



## COMMISSIONING UNDERWAY AT VHD TECHNOLOGY PILOT PLANT

- Strategic equipment selection and procurement, along with continuous work over the Christmas and New Year period has enabled GCM to significantly accelerate construction activities at its VHD Technology pilot plant, located at its industrial facility in New South Wales (NSW).
- All equipment has now been received for GCM's VHD Technology pilot plant, with the **construction activities for Line 1 complete.**
- **Completion of construction activities has allowed commissioning of the pilot plant to commence well ahead of the scheduled timeline of Q2 CY25.**
- **Commissioning has entered the second phase ('Wet Commissioning'),** following the successful completion of the post construction installation and operational checks ('Dry Commissioning').
- **Due to early completion of key construction activities, GCM now expects initial prototype blocks to be produced in January, with first qualification blocks due in February 2025.**

**Green Critical Minerals Ltd ('GCM' or 'the Company')** is pleased to provide an update on the progress of the Company's VHD Technology pilot plant, located at its industrial facility in NSW.

Work completed by the team over the Christmas and New Year period has significantly accelerated the Project's timeline, with the prototype VHD Graphite blocks now anticipated in January and first production expected in February 2025, well ahead of the scheduled CY25 timeframe.

Following on from the Company's previous announcement on 12 December 2024, construction of Line 1 is now complete, marking the transition to the second phase of commissioning ('Wet Commissioning'). This follows the successful completion of post-construction installation and operational checks in the Dry Commissioning phase.

**Green Critical Minerals' Managing Director, Clinton Booth, commented:** *"I am delighted to be able to announce that our VHD pilot plant has entered commissioning well ahead of schedule, significantly accelerating our Project timeline. This achievement represents a pivotal milestone in our mission to commercialise our VHD graphite technology, paving the way for transformative opportunities in the renewable energy and high-performance electronics sectors.*



*“The progress we’ve made is incredibly encouraging, and as we prepare to deliver our first product samples, we are excited to demonstrate their potential across industries such as high-performance electronics, aerospace, defence, and advanced manufacturing, where their unique properties can drive innovation and efficiency.”*

*“With Wet Commissioning now underway, we look forward to updating the market in the coming weeks as we advance towards producing our first samples in early Q1 2025 and showcasing the full potential of our VHD graphite technology.”*

### Advancing Towards Commercialisation

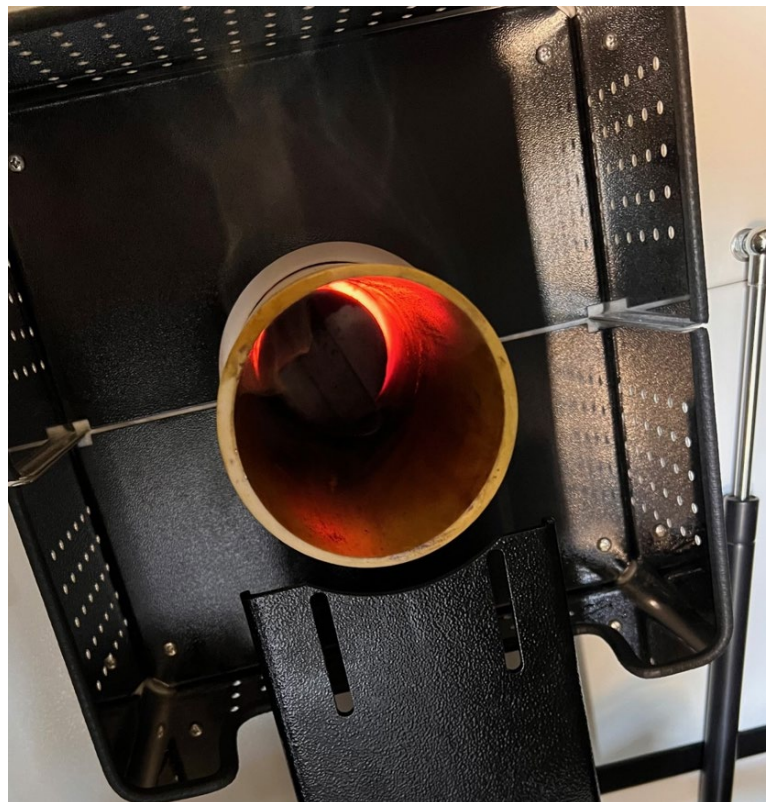
The pilot plant is a critical component of GCM’s broader strategy to commercialise the VHD Technology and unlock its transformative potential. Key milestones include:

