint venture arrangements in Ivory Coast, West Africa; securing access rights to highly prospective gold mineralised structures and pegmatite occurrences covering a combined 3,110km<sup>2</sup> and 400km<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.

### ***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.