



ASX ANNOUNCEMENT

19 August 2019

## **HEXAGON ANNOUNCES EXPANDED ENERGY MATERIALS STRATEGY AND TEAM**

Hexagon Resources Limited (ASX: HXG, “Hexagon” or “the Company”) is pleased to provide an update on its active pursuit of downstream processing opportunities centred on the United States. This includes an extension of the management team’s skill set to include other technical and energy-related materials as part of a broadened strategy.

### **Highlights**

- **Expanded strategy to comprise a broader range of energy materials, complementing existing focus on graphite;**
- **Wider mineral interest is supported by potential funding partners;**
- **Highly credentialled energy-materials expert, Dr. Gareth Hatch, appointed as Senior Strategic Technical Advisor;**
- **Preliminary discussions with strategic funding partners in progress; Hexagon planning significant commercialisation strategy progress during remainder of CY2019; and**
- **Several new opportunities are under active assessment and early-stage negotiations.**

### **Expanded Strategy**

Hexagon has established a strong commercial and technical network in the US through its graphite developments. The US investment community, industry and government is intensely interested and concerned about the sustainable supply thematic of “critical minerals”, particularly given China’s dominance of markets in energy-related materials such as battery-grade graphite, lithium, cobalt and rare-earth elements (REEs).

During discussions regarding development of its downstream graphite business, Hexagon’s potential strategic funding partners have expressed a clear desire that the Company expand its focus to encompass this suite of energy/critical materials. This evolution in strategy would present exciting complementary opportunities for Hexagon to access within its downstream commercialisation strategy, with a continued focus on fast-tracking towards cashflow.

Hexagon’s Chairman Charles Whitfield commented, *“The management team has significant experience in developing a range of specialty materials projects, including lithium and high-purity silica, into highly successful commercial enterprises. Hexagon is ideally positioned to do it again. Under Managing Director Mike Rosenstreich, Hexagon’s growing footprint in the United States is creating compelling, real opportunities to replicate that success in graphite and potentially other critical technology, defence and energy-related materials.”*

**Hexagon Resources Limited** ABN 27 099 098 192 (ASX: HXG)

**Registered Office:** Suite 3, 7 Kintail Road, Applecross WA 6153 **T:** (+61 8) 6244 0349

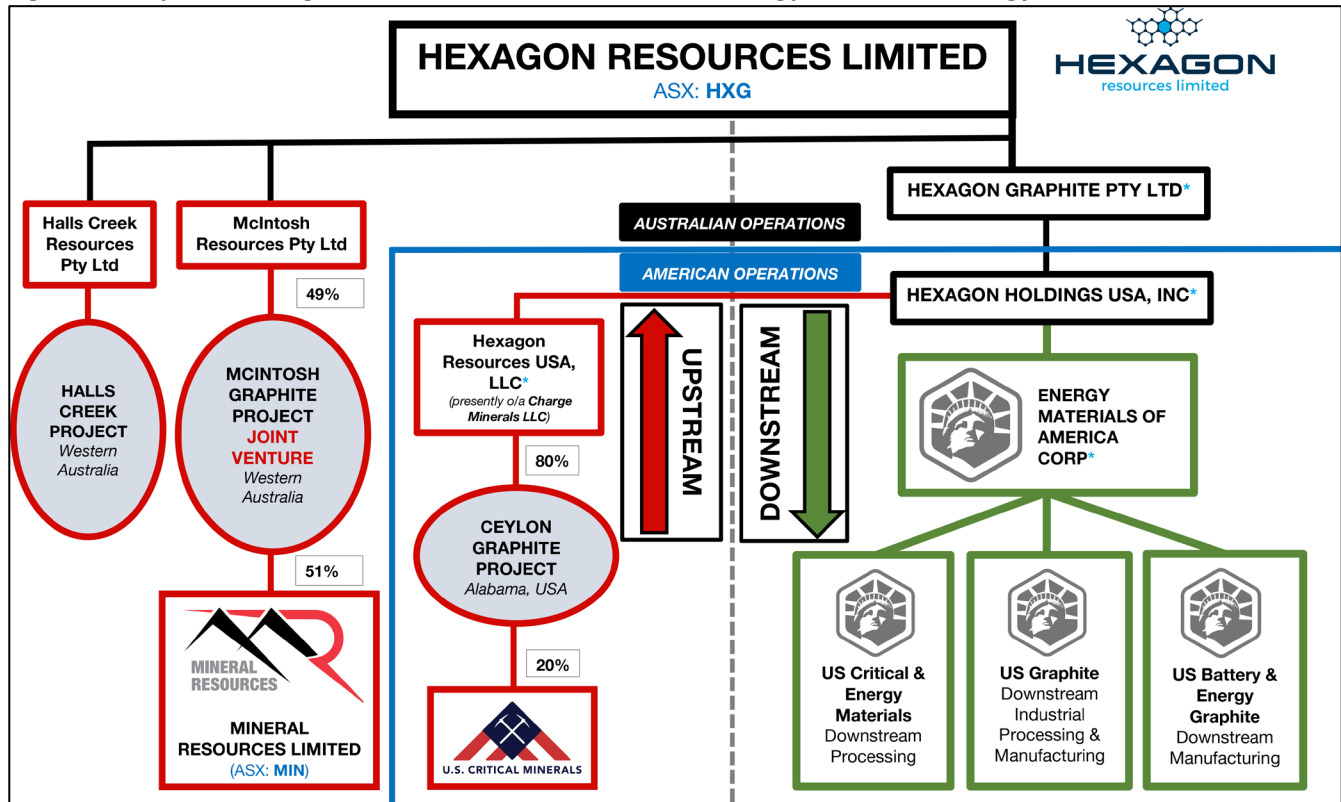
**Postal Address:** PO Box 825, Canning Bridge, Applecross WA 6153

