

12 January 2023

Wood Mackenzie Study Confirms Rapid Forecast Growth in Lime Demand

Mayur Resources Limited (ASX:MRL) (**Mayur** or the **Company**), has received a detailed market report commissioned from Wood Mackenzie on the demand for Lime in the ferrous and non-ferrous metals processing industries (the **Wood Mackenzie Study**) which the Company sees as a strategically important market for its Lime products.

The Wood Mackenzie study reaffirms Mayur's internal assessment that demand growth for Lime (Limestone, Quicklime, and Hydrated Lime), most notably in South East Asia (SEA), will increase considerably, driven primarily from the non-ferrous battery metals sector. Wood Mackenzie did not assess demand from other sectors such as water treatment, soil stabilising, agriculture, construction materials or for environment amelioration which are all sectors that Mayur's own research indicates strong and growing demand.

Highlights:

- Demand for Lime in SEA and Oceania is expected to grow rapidly over the next few years, specifically driven by increased processing capacity of Nickel and Bauxite in Indonesia;
- Indonesian demand for Lime forecast to grow at a 14.6% CAGR to 2030;
- Global demand for Lime is also expected to grow, driven by a projected increase in Steel production output and increased demand from non-ferrous metals processing – which have important applications in the energy transition;
- On a weighted average basis, export Quicklime prices in Asia Pacific have increased to US\$126/t Free On Board in 2022 with average prices in Eastern Australia on an ex works basis ranging from A\$330/t to \$380/t – and even higher prices noted depending on local distribution on a delivered basis; and
- Mayur's Phase 1 Quicklime Project forecasts an EBITDA of US\$25.7 million per annum, backed by a total mineral resource of 382 million tonnes supporting significant future expansion opportunities beyond Phase 1 (per ASX release dated 26 July 2022 – CCL Project DFS Update).

Mayur Managing Director, Paul Mulder commented: "This report from Wood Mackenzie confirms our internal assessment on the significant impending demand growth for Lime in the region particularly driven by non-ferrous, battery metals processing. This underpins our push to fast track production of Lime from our large scale low cost Central Cement & Lime (CCL) project adjacent to the Exxon Mobil PNG LNG plant located on the coastline in Papua New Guinea next to the capital city of Port Moresby. The fully permitted CCL project shall enter Construction after current project financing activities are finalised."

Mayur CCL Project Overview

Lime is principally used in three forms, with the term 'Lime' generally referring to all three forms.

- Limestone is the raw mined or quarried stone that is cut or crushed to the appropriate size for its application.
- Quicklime and Hydrated Lime are two derivative products – being, respectively, Calcium Oxide derived through a calcining process, and Calcium Hydroxide, derived through adding water to Quicklime.

Lime has a broad range of industrial applications, including in both ferrous and non-ferrous metals processing.



Lime is a critical input in the processing of non-ferrous battery and future green-facing metals including Nickel, Cobalt, Lithium, Copper, and Rare Earths. Lime’s applications in ferrous metals processing include sintering, steelmaking, and secondary refining to remove impurities.

As confirmed by the Wood Mackenzie Study, Mayur expects to see demand rapidly increase for Lime in these applications, particularly driven by increased processing capacity of battery metals in South East Asia.

Mayur’s CCL Project is a large-scale project slated to produce 400,000 tonnes of Quicklime and Hydrated Lime and 500,000 tonnes of raw Limestone per year in its first phase, with a total mineral resource of 382 million tonnes supporting future expansion.

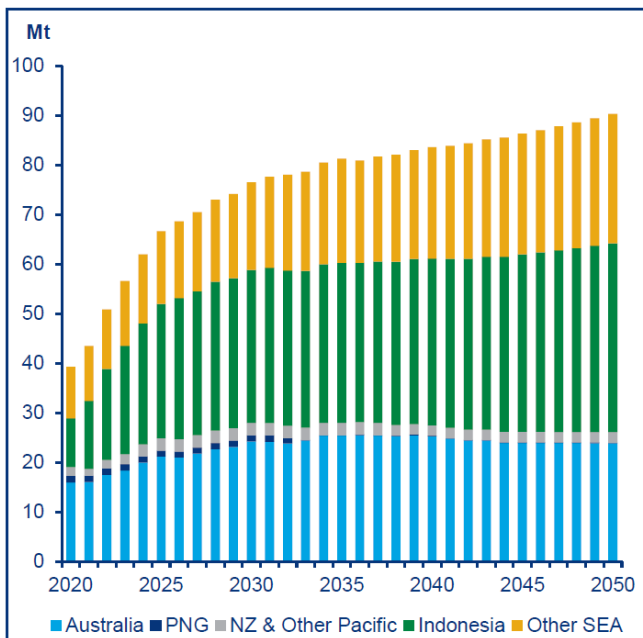
Wood Mackenzie Study Findings

The Wood Mackenzie Study confirms the Company’s outlook on demand growth for Lime, particularly driven by South East Asian demand from the non-ferrous battery metals sector.

Lime Demand Study

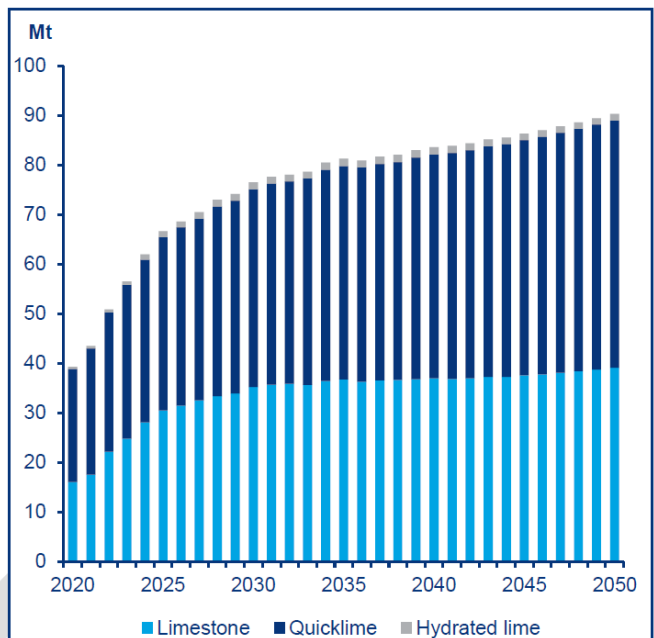


Figure 4 Lime demand in SEA & Oceania by country



Source: Wood Mackenzie

Figure 5 Lime demand in SEA & Oceania by product



Source: Wood Mackenzie

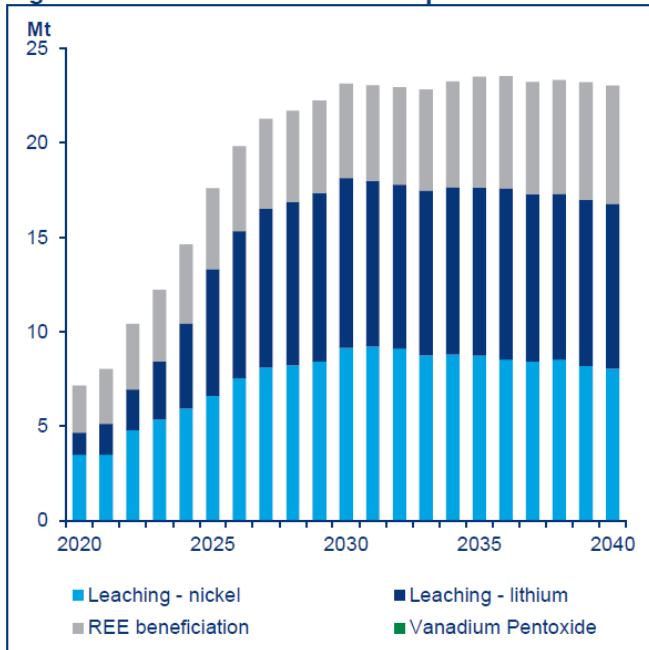
Wood Mackenzie forecasts that Lime demand in South East Asia and Oceania will see rapid growth, particularly in the near term, driven by the expansion in mineral processing in Indonesia, driving Lime demand in the region from 51 million tonnes per annum (Mtpa) in 2022 to 76.5 Mtpa in 2030 (a 14.6% CAGR). Beyond 2030, Wood Mackenzie forecasts that growth will slow but continue to be supported by the buildout of ferrous metals processing capacity in the region (sintering and steelmaking) in South East Asia which will result in demand to 90 Mtpa in 2050. Globally, Wood Mackenzie forecasts demand for Lime to grow at a more modest rate driven by increases in Steel output and non-ferrous metals processing.



The Battery Raw Materials (BRM) sector in particular was identified by Wood Mackenzie as the sector that would aggressively drive demand in the short to medium term. The chart below, extracted from the Wood Mackenzie study, details that demand in this sector increases from approximately 8 Mtpa today to approximately 23 Mtpa in 2030. The plateauing of demand after 2030 is seen as conservative and based on Wood Mackenzie’s view on current projects reaching design capacity with the next generation of projects, which due to their infancy are not in the Wood Mackenzie demand model and will be likely to drive demand beyond 2030.

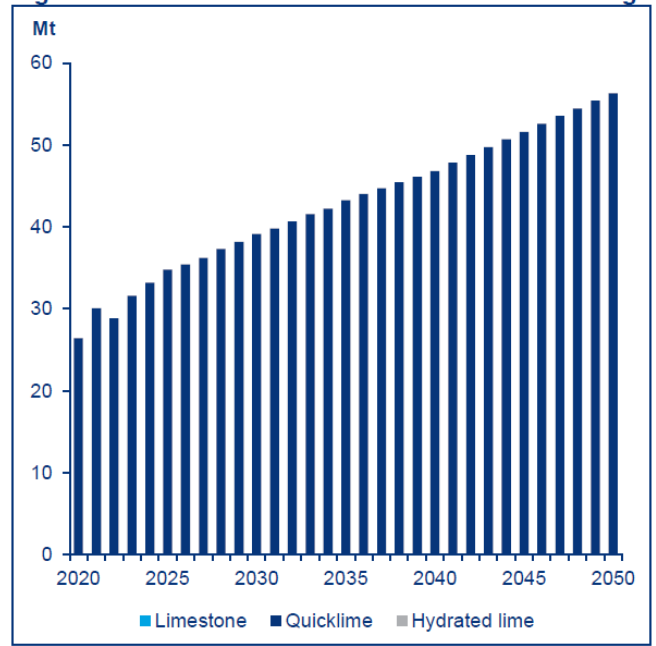
In addition to the BRM sector, Wood Mackenzie noted that lime demand in pollution abatement (Flu gas treatment) would also see strong demand growth. Wood Mackenzie further noted that although globally there would be a softening in demand in conventional Basic Oxygen furnaces (BOF) regionally, this would not occur and that this in combination with the growth in EAF furnaces would still drive strong regional demand in steel making.

Figure 43 Lime demand from BRM production



Source: Wood Mackenzie

Figure 12 Global lime demand from EAF steelmaking



Source: Wood Mackenzie

Wood Mackenzie indicates that, on a weighted average basis, export Quicklime prices in Asia Pacific have increased from US\$96/t in 2020 to US\$126/t (FOB) in 2022, with prices much higher where local distribution can add significant costs to transport the product to the consumption point.

In Q4 2022, the average selling point for Quicklime in Eastern Australia was quoted between A\$330/t on an ex-works basis in NSW to A\$380/t in Victoria, with pricing on a delivered basis even exceeding A\$500.

Wood Mackenzie predicts that pricing will continue to remain at this level at a minimum having regard to the increase in global energy prices.



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ABOUT MAYUR

Mayur Resources Limited is focused on the development of natural resources and renewable energy in Papua New Guinea. Our diversified asset portfolio spans iron sands, lime and cement, battery minerals and renewable power generation. Mayur also holds a 43% interest in copper gold explorer/developer Adyton Resources, a company listed on the TSX-V (TSXV:ADY).

Mayur's strategy is to serve PNG and the wider Asia Pacific region's path to decarbonisation by developing mineral projects that deliver higher quality, lower cost, and "net zero" inputs for the mining and construction industries, as well as constructing a renewable energy portfolio of solar, wind, geothermal, forestry carbon credit estates, and battery storage.

Mayur is committed to engaging with host communities throughout the lifecycle of its projects, as well as incorporating internationally recognised Environmental, Social and Governance (ESG) standards into its strategy and business practices.