

Emmerson Plc / Ticker: EML / Index: LSE / Sector: Mining

30 December 2019

Emmerson Newsletter - 2019 CEO Review

2019 was a year of significant progress by the Emmerson Plc ("Emmerson" or "the Company"), substantially de-risking the Khemisset Potash Project ("Khemisset" or "the Project"), increasing its inherent value and moving the Company closer to its goal of becoming a potash producer.

The Scoping Study for Khemisset in November of 2018 showed its potentially world class attributes including a long mine life, industry leading low capital cost to production, high margins and compelling economics, including a post-tax NPV $_{10}$ of US\$1.14 billion based on industry expert price forecasts and an average EBITDA over the 20 year life of mine of over US\$230 million per annum.

During the year, we delivered preliminary studies on two additional projects which are both accretive to the already exceptional economics at Khemisset – the sale of salt by product and the production of sulphate of potash ("SOP"). Including these projects takes the total attributable NPV $_{10}$ for Emmerson to over US\$1.8 billion, with life of mine average annual post tax free cash of around US\$300 million per annum. This compares extremely favourably to a current market capitalisation for the Company of c.£26m.

In January and February, we commenced the environmental baseline study to ensure that there were no fatal flaws in the development of Khemisset. The results received in March were positive and confirmed there were no issues with respect to the development contemplated in the Scoping Study.

In March and April, we announced two important partnerships with a memorandum of understanding with Afriquia Gaz and a heads of agreement for offtake with a large fertiliser industry player. These partnerships are fundamental to the eventual financing of the Project and position Emmerson well for future financing discussions particularly in terms of debt.

In June, we announced that we had been approached by a large European commercial bank with an indicative offer for debt financing for Khemisset. The indication was based on highly conservative assumptions applied by the bank, including a delivered potash price in Brazil of US\$235/tonne, a 40% discount to the spot price at the time. Despite these conservative assumptions, the bank indicated the Project could comfortably sustain leverage of US\$230 million, or approximately 60% of the total project capital cost. We strongly believe that, with negotiation, this number can be significantly improved.

In July, we released the results of a comprehensive metallurgical test work programme which was undertaken at the Saskatchewan Research Council ("SRC") laboratories in Canada. The results were positive, confirming the technical viability of the processing method selected in the Scoping Study (20 November 2018) as well as the recovery rate assumptions used. It has also helped our process design engineers identify any areas of risk and, encouragingly, areas where they believe significant improvements from the Scoping Study can be made.

Also, during July, our study consultants conducted an end to end site visit to review all aspects of the Project and its potential execution. This included inspecting the local project infrastructure (electrical,



roads, rail), potential plant sites and ports. The site visit provided vital information for the Options Study portion of the Feasibility Study, which assesses all parts of the Project both quantitatively and qualitatively, to ensure that the optimal development strategy is identified.

Khemisset is set to produce a significant quantity of by-product salt (NaCl) which, in the Scoping Study, was assumed to be stored as waste. During Q3, the Company released a Preliminary Economic Assessment ("PEA") for the sale of by-product salt into the large USA de-icing salt market, which showed that there is an opportunity to potentially monetise some or all of this "waste stream". With infrastructure in place and access to the Atlantic seaboard the numbers look compelling and provide us with encouragement to continue to analyse this business opportunity.

Since re-listing in June 2018, the Company has enjoyed a healthy balance sheet which has allowed it to continue to accelerate its development plans for Khemisset. Although the Company was fully funded through all the work currently underway, we elected to raise an additional £2.25 million (pre costs) to give us the ability to continue to fast track development and continue our strategic partner discussions. Shard Capital provided strong support in the capital raise and we appointed it as joint broker immediately following the completion of the raise.

As part of the preparations to transform our exploration permits into a mining permit, we decided to consolidate several of our permits into a single, larger area. This was completed in September and simplifies our administrative and reporting burden and positions us well for the upcoming mining permit application. We were very encouraged by the strong support we received during this process from the Moroccan Government and, in particular, the Ministry of Energy, Mines and Sustainable Development.

At the end of September, we met with the Moroccan Port Authorities and completed a site visit of the Port of Casablanca ("Port" or "The PoC"). The PoC is one of the largest ports in Africa, currently moving over 8 million tonnes of goods per annum and with capacity for over 10 million tonnes per annum. Importantly for Emmerson, the Port already handles significant quantities of salt, which have similar handling characteristics to potash. As a result, we believe the PoC offers several advantages over our Scoping Study assumption, including a major reduction in capital cost. Post a detailed option study process, we elected to use the Port of Casablanca as our go-forward option, saving the Company approximately US\$7.5 million in capital cost.