**E:** [info@hexagonresources.com](mailto:info@hexagonresources.com) **W:** [www.hexagonresources.com](http://www.hexagonresources.com)



Hexagon’s updated strategy is encapsulated in Figure 1 below, demonstrating a strategic focus on the US and incorporating key elements of Hexagon’s recently completed Downstream Scoping Study<sup>1</sup> in terms of developing distinct high-value graphite product lines centred on highly specified technical and battery-related graphite materials.

**Figure 1: Proposed Hexagon Restructure to Accommodate Energy Materials Strategy.**



\* Proposed corporate entity name/corporate entity to be renamed.

\*\*Hexagon holds 100% ownership of all subsidiary entities or assets unless otherwise denoted in Figure 1

Note:

- “US Critical & Energy Materials” business would be predicated on new energy materials opportunities as outlined above.
- “US Graphite” business would be predicated on the downstream processing and manufacturing of graphite for largely high-end technical and industrial end-uses.
- “US Battery & Energy Graphite” business would be predicated on the downstream manufacturing of battery-grade lithium-ion (“Li-ion”) anode materials, in addition to cathode conductivity enhancement products for all major commercial battery chemistries, including, primary and secondary lithium, alkaline, and lead-acid batteries.

The Company has determined that downstream manufacturing of finished high-value products offers higher margins than primary “mine-based” processing into unfinished industrial-mineral concentrates. Furthermore, signs of capacity constraints are emerging in the downstream sections of the battery supply chain.

<sup>1</sup> Refer ASX Report “Positive Scoping Study for Advanced Graphite Processing”, 17 May 2019. Hexagon Resources Limited confirms that it is not aware of any new information or data that materially adversely affects the Scoping Study information included in the market announcement dated 17 May 2019 and, in the case of the Scoping Study, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially adversely changed.



## Expanded Execution Skills – Appointment of Dr. Gareth Hatch

Hexagon is pleased to announce that it has engaged Dr. Gareth Hatch, CEng, FIMMM, FIET as Senior Strategic Technical Advisor to help guide the battery-graphite development program and to assist in the assessment of new downstream energy-materials opportunities.

Dr Hatch is a critical-materials expert with more than two decades of experience in the supply chains for permanent magnets (PMs) and Li-ion batteries, focused on the challenges and opportunities associated with REEs, nickel, cobalt, graphite, lithium, and other energy materials.

