

ASX Release

1st May 2023

GRAPHITE BULL – Metallurgy

- **First bulk sample of >95 % TGC Flake concentrate dispatched to Germany for downstream testwork**
- **PSG and electrochemical results expected progressively June-August**
- **Second bulk sample now in process by second lab, dispatch expected end June**
- **Second independent facility contracted for more extensive downstream testwork August-November**
- **Dual-streaming testwork evaluates multiple process options and pre-empt some work required as part of any future DFS**



Figure 1: Graphite Bull graphite concentrate from recent flotation test work.

Buxton Resources Ltd (ASX:BUX) is pleased to update shareholders on progress at Buxton's 100% owned Graphite Bull project, Gascoyne Region, WA.

Bulk processing of Buxton core by ALS Metallurgy, supervised by consultants Battery Limits, is now complete (Figure 1) and the >10 kg bulk Flake concentrate sample has been despatched to ProGraphite GmbH in south-eastern Germany. This is a major milestone for Graphite Bull and Buxton.

ProGraphite is an acknowledged graphite industry expert consultancy, heavily involved in numerous international and Australian graphite projects over decades. Test work for Buxton will include, in order of completion;

- Material characterisation
- Micronising (d50 between 12 and 20 microns, iterative protocol development)
- Spheronisation (iterative development to maximise yields)
- Purification (at least two, 2 stage, non-HF approaches evaluated)
- Electrochemical characterisation (uncoated PSG); battery performance parameters of Graphite Bull purified spheronised graphite product (PSG)

Results will be reported by BUX as they become available progressively from mid-June through to end August.

Additionally, processing of a second bulk sample to yield a second batch of Flake concentrate has begun by Independent Metallurgical Operations (IMO) in Perth, targeting completion by end June. Buxton has been fortunate to secure the services of Dorfner Anzaplan GmbH in central Germany to conduct further detailed downstream testwork on that concentrate, including coating of PSG, from August.

Dorfner is a leading European specialty minerals producer with more than a century of experience in industrial minerals processing. Anzaplan provides the group's analytical and engineering services to customers globally for PFS, DFS, FEED, EPCM and operational requirements.

Buxton is delighted to have access to both ProGraphite and AnzaPlan's global graphite expertise in this time of very high demand and relatively limited capacity outside China.

Demand for Li-ion batteries, fuel cells and other graphite-intensive renewables technology continues to escalate, pushing the global graphite market into deficit for the first time in modern history (see Figure 3 below). Buxton looks forward to providing regular updates to shareholders on this exciting WA graphite project.

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About the Graphite Bull Project

The from-surface, high-grade Graphite Bull (formerly Yalbra) Project is in the Tier 1 jurisdiction of Western Australia, Gascoyne region, on granted Exploration License E09/1985 (Figure 2). Graphite Bull was acquired by Buxton in 2012; by 2014 an airborne EM survey, several drilling programs and two resource estimates were completed. The Graphite Bull project currently has a JORC (2012) compliant Inferred Resource of 4 Mt @ 16.2 % TGC (ASX 24/10/2014). In 2015 Buxton completed a detailed metallurgical program with SGS laboratories in Canada which targeted coarse flake recovery.

Due to projected growth of the global Lithium-ion battery market, and the essential part graphite will play in that – graphite is the single largest component of Li-ion batteries – Buxton recommenced work at Graphite Bull in 2022. Metallurgical testwork through to final product, and increasing the Resource confidence and size, are early priorities.

Forecast battery-related demand (Benchmark Mineral Intelligence) means that by 2027, global graphite production needs to double; by 2040, an increase eight times over current production will be required to supply the world’s lithium-ion battery anode and hydrogen fuel cell markets (Figure 3). Graphite Bull is a very attractive investment proposition, being a high-grade deposit located in a Tier 1 mining jurisdiction, with demonstrated, outstanding Resource growth potential.