As part of the Feasibility Study, our consultant, Golder Associates, has conducted a detailed Options Study for Khemisset. This seeks to identify all potential development options and to rigorously analyse each in detail to ensure that the best option is selected. Financial improvement is obviously a key driver; however, other considerations play a role including execution risk, timelines and ongoing operational risk. In most cases, the "go forward" case has now been identified to allow detailed work to continue.

We continue to believe Khemisset has the potential to be a world class potash project driven by industry leading low capital costs and, as a result of its location, very strong margins regardless of



potash price. We are making rapid progress in its development and look forward to delivering the Feasibility Study during the first half of 2020.

Apart from the Feasibility Study, 2020 will be another year of significant milestones for Emmerson as we move ever closer to our goal of becoming part of the small group of potash producers in the world. Key work streams will include permitting, financing discussions and the commencement of detailed design and engineering all of which will further position Emmerson to make the transition from developer to producer.

KEY WORKSTREAMS COMPLETED IN 2019

Commencement of Feasibility Study

The Company commenced its Feasibility Study for Khemisset with the appointment of Golder Associates as its study manager following a rigorous tender and selection process. Barr Engineering was appointed as the engineer for the processing portion of the study, to be managed by Don Larmour of Global Potash Solutions.



Figure 1: Feasibility Study Consultants Site Visit



The Feasibility Study is progressing well, with a detailed Option Study complete and go-forward cases selected for all major components of the Project. The Study remains on track for delivery in the first half of 2020.

<u>Completion of Drilling and 72% increase in Mineral Resource Estimate</u>

In October, the Company announced the finalisation of the 9-hole drill programme at Khemisset. Results were used to inform the updated geological model and allowed the calculation of an updated Mineral Resource Estimate ("MRE") by independent consultant Golder Associates. Total tonnes increased 72% to 537 million tonnes at an average grade of 9.24% K₂O. Importantly, 70% of the update MRE is in the higher confidence Indicated resource category, which will allow the declaration of a Mineral Reserve following the completion of the Feasibility Study.









Figure 2: Drill Programme at Khemisset

Capital Cost Savings on Port and Logistics Solution

In early November, the Company announced that, following a detailed options study, it had elected to use the Port of Casablanca as its go-forward export port solution. The Port of Casablanca is one of the largest in Africa and currently ships a significant quantity of salt, which has similar handling characteristics to salt. Importantly, the one of the primary operators of the port has confirmed that there is no requirement for capital investment from the Company, a saving of US\$7.5 million compared to the Scoping Study.















Figure 3: Port of Casablanca Site Visit

Low Capital Cost SOP Project

Emmerson has continued to evaluate opportunities to enhance margins and diversify its product offerings. SOP is the second largest potassium-based fertiliser market segment and is considered a premium product on account of its low chloride content. During the year, the Company completed a preliminary economic assessment ("PEA") on an SOP Mannheim project in Morocco. The results showed a low capital cost project with the potential for significant margin addition with relatively low technical risk. The PEA demonstrates a project with a post-tax NPV₁₀ of US\$411 million with an IRR of 52%, delivering an additional US\$70 million of post-tax free cash per annum.

Potential for Significant Government Subsidies

The Company continues to engage positively with the Moroccan Government across all aspects of the Project's development. During December the Company confirmed that, following extensive interaction with various Government authorities, it was confirmed that Emmerson is eligible for an investment convention and, as a result, could potentially receive direct subsidies from the Moroccan Government for up to 10% (US\$40 million) of the total project capital cost on eligible items.

Completion of Environmental Baseline Studies

In March, the Company announced that it had completed an Environmental Baseline Study ("Baseline Study") for the Project. The findings of the Baseline Study highlighted no fatal flaws to the future development of the Project as envisaged in the Scoping Study completed in November 2018 (refer to announcement of 20 November 2018).



In September, the Company commenced the planning process for the full Environmental and Social Impact Assessment which will form an integral part of the Company's eventual application for the mining permit at Khemisset. The ESIA was started in December and is expected to take approximately 6 months to complete.

