

4 November 2019

## Emmerson Plc (“Emmerson” or the “Company”) Elimination of Port Infrastructure Capital Cost by using Port of Casablanca

Emmerson Plc, the Moroccan focused potash development company, is pleased to announce that it has finalised the Feasibility Study components of port and transport and logistics, including capital and operating cost estimates, for its world class Khemisset Potash Project in Northern Morocco (“Khemisset” or “the Project”). The Project benefits from industry leading capital costs and bottom quartile all-in delivered cost to customer which yields outstanding economic metrics, including average annual EBITDA of US\$236 million and a post-tax NPV<sub>10</sub> of US\$1.14 billion.

### Highlights

- The go-forward Feasibility Study (“FS”) logistics strategy has selected the outstanding Port of Casablanca (“PoC” or “the Port”)
  - One of the largest ports in Africa, equipped to handle larger vessels with higher loading rates
  - Significant existing capacity, sufficient for Emmerson’s potash and salt production
- Port Infrastructure pre-production capital cost has reduced from US\$7.5 million envisaged in the Scoping Study to zero in the FS
  - PoC is fully equipped to handle potash and salt with no investment required from Emmerson
  - The Port currently exports over 1 million tonnes of salt per annum
- Fully quoted product transport and logistics costs to Port of Casablanca of US\$11.39/tonne
  - An increase of US\$1.39/tonne from Scoping Study to account for slightly longer distance to PoC
  - Quotes received from one of Morocco’s largest transport companies with a significant fleet of heavy vehicles
- Supports Emmerson's goal of developing a sustainable, low capital cost, mine
- Fully quoted product transport and logistics costs to Brazil of CFR US\$29.05/tonne
  - Inclusive of port fees, customs duties, shipping and royalties
  - Quotes received from Port operator, customs agents, and a large shipping company

### Hayden Locke, CEO of Emmerson, commented:

*“The Emmerson team has visited the Port of Casablanca a number of times and have been extremely impressed with the facilities available. It was positive to note that the Port already exports a significant quantity of de-icing salt, which has very similar storage and handling characteristics to potash. In addition, the Port handles large quantities of bulk commodities including Phosphate, Clinker, and Fluorine.*

*“The management authorities for the Port confirmed that there is sufficient storage and loading capacity, with equipment suitable for both potash and salt, to handle all of Emmerson’s export needs with no additional investment.*

*“On top of saving US\$7.5 million, we are pleased that the Port already has expertise in managing products like potash, which will reduce the overall execution risk for Emmerson as we move towards production.*

*“This is the first workstream item from the ongoing Feasibility Study, which is progressing well and is on schedule. We look forward to continuing to keep the market updated with various parts of the study as we progress towards its final release during the first half of 2020.”*

## **Detail**

Emmerson completed a detailed options study, which is a crucial part of the Feasibility Study to assess all options available for the various components of the Project and selected a “go-forward” case to take into the more detailed engineering work.

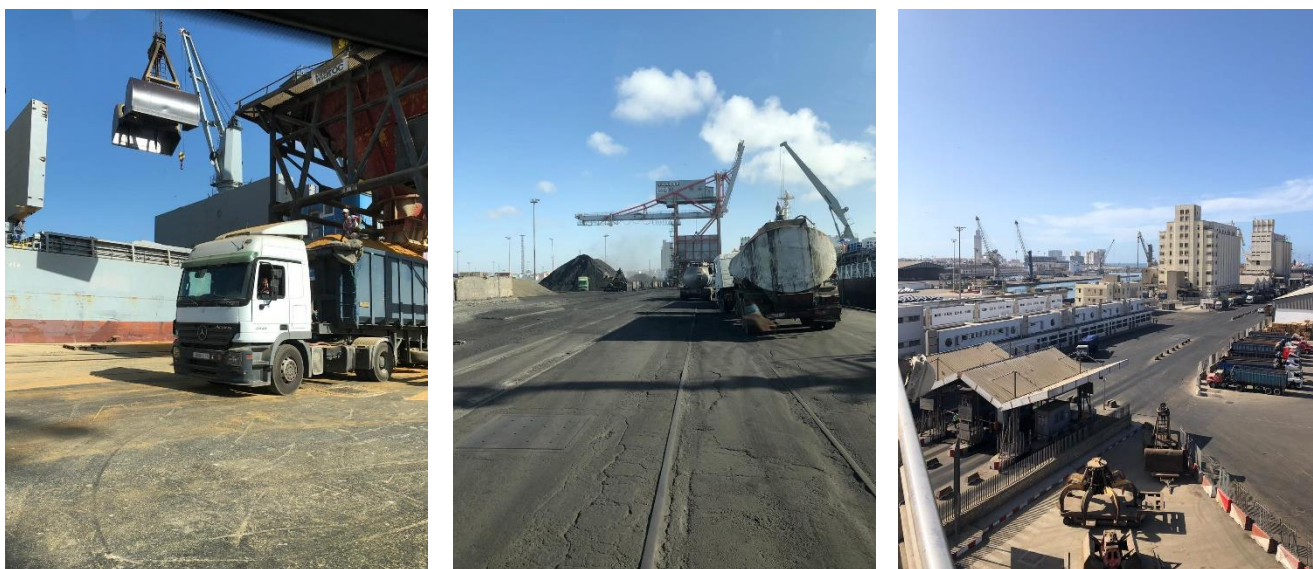
The Company completed a comprehensive assessment of the various options available for transport and logistics solutions from the Project site to various potential export ports and local customers.

