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Mayur Resources Limited

COMPANY SNAPSHOT

Reuters/Bloomberg:	MRL.AX / MRL.AU
Market cap:	A\$64.4m
Current price:	A\$0.33
Average daily turnover:	94.6k
Current shares o/s	195.0m

Nation and value building

Mayur Resources Limited (MRL) aims to become a key player in the nation building of Papua New Guinea by providing construction commodities to the developing country.

MRL's portfolio combines three projects: (1) Central Cement & Lime (CCL) project; (2) Oroko Bay Industrial Sands (OBIS) project; and (3) Enviro Energy Park (EEP) power generation project. Management highlights only one hurdle in each remains, and as such various catalysts could unlock value over the next 12 months.

Our estimated valuation range is \$0.43 - \$1.30 per share. The bottom end of the range reflects our risked valuation of the CCL phase 1 (Quicklime only) project, which has all the required regulatory approvals needed and is largely shovel ready.

We note however downside risks remain to our valuation, as MRL doesn't generate any positive cash flow. As such, any substantial delays in achieving key agreements, approvals or construction could lead to more capital being required leading to potential capital raisings, asset sales or company liquidation in a worst-case scenario.

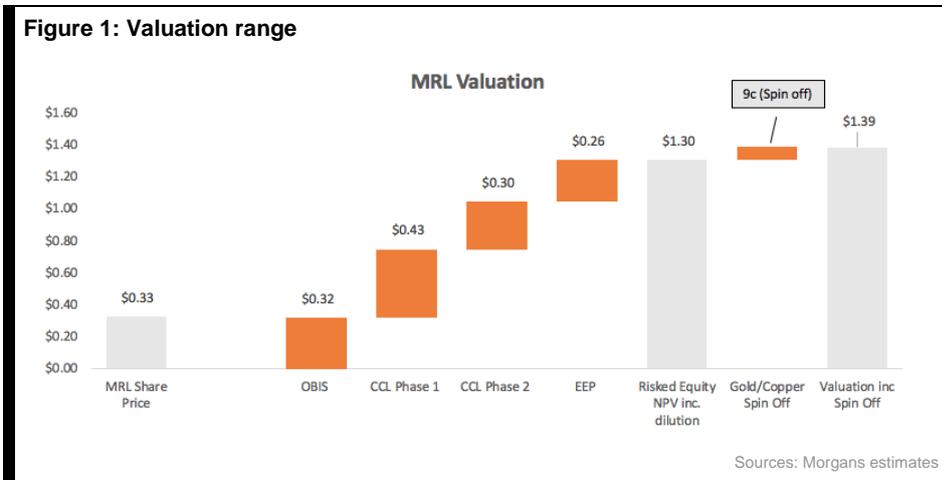
It is important to note however, there is strong alignment of interests given management are major shareholders, and we expect funding for the projects to be arranged with minimal dilution to existing shareholders.

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Portfolio potential

MRL has a number of projects that contribute to its potential value. Figure 1 outlines our risked estimates of each project relative to the current share price, taking into consideration potential dilution to fund the building of each project.



Valuation range

Due to the conglomerate nature of MRL's projects, we believe a share price range is appropriate when assessing the value of the company. We propose our risked CCL Phase 1 valuation as a floor to our range of 43c - \$1.30, given all regulatory requirements have been met and the project is ready for construction. The top end of our range is the aggregate sum of our risked valuations that assumes all projects get delivered and reach production in some capacity. Additionally, we expect an in-specie distribution of MRL's copper-gold assets in the near term. We value MRL's c45% stake/expected distribution at 9cps using a relative EV/inferred resource multiple of other listed prospective copper/gold companies.

A key risk for MRL is it currently does not generate any positive cash flow. We caution investors of any material delays or any restricted access to capital. In relation to the CCL and EEP projects, management is awaiting final offtake agreements for both in order to de-risk and largely debt fund the projects. While the OBIS project is fully funded, MRL is awaiting final approval of its mining license.

Project pipeline

Central Cement & Lime (CCL) Phase 1: Quicklime

Project status

Forming part of the broader CCL Project, the quicklime facility is a key value driver for MRL. Quicklime has a wide array of uses in mining, but in PNG it is largely used in the recovery of copper and gold. Management have fast-tracked the timeline on the quicklime plant given the opportunity to capitalise on favourable market conditions, relatively lower capex and a reduced time to cashflow. Having now secured the final statutory approval of a 20-year mining license, the project is shovel-ready and construction is expected to take 18 months using fixed price EPC contracts, producing an estimated 198ktpa of quicklime.