MOU Voltalia

In September, Emmerson announced it had signed a memorandum of understanding ("MOU") with Voltalia. Voltalia, which is listed on Euronext, is an international, integrated, renewable energy developer with a significant global footprint, including in Morocco. It has over 1GW of installed generating capacity which it currently operates and maintains under long term contracts and has developed and sold over 1.8GW since being founded in 2005. Voltalia has several large-scale renewable projects under development in Morocco which could provide all Khemisset's electricity requirements, based on the scale of development considered in the Scoping Study (28 November 2018). The Moroccan Government implemented Law 13-09, which was designed to encourage investment in and the use of renewable energy sources for electricity. The law allows for a customer to establish a commercial contract directly with a renewable energy producer at a tariff which offers potential savings of up to 20% when compared to the Government regulated tariff regime.

MOU Afriquia Gaz

At the end of April, the Company announced it had signed an MOU with Afriquia Gaz to evaluate the various options available to supply gas to the Project. Afriquia Gaz is the largest distributor of petroleum products, including gas, in Morocco, and has an extensive storage and logistics infrastructure making it an ideal partner for Emmerson as it develops the Khemisset Project.



Figure 4: Afriquia's Moroccan Facilities and Moroccan Gas Infrastructure



Offtake Heads of Terms

In April, the Company announced it had signed a Heads of Agreement ("HoA") with a global fertiliser company with respect to offtake from Khemisset. The HoA covers 100% of the phase 1 production of 800,000 tonnes of MOP per annum for an initial 5-year period.

The counterparty is a global fertiliser company with specific expertise in the large Brazilian market where Khemisset has a significant transport and logistics advantage.

Indication of Significant Debt Financing

In June, Emmerson announced it had received a formal indication of significant debt financing for Khemisset from a major European commercial bank. The indicative sizing shows debt capacity of up to US\$230 million would be feasible assuming standard project finance terms and conditions. It is expected the syndicate will comprise of commercial banks and Export Credit Agencies.

Emmerson continues to assess multiple options for financing the required capital expenditure of the Khemisset Potash Project in order to ultimately allow an optimal decision to be made regarding the final financing structure. Traditional project finance is considered one of the most attractive financing solutions for new mining projects but is often not available for a variety of reasons. To have received an indication of significant debt capacity from a major financial institution, following initial technical and financial due diligence, is a significant positive for the Company and an endorsement of the quality of the Khemisset Project. The key terms of the detailed indicative debt financing include:

- Debt sizing of up to US\$230m, representing more than 50% of estimated capital expenditure
 - o Debt sizing is strongly influenced by the assumed potash price. Initial potash prices used are flat US\$235/tonne CFR Brazil.
 - Potential to increase size of financing package if favourable conditions can be negotiated,
 primarily in offtake discussions
- Expected syndicate of 3-4 major commercial banks alongside ECAs would be required
- 10-year term including 3-year grace period prior to first repayments, assuming involvement of ECAs
- Standard terms including equity investment before debt drawdown, cost overrun facilities, standard covenants, cash sweep and security packages
- Interest rates calculated at a margin of up to 5% above an agreed base rate, such as Euribor or Libor
- Initial technical due diligence and financial modelling has been completed
- Indication is subject to standard conditions precedent including satisfactory technical, legal and environmental due diligence, finalisation of security packages and offtake agreements.



Completion of Comprehensive Metallurgical Testing Programme

In April, the Company commenced a comprehensive metallurgical test work programme following a rigorous planning phase, which was completed at the end of June. The work was undertaken by SRC under the supervision of Emmerson's experienced processing consultant, Don Larmour. SRC is a world leader in applied research, development and testing across many fields but particularly in potash mineral processing. The results were released in July and confirmed that the process methodology used in the Scoping Study (November 2018) is technically viable. More importantly, it confirmed that the recovery rate assumptions from the Scoping Study were valid and achievable. Finally, the metallurgical testing indicated there are several areas for potential simplification and improvement, which could potentially significantly reduce overall operating costs.

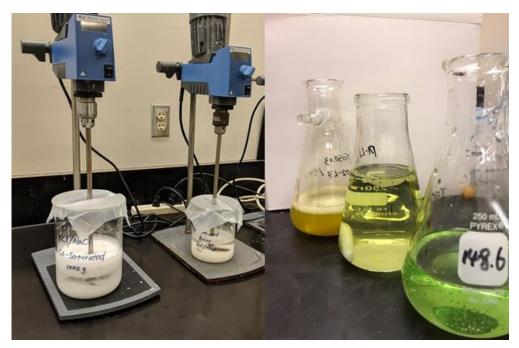


Figure 5: Metallurgical testwork programme

PEA for Sale of Salt By-Product

On 9 July 2019, Emmerson released results of an internal Preliminary Economic Assessment ("PEA") completed on the potential sales of de-icing salt by-product ("salt") from Khemisset.