Due to the outstanding local road infrastructure and the minimal investment expected to be required to access it, and the very close proximity to a number of potential ports, the Company’s go-forward logistics solution will remain trucking product from site to its export terminal.

Due to the high-quality infrastructure already in place, confirmed capacity, storage and handling capability for potash and only minor additional transport cost, the Company has elected to go-forward with the Port of Casablanca as its export terminal.

### Port of Casablanca

The Port of Casablanca is one of the largest in Africa and currently moves over 8 million tonnes per annum. It handles multiple products including soft commodities (grains, wheat, legumes), fertiliser, phosphate, coal and clinker. The Port currently has total capacity of approximately 10 million tonnes per annum and there are plans to further increase the capacity in the coming years.



**Figure 1: Port of Casablanca Facilities**

Although the PoC is now the preferred option for the Company for the FS, consultation with the port authorities indicate that the Port of Mohammedia is still a viable opportunity and, therefore, will not be completely excluded from the overall development plans. The Company believes this is a prudent risk mitigation measure to ensure that its product can be export efficiently and with minimal disruptions in all scenarios.

### Road

Over the last two decades, Morocco has invested considerably in upgrading its national road infrastructure. The country now has more than 57,300km of roads, 44,180km of which are paved, and more than 1,800km of national highway including the A2, which runs through the Khemisset Potash Project. The Moroccan Government plans to spend over US\$700 million per annum over the coming decades to upgrade and extend the national roads network.

The A2, which is a very high quality four lane toll road, crosses the project area and passes within a very short distance of the two potential site locations. The Company will only need to build a new entrance to the highway and approximately 1.5km of paved road to connect one of the project sites to the proposed highway entrance.