Strategic positioning

According to MRL, PNG's estimated 300 – 400ktpa market is presently reliant on quicklime imports for approximately 250 ktpa predominantly from Thailand and Malaysia. What will be PNG's only quicklime producer, we expect MRL will be able to capture domestic demand by being competitive on price, quality and offering reliability of supply. With PNG's growing mining industries, quicklime consumption is set to experience robust demand growth as well.

Remaining supply is expected to be exported to the Australian market. Inexpensive input costs in PNG render MRL comparable to other low-cost Asian producers on an FOB basis. While on a CFR basis, MRL expects to be more competitive on price.

Central Cement & Lime Phase 2: Cement/Clinker

Project description

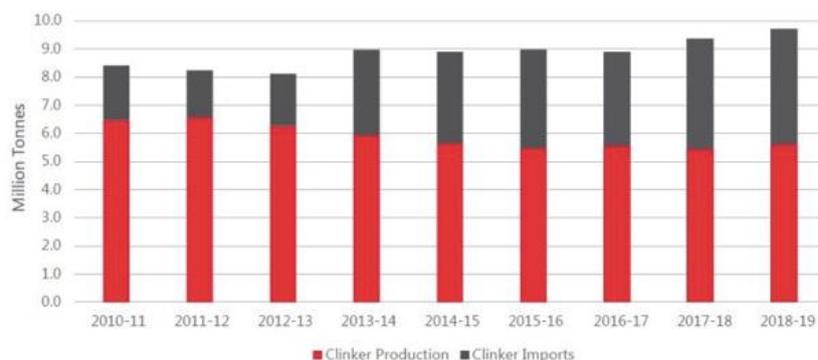
Phase 2 of the CCL Project sees the construction of a plant with approximately 900ktpa cement and 800ktpa clinker capacity. MRL will aim to displace imports with 400ktpa of cement forecasted to be sold domestically, with the remaining clinker and cement to be exported to Australia.

Strategic positioning

We believe both the Australian clinker and cement market are undergoing structural change. According to the Cement Industry Federation in Figure 2 below, clinker imports increased 4% last year after a 15% increase the previous year before that. Subsequently clinker imports are now double what they were in 2010-11 due to uncompetitively high manufacturing costs. As a result, with ongoing high input prices in Australia, domestic clinker production should continue to decline.

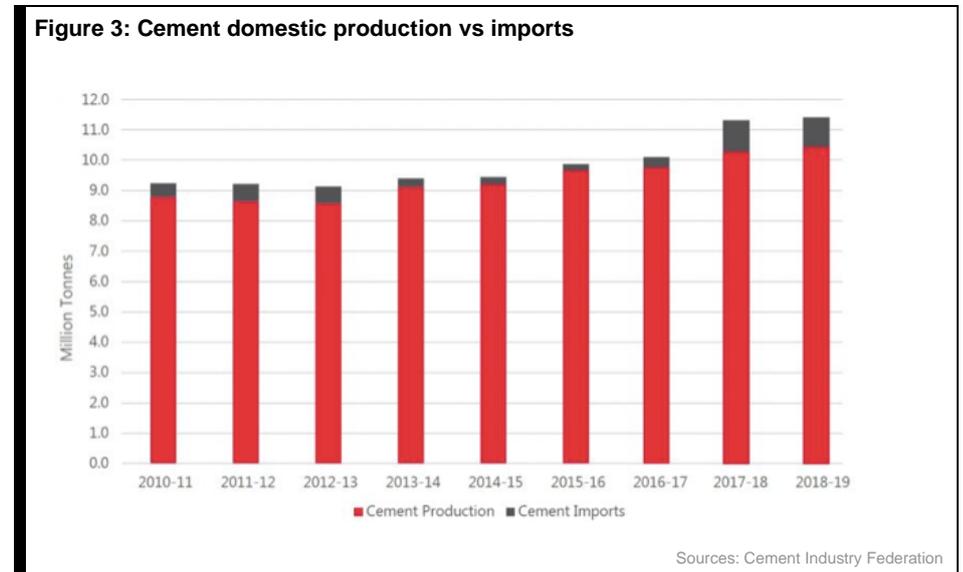
As noted for quicklime above we also expect cement/clinker exports from the CCL project to Australia to have a freight advantage over existing north Asian suppliers. MRL expects this to be in the range of \$7-12/t.

Figure 2: Clinker domestic production vs imports



Sources: Cement Industry Federation

The industry structure for cement is also changing. Cement traditionally was hard to import due to its powdery nature, so clinker was imported instead and grinding capacity was built domestically. As can be seen below in Figure 3 historical imports were relatively low, before a 262% increase in 2017-18, as technology has allowed imports of cement to become more viable.