The internal study showed the potential for salt to be marketed in the East Coast US de-icing market competitively, delivering attractive margins, due to the salt being a waste by-product of potash production, the Project's locational advantages and the outstanding infrastructure in Morocco. It is estimated the sale of 1 million tonnes of de-icing salt per annum would have post tax cash margins of up to 40%, delivering approximately US\$20 million of additional post-tax free cash flow and a post-tax NPV₁₀ of US\$133 million using historical salt prices in the US market. If sales are increased to 2 million tonnes per annum, then the additional NPV increases to US\$266 million.



Based on preliminary studies, the Khemisset plant will produce a relatively fine salt by-product with purity in excess of 95% NaCl. This purity is saleable into the US de-icing market without requiring any further product upgrading or processing, positively impacting operating costs and margins. Compaction is expected to be required due to the fine nature of the salt waste produced and the strict sizing requirements for sales in the US market.

As a by-product, the salt is available with a very low operating cost, with the only real additional cost being those associated with compaction to meet the US de-icing market specifications and the freight and logistics to get it to the US market.



Figure 5: Logistical Advantage for Moroccan Salt to US Market

Capital Raise for £2.25 million pre-Costs

On 12 July 2019, Emmerson announced that it had raised £2.25 million (before expenses) through an oversubscribed placing of 60,000,000 new ordinary shares of no-par value each in the share capital of the Company. The placing was led by joint brokers Shard Capital Partners LLC ("Shard") and Optiva Securities Limited ("Optiva"). Shard was also appointed as the Company's broker.

The proceeds of the Fundraising will principally be used for the continuation of development of the Project post the delivery of the Feasibility Study.



Consolidation of Exploration Permits

Just prior to the end of the quarter, Emmerson announced that, after broad consultation with the Ministry of Energy, Mines and Sustainable Development, it received the approval required to consolidate 21 of the core exploration permits of Khemisset into a single permit encompassing the combined area of the 21 permits.

Options Study

A key component of the Feasibility Study is the Options Study. The Options Study seeks to identify, analyse and trade-off various development and operational options which are available to the Project to ensure than an optimal "go-forward" case is selected.

Since kicking off the Feasibility Study in June 2019, the Company and its Feasibility Study consultants, Golder Associates and Barr Engineering, have spent a significant amount of time analysing various development options. In late September, a final options study meeting was conducted, and a goforward development strategy was identified for Khemisset.

Key areas considered include:

- Site location
- Mine Access
- Mining equipment
- Mining strategy
- Process methodology
- Waste management (salt, brine)
- Water management
- Infrastructure access
 - o Electrical, road, port
- Optimal infrastructure
- Transport and logistics

Based on detailed analyses and trade-off studies an optimal go-forward development plan has been selected.



KEY WORK STREAMS FOR 2020

The Company will be focussed on delivering the following key workstreams in 2020:

- 1) Delivery of Feasibility Study in the first half of 2020
- 2) Completion of Environmental and Social Impact Assessment to IFC standards
- 3) Commencement of mine permitting process
- 4) Commencement of debt financing process
- 5) Continuation of other strategic financing discussions
- 6) Commencement of negotiating key supply partnerships in Morocco
- 7) Commencement of detailed design and engineering in preparation for commencement of construction
- 8) Engagement with potential EPC / EPCM and contract mining partners



For further information, please visit <u>www.emmersonplc.com</u>, follow us on Twitter (@emmerson_plc), or contact:

Hayden Locke Emmerson Plc Tel: +44 (0) 20 7236 1177

Edward McDermott

Damon Heath Shard Capital Partners Tel: +44 (0) 20 7186 9950

Isabella Pierre

Isabel de Salis St Brides Partners Ltd Tel: +44 (0) 20 7236 1177

Megan Dennison Financial PR/IR

Notes to Editors

Emmerson's primary focus is on developing the Khemisset Potash Project located in Northern Morocco. The project has a large JORC Resource Estimate (2012) of 537Mt @ 9.24% K $_2$ O and significant exploration potential with an accelerated development pathway targeting a low capex, high margin mine. Khemisset is perfectly located to capitalise on the expected growth of African fertiliser consumption whilst also being located on the doorstep of European markets. This unique positioning means the project will receive a premium netback price compared to existing potash producers. The need to feed the world's rapidly increasing population is driving demand for potash and Emmerson is well placed to benefit from the opportunities this presents.

The information contained within this announcement is deemed by the Company to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014.