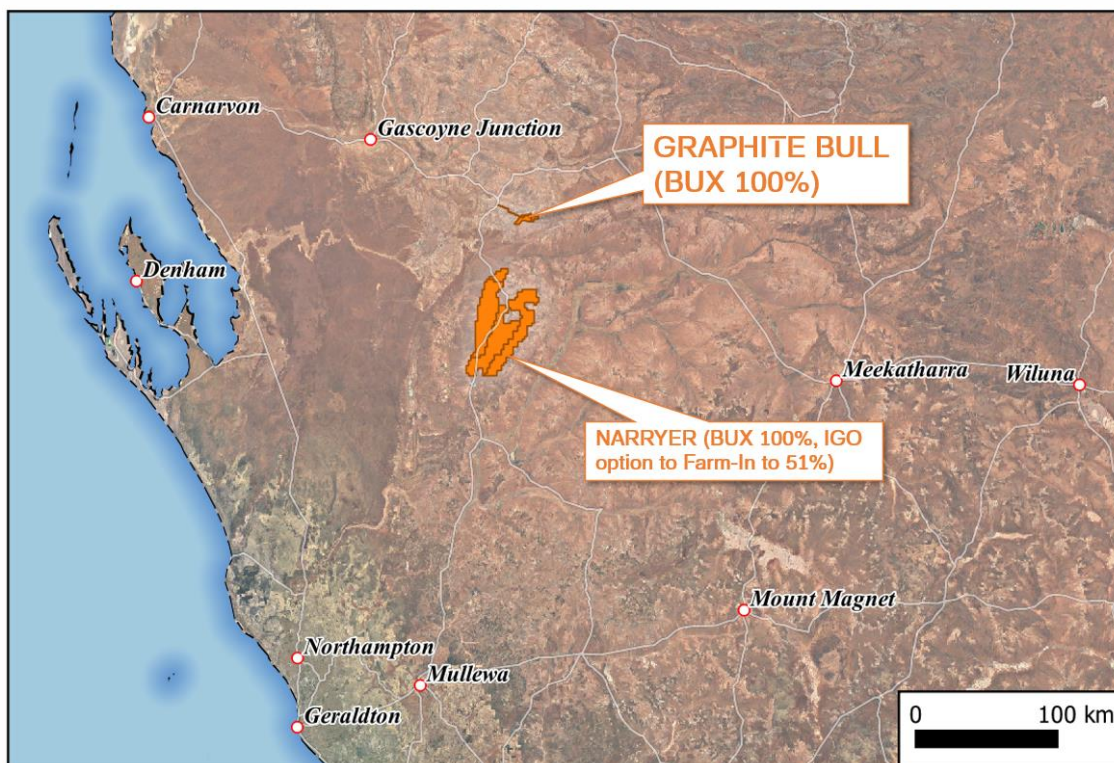
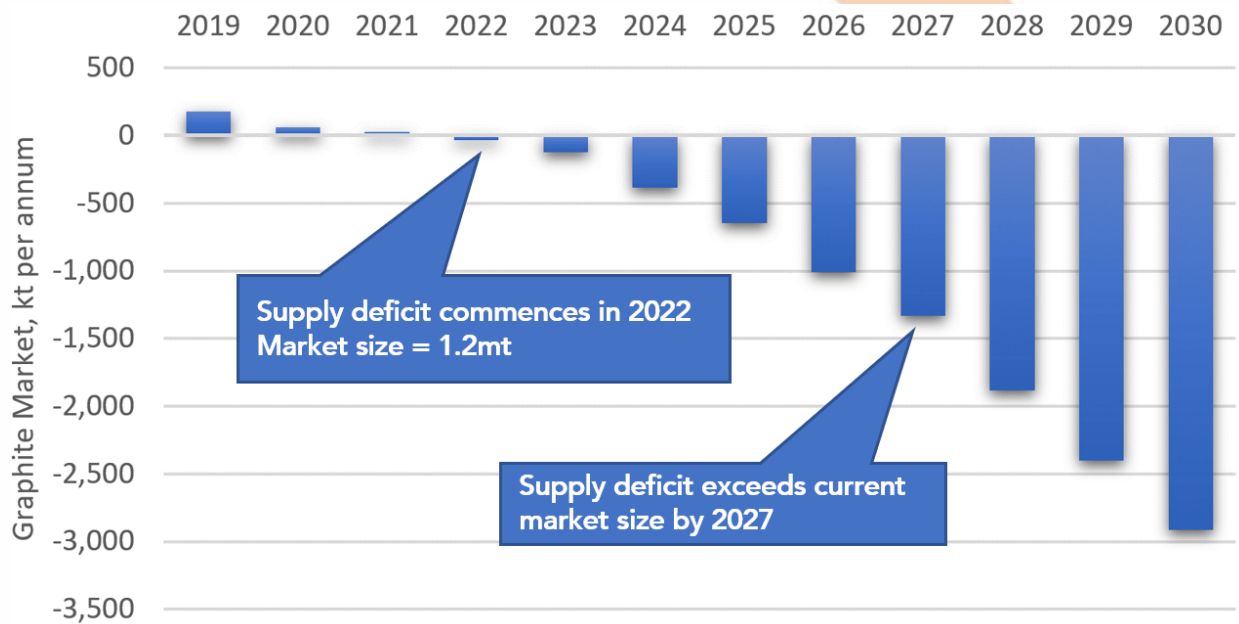


Figure 2: Location of Buxton’s Graphite Bull Project, 750km north of Perth.

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Source: Benchmark Mineral Intelligence Q2 2022 Forecast

Figure 3: Graphite Market Balance

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