Figure 2: A2 highway road crossing the project area

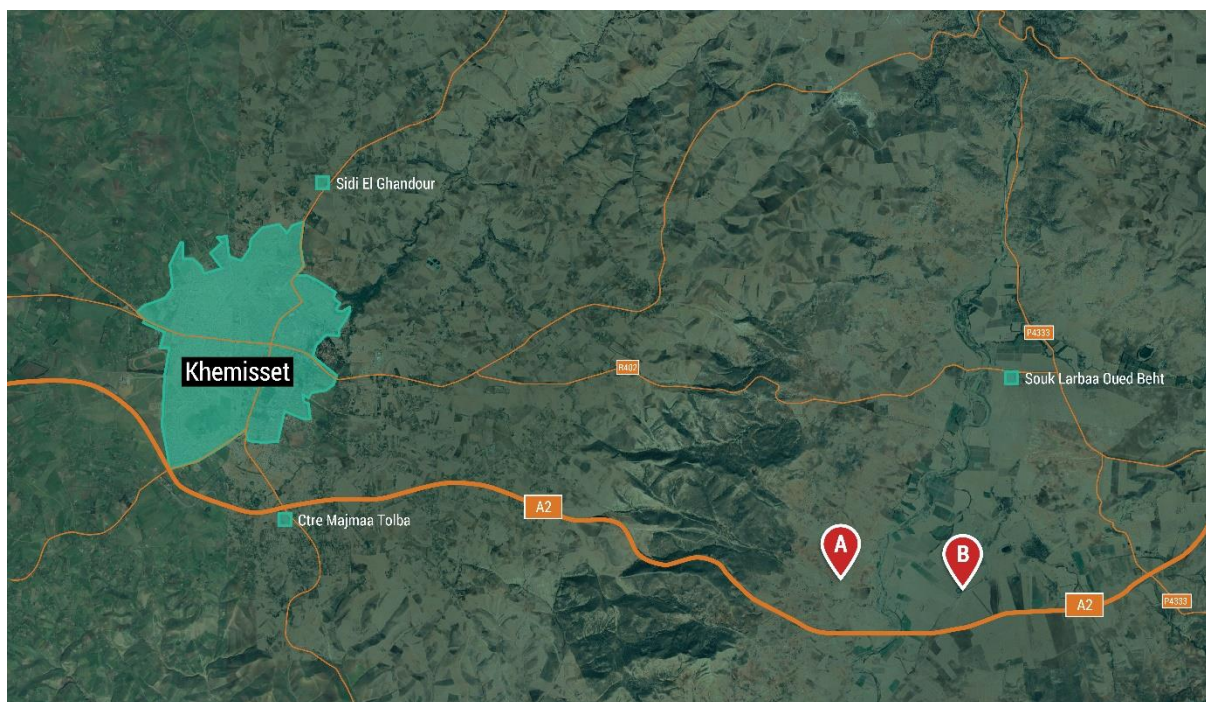


Figure 3: Potential Project Sites (A & B) Relative to Road Infrastructure

### Rail

ONCF (“Office National des Chemins de Fer”) is a governmental entity and the national railway owner and operator in Morocco. The railway infrastructure is well developed in Morocco and ONCF has a branch dedicated to the transportation and logistics of goods including industrial products. ONCF controls 80 trains that are specific for goods transport and move approximately 27 million tonnes per annum 70% of which moves through the ports of Tangier, Casablanca, and Jorf Lasfar.

The nearest loading platform is in Meknes, which is 55km from the proposed Project. Access is via well maintained national roads. There are several other loading sites with poorer road access.

The 2030 strategic line for ONCF highlights building of a new railway line between Meknes and Rabat via Khemisset, this presents a good opportunity for the project in case this new infrastructure is built in the coming years.

Due to double handling (loading at site to trucks and then offloading and reloading to trains), and an overall increase in delivered cost to the Port of Casablanca it was decided to rule out rail for the initial Khemisset Project development plan. However, the availability and proximity of rail is a major positive factor for any Project expansions in future.