Further evidence of this shift includes the recent opening of Southern Cross Cement's terminal at the Port of Brisbane, providing capacity for 200ktpa in cement imports. The recent strengthening of the AUD further supports this trend.

Additionally, persistent pressure on the Australian mining sector to minimise and disclose its GHG emissions will also render PNG-based producers strategically favourable, as it will reduce travel distance to the east coast by ~6000km compared to Japanese and Vietnamese exporters. According to MRL this equates to 200-330 tonnes of fuel consumption, reducing Scope 3 emissions and lead times.

Catalysts

MRL notes both phases of the project are largely shovel ready. At this point, MRL could look for an equity injection to fund construction of the plants. The arrangement of offtake agreements could further de-risk the project, should it be pursued by management. At such point, debt financing would be expected to be more readily available. Therefore, minimising shareholder dilution and maximising exposure to the project.

Additionally, given the sufficient domestic and international quicklime demand and MRL's competitive positioning, we believe the company is undertaking studies to accelerate and understand the benefits of doubling the capacity of the quicklime project.

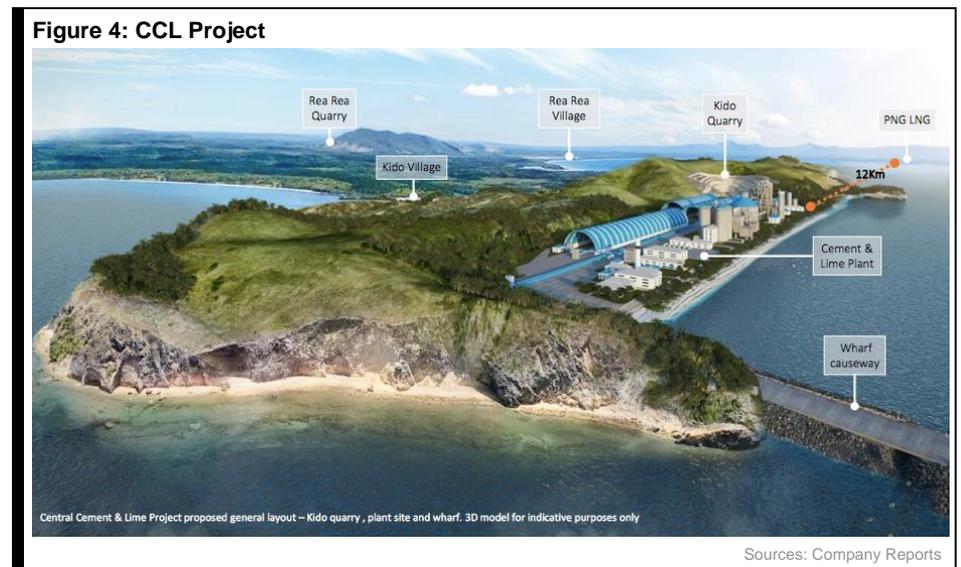
MRL has also outlined they are looking for an executive to lead the project to commercialisation, and head up a potential spin off in the future. We believe the appointment of a recognised CEO/chairman would also be a potential catalyst for a re-rate in the near term.

Project valuation

Phase 1 of the CCL project requires MRL to invest approximately US\$40-\$50m to construct an initial kiln to produce ~200ktpa of quicklime. The project is not yet funded, but we assume MRL is able to obtain offtake agreements, 70% debt fund the construction and only dilute its equity exposure by 30%. Management also expects due to national significance the project will qualify as a special economic zone, entitling it to a 15-year tax exemption.

Assuming a quicklime price of US\$115/t based on industry experience and factoring in a 30% dilution, we estimate a project valuation of \$0.43cps. This assumes plant capacity of 85% as MRL is in a position to displace import volumes domestically through its competitive advantage.

In Phase 2, CCL is due to construct a clinker and cement plant including supporting infrastructure for an additional ~\$290m. Similarly we forecast the same 30% equity dilution to fund the project, and cement and clinker prices of \$65/t and \$55/t respectively. We assume the Australian cement market is relatively harder to penetrate, and conservatively estimate ~70% plant capacity. Nevertheless in this scenario with shareholder dilution, we estimate Phase 2 to equate to \$0.30cps in value. This brings our overall valuation for the project on a diluted basis to A\$142m assuming a 10% discount rate. We note this compares to MRL's DFS valuation of the project of US\$351m on a 100% equity funded basis.