### Dr. Gareth Hatch – newly appointed Senior Strategic Technical Advisor



Dr. Hatch oversees business-development activities at Adamas Intelligence; he is also Chairman, CEO and co-founder of Innovations Metals Corp. (IMC), and a co-inventor of IMC's proprietary downstream RapidSX™ separation and purification process technology for critical metals. Dr. Hatch served as Principal Investigator on a multi-year, multi-million-dollar US Army Research Laboratory research program, focused on innovations in REE processing. This program served as the foundation of IMC's development of the RapidSX™ technology for cost-effective production of commercial-grade REE oxides and other compounds.

Dr Hatch served as a Director of Alabama Graphite Corp. from 2016, and subsequently as interim CEO he oversaw that company's acquisition by a NASDAQ-listed, US- based energy company in 2018.

Prior to his current and recent consulting and advisory roles, Dr. Hatch was Director of Technology for US-based Dexter Magnetic Technologies and hold five patents on a variety of magnetic devices.

A two-time graduate of the University of Birmingham in the UK, Dr. Hatch holds a Bachelor of Engineering degree with Honours in Materials Science & Technology and a doctorate in Metallurgy & Materials, focused on REE PM materials. Dr. Hatch is a Fellow of both the Institute of Materials, Minerals & Mining and the Institution of Engineering & Technology; a Chartered Engineer registered through the UK's Engineering Council; and a Senior Member of the Institute of Electronic and Electrical Engineers.

Through these roles he has led cutting-edge research and development work and advised public and private companies, institutional investors and government entities on threats to the critical-materials supply chain. In addition to his deep industry and technical insight, Dr Hatch has developed a comprehensive international network, leading to roles such as membership of the NATO Science & Technology Organisation strategy team on REEs, Advisory Board Chair for the Rare Earth Industry Association, and membership of the Canadian ISO TC/298 Mirror Committee, working to develop international standards for the REE industry.

Hexagon's Managing Director Mike Rosenstreich commented, *"Since meeting Gareth at PDAC in March, I have been impressed by the breadth and depth of his understanding of technical and commercial issues around energy materials. I am very excited that he has accepted our invitation to join the Hexagon team and contribute his considerable talent and North American network to realise our business ambitions."*

### Execution Update

As it fast-tracks commercialisation in the USA, Hexagon's focus is increasingly on high-end battery-related materials – both battery-ready anode graphite products for Li-ion batteries and conductivity-enhancement graphite products for all major commercial battery cathodes, including primary and secondary lithium, lead acid and alkaline batteries.

To this end, Mike Rosenstreich recently spent four weeks in the USA to develop and advance this strategy through meetings and site visits with graphite feedstock suppliers, well-credentialed battery-development



laboratories and anode-coating and battery-assembly “scale-up” specialists. This was the “partner-qualification” step of a process to finalise a comprehensive battery-graphite development program that meets the requirements of large-scale US-based battery customers. The aim is to fast-track Hexagon’s qualification and market-acceptance strategy laid out in its recent downstream scoping study.

Hexagon’s increased presence in the US and interactions with various potential strategic funding partners have highlighted opportunities in energy materials in addition to and complementary to graphite. The Company is actively evaluating several of these to broaden its exposure in the wider energy-materials sector.

Hexagon plans to significantly progress this strategy before the end of 2019 and is in early-stage discussions with potential funding groups to act as equity and/or debt partners. Management is currently assessing specific opportunities to fast-track cashflow through an initial focus on industrial graphite product developments. Discussions are also in progress to secure additional well-regarded, credible technical partners to help Hexagon establish a longer-term battery-materials development program.

Upstream graphite remains an important component of the overall strategy, albeit not essential to the downstream processing business. The Company currently has 40 tonnes of bulk graphite samples in transit for testwork and processing into concentrate from its Alabama project in the US. Hexagon’s flowsheet-design testwork for its McIntosh project in Western Australia, a JV with Mineral Resources Limited (ASX: MIN), is also nearing completion.

Hexagon looks forward to providing further details and regular updates over the coming months.

**For further information please contact:**

**Mike Rosenstreich**

*Managing Director*

Hexagon Resources Limited

[MikeR@hexagonresources.com](mailto:MikeR@hexagonresources.com)

+ 61 8 6244 0349

**Karen Oswald**

*Investors/Media*

NWR Communications

[karen@nwrcommunications.com.au](mailto:karen@nwrcommunications.com.au)

+ 61 423 602 353