- ✓ **Engagement of Head of Research and Development** – Complete.
- ✓ **Pilot Plant Construction** – Complete (Previous forecast end of Q1 FY25).
- ✓ **Pilot Plant Commissioning** – Commenced, expected to be complete in January 2025. (Previous forecast Q2 FY25). Completion of pilot plant commissioning marks the beginning of small-scale production.
- ✓ **Validate Laboratory Scale Sample Production and Properties** – Expected Q2 FY25 (Previous forecast Q3 FY25).
- ✓ **Customer Qualification** - Expected to commence Q2 FY25 (Previous forecast Q3 FY25).
- ✓ **Commercialisation and Ramp-Up** – Expected Q1 FY 2026 (subject to pilot plant success).

### Key Developments

- **Strategic Equipment Selection, Sourcing, and Construction.** As previously announced, GCM has designed its pilot plant into two lines, a smaller product line (‘Line 1’) and a larger product line (‘Line 2’) (see ASX announcement dated 12 December 2024). This decision and the subsequent pilot plant design has allowed GCM to accelerate equipment sourcing and delivery, which in conjunction with the strong support from suppliers to deliver the equipment prior to Christmas and the simple VHD Technology process, has facilitated the construction of Line 1 to be completed well ahead of schedule. Line 1 is **capable of producing graphite blocks** suitable for:
  - **Customer qualification of heat sink** products for GCM’s initial targeted electronics market; and
  - Product refinement and research and development activities, such as the solar-thermal energy storage blocks for the renewables sector.
- **Larger Product Line.** All key equipment for the larger product line has been received (see ASX announcement dated 12 December 2024). GCM is designing Line 2 to produce:

- **Larger quantities of VHD Technology graphite blocks** e.g. for the heat sink market;
  - Blocks for the electrical discharge machining ('EDM') market; and
  - Larger blocks for the solar-thermal demonstration plant.
- **Ahead of Schedule Project Progress.** The pilot plant was scheduled for commissioning in the June quarter 2025. With the pilot plant design and sourcing decisions made by GCM, and the continuous work through the Christmas and New Year period, reflecting the team's dedication to executing the project efficiently and in line with key milestones, commissioning has commenced well ahead of schedule. With this accelerated progress **GCM expects production of initial blocks to support the customer qualification progress in February 2025.**
  - **Commissioning.** The commissioning process involves two phases, Dry Commissioning and Wet Commissioning. Dry Commissioning includes testing the individual components for correct installation and operation – this phase has been successfully completed for Line 1. GCM will now progress through the Wet Commissioning phase, systematically testing each of the production steps and culminating in the production of prototype VHD Technology graphite blocks. **With the accelerated progress to date GCM now expects the commissioning phase to be completed in January 2025.**



*Figure 1: Close-up of the initial firing of the Line 1 Furnace.*



**For further information please contact:**

Clinton Booth  
Managing Director  
[enquiry@gcminerals.com.au](mailto:enquiry@gcminerals.com.au)  
(08) 9388 0051

Stephanie Richardson / Cameron Gilenko  
Sodali & Co  
[stephanie.richardson@sodali.com](mailto:stephanie.richardson@sodali.com) / [cameron.gilenko@sodali.com](mailto:cameron.gilenko@sodali.com)  
(08) 6160 4903

**Authorisation**

The provision of this announcement to the ASX has been authorised by the Board of directors of Green Critical Minerals Limited.

**Forward Looking Statements**

This announcement contains general information about GCM's activities current as at the date of the announcement. The information is provided in summary form and does not purport to be complete.

This release contains estimates and information that is based on projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate and is necessarily subject to a high degree of uncertainty and risk due to a variety of factors, which could cause results to differ materially from those expressed in these publications and reports.

For personal use only