Orokolobay Industrial Sands (OBIS)

Project status

Situated in coastal hinterland along the Gulf of Papua, the OBIS Project will produce vanadium titanomagnetite (a source of iron ore used in steel), DMS magnetite (used in coal washing), construction sands (for concrete and pavements) and zircon-rich mineral concentrate which has a wide variety of uses. Since conducting a preliminary feasibility study, the project has seen a JORC resource upgrade of more than 40%, indicating a resource body of 243Mt.

Significant strides have been made to de-risk and progress the project to cash flow. The project is fully funded through a joint venture with China Titanium Resources Holdings, which has committed up to US\$25m for development in return for a potential 49% interest in the project.

Construction has begun on the pilot plant, with production expected to commence in July-21, COVID-19 pending. Notably, construction contracts were awarded through fixed priced EPC bids, therefore reducing execution risk. Further, a legally binding offtake agreement has been made with Chinese-based Qingdao Shinebest for 200ktpa for two years, with the first shipment scheduled for Sept-21.

As such, the project is largely de-risked and should be quick to cash flow. Looking ahead, securing the necessary mining license for the full-scale plant is the only remaining hurdle. As with regulatory approvals, we are unclear as to the expected timing. However, we note management has shown an ability to secure statutory approvals, evidenced by the comparatively more difficult CCL Mining License acquired in Aug-20 after a year-long process.

Project valuation

MRL expects capex for the industrial sands project to be ~US\$20m. As mentioned above, the project is fully funded with its partner eligible to earn in up to 49%. Our risked valuation of the project is \$0.32cps assuming MRL's final stake in the project is 51% and a 10% discount rate. We note however, we assumed a ~75% realisation of the long term US\$65/t iron ore price, which appears overly conservative given the current spot price of ~US\$150/t plus. Nevertheless, we believe this price reflects the existing two year offtake arrangements and have ignored further upside potential in outer periods.

In terms of production, we conservatively assume the mine only reaches 90% of its nameplate capacity. We view the initial capex of US\$20m to be low relative to the project's earning capacity, resulting in a forecast payback period of 1-2 years. For comparison MRL's DFS valuation for the project is US\$131m.

Figure 5: OBIS Project - process



Sources: Company Reports

Enviro Energy Park (EEP)

Project status

The Enviro Energy Park project seeks to provide access to more affordable and sustainable base load power in Lae, PNG's second largest city. The project site is located at the Lae Western Tidal Basin port precinct. MRL notes the power plant is shovel ready, with an approximate 2-year time to construct. Commencement is however contingent on the outcome of the pending Power Purchase Agreement (PPA) application with the PNG government. Securing the PPA will allow MRL to obtain debt financing of c70-80% and reduce potential equity dilution. However, the expected timeline for PPA is currently unclear.

Strategic positioning

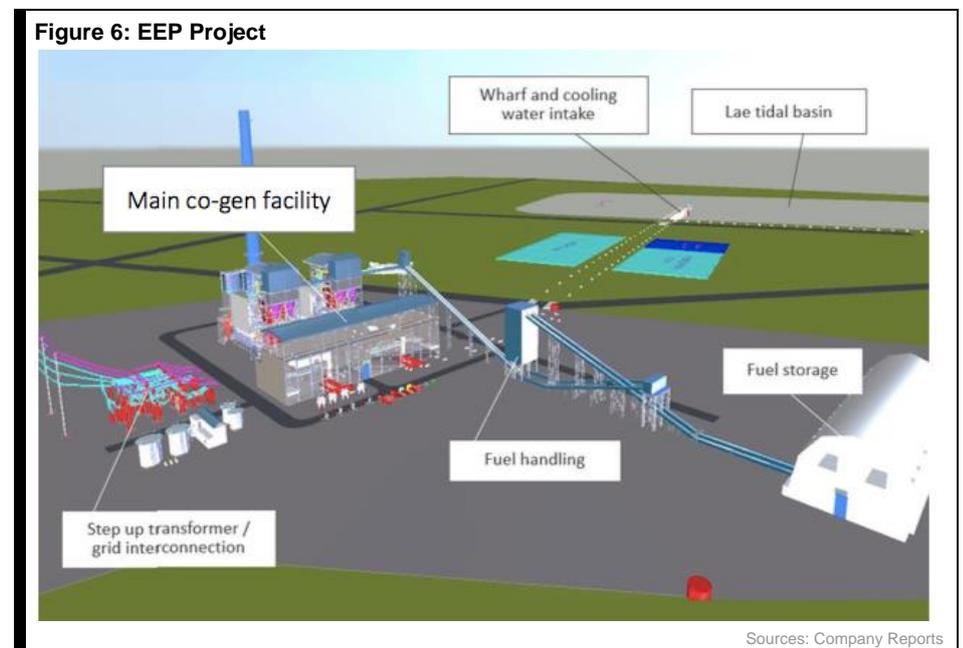
Presently, Lae is reliant on imported diesel and heavy fuel oil. According to MRL, diesel generated power accounts for 40-50% of Lae's energy, which is burnt at a cost of ~US30c/kWh. Comparatively, MRL expects the EEP project has the potential to provide 52.5MW of coal energy at US10-12.7c/kWh – more than 50% cheaper. The plant's technology being deployed will also have the ability to burn biomass in the same boiler when it becomes available in sufficient quantities that combined shall give an emissions foot print similar to a gas fired plant. The plant will also connect to the existing power grid, in turn increasing energy stability. The EEP is also due to produce co-generated steam as a by-product for use by the nearby food and beverage processing business in Lae, including tuna canneries that are a key contributor to the local and national economy.