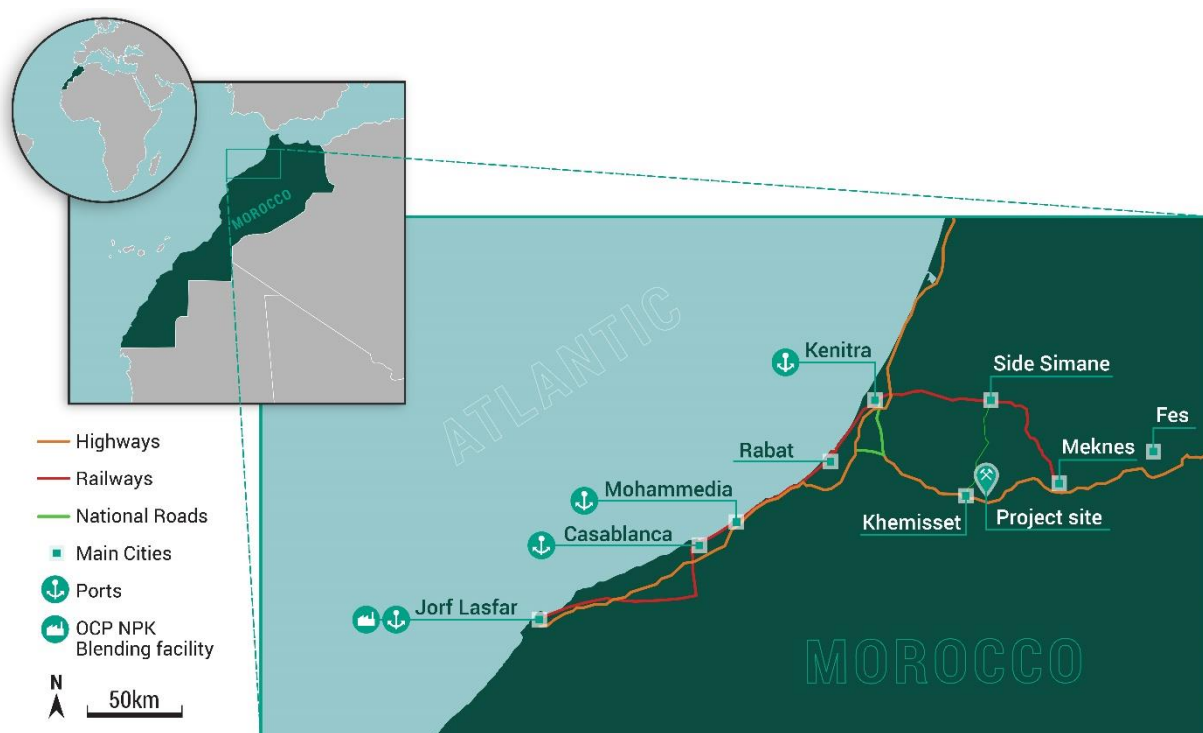


Figure 3: Overview of Transport and Logistics Infrastructure from Project Site to Ports and Customer

### Transport and Logistics Costs

Emmerson conducted detailed analyses of various logistics routes and obtained firm quotes from several transport and logistics providers.

Options reviewed included:

- 1) Trucking cost from site to Mohammedia and storage in a local warehouse at port;
- 2) Trucking cost from site to Casablanca with no local storage (i.e. on time delivery);
- 3) Trucking cost from site to Casablanca with storage in a local warehouse at port; and
- 4) Trucking cost from site to Meknes, loading to rail and rail to Port of Casablanca;

Although trucking to Mohammedia provided the best operating cost outcome, the additional US\$7.5m to US\$10.0m of capital cost to upgrade the port more than offset this operating cost gain and was a key consideration in eventually selecting the Port of Casablanca as the export terminal.

Consideration was also given for the requirement for a port storage facility to help manage the logistics requirements for Khemisset. After close consultation with the port operators and one of the largest transport and logistics companies in Morocco, the Company has concluded that it does not require onsite storage at the port. The prime reason is the relatively small quantities that Emerson will ship are well within the limits of delivering and loading in three to five days. The transport and logistics company confirmed it has the trucks available to deliver product “on time” to the wharf front to be loaded onto ships for export. This method is currently utilised by de-icing salt and clinker operators at the Port of Casablanca.

Logistics Options Summary	Trucks direct to Mohamedia Port		Trucks direct to Casa Port		Trucks via warehouse in Casa		Casa Port by Trains	
	Cost Item	US\$/tonne	Cost Item	US\$/tonne	Cost Item	US\$/tonne	Cost Item	US\$/tonne
Capex for port upgrade	1	\$7.5M - \$10M						
On-site loading to trucks	1		1		1		1	
Transport to Mohamedia Port	1	9.11						
Storage in Mohamedia warehouse	1	0.01						
Transport to Casa Port			1	11.39				
Transport to Casa warehouse					1	10.25		
Storage in Casa warehouse					1	0.77		
Loading to trucks in Casa warehouse					1	0.74		
Transport from warehouse to Casa Port					1	1.14		
Transport to Meknes railway siding							1	3.13
Storage in railway station							1	0.16
Loading to train wagons							1	0.74
Transport by train to Casa port							1	8.77
unloading trains in Casa Port							1	0.74
Port Charges	1	2.66	1	2.66	1	2.66	1	2.66
Cost on ship		11.78		14.05		15.55		16.21
Shipping to Brazil	1	15.00	1	15.00	1	15.00	1	15.00
<b>Total CFR Brazil - US\$</b>		<b>26.78</b>		<b>29.05</b>		<b>30.55</b>		<b>31.21</b>

Table 1: Overview of Transport and Logistics Infrastructure Options from Project Site to Ports and Customer

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## **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<sub>2</sub>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.*