Transitioning to the EEP will improve local air quality through a substantial decrease in emitted nitrous oxide, sulphur dioxide and particulate matter emissions that are currently produced from the city's dependence on burning diesel/heavy fuel oil for electricity generation. As such, MRL received a positive response from regulatory bodies, already securing necessary environmental approvals. These environmental and socioeconomic merits should support the progression of the PPA.

Looking ahead, there are increasing demand drivers for energy that should support prices and plant viability in the long term. The PNG government has expressed a desire to increase the electrification of households from the current 13% to 70%. While it should be noted that the project has secured land parcel options that enable the scaling of the plant to 200MW.

Project valuation

Based on management indications we assume a cost per MW of \$2m for the project equating to approximately \$105m to build. We assume a PPA regulated return of 10c per kWh - at the lower end of management's range, and expect the company to fund the project using 20% equity dilution. As a result our risked project valuation is \$0.26cps (MRL has not released a DFS valuation to-date).



Disaggregation strategy and copper/gold spinoff

Disaggregation

Given the large internal shareholding at MRL, management are incentivised to have the market ascribe value to the projects individually. The disaggregation strategy undertaken by the company involves a corporate structure that has been set up to spin off or divest projects, effectively forcing the market to look at each project on a standalone basis as opposed to the current MRL conglomerate.

Copper/Gold

Evidence of this strategy is the copper-gold assets that MRL plans to list via a Reverse Takeover on the TSX ventures exchange. Management notes with the money raised and in escrow, the final remaining hurdle is approval of its prospectus by the TSX. The new entity, Adyton Resources Corporation, will consolidate MRL's existing tenements with those of Ballygowan Limited and Pacific Arc Aurum Limited to provide exposure to early-stage copper-gold assets in a low-cost producing region. The transaction will see MRL own c45% of Adyton Resources, that we have valued at ~\$17m (or 9cps) at listing. Our

valuation applies a 35x EV/resource multiple sourced from comparable peers to the company's 650koz of inferred gold resource (at MRL's Feni Island project) and adds an amount for sunk capital costs.

We note an initial pre-reverse takeover capital raising of C\$2.0m was completed with excess demand. While a further C\$5.0m amount is expected once the reverse takeover deal is initiated.

MRL expected that an in-specie distribution of these assets will occur no later than 2H CY21 to current shareholders, potentially in a spin off.

Key risks

We view a key risk to MRL is cash burn. At Sep-20, management reported a cash balance of \$1.9m, after utilising \$4-5m for the 9-month period despite diminished activity during Covid. In Nov-20 MRL considered it necessary to raise \$5.5m to advance the projects and reach necessary milestones.

The first expected cash flows are forecast to follow the Sept-21 delivery of 200kt of VTM as part of OBIS' pilot plant. However, any further delays could see the company return to the market again to raise capital.

Similarly delays caused by regulatory or counterparties not signing offtake agreements could cause MRL to deplete its capital. We note in relation to the CCL and EEP projects, management is awaiting final offtake agreements for both in order to de-risk and largely debt fund the projects. While the OBIS project is fully funded, MRL is awaiting final approval of its mining license.

Given the project-based nature of MRL's business, execution risk is material for the company. However, construction costs have been largely mitigated as the company has sourced EPC contracts on a fixed price basis. That said, any delays in construction times – such as the OBIS pilot plant, will invariably impact its ability to generate cash flow.

We also view key man risk as significant for MRL. While we generally see the benefits of large internal shareholdings outweighing the risks, it must be noted Managing Director Paul Mulder holds ~31% of the outstanding shares.

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